



KG COH 002327

Compliance

Southern Pacific Transportation Company

TEXAS AIR CONTROL BOARD

JUL 24 1 15 PM '78

T. N. KRUTSCHMANN, JR.
ASSISTANT CHIEF
ENGINEER-ADMINISTRATION
J. P. LYNN
ENGINEER, DESIGN
AND CONSTRUCTION

P. O. Box 1319
Houston, Texas 77001
July 19, 1978

COMPLIANCE DIVISION
W. P. GILLEY
ASSISTANT CHIEF ENGINEER
G. L. BURROUGHS
ENGINEER, MAINTENANCE
OF WAY
IF REPLY PLEASE REFER TO

ES
OR
RT

Mr. Lloyd Stewart
Supervisor, Region VII
Texas Air Control Board
5555 West Loop, Suite 300
Bellaire, Texas 77401

Dear Sir:

Referring to your violation notice of July 14, 1978.

Your citation was for changing our process feed, which you interpret to mean we should have obtained a construction permit for a modification.

Upon verbal notification of violation by Mr. Henry and Ms. Blackburn at July 21, 1978, meeting, we promptly stopped using material with vinyl chloride and returned to using original material.

Yours very truly,

[Signature]
G. T. Bosman
Manager, Environmental and
Mechanical

GFB:act

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JUL 27 1978

REGION VII
TEXAS AIR CONTROL BOARD

KG COH 002329



Craft Report by William W. McVee
Nov. 8, 1982

BFI DARROW

The site has been closed and is being maintained with additional cover installed as needed. BFI plans to install monitoring wells as requested by the Department.

BFI Darrow

This site is a strip of land running from the river road east. It consists of 52 acres, 20 acres of which are unused. This site was operated by BFI from 1972 - 1979 at which time it was closed under a closure plan with the Department of Health and Human Resources. The site was operated prior to BFI obtaining it by U. T. Alexander from 1966 - 1972. Styrene tar was disposed of here by both Mr. Alexander and BFI from 1968 - 1973. There were five ponds used for this material. The styrene was removed and sold to Jocoil of Alvin, Texas in 1978 and 1979 for reprocessing and the ponds were filled with dry trash and soil.

Atrazine sludge was disposed of in another area of the site in 1977. This area also had dry trash incorporated to help stabilize this sludge. This sludge and trash was covered with six feet of dirt.

The rest of the site was used for disposal of general industrial waste both hazardous and nonhazardous.

There is one area of the site that was used by Mr. Alexander. There is a ditch on the south side of this area that has a deposit on the surface of the water with an odor resembling styrene. Also the fence along this side is down. BFI intends to cover this ditch and build a new fence inside their present line.

Generally the site is well vegetated and maintained. There are some areas where vegetation is slow coming and a few low areas where water temporarily stands. Fill is routinely brought on site to fill these low areas as they develop.

Monitoring wells are to be installed.

146, 148, 149

KG COH 002332

NEW

M E M O R A N D U M

TO: PETER M. ARNOW, CHIEF, ENVIRONMENTAL ENFORCEMENT
FROM: WILLIAM A. FONTENOT, ENVIRONMENTAL SPECIALIST
DATE: SEPTEMBER 3, 1982
RE: BFI-DARROW

WAF

According to the Department of Natural Resources, this site was operated by Mr. U. T. Alexander from 1968 to 1972 and by Browning Ferris Industries (BFI) from 1972 to 1979. This was a hazardous waste and solid waste disposal operation on a 52 acre strip of land approximately 1/2 mile south of the Inger Oil Site on the river road in Ascension Parish.

In 1979, BFI closed the site under a plan which was approved by the Department of Health and Human Resources. Since that time the Department of Natural Resources has reported that the site has been properly cleaned up and closed but that BFI had not yet installed monitoring wells as stated in the closure plan. (See attached report of April 1, 1981 prepared by DNR)

On February 17, 1982 I walked over most of the site.

Numerous cattle were grazing on the site and in a few places the earthen cap of the various burial cells had been worn down as much as a foot where cattle paths were present. There was also some erosion on the edge of the caps where vegetation was not present.

Standing water covered much of the site as it was difficult to walk on the cap without getting my boots wet.

A chemical odor (somewhat like styrene) was present on much of the site and a dark liquid was flowing out of the cap near the northern fence line.

There were some areas where a plastic or tar like material had penetrated the cap and seemed to have hardened on the surface. Vegetation was not growing in the areas around this material.

No monitoring wells were observed on the site.

Mr. Peter M. Arnow
Page 2
September 3, 1982

On August 19, 1982 I returned to the site.

There were no cattle on the site and in some places the vegetation was more than six (6) feet tall. Erosion of the cap was worse than on my previous trip and in some areas waste material had become uncovered.

Standing water was present on some areas and algae was present in many areas where water had recently been standing. A patch of cattails were growing on the cap which indicates that water is staying on the cap for considerable periods of time.

In numerous places on the cap vegetation was limited to a very short grass or bare ground which seems to indicate that the taller vegetation is unable to establish in these areas.

The chemical odors were stronger than on my previous visit and a small spring was flowing out the northeast side of the cap.

No monitoring wells were observed on the site.

On both trips spent shotgun shells were found in several places on the site indicating that someone is either using the site for target practice or hunting.

There are no signs on the site to warn people that this is a hazardous waste site and there is a small barbed wire fence on the north side of the site. Entrance to the site is fairly easy since the gate on the north side is only secured by a rope. Two young boys who live just south of the site have been opening the front gate and fishing in ponds on the site.

Analysis of two soil/sludge samples taken at the BFI-Darrow site on February 17, 1982 indicate the following hazardous wastes were present:

Mr. Peter M. Arnow
Page 3
September 3, 1982

	<u>North Side</u> ng/g (PPB)	<u>East Side</u> ng/g (PPB)
Phenanthrene	106	44
Dichlorobenzene	45	92
Hexachlorobutadiene	19	184
Hexachlorobenzene	1,883	5,217
Atrazine	682	2,119
Tolylene diamine isomer	8,455	—
Diethylterephthalate	—	11,003

The sample on the North Side was taken from a leachate near the fence line and the sample on the East Side was taken from the ditch which handles most of the surface drainage from the site.

According to DNR Atrazine sludge was disposed of at the site in 1977.

In 1973 some 15,000 cattle, suspected of hexachlorobenzene contamination were quarantined after hexachlorobenzene infected cattle were found in a herd near the BFI dump site. (see attached report by the Surgeon General to the U.S. Senate Committee on Environment and Public Works).

WAF/cl

enclosure

KG COH 002336

AVERY

MAR 8 1973



Browning-Ferris Industries

OF BATON ROUGE LOUISIANA
WASTE SYSTEMS DIVISION

Parker _____
Kennington _____
Richard _____
Healy _____
Alays _____

March 6, 1973

Mr. Charles Brewer
Foster Grant Chemical Co., Inc.
P. O. Box 73875
Baton Rouge, Louisiana

Dear Mr. Brewer,

I am at this time compelled to cancel our contract, BRL3790, between Foster Grant Chemical Co., Inc and Industrial Waste Disposal.

As we both know, pitting of liquid waste is not the answer. Therefore, effective March 22, 1973 we will no longer be able to haul the styrene tar liquid waste from your plant. This is, of course, giving you the fifteen (15) days notice as required by the contract.

Sincerely,

Harley Brown
Harley Brown
Line Manager

HB/lw

- cc: John Trygg, Director, La. State Dept. of Health ✓
- Robert LaFluer, Stream Control Commission
- Henry LeDet, Air Control Commission
- Don Coldiron, V. Pres., Liquid Processing, BFI
- Bill Gore, Regional Mgr., BFI
- Sheldon Beychok, Attorney at Law

KG COH 002338



GALLONS OF STYRENE TAR
FROM BFI PIT AT GEISMAR
DELIVERED BY COMMERCIAL FUEL OIL
TO JOC OIL AROMATICS, INC.

	<u>Gallons Per Month</u>	<u>Truck Loads Per Month</u>
August '75	232,227	42
September	210,076	38
October	245,258	42
November	444,333	76
December '75	379,739	68
January '76	359,890	62
February	431,449	73
March	434,139	75
April	290,490 ✓	51
May '76	396,247	69
June '76	374,186	68
July 1-27	376,736	69

BRIO-99-003078

220624

KG:COH 002339

WHP 0540981

J020130

KG COH 002340



**Phase 2-A Report
RCRA Facility Investigation and
Extent of Contamination Investigation**

**Houston Wood Preserving Works
Houston, Texas**

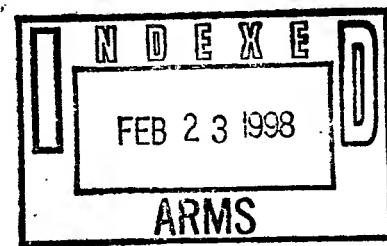
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Prepared for:

Southern Pacific Transportation Company

February 1998

Volume 1 of 1



VOL 20

Prepared By:



ERM.

ERM-Southwest, Inc.

HOUSTON • NEW ORLEANS • AU

SOUTHERN PACIFIC TRANSP. CO.



SWR 31547

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INDUSTRIAL & HAZARDOUS WASTE
CORRECTIVE ACTION SECTION

FEB 17 1998

**Phase 2-A Report
RCRA Facility Investigation and
Extent of Contamination
Investigation**

*Houston Wood Preserving Works
Houston, Texas*

*February 13, 1998
W.O. #422-09*

ERM-SOUTHWEST, INC.
16300 Katy Freeway, Suite 300
Houston, Texas 77094-1611
(281) 579-8999

H 002342




ERM®

Phase 2-A Report
RCRA Facility Investigation and Extent of Contamination
Investigation
Houston Wood Preserving Works
Houston, Texas

February 13, 1998

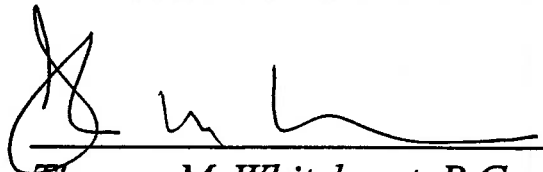
W.O. #422-09



Robin Mann



Thomas D. Pacioni, P.G.



Thomas M. Whitehurst, P.G.
Principal

ERM-SOUTHWEST, INC.
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EXECUTIVE SUMMARY

This report documents Phase 2-A of a permit-required RCRA facility investigation (RFI) to investigate solid waste management units and areas of concern, and an Extent of Contamination (EOC) investigation completed as part of post-closure care for a former surface impoundment at the Houston Wood Preserving Works site in Houston, Texas. The site was utilized for wood treating operations until 1985, and is currently utilized for railroad storage.

As part of the investigations, the site has been segregated into four areas: 1) Off-Site Drainage Area; 2) Tie Storage Area; 3) Former Process Areas; and 4) Closed Surface Impoundment. The Phase 2-A activities were completed in accordance with the scope and methods described in Section 5.0 of the Phase 1 report. The scope of Phase 2-A included the following:

- completion of seven deep soil borings, eleven monitor wells, eight CPT soundings, and five Hydropunch points;
- collection of 45 surface soil samples, 68 subsurface soil samples, and 20 ground water samples;
- leachability and geotechnical analyses of soil samples; and
- aquifer slug tests to measure hydraulic conductivity.

The site is underlain mostly by clay, with two continuous and one discontinuous sandy transmissive zones present within the upper 100 feet. Ground water in the upper two transmissive zones appears to flow away (radially) from a relative ground water high in the southwest corner of the site with Darcian velocities on the order of 1 ft/yr. Ground water in the third transmissive zone flows east-southeast with a Darcian velocity on the order of 1 ft/yr.

Site conditions were assessed relative to benchmark quantitation limits in order to develop an understanding of potential impacts to soil and ground water. Soil impacts were observed throughout portions of the soil column in the Off-site Drainage Area, the Tie Storage Area and the Former Process Areas. Ground water impacts were observed within the two upper transmissive zones near the Off-site Drainage Area, the Tie Storage Area, the Former Process Areas, and the Closed Surface Impoundment Area. Minor ground water impacts were observed within the third transmissive zone near the Former Process Areas. Ultimately, the extent of affected media will be determined relative to site-specific concentration limits.

Future activities include development of a Risk Reduction Implementation Plan (RRIP). The RRIP will include a work plan for completing Phase 2 and will describe the conceptual approach to implementing the Risk Reduction Standards to help determine appropriate corrective measures.

1.0

INTRODUCTION

ERM-Southwest, Inc. has prepared this report to document the results of Phase 2-A of a RCRA Facility Investigation (RFI) and an Extent of Contamination (EOC) investigation. The RFI is being completed at the former Houston Wood Preserving Works (HWPW) site pursuant to Texas Natural Resource Conservation Commission (TNRCC) Permit No. HW-50343-000 issued to Southern Pacific Transportation Company (SPTCo) on June 20, 1994. Concurrent with the RFI, the EOC investigation is being completed in the area of a closed permitted surface impoundment pursuant to TNRCC Compliance Plan CP-50343-000 issued to SPTCo on June 20, 1994.

The site consists of a 33-acre tract of land located at 4910 Liberty Road, Houston, Harris County, Texas. The site is approximately 1.5 miles northeast of the intersection of U.S. Highway 59 and Interstate Highway 10 (Figure 1-1).

The site was utilized for wood treating operations until 1985, and is currently utilized for railroad storage and other railroad operations. Based on the conclusions of a RCRA Facility Assessment completed on behalf of the U.S. EPA (PRC EMI, 1993) and as described in Provision VIII of the permit, ten solid waste management units (SWMUs) and six areas of concern (AOCs) are subject to the RFI. The EOC investigation is part of the post-closure care requirements described in Section VIII of the Compliance Plan.

1.1

SITE HISTORY

An RFI Work Plan was submitted to the TNRCC (IC, 1994d) and subsequently approved with modifications on October 16, 1995. Based on the technical approach described in the work plan, the ten SWMUs and two AOCs listed below are subject to investigation. The locations of the SWMUs and AOCs are shown on Figure 1-2.

<i>SWMU/AOC No.</i>	<i>Description</i>
SWMU 2	Northern and Southern Drainage Ditches
SWMU 4	Recent Process Area
SWMU 5	Original Process Area
SWMU 6	Water Treatment and Boiler System
SWMU 7	Tank Car Storage Area
SWMU 8	Aboveground Storage Tank Area
SWMU 9	Location of the Former UST No. 44-023-05
SWMU 10	Location of the Former Sap Water Treatment Tank
SWMU 11	Oil/Water Separators
SWMU 12	Railroad Tie Storage Area
AOC 1	Diesel Storage Tank
AOC 6	Inactive Wastewater Lagoon

An EOC Work Plan was also submitted to the TNRCC (IC, 1994c) and subsequently approved with modifications on September 29, 1995. For the RFI/EOC, the site was grouped into the four investigation areas listed below. The locations of the four areas are shown on Figure 1-3.

<i>Area No.</i>	<i>Area Name</i>	<i>SWMU/AOC Included</i>
Area 1	Off-Site Drainage Area	SWMU 2, AOC 6
Area 2	Tie Storage Area	SWMU 12
Area 3	Former Process Area	SWMU 4, SWMU 5, SWMU 6, SWMU 7, SWMU 8, SWMU 9, SWMU 10, SWMU 11, AOC 1
Area 4	Former Surface Impoundment	closed permitted unit

The following list is a summary of significant documents relating to the RFI/EOC Investigations, and dates of submittals and approvals (if appropriate). Also, an upcoming schedule of activities and tentative submittals to be performed at the site is included.

<i>Date</i>	<i>Description</i>
October 1993	RCRA Facility Assessment completed on behalf of U.S. EPA
June 20, 1994	Permit No. HW-50343-000 and Compliance Plan CP-50343-000 issued by TNRCC
August 19, 1994	Operation and Maintenance Plan and Compliance Schedule submitted on behalf of SPTCo
September 7, 1994	Revised Compliance Schedule submitted on behalf of SPTCo
September 16, 1994	EOC Work Plan submitted on behalf of SPTCo
October 14, 1994	RFI Work Plan submitted on behalf of SPTCo
November 3, 1994	Revised Compliance Schedule approved by TNRCC
January 10, 1995	Operation and Maintenance Plan approved by TNRCC
September 29, 1995	EOC Work Plan approved by TNRCC
October 16, 1995	RFI Work Plan approved by TNRCC
May 23, 1996	Phase 1 RFI/EOC Report submitted on behalf of SPTCo

<i>Date</i>	<i>Description</i>
November 26, 1996	EOC portion of the Phase 1 RFI/EOC Investigation Report approved by TNRCC
January 13, 1997	RFI portion of the Phase 1 RFI/EOC Investigation Report approved by TNRCC
February 13, 1998	Phase 2-A RFI/EOC Investigation Report submitted to TNRCC on behalf of SPTCo
March 31, 1998	Tentative date for submittal of the Risk Reduction Implementation Work Plan to TNRCC on behalf of SPTCo
July 29, 1998	Tentative date to begin the Phase 2-B field investigation activities
February 24, 1999	Tentative date for submittal of the Phase 2-B RFI/EOC Investigation Report to TNRCC on behalf of SPTCo
June 24, 1999	Tentative date to begin RFI Risk Assessment
August 23, 1999	Tentative date for submittal of the RFI Risk Assessment to TNRCC on behalf of SPTCo
December 21, 1999	Tentative date to begin the Corrective Measures Study
February 19, 2000	Tentative date for submittal of the Corrective Measures Study to TNRCC on behalf of SPTCo
June 20, 2000	Tentative date for submittal of the proposed permit modification and the Corrective Measures Implementation Work Plan to TNRCC on behalf of SPTCo

NOTE:

The above summary does not include routine activities such as semiannual ground water reports.

1.2

REGULATORY STATUS

In order to facilitate a mutual understanding (between the TNRCC and SPTCo) of the site's position within the regulatory process, the current regulatory status of the site was reviewed. The purpose of this section is to: a) summarize the permit-related regulatory requirements that the site is subject to; b) outline those requirements which have been satisfied by SPTCo prior to submission of this report; and c) outline those requirements which will be addressed in this report and as part of future activities.

The RFI-related regulatory requirements are based primarily on Provision VIII of the permit. The EOC-related regulatory requirements are based primarily on the Compliance Plan, which was issued in conjunction with the permit.

1.2.1

REVIEW OF RFI REQUIREMENTS

Provision VIII is designed to facilitate completion of an investigation to determine whether constituents of concern have been released into the environment from SWMUs or AOCs at the site. Prior to initiation of investigative activities, the permit requires submittal of an RFI Work Plan. The purpose of this Work Plan is to characterize the physical layout and operational history of the site, to present a plan for conducting an investigation of the nature and extent of constituent releases in soil (and initially in ground water), and to discuss provisions for developing a full-scale Ground Water Investigation Plan, if warranted.

The permit requires SPTCo to conduct the RFI activities in accordance with the RFI Work Plan following TNRCC's approval of the Work Plan. The data generated through these activities is (in part) intended to determine the need for additional investigative activities at the site. An RFI Report, including a discussion of the findings of the RFI, is required subsequent to completion of investigation activities.

According to the permit, if it is determined that a release to soil or ground water from any of the subject SWMUs or AOCs has occurred, then a Ground Water Investigation Plan is required. The purpose of this Plan is to identify the procedures for conducting supplemental investigations of soil and ground water at the site, as needed. In addition, a Preliminary Ground Water Report, containing a summary of the known ground water conditions at the site is required. The permit then requires that a schedule for a Final Ground Water Report be submitted to the TNRCC.

Subsequent to completion of investigation activities at the site, the permit requires that either a Corrective Measures Study (CMS) or Risk Reduction Standards implementation plan be submitted to the TNRCC. The CMS or Risk Plan is required for any SWMU or AOC at which a release has been documented through the RFI. Finally, a permit modification is required as appropriate, to incorporate any proposed corrective actions and/or changes in Ground Water Protection Standards.

1.2.2

REVIEW OF EOC REQUIREMENTS

Compliance Plan No. CP-50343 is designed to facilitate implementation of a corrective action program in the area of the permitted unit (i.e., Closed Surface Impoundment, NOR Unit No. 01). The Compliance Plan requires submittal of a schedule for implementation of the required activities. In addition, an Operation

and Maintenance Plan for the ground water monitoring and recovery system is required.

After submittal of the Compliance Schedule, an EOC Work Plan is required. The purpose of this Work Plan is to outline the objectives of the EOC investigation, describe the methods to be utilized during the investigation, characterize the physical layout and operational history of the permitted unit, and outline the proposed schedule for completion of the investigation.

Subsequent to approval of the EOC Work Plan, the Compliance Plan requires implementation of the investigative activities described therein. Following completion of the EOC investigation, the Compliance Plan requires submittal of an EOC Investigation Final Report. The purpose of the Final Report is (in part) to discuss the information obtained during the investigation and to provide recommendations for further investigation.

Following approval of the EOC Investigation Final Report, the Compliance Plan requires submittal of a Corrective Action Work Plan. The purpose of the Corrective Action Work Plan primarily is to present the methods by which potential corrective action alternatives will be evaluated. Subsequent to approval of the Corrective Action Work Plan, the Compliance Plan requires implementation of the Work Plan.

The Compliance Plan requires submittal of a Corrective Action Report following completion of the Corrective Action Work Plan activities. The primary purpose of the corrective Action Report is to identify a selected corrective action alternative for ground water in the area of the permitted unit. Following approval of the Corrective Action Report (and the final selected corrective action alternative) the Compliance Plan requires submittal of detailed engineering design plans and timeframes for implementation of the alternative. Subsequent to approval of the proposed design plans and timeframes, the Compliance Plan requires that the corrective action alternative be implemented in accordance with the approved schedule.

1.2.3

REQUIREMENTS THAT HAVE BEEN SATISFIED

A summary of regulatory requirements that have been satisfied prior to submittal of this report is provided below. The summary is based on documented activities completed by SPTCo and approved by the TNRCC.

As required by the Compliance Plan, SPTCo submitted a Compliance Schedule on August 19, 1994 (IC, 1994b). Additionally, as required by Provision XI.C of the Compliance Plan, SPTCo provided notice to TNRCC of its intent to install two new point-of-compliance (POC) wells between existing wells MW-2 and MW-7. The Compliance Schedule was revised by SPTCo and resubmitted on

September 7, 1994. The two new POC wells were installed on September 19, 1994. The TNRCC approved the installation of the two new POC wells and the Compliance Schedule on November 3, 1994.

Concurrent with submittal of the Compliance Schedule, SPTCo submitted an Operation & Maintenance Plan (IC, 1994a) to TNRCC. The Operation & Maintenance Plan was approved by TNRCC on January 10, 1995. Amendments 2 and 3 to the Operation & Maintenance Plan were submitted to TNRCC on May 21, 1995 and August 8, 1995, respectively.

In accordance with permit requirements, SPTCo submitted an RFI Work Plan, dated October 14, 1994 (IC, 1994d), which addressed the SWMUs and AOCs identified in the permit. The RFI Work Plan was approved, with modifications, by the TNRCC on October 16, 1995. Similarly, an EOC Work Plan was submitted on September 16, 1994 (IC, 1994c), and was approved with modifications by the TNRCC on September 29, 1995.

The RFI and EOC investigations have been combined and the initial field activities were completed by SPTCo during November and December 1995. A Phase 1 RFI/EOC Report was submitted to the TNRCC on May 23, 1996 (Terranext, 1996). The purpose of the Phase 1 report was to summarize the findings of initial investigation activities completed at the site, and to identify areas within the site where further investigation was warranted to fully characterize the nature and/or extent of releases. The EOC portion of the Phase 1 report was approved by the TNRCC on November 26, 1996. The RFI portion of the Phase 1 report was approved by the TNRCC on January 13, 1997.

The Phase 1 report included a summary of known ground water conditions at the site based on the Phase 1 results and information obtained during investigations in the area of the permitted unit. This portion of the Phase 1 RFI/EOC Report was intended to satisfy the permit requirement for submittal of a Preliminary Ground Water Report.

Based on indications that releases had occurred from SWMUs/AOCs at the site, the Phase 1 report also included a proposal for additional (i.e., Phase 2) investigation. In addition to further defining the extent of releases in soil, the Phase 2 proposal included a plan, based on soil and ground water analytical results, to conduct additional ground water investigation. This section of the Phase 1 report was intended to satisfy the permit requirements for submittal of a Ground Water Investigation Plan. Accordingly, an outline of the sequence of future reports was described as required by the permit in the Phase 2 proposal section of the Phase 1 report. The outline included submittal of a Phase 2 RFI/EOC Report.

It should be noted that one of the stated goals of Phase 2 was to fully characterize the nature and extent of releases to ground water at the site; the Phase 2 RFI/EOC Report was thereby intended to fulfill the permit requirement for submittal of a Final Ground Water Report and an EOC Investigation Final Report. Although broad in scope, the Phase 2 field activities completed during 1997 have not provided sufficient data to fully characterize the nature and extent of releases in soil and ground water at the site. Accordingly, this report is not intended to fulfill the requirements for submittal of a Final Ground Water Report or an EOC Investigation Final Report. As described in Section 8.0 herein, additional investigation is proposed for portions of the site and off-site areas (i.e., AOC 6).

1.3

OBJECTIVES AND TECHNICAL APPROACH

The objective of the RFI process is to investigate impacts and/or releases from waste management units associated with wood treating operations. The data collected during the RFI will be utilized for the following:

- to help understand current site conditions, including the hydrogeology of the site and the nature and extent of impacts;
- to complete a baseline risk assessment for the site; and
- to help design corrective measures, if warranted.

The objective of the EOC investigation is evaluate the extent of affected ground water outside the closed impoundment's boundary. These data will be utilized to evaluate remedial alternatives that will result in ground water conditions protective of human health and the environment.

The technical approach for the investigations is to collect sufficient, quality data to meet the goals described above. In order to meet these goals more effectively, the investigations have been implemented in a phased approach. A report which documented Phase 1 of the RFI and EOC investigation was submitted to the TNRCC on May 23, 1996 (Terranext, 1996). The Phase 1 report outlined the objectives for Phase 2 activities, and a proposed scope to meet these objectives. The specific objectives of Phase 2 include the following:

- determine the vertical extent of benzene, toluene, ethylbenzene and xylenes (BTEX), polynuclear aromatic hydrocarbons (PAH), and creosote migration in soil within areas shown to be significantly impacted from past releases;
- confirm, compare and if possible, correlate soil borings and soil sampling data with existing cone penetrometer technology (CPT) and Rapid Optical Screening Tool (ROST) data;

- determine the lateral extent of off-site impact attributable to the inactive wastewater lagoon (AOC-6);
- collect representative ground water samples and obtain hydrogeologic data across the entire site;
- develop and apply fate and transport analyses to predict possible contaminant levels off site and support natural attenuation of contaminants in the subsurface;
- collect data to assess natural attenuation processes in soil and ground water;
- obtain an understanding of the relationship between concentrations of contaminants in soil, and how these concentrations have or may affect ground water quality;
- derive risk-based concentrations through risk assessment using available site data; and
- subsequently modify the Compliance Plan and Permit as necessary to assure that site-specific elements form the basis for any further investigation, corrective measures, and post-closure activities required under the Permit.

This report documents the methods and results of the RFI/EOC field activities completed during 1997 and outlines the steps required to complete Phase 2. This first step of Phase 2 is hereinafter referred to as Phase 2-A.

1.4

SCOPE OF PHASE 2-A

The Phase 2-A activities were completed in accordance with the scope and methods described in Section 5.0 of the Phase 1 report. The scope of Phase 2-A included the following:

- completion of seven deep soil borings, eleven monitor wells, eight CPT soundings, and five Hydropunch points;
- collection of 45 surface soil samples, 68 subsurface soil samples, and 20 ground water samples;
- leachability and geotechnical analyses of soil samples; and
- aquifer slug tests to measure hydraulic conductivity.

In addition to describing the methods and results of Phase 2-A, the scope of this report includes addressing a path forward for the remaining permit requirements.

LIMITATIONS

The data and results presented herein were collected by Terranext and their predecessor company, Industrial Compliance (IC). ERM-Southwest has reviewed existing site data to the extent practical and made inferences regarding site conditions based on the field notes and other files from Terranext. ERM-Southwest makes no warranties regarding the accuracy, completeness or validity of the data and results collected to date.

2.0 REGIONAL WATER USAGE

2.1 HYDROGEOLOGY

According to the latest U.S. Geological Survey nomenclature, the formations that supply water in the Harris County area are, from oldest to youngest: the Goliad Sand of Pliocene Age; the Willis Sand, the Bentley Formation, the Montgomery Formation, and the Beaumont Clay of Pleistocene Age; and Alluvium of Pleistocene and Recent Ages. These formations are grouped into two aquifer subdivisions, which are, from oldest to youngest, the Evangeline Aquifer and the Chicot Aquifer. The Evangeline Aquifer is composed of the Goliad Sand, Willis Sand, and Bentley Formation; and, the Chicot Aquifer is composed of the Montgomery and Beaumont formations.

2.2 GROUND WATER USAGE

The investigation site overlies the aquifers of the Chicot hydrogeologic unit, which yield small to moderate quantities of fresh water in Harris County. However, based on information from the City of Houston Water Production/Water Quality Division, local drinking water in this section of Harris County is obtained only from Lake Houston or the Trinity River (pc, 1997).

A records search was completed in 1995 to identify water wells within one mile of the site (AIC, 1995). The search indicated that nine wells had been installed. Two of the wells are owned by the City of Houston (one screened from 1,142 to 1,969 feet below grade and the other screened from 641 to 1,279 feet below grade), six wells are owned by the Harris-Galveston Coastal Subsidence District for observation (screened from depths ranging from 283 to 2,119 feet below grade), and one was a privately-owned well which has been plugged and abandoned.

2.3 SURFACE WATER USAGE

Based on a review of USGS topographic quadrangle maps, no significant surface water bodies suitable for water supply, recreational, or industrial usage are located within one mile of the site.

3.0

FIELD PROCEDURES

The field activities associated with Phase 2-A were completed on behalf of SPTCo by Terranext. The scope of the field activities, and the field procedures and investigation tools that were utilized are described in a report prepared by Terranext entitled "*Phase 2 RFI/EOC Field Procedures*". The field procedures report dated December 8, 1997 is included as Appendix A.

4.0

SITE GEOLOGY AND HYDROGEOLOGY

Based on a review of the CPT logs and soil boring logs completed as part of previous (including Phase 2-A) hydrogeologic investigations, the subsurface has been characterized to a depth of approximately 75 feet. One deeper boring was advanced for the installation of a monitor well, but no log was generated. The subsurface is characterized by a series of low-permeability zones (i.e., cohesive soils) and water-transmissive zones.

For simplicity and organizational reasons, the nomenclature to designate strata has been modified somewhat. The native cohesive and transmissive zones underlying the site have been re-designated alphabetically from shallowest to deepest. For example, the shallowest or uppermost transmissive zone is referred to as the A-Transmissive Zone or A-TZ.

From shallowest to deepest, the lithologic zones that underlie the site include fill material, the A-Cohesive Zone (A-CZ), the A-Transmissive Zone (A-TZ), the B-Cohesive Zone (B-CZ), the B-Transmissive Zone (B-TZ), the C-Cohesive Zone (C-CZ), the C-Transmissive Zone (C-TZ), and the D-Cohesive Zone (D-CZ). Geologic cross-sections and a cross-section location map are provided in Figures 4-1 through 4-5. The general characteristics of each zone are described below.

4.1

FILL MATERIAL

Fill material is present at ground surface and has an average thickness of approximately 3 feet. Visual observations of the fill material indicate that the fill is primarily a mixture of gravel, clay, construction debris, and railroad ties. The layer of fill is underlain by the A-CZ.

4.2

A-COHESIVE ZONE

The A-CZ ranges in thickness from 8 to 15 feet and was encountered in all the CPT soundings and monitor well borings. Based on lithologic descriptions from boring logs for MW-10A, MW-10B, and MW-11A, the A-CZ in the western portion of the site consists of gray silty clay. The silty clay is stiff to very stiff, laminated, moist, and contains indications of plant material, calcium carbonate, iron oxide nodules, roots, and sandy clay lenses. The A-CZ is underlain by the A-TZ.

4.3

A-TRANSMISSIVE ZONE

According to CPT soundings and boring log descriptions, the A-TZ is a continuous sandy layer present across the site. The A-TZ is thickest on the eastern portion of the property (approximately 10 feet thick), and gradually thins from east to west (to less than 4 feet thick). Based on lithologic descriptions from

boring logs for MW-10A, MW-10B, and MW-11A, the A-TZ beneath the western portion of the site consists of light greenish-gray to light gray sand and silty sand that is very fine-grained, wet, and contains plant material and 10 to 25 percent clay. The A-TZ overlies the B-CZ.

4.4 *B-COHESIVE ZONE*

The B-CZ is a layer of cohesive soils (mostly clays, silty clays, sandy clays, and clayey silts) ranging in thickness from approximately 10 feet beneath the eastern portion of the site to 16 feet beneath the western portion of the site. The B-CZ was encountered in all the CPT soundings and POC well nest borings. Based on the boring logs from the POC well nests (MW-10A, MW-10B, and MW-11A, MW-11B) the B-CZ beneath the site is clay, silty clay, and sandy clay. It is mottled gray and reddish brown, very stiff to hard, and moist with a high plasticity. The unit also contains lenses of silty sand, and slickensides. The B-CZ overlies the B-TZ or C-CZ where the B-TZ is absent.

4.5 *B-TRANSMISSIVE ZONE*

The B-TZ is a sandy layer that underlies the B-CZ in the western portion of the site only, and is not present in the eastern portion of the site. Where present, the B-TZ is approximately 7 feet thick and is present at approximately 25 to 35 feet below ground surface. Based on the POC boring logs, the B-TZ consists of silty sand and sand that is mottled brown and gray, very fine-grained, and very dense in consistency.

4.6 *C-COHESIVE ZONE*

The C-CZ is a layer of cohesive soils (primarily) that underlie the B-TZ to the west and the B-CZ to the east. The C-CZ is approximately 8 feet thick. Based on boring logs from MW-12C and MW-18C, the C-CZ consists of silt and clayey silt that is reddish brown, firm in consistency, has low plasticity, and contains minor amounts of sand.

4.7 *C-TRANSMISSIVE ZONE*

The C-TZ is a silty sand layer 7 feet thick that underlies the C-CZ at an approximate depth of 65 to 66 feet below ground surface. Based on the boring logs from MW-12C and MW-18C, the C-TZ consists of silty sand that is reddish brown, very fine-grained and wet. The C-TZ overlies reddish brown clay. The underlying clay has been designated the D-CZ: Only the upper 2 feet of the D-CZ has been characterized.

4.8

AQUIFER SLUG TEST RESULTS

Aquifer slug tests (rising head) were performed on 10 monitor wells on May 1 and 2, 1997. The slug tests data were analyzed using the Bouwer and Rice method (Bouwer and Rice, 1976) and the solutions are included in Appendix C. The results of the rising head test are listed below.

<i>Monitor Well ID</i>	<i>Transmissive Zone</i>	<i>Hydraulic Conductivity (cm/sec)</i>
MW-10A	A-TZ	4.2×10^{-4}
MW-10B	B-TX	5.3×10^{-5}
MW-12A	A-TZ	3.1×10^{-3}
MW-12B	B-TZ	3.7×10^{-3}
MW-13	A-TZ	7.9×10^{-4}
MW-14 [B]	B-TZ	1.2×10^{-4}
MW-15	A-TZ	6.9×10^{-4}
MW-16	A-TZ	4.5×10^{-4}
MW-17	A-TZ	2.8×10^{-4}
MW-18	A-TZ	1.3×10^{-3}

Based on the slug test data gathered from seven monitor wells screened in the A-TZ, the hydraulic conductivity of the A-TZ ranges from 2.8×10^{-4} to 1.3×10^{-3} cm/sec, with an average conductivity of 7.0×10^{-3} cm/sec (2.8 ft/day) and a geometric mean of 7.6×10^{-4} cm/sec. Based on the slug test data gathered from three monitor wells screened in the B-TZ, the hydraulic conductivity of the B-TZ ranges from 5.3×10^{-5} to 3.7×10^{-3} cm/sec, with an average conductivity of 1.2×10^{-3} cm/sec (3.7 ft/day), and a geometric mean of 2.8×10^{-4} cm/sec.

4.9

GROUND WATER FLOW

Ground water elevations were measured from each monitor well on September 25, 1997 to help assess ground water flow direction and gradient. Potentiometric surface contour maps for the A-TZ, B-TZ and C-TZ are provided in Figures 4-6, 4-7 and 4-8, respectively.

4.9.1

Horizontal Ground Water Flow

Based on interpretation of the contour maps for both the A-TZ and B-TZ, ground water appears to flow radially away from a relative ground water high in the southwest corner of the Tie Storage Area. The horizontal hydraulic gradient is typically 0.001 ft/ft in both the A-TZ and the B-TZ. Based on the horizontal gradient and the hydraulic conductivity described in Section 4.8 above, the calculated Darcian velocity is 0.8 ft/yr in the A-TZ and 0.3 ft/yr in the B-TZ.

Based on interpretation of the C-TZ contour map, ground water flows toward the east-southeast with a horizontal hydraulic gradient of 0.003 ft/ft.

4.9.2

Vertical Ground Water Flow

Monitor well nests were constructed at five locations at the site. The well nests consist of two or three monitor wells that are located as near as practical to each other (i.e., less than 10 feet apart) but are screened in separate transmissive zones. The well nest locations, screened intervals, and ground water elevations measured on September 25, 1997 are summarized below:

Tie Storage Area

MW-12A	A-TZ	41.88 ft MSL
MW-12B	B-TZ	41.70 ft MSL
MW-12C	C-TZ	13.44 ft MSL

Closed Surface Impoundment

MW-10A	A-TZ	41.43 ft MSL
MW-10B	B-TZ	41.28 ft MSL

MW-11A	A-TZ	41.34 ft MSL
MW-11B	B-TZ	41.23 ft MSL

Former Process Areas

MW-15A	A-TZ	40.66 ft MSL
MW-15C	C-TZ	16.24 ft MSL

MW-18A	A-TZ	36.42 ft MSL
MW-18C	C-TZ	19.94 ft MSL

At each location where the A-TZ and B-TZ are screened, the measured ground water elevations for the two zones are within one foot. As a result, the horizontal flow direction and gradient for the two zones are similar. The A-TZ and B-TZ are separated by approximately 5 feet of clay with interlaminated silty and/or sandy seams: that is, the upper portion of the B-CZ. These observations suggest that the A-TZ and B-TZ have substantial hydraulic communication.

Based on the measured ground water elevations, the vertical hydraulic gradient between the A-TZ/B-TZ and the C-TZ appears to be downward. The C-TZ is overlain by 25 to 40 feet of clay, and the potentiometric surface of the C-TZ is an average of 23 feet lower than the A-TZ or B-TZ (where present).

5.0

ANALYTICAL RESULTS

The Phase 2-A field activities were conducted between February 25, 1997 and May 13, 1997. The field activities included collection of 45 surface soil samples, 68 subsurface soil samples, and 20 ground water samples for laboratory analyses. Ground water samples were collected both from monitor wells and through Hydropunch technology.

Subsurface soil samples and ground water samples were analyzed for the constituents of interest (COI) listed in the Compliance Plan (Tables I and II). The COI are provided in Table 5-1 and include volatile organic compounds (VOCs) analyzed by SW-846 Method 8260 and semivolatile organic compounds (SVOCs) analyzed by SW-846 Method 8270. The surface soil samples were analyzed for a subset of the COI as described in Section 5.1 below.

In addition, 28 discrete subsurface soil samples were collected from locations that had been characterized through CPT/ROST during Phase 1. These samples were split and analyzed for total petroleum hydrocarbons (TPH) by EPA Method 418.1 (modified) and bench-scale ROST. The objective of this task was to evaluate the relationship between TPH concentration and the fluorescence data obtained during Phase 1.

5.1

SURFACE SOIL ANALYTICAL RESULTS

As an initial step in understanding overall site conditions, the Limits of Quantitation (LOQs) were utilized as a benchmark for assessing which areas had been impacted through historical site activities at the SWMUs and AOCs. Ultimately, the extent of affected surface soil will be assessed relative to concentration limits appropriate for the site in accordance with the permit during development of a site conceptual model. The site conceptual model will be presented under separate cover.

A total of 31 surface soil samples were collected from a pre-set grid in accordance with U.S. EPA guidance (U.S. EPA, 1989). Additionally, 14 surface soil samples were collected during completion of soil borings and/or monitor wells. The laboratory analytical results for the surface soil samples are summarized in Table 5-2 and the laboratory analytical reports are provided in Appendix B.

The 31 surface soil samples collected from the grid pattern were analyzed for the SVOCs included on the COI list (Table 5-1) by SW-846 Method 8270. The additional surface soil samples from the soil borings and wells were analyzed for the COI listed in Table 5-1.

Bubble plots were developed from the comprehensive database of surface soil results (i.e., Phase 1 and Phase 2-A) to show the relative distribution of selected

COI. A surface soil bubble plot of soil chrysene concentrations is provided in Figure 5-1. Chrysene was selected because its distribution and range of detected concentrations are representative of the SVOCs reported in surface soil samples. The comprehensive set of surface soil analytical results is described by area below.

5.1.1 *Area 1 - Off-site Drainage Area*

No surface soil samples were collected in the Off-site Drainage Area as part of the Phase 2-A investigation. A description of observed impacts is included in the Phase 1 RFI/EOC report.

5.1.2 *Area 2 - Tie Storage Area*

A total of 20 surface soil samples were collected within the Tie Storage Area as part of the Phase 2-A investigation. Based on the reported laboratory results, unimpacted areas are present near MW-12, CPT30R, CPT28, and MW-15.

5.1.3 *Area 3 - Former Process Areas*

A total of 11 Phase 2-A surface soil samples were collected within the Former Process Areas. The Phase 2-A surface soil sample analytical results indicate two areas of impact, however their extent has not been fully assessed. The analytical results suggest historical impacts are greatest around the location of grid node G8 in the northeast area of the Former Process Area as shown on Figure 5-1.

5.1.4 *Area 4 - Closed Surface Impoundment*

The former impoundment was backfilled with imported fill material as part of closure activities in 1980. Accordingly, no surface soil samples were collected in the Closed Surface Impoundment as part of the Phase 2-A investigation.

5.2 *SUBSURFACE SOIL ANALYTICAL RESULTS*

As an initial step in understanding overall site conditions, the LOQs were utilized as a benchmark for assessing which areas had been impacted through historical site activities at the SWMUs and AOCs. The extent of affected subsurface soil ultimately will be assessed relative to concentration limits appropriate for the site in accordance with the permit during development of a site conceptual model. As previously mentioned, the site conceptual model will be presented under separate cover.

Soil borings SB02 through SB08 and monitor well borings MW-12 through MW-18 were completed as part of the Phase 2-A investigation to assess the extent of COI. In addition, CPT soundings (CPT35 through CPT42) were completed to

further assess site lithology. The soil boring logs and CPT logs are included as Attachment 1 to Appendix A. A total of 68 subsurface soil samples were collected and analyzed for the COI listed on Table 5-1. The analytical results are summarized on Table 5-3 and the laboratory analytical reports are provided in Appendix B.

Bubble plots were developed from the comprehensive database of subsurface soil results (i.e., Phase 1 and Phase 2-A) to show the relative distribution of selected COI. Subsurface soil bubble plots of benzo(a)anthracene and naphthalene are provided in Figures 5-2 and 5-3. Benzo(a)anthracene and naphthalene were selected because the range and distribution of concentrations are representative of the SVOCs reported on site. The comprehensive set of subsurface soil analytical results is described by area below.

5.2.1 *Area 1 - Off-site Drainage Area*

No subsurface soil samples were collected in the Off-site Drainage Area as part of the Phase 2-A investigation. A description of observed impacts is included in the Phase 1 RFI/EOC report.

5.2.2 *Area 2 - Tie Storage Area*

Based on the RFI/EOC investigation results, COI are present from ground surface to the silty clay of the A-CZ (approximately 7 feet below ground surface) in the Tie Storage Area. In addition, COI have been detected within the A-TZ and B-TZ soil matrix at depths of approximately 20 and 35 feet below grade. As shown on Figures 5-2 and 5-3; however, soil impacts are limited to a small area in the southeastern portion of the Tie Storage Area.

The Phase 1 report suggested that a potential creosote source may be present in a localized area near CPT25R. The ROST profile for CPT25R showed measurable fluorescence from 0 to 30 feet below grade and from 42.5 to 45 feet below grade, which corresponds to the fill, A-CZ, A-TZ, and B-TZ. As part of Phase 2-A, soil boring SB05 was advanced adjacent to CPT25R. The laboratory analytical results from samples collected from SB05 indicated that no COI were detected.

5.2.3 *Area 3 - Former Process Areas*

Based on the subsurface analytical results, as well as the relatively high fluorescence intensities recorded, COI are present in the Former Process Areas from ground surface to the clay in the C-CZ (approximately 60 feet below ground surface). A minimum of one COI was detected in each sample collected from the soil borings and well borings located in the Former Process Areas.

5.2.4 Area 4 - Closed Surface Impoundment

No subsurface soil samples were collected in the Closed Surface Impoundment as part of the Phase 2-A investigation. A description of observed impacts is included in the Phase 1 RFI/EOC Report.

5.3 SOIL LEACHATE TESTING RESULTS

Five subsurface soil samples were submitted for the Synthetic Precipitation Leaching Procedure (SW-846 Method 1312) and subsequent analysis of COI using SW-846 Methods 8260 and 8270. The samples were collected from soil borings SB03, SB04 and SB06, which are located in the Former Process Areas. A summary of the soil leachate testing results is provided in Table 5-4.

5.4 SOIL GEOTECHNICAL RESULTS

A total of 10 soil samples were submitted for analysis of the following geotechnical parameters: dry density, moisture content, specific gravity, fraction organic carbon, and pH. A summary of the soil geotechnical results is included in Table 5-5.

Based on the reported data, several general trends are observed. First, the transmissive zones have lower dry densities and lower specific gravity than the cohesive zones which is a result of differing mineral content, and to a lesser degree, packing and relatively larger grain size. The transmissive zones also have higher moisture content and lower fractions of organic carbon.

5.5 GROUND WATER ANALYTICAL RESULTS

As an initial step in understanding overall site conditions, the LOQs were utilized as a benchmark for assessing which areas had been impacted through historical site activities at the SWMUs and AOCs. Ultimately, the extent of affected ground water will be assessed relative to concentration limits appropriate for the site in accordance with the permit during development of a site conceptual model. The site conceptual model will be presented under separate cover.

As part of the Phase 2-A field activities, 11 monitor wells were installed to facilitate ground water sampling and to provide information regarding hydraulic gradient, hydraulic conductivity, lithology, and constituent concentrations in the transmissive zones. Of the 11 Phase 2-A wells, six were completed in the A-TZ, two were completed in the B-TZ and three were completed in the C-TZ. Currently, 23 wells and 3 piezometers are present at the site. A comprehensive well completion table for the wells on site, including the area and zone of completion is provided in Table 5-6.

In addition, nine ground water samples were collected using the Hydropunch sampling system. The overall objective of this phase of the Hydropunch program was to determine if the Inactive Wastewater Lagoon (AOC-6) is a source of impact to the ground water in the off-site area west of the site, and to assess the extent of any impact.

During Phase 2-A, ground water samples were collected from monitor wells on site and from Hydropunch locations on site and off site. The ground water samples were collected and analyzed for the COI listed in Table 5-1. The laboratory analytical results for the ground water samples are summarized in Tables 5-7 and 5-8, and the laboratory analytical reports are provided in Appendix B. Bubble plots which show the relative distribution of selected COI in ground water are provided in Figures 5-4, 5-5 and 5-6 within the A-TZ, B-TZ and C-TZ, respectively. The following subsections describe the ground water analytical results by area.

5.5.1 *Area 1 - Off-site Drainage*

Based on the comprehensive analytical database, the A-TZ appears to be impacted in the off-site drainage area near HP02, HP08, and HP18. The B-TZ is impacted at HP18STZ and HP21STZ. The northern portion of the Off-site Drainage Area shows no impact to the A-TZ (no data is available for the B-TZ and C-TZ in this area).

The reported results for well MW-12C, which is completed in the C-TZ near the center of the Off-site Drainage Area, has no detected COI.

5.5.2 *Area 2 - Tie Storage Area*

Based on the comprehensive analytical database, the A-TZ and B-TZ appear to be impacted in the southwest portion of the Tie-Storage Area near MW-05 and in the center of the western boundary near MW-12. The A-TZ and C-TZ also appear to be impacted in the northeast portion of the area at MW-15; whereas the B-TZ is not present in the northeast.

5.5.3 *Area 3 - Former Process Areas*

Based on the comprehensive analytical database, the A-TZ appears to be impacted in the Former Process Areas. No COI were detected at HP12. The B-TZ is not present in this area of the site. Constituents of interest were also detected in the C-TZ near MW-18. It should be noted that limited data is available relating to ground water in the Former Process Areas.

5.5.4

Area 4 - Closed Surface Impoundment

The A-TZ and B-TZ appear to be impacted in the area of the Closed Surface Impoundment. No data is available for the C-TZ in this area.

6.0

SOIL ASSESSMENT

Section 5.0 of the Phase 1 report described several soil assessment activities to be completed as part of Phase 2, including a comparison of soil TPH and ROST data, numerical simulation of creosote mobility and fluid motions, and assessment of potential natural attenuation processes. Based on the data collected, only the soil TPH and ROST data comparison is appropriate at this time. Each soil assessment activity is briefly described below.

6.1

SOIL TPH AND ROST CORRELATION

During Phase 1, a substantial set of soil fluorescence data was collected using CPT/ROST technology. Because the ROST tool was used *in situ* and adjacent soil samples were not collected, direct comparison to constituent concentrations could not be made. In order to assess the relative sensitivity of the ROST data to soil constituent concentrations, soil samples were collected during Phase 2 and analyzed concurrently for TPH and fluorescence.

In order to collect appropriate data, selected soil borings were sampled at various depths and samples were split for analysis. A portion of each sample was sent to Pace Analytical, Inc. of Houston, Texas for TPH analysis, and a portion was sent to Fugro Geosciences of Houston, Texas for bench-scale ROST analysis. A summary of the results is provided in Table 6-1.

A similar study was performed recently and is described in a document entitled *The Rapid Optical Screening Tool (ROST™) Laser-Induced Fluorescence (LIF) System for Screening of Petroleum Hydrocarbons in Subsurface Soils* (U.S. EPA, 1997). In that document, a qualitative correlation was demonstrated between TPH (a.k.a., TRPH) results and ROST results at two different environmental investigation sites. However, quantitative correlation was not discussed. Hence, both a quantitative and a qualitative correlation between TPH and ROST data is presented herein.

6.1.1

QUALITATIVE COMPARISON

As a first step, a qualitative analysis was performed to evaluate whether a positive ROST detection is reproducible as a positive TPH detection. The results suggest a very good correlation between TPH detects and LIF detects was observed to the extent that only one discrepancy was noted in 31 observations.

The qualitative analysis included a review of TPH and ROST detection limits. The TPH LOQ for this data set was reported at 20 mg/kg. Background fluorescence is typically established for each sounding based on the average minimum LIF response (a detection limit is then calculated by adding 2.58 standard deviations of the minimum response to the background value). However, because

the ROST probe was exposed to a batch sample for this analysis, rather than a continuous soil column, no background measurement could be obtained. Whereas a detection limit could not be calculated for a specific sample, an approximate background intensity (i.e., detection limit) of 2.65 was estimated based on the entire set of data.

6.1.2 *QUANTITATIVE COMPARISON*

Prior to numerical comparison, the data sets were transformed to natural logarithms. In addition, a value equal to one-half the TPH LOQ (i.e., 10 mg/kg) was assigned for non-detect results.

Visual inspection of the data shows an obvious trend, and an R^2 value of 0.7 is calculated through linear regression analysis (Figure 6-1). For comparison purposes, the data sets were then segregated by soil class to help account for potential variability resulting from soil texture differences. Very strong correlations were calculated for the segregated data sets. For example, an R^2 value of 0.9 was calculated when the subset for clayey silt was compared.

Derivation of site-specific calibration curves and more rigorous statistical evaluation is not presented herein based on: a) the areas where ROST was employed previously have subsequently been studied using conventional techniques; and b) the results of the conventional analysis largely supported the ROST screening results. The applicability of additional comparison will be determined based on the objectives of future use of ROST technology at the site, if any.

6.2 *ANALYSES OF CREOSOTE MOBILITY, FLUID MOTIONS AND NATURAL ATTENUATION PROCESSES*

Section 5.8 of the Phase 1 report described a conceptual methodology for numerically determining the site-specific mobility of creosote. In addition, numerical simulations of fluid motion and natural attenuation processes were proposed. Based on the data collected and the overall goals of the RFI/EOC investigations, these modeling efforts appear to be premature at this time.

The goals of the RFI/EOC investigations included assessment of the extent of affected material. Thus, until that assessment is complete, or unless further investigation cannot be completed, it is not appropriate to model these processes. If, following completion of the RFI/EOC investigations, additional understanding of these processes is required to achieve permit requirements, then the modeling will be performed.

7.0 *PHASE 2-A CONCLUSIONS*

The following general conclusions were developed based on data presented herein and in the Phase 1 report completed previously.

7.1 *SUMMARY OF HYDROGEOLOGY*

The predominant lithology beneath the site is clay, though very fine-grained sand zones are present as thin laterally continuous layers (A-TZ and C-TZ) across the site, and as a thin discontinuous layer (B-TZ) beneath the western portion of the site (see Figures 4-1 through 4-5). The A-TZ and B-TZ appear to be interconnected to some degree, and ground water these two upper zones flows away from the southwestern portion of the site. Ground water in the C-TZ flows toward the east-southeast. The hydraulic conductivity of the sandy zones range from 10^{-3} to 10^{-5} cm/sec. There are no known uses of ground water from the A-TZ, B-TZ or C-TZ within one mile of the site.

7.2 *SUMMARY OF SOIL CHARACTERISTICS*

Surface soil and subsurface soil samples were collected as part of Phase 2-A. As an initial step in understanding overall site conditions, the LOQs were utilized as a benchmark for assessing which areas had been impacted through historical site activities at the SWMUs and AOCs. The areas that appear to be impacted include the following:

- Off-site Drainage Area - Site data indicates that portions of the B-TZ and C-CZ are impacted by COI.
- Tie Storage Area - Site data indicates that portions of the A-CZ, A-TZ, B-CZ and B-TZ are impacted by COI. Based on laboratory analytical results from SB05, the theory of a localized creosote source near CPT25R is discounted.
- Former Process Areas - Site data indicates that portions of the A-CZ, A-TZ, B-CZ and C-CZ are impacted by COI.
- Closed Surface Impoundment - The former surface impoundment was a shallow pit approximately 7 feet deep, excavated and closed according to guidance from the Texas Water Commission (now the TNRCC) in 1984. Site data indicates that the A-CZ, A-TZ, and B-CZ at the surface impoundment are less impacted by constituents of concern than the deeper B-TZ.

Soil fluorescence appears to be directly proportional to soil TPH (and presumably to COI) concentrations. The extent of affected soil will be assessed relative to

concentration limits appropriate for the site in accordance with the permit during development of a site conceptual model.

7.3

GROUND WATER CHARACTERISTICS

Ground water samples were collected both from monitor wells and through the Hydropunch system as part of Phase 2-A. As an initial step in understanding overall site conditions, the LOQs were utilized as a benchmark for assessing which areas had been impacted through historical site activities at the SWMUs and AOCs. The areas that appear to be impacted include the following:

- Off-site Drainage Area - Site data suggests that portions of the A-TZ and B-TZ are impacted by COI.
- Tie Storage Area - Site data indicates that portions of the A-TZ and C-TZ are impacted by COI.
- Former Process Areas - Site data indicates that portions of the A-TZ and C-TZ are impacted by COI.
- Closed Surface Impoundment - Ground water near the former surface impoundment is analyzed semiannually pursuant to the Compliance Plan, and the results are provided in semiannual ground water monitoring reports submitted under separate cover. Site data indicates that the A-TZ, and B-CZ at the surface impoundment are impacted by COI.

The extent of affected ground water will be assessed relative to concentration limits appropriate for the site in accordance with the permit during development of a site conceptual model.

PATH FORWARD

In order to satisfy the substantive requirements of the permit and compliance plan, SPTCo proposes an aggressive path forward. Based on the extensive investigation completed on site to date, only limited additional investigation is warranted to meet the overall goals of the RFI on site. Conversely, SPTCo recognizes that the off-site data set is limited and that additional RFI/EOC investigation is warranted: for example, in the AOC-6 area and the area northeast of the site. Accordingly, a work plan to complete the RFI/EOC investigations will be submitted.

The work plan will likely incorporate by reference much of the material presented in the RFI Work Plan approved previously, except for the scope of work. The work plan will outline a detailed scope of work for Phase 2-B that will achieve the pertinent goals of Phase 2. SPTCo proposes that the goals of Phase 2 be limited hereafter to determining the lateral and vertical extent of affected media resulting from activities at SWMUs and AOCs during wood treating operations. SPTCo is confident that these objectives will be achieved during Phase 2-B; however, if the objectives are not achieved, then a Phase 2-C will be implemented. The applicability of developing fate and transport analyses to predict possible COI concentrations off site in the future (in support of natural attenuation demonstrations) will be assessed during future site activities.

SUMMARY OF ACTIVITIES

This section provides a conceptual summary of the actual activities associated with the site. In addition to the RFI/EOC investigations, routine ground water monitoring and other activities associated with the Closed Surface Impoundment Compliance Plan will be performed, but are not included in this summary.

It should also be noted that Interim Stabilization Measures may be implemented during the course of site activities. For example, the off-site portion of the southern drainage ditch (i.e., SWMU 1) has been remediated and an Interim Stabilization Measures report will be submitted under separate cover during the first quarter of 1998.

- Phase 1 RFI/EOC

A screening-level investigation of the SWMUs and AOCs was completed to help design a full-scale investigation (i.e., Phase 1). The Phase 1 investigation results suggested that completion of a full-scale soil and ground water investigation of waste management areas was warranted.

- Phase 2 RFI/EOC

A multi-phase, full-scale investigation was designed to determine the nature and extent of affected media. The Phase 2 investigation is in progress. A plan to complete Phase 2 will be developed and submitted as part of a Risk Reduction Implementation Plan as described below.

- Baseline Risk Assessment

A baseline risk assessment (BRA) will be completed following completion of Phase 2. If warranted based on the conclusions of the BRA, a corrective measures study (CMS) will be completed.

- Phase 3 Investigation

Phase 3 will be reserved for investigation related specifically to remedial design, if warranted, following completion of the BRA and CMS.

- Corrective Measures

If warranted based on the conclusions of the BRA and following completion of the CMS, corrective measures will be implemented. Prior to implementation, a permit and compliance plan modification will be completed to incorporate the objectives and conceptual design of the corrective measures, as well as to establish the protection standards (i.e., remedial goals) that will be achieved.

8.2

PROPOSED PLAN

In order to fully develop the framework for future activities at the site, a Risk Reduction Implementation Plan (RRIP) will be prepared and submitted. The RRIP will describe the conceptual approach to implementing the Risk Reduction Standards in accordance with Provision VIII.I.3 of the permit. The contents of the RRIP will include the following:

- a summary of the RFI/EOC investigation results;
- development of a site conceptual model, including a discussion of the extent of affected media relative to concentration limits appropriate for the site in accordance with the permit;
- the technical approach to addressing the SWMUs and AOCs individually or as groups of waste management units;
- development of preliminary risk goals for the site;

- a description of how the Risk Reduction Rules (or Program) will be applied at the site;
- preliminary risk assessment activities, including comprehensive evaluation of site data and selection of constituents of concern;
- assessment of site-specific risk assessment issues such as risk assessment for dermal exposure to carcinogenic PAHs, and wetlands and ecological assessment issues;
- a work plan for Phase 2-B as described above;
- a technical justification for modifying the permit and compliance following completion of Phase 2 to implement corrective action; and
- a detailed schedule for implementing the remaining requirements of the permit and compliance plan.

SPTCo proposes to submit the RRIP to the TNRCC during the first quarter of 1998. A preliminary outline for the RRIP is provided in Appendix D.

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**Interim Stabilization Measures
Report
Houston Wood Preserving Works**

*Southern Pacific Transportation Company
Houston, Texas*

*April 27, 1998
W.O. #422-09*

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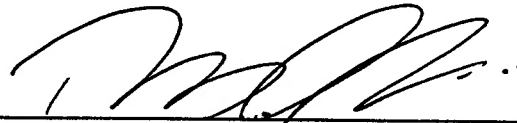
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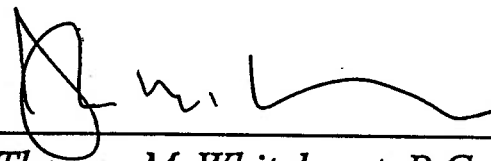
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EXECUTIVE SUMMARY

On behalf of Southern Pacific Transportation Company, ERM-Southwest, Inc. (ERM) has prepared this Interim Stabilization Measures (ISM) Report to document a removal action performed on a storm water drainage ditch adjacent to the former Houston Wood Preserving Works (HWPW) site. While conducting an off-site walk-over, a black, viscous material was discovered in the ditch, east of the portion of the ditch previously remediated. In order to reduce the potential for exposure to the material, SPTCo elected to remove the visibly-affected material from the ditch and transport the material off-site for disposal.

The removal action was performed as an ISM in accordance with Environmental Protection Agency Office of Solid Waste and Emergency Response (OSWER) Directive No. 9902.3-2A, entitled *RCRA Corrective Action Plan* and dated May 31, 1994. The objective (and result) of the ISM was to remove, treat, and/or decontaminate the ditch to the extent practical, ultimately, in order to help meet the requirements for final measures at the site.

Approximately 850 cubic yards of soil and other rubbish materials (e.g., vegetation, municipal trash, sheet piling), were manifested and transported to the Waste Management, Inc. Atascocita Landfill for disposal. In addition, a total of approximately 17,700 gallons of storm water was removed from the ditch and transferred to the Englewood Yard wastewater treatment plant for treatment.

Following completion of removal activities, the ditch was backfilled with approximately 750 cubic yards of clean clay fill and graded to its approximate preconstruction shape.

The soil removal activities satisfied the overall ISM goal to “control or abate threats to human health and/or the environment from releases and/or to minimize the further spread of contamination while long-term remedies are pursued,” as stated in OSWER Directive No. 9902.3-2A.

The Southern Drainage Ditch will be further investigated to determine the nature and extent of constituent releases to soil and ground water in this area during subsequent investigation activities completed in accordance with the ongoing RCRA Facility Investigation (RFI) for the site. The remedial activities completed during this ISM will be incorporated into the final remedy recommended for this SWMU.

1.0

INTRODUCTION

ERM-Southwest, Inc. (ERM) has prepared this Interim Stabilization Measures (ISM) Report to document a removal action performed on a storm water drainage ditch adjacent to the former Houston Wood Preserving Works (HWPW) site. The removal action was conducted beginning on November 10, 1997 and ending on November 18, 1997. Removal activities were managed by ERM-EnviroClean-Southwest, LLC (EnviroClean) on behalf of Southern Pacific Transportation Company (SPTCo). Construction activities were conducted by USA Environmental Services, Inc. Affected soil removed during the ISM was disposed off site at the Waste Management, Inc. Atascocita Landfill in Humble, Texas.

1.1

BACKGROUND

The HWPW site consists of a 33-acre tract of land located at 4910 Liberty Road, Houston, Harris County, Texas. The site is approximately 1.5 miles northeast of the intersection of U.S. Highway 59 and Interstate Highway 10 (Figure 1-1). Historically, wooden railroad ties were treated with creosote at the site. Wood preserving operations were discontinued at the site in 1984 and the facilities were dismantled. Currently, the site is used for storage of railroad equipment and containers.

Later in 1984, following discontinuation of wood preserving operations at the site, a surface impoundment which had been used to manage wood preserving wastes was closed. A certification was filed which stated that the waste was removed from the impoundment and disposed at an off-site location, and the resulting excavation was filled with clean backfill. Ground water monitoring was subsequently initiated in 1984 for the area surrounding the surface impoundment. Based on the results of ground water monitoring, a Compliance Plan Application and Post-Closure Care Application were submitted in 1991.

A RCRA Facility Assessment (RFA) was completed on behalf of the U.S. EPA in 1993. Based on the results of the RFA and as described in Provision VIII of Permit No. HW-50343-000 issued to SPTCo on June 20, 1994, ten solid waste management units (SWMUs) and six areas of concern (AOCs) were identified at the site. The RCRA permit designates two storm water drainage ditches collectively as SWMU-2 (Northern and Southern Drainage Ditches). The Northern Drainage Ditch runs north to south along the western boundary of the site. The Southern Drainage Ditch runs northeast to southwest along the southern boundary of the site, as shown in Figure 1-2.

In 1995, a portion of the Southern Drainage Ditch (ditch) beginning approximately 400 feet west of the site and continuing approximately 290 feet further west was remediated. Approximately 125 tons of affected ditch material was stabilized with lime, removed from the ditch, and transported for off-site incineration. Following completion of remediation activities, a weir constructed

of driven steel sheet piling was installed at the easternmost edge of the remediated portion of the ditch. SPTCo submitted a report to the TNRCC, dated June 27, 1995, documenting the completion of remediation activities.

In September 1997, while conducting an off-site walk-over, a black, viscous material was discovered in the ditch, east of the sheet pile weir. During a limited follow-up assessment completed on September 12, 1997, ERM assessed the extent of the affected material in the ditch. The material was noted as present at depths varying from several inches to approximately three feet and as being distributed along a segment of the ditch extending from the southwest corner of the site to the sheet pile weir west of the site, as shown in Figure 1-2 (a total distance of approximately 400 feet). In order to reduce the potential for exposure to the material, SPTCo elected to remove the visibly-affected material from the ditch and transport the material off site for disposal.

1.2

PRESUMED SOURCE OF MATERIAL

Based on a review of historical site operations, and on the results of the limited follow-up assessment, the likely source of the affected material in the ditch is historical surface release(s) of product(s) used as part of the wood treating process prior to decommissioning site operations. The investigation into the likely source of the material was conducted in order to better understand site conditions relating to potential migration of the material, and to help classify the material for disposal. The investigation was not intended to establish the actual origin of the material or the circumstances of the release.

1.3

REGULATORY FRAMEWORK

The removal action was performed as an ISM in accordance with Environmental Protection Agency Office of Solid Waste and Emergency Response (OSWER) Directive No. 9902.3-2A entitled *RCRA Corrective Action Plan* and dated May 31, 1994. This directive specifies that an ISM is appropriate when: a) the affected material can be isolated; b) a potential exposure threat to receptors exists; c) sufficient information about the site setting exists; and d) appropriate technologies are available to deal with the affected material. The directive provides several examples of appropriate scenarios for an ISM, of which excavation of affected soils is one.

The objective (and result) of the ISM was to remove/treat/decontaminate the ditch to the extent practical, ultimately, in order to help meet the requirements for final measures at the site. Although the ditch is located on property (i.e., a right-of-way) owned by SPTCo, and the property is isolated by a fence, SPTCo elected to implement the ISM based on potential (and not actual) exposure issues. The ISM process provided a means by which SPTCo could pursue a remedy expeditiously, *in lieu* of the detailed design and review traditionally associated with final measures.

1.4

SCOPE AND OBJECTIVES

The OSWER Directive states that the overall goal of the ISM process is to “control or abate threats to human health and/or the environment from releases and/or to prevent or minimize the further spread of contamination while long-term remedies are pursued.” To satisfy this overall goal, the objective of this ISM was to remove the visibly-affected soil in the ditch. In order to accomplish this objective, the following scope of work was completed:

- The extent of visibly-affected soil in the ditch was assessed.
- Union Pacific Railroad’s (UPR’s) Englewood Yard Roadmaster was contacted for assignment of a flagman for rail traffic control and a signal manager for underground cable identification.
- Line locator services (Texas One Call and Lone Star Notification) were contacted for further information regarding the locations of underground utilities registered with their respective organizations.
- Storm water in the ditch was removed and stored temporarily in frac tanks. Subsequently, storm water samples collected from the frac tanks were analyzed to determine the applicability of discharging the water into the Englewood Yard waste water treatment plant (WWTP).
- Based on a review of storm water analytical results, the storm water contained in the frac tanks was discharged to the Englewood Yard WWTP for treatment.
- Visibly-affected soil in the ditch was classified for waste disposal purposes in accordance with Texas Natural Resource Conservation Commission (TNRCC) and Federal guidelines.
- Visibly-affected soil in the ditch was removed.
- Excavated soils were properly manifested and transported for off-site disposal. In addition, residual solids from the frac tanks used to hold storm water were properly manifested and transported for off-site disposal.
- The excavation was backfilled with clean clay fill and restored to its approximate preconstruction shape and grade to facilitate drainage without ponding.

2.0

DESCRIPTION OF ISM ACTIVITIES

Activities completed during the ISM included pre-mobilization activities and removal action activities. Descriptions of the tasks completed as part of these activities are presented below.

2.1

PRE-MOBILIZATION ACTIVITIES

Pre-mobilization activities for the ISM included: a) assessment of the nature and extent of visibly-affected soil in the ditch; b) arrangement for railroad traffic control and line locator services; and c) classification of affected soils for subsequent disposal.

2.1.1

Nature and Extent Assessment

The preliminary assessment to determine the approximate nature and extent of the visibly-affected soil in the ditch was performed by ERM on September 12, 1997. To assess the lateral and vertical extent of the affected material, cores were collected using a hand auger at 15 discrete locations along the ditch.

The results of hand-auger soil core collection indicated that the affected material generally decreased in abundance with depth and distance from the center of the ditch. Accordingly, it was concluded that the source of the affected material was likely a surface release, rather than a release originating from beneath the ditch (i.e., subsurface). Furthermore, it was noted that the affected material became exposed at the surface of the ditch only during the hotter part of the day.

A sample of the viscous material in the ditch was collected and submitted for analysis for Target Compound List (TCL) volatile organic compounds (VOCs) and TCL semivolatile organic compounds (SVOCs). A second sample of the material was collected and submitted for analysis for Toxicity Characteristic Leaching Procedure (TCLP) RCRA VOCs, RCRA SVOCs, and RCRA metals, reactivity, corrosivity, ignitability, and polychlorinated biphenyls (PCBs). As a Quality Assurance / Quality Control (QA/QC) check, a third sample of the material was collected and submitted for analysis for TCLP RCRA VOCs and corrosivity. The samples were placed into coolers with sufficient ice to maintain a sample temperature of approximately 4°C and transferred to Core Laboratories - Gulf States Analytical in Houston, Texas for analysis. A chain-of-custody form was completed and submitted with the samples.

Table 2-1 provides a summary of the results of analyses performed to help determine the nature of the affected material. The results of the laboratory analyses indicate that the material is petroleum-based (i.e., principal constituents are polynuclear aromatic hydrocarbons and dibenzofurans). A copy of the laboratory analytical report is included in Appendix A.

2.1.2 *Traffic Control and Line Locator Services*

Prior to conducting excavation activities, Texas One Call and Lone Star Notification, both independent line locator services, were contacted in order to identify and mark the locations of underground utilities registered with their respective organizations. In addition, UPR representatives were contacted to identify and mark the locations of underground utilities relating to railroad operations.

One UPR signal line was located and marked along the southern portion of the ditch. Excavation activities did not extend laterally to the line location.

To aid in rail traffic control, UPR provided a flagman. The flagman remained at the ISM removal site throughout the duration of construction activities.

2.1.3 *Classification of Affected Soils*

The results of analyses for TCLP parameters, RCI and PCBs were used to determine the waste classification for the material targeted for removal. A summary of these results, together with a comparison of the results to the hazardous thresholds in 40 CFR §261, is presented in Table 2-2. Based on these results, the material was classified as nonhazardous for disposal purposes. A copy of the analytical report is presented in Appendix A. It should be noted that the material represented by this data was removed as part of the ISM activities, and is no longer present in the ditch.

2.2 *REMOVAL ACTION ACTIVITIES*

Removal action activities completed during the ISM included: a) management and removal of storm water in the ditch; b) excavation and disposal of visibly-affected soils; and c) backfilling and grading of the ditch.

2.2.1 *Storm Water Management and Removal*

Storm water management and removal activities for the ISM entailed containment and temporary storage of storm water, sampling and analysis of the water, and disposal of the stored water. Prior to initiation of removal activities, the ditch work area was isolated from storm water run-on and run-off by placement of earthen isolation dikes at the east (i.e., upper) and west (i.e., lower) ends of the ditch section to be excavated. Additionally, two absorbent oil booms were placed across the ditch approximately 25 feet apart, immediately downstream of the western isolation dike.

Two portable frac tanks were set up on site to receive and store storm water from the work area. The storm water that was stored included water standing in the ditch section prior to excavation and water accumulating in the ditch section

during excavation activities. The ground in the work area was saturated due to recent rains prior to construction, creating an almost continuous seepage of water into the excavation. Additionally, rain occurred on several days during the construction period, creating additional water to manage. A total of approximately 17,700 gallons of storm water was removed from the ditch and stored in the frac tanks prior to disposal.

Based on discussions with UPR, the applicability of receiving, treating and discharging the storm water at UPR's Englewood Yard WWTP was evaluated. The standard operating procedure for the WWTP is to discharge treated effluent into the City of Houston sanitary sewer. The water in the frac tanks was sampled in order to comply with the City of Houston ordinance for disposal of industrial wastewater through the city sanitary sewer system. The discharge limits were referenced from City of Houston Industrial Waste Ordinance Article V, Section 47-194. A copy of the relevant section is included as Appendix B.

The water samples from the frac tanks were composited according to the respective volumes in the two tanks and placed into coolers with sufficient ice to maintain a sample temperature of approximately 4°C. The samples were transferred under chain-of-custody control to Core Laboratories - Gulf States Analytical in Houston, Texas for analysis. In order to comply with the City of Houston ordinance, the following analyses were performed:

- TCL VOCs by SW-846 Method 8260
- TCL SVOCs by SW-846 Method 8270B
- RCRA Metals (plus Nickel and Zinc) by SW-846 Methods 6010A and 7470A
- Reactivity by SW-846 Interim Method
- Corrosivity by SW-846 9040A
- Ignitability by SW-846 Method 1010
- Oil and Grease by EPA Method 413.1
- Total Suspended Solids by EPA Method 160.2
- Total Dissolved Solids by EPA Method 160.1
- Chemical Oxygen Demand by EPA Method 410.4
- Biochemical Oxygen Demand by EPA Method 405.1

Based on a comparison of the reported analytical results to the City of Houston discharge requirements, the storm water was suitable for discharge into the UPR Englewood Yard WWTP. The City of Houston was also contacted to verify the applicability of discharging the water. A copy of the laboratory analytical report is included in Appendix A.

The water was manifested and transported by vacuum truck to the Englewood Yard WWTP on Friday, December 19, 1997. The water was discharged into the plant inlet sump for treatment and discharge into the City of Houston sewer system according to standard plant protocol. The two frac tanks were washed internally, and the wash water was contained in eight 55-gallon drums. The drums were manifested, transported and disposed in the UPR Englewood Yard WWTP. One final load of residual solids removed from the bottom of the two frac tanks after the tanks were emptied of water was manifested and transported for disposal at Waste Management's Atascocita Landfill.

Copies of the manifests for the storm water, frac tank wash water, and frac tank residue are included in Appendix C. The frac tanks were demobilized on Tuesday, January 6, 1998 after the tanks were verified to be clean, based on visual inspections by EnviroClean.

2.2.2

Soil Removal

Visibly-affected soil was excavated from the ditch beginning near the southwest corner of the site and extending westward for approximately 400 feet. A trackhoe was used to slowly excavate soils from the initial point of excavation in order to determine the depth required to remove visibly-affected material. The average depth of removal was approximately three feet. It should be noted, however, that the extent of soil removal was determined by visual identification of affected material, rather than by a design depth or distance from the ditch.

Tandem axle, 14-cubic yard dump trucks were backed down the north railroad tracks, which had been taken out of service to facilitate the excavation work, for loading. Care was taken to reduce the amount of excavated material dropped onto the ground or rail ballast. If dropped, the material was immediately retrieved and placed back into the excavation. Each dump truck was loaded by the trackhoe with approximately 12 cubic yards of material.

A total of 71 truck loads of material, including a total of approximately 850 cubic yards of soil and other rubbish materials (e.g., vegetation, municipal trash, sheet piling), were manifested and transported to the Waste Management, Inc. Atascocita Landfill for disposal. Copies of the manifests are included in Appendix C.

2.2.3

Backfilling and Grading Activities

Clean clay was obtained by USA Environmental for use as backfill material for the ditch. The backfill was stockpiled temporarily in a laydown area (designated by UPR) near the southwest corner of the site while the ditch excavation was being completed. Upon completion of the excavation and visual verification that affected soil had been removed, backfilling of the ditch excavation began, working westward from the east end of the ditch.

A total of approximately 750 cubic yards of clay fill was placed in the ditch excavation using a rubber-tired loader to transport the material from the stockpile to the excavation. An angle-blade dozer was used to place and spread the clay fill to a rough grade along the ditch. Compaction of the clay fill was accomplished by the placement equipment traveling over the fill. Final grading was performed by the trackhoe using a smooth-edge cleanout bucket and working east (i.e., up-slope) from the west end of the ditch. The grading was completed to conform approximately to the preconstruction shape and grade of the ditch to facilitate drainage without ponding. The oil containment booms placed prior to initiation of soil removal activities were left in place.

3.0

PROJECT HEALTH AND SAFETY

ERM prepared a site specific Health and Safety Plan (HASP) in accordance with health and safety standard operating procedures and guidelines, and in accordance with requirements set forth in 29 CFR §1910.120 entitled Hazardous Waste Operations and Emergency Response. The purpose of the HASP was to assign responsibilities, establish personnel protection standards, specify safe operating procedures, and provide for contingencies that might arise during remedial activities at the site.

There were no injuries or safety related incidents during the ISM activities.

4.0 **RESULTS AND CONCLUSIONS**

4.1 **RESULTS**

Visibly-affected soil and ponded storm water was removed from the Southern Drainage Ditch beginning near the southwest corner of the site and continuing approximately 400 feet to the sheet pile weir southwest of the site. The extent of soil removal was determined during the excavation process by continuing the excavation laterally and vertically until the visibly-affected soil was removed from the ditch. Following removal of visibly-affected material, the ditch was backfilled with clean fill and graded to the approximate original ditch grade.

As reported to the TNRCC in a letter from Southern Pacific Lines, dated June 27, 1995, a similar removal action was completed for a length of the ditch extending approximately 290 feet west of the sheet pile weir. Based on the report submitted to the TNRCC, the material removed from the ditch was of a similar nature.

4.2 **CONCLUSIONS**

The overall ISM goal was to “control and/or abate threats to human health and/or the environment from releases and minimize the further spread of contamination while long-term remedies are pursued” (*RCRA Corrective Action Plan*). The removal of visibly-affected soils from the ditch achieved this goal. In addition, this ISM and the 1995 soil removal action can be incorporated into final measures for the site.

4.3 **FUTURE ACTIVITIES**

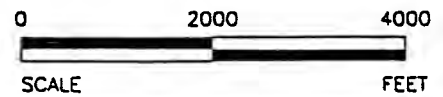
Whereas the visibly-affected material in the ditch has been removed, the Southern Drainage Ditch will be further investigated to determine the nature and extent of potential releases of constituents to underlying soil and ground water in this area during subsequent activities completed in accordance with the ongoing RCRA Facility Investigation (RFI) for the site.

Based on the results and conclusions described herein, the remedial activities completed during this ISM and during the 1995 soil removal action can be incorporated into the final remedy recommended for this SWMU.

Figures



Source: U.S.G.S. Quadrangle
 Settegast, Texas
 1982
 7.5 Minute Series (Topographic)



ERM-Southwest, Inc.
 HOUSTON • NEW ORLEANS • AUSTIN • DALLAS • BEAUMONT
ERM.

FIGURE 1-1
 SITE LOCATION MAP
 Houston Wood Preserving Works
 Houston, Texas

DATE: 11/17/97

W.O.NO.: 42209A17

Tables

TABLE 2-1

Summary of Analytical Results - Total Constituent Analyses
Interim Stabilization Measures

Houston Wood Preserving Works
Houston, Texas

<u>Analytical Parameter (a)</u>	<u>Unit</u>	<u>Reported Result</u>
Sample ID: South Ditch #1		
<u>Volatiles by SW-846 Method 8260A</u>		
Acetone	mg/kg	1 J
Ethylbenzene	mg/kg	1.2 J
Xylenes, Total	mg/kg	3.2
<u>Semivolatiles by SW-846 Method 8270</u>		
Acenaphthene	mg/kg	3,200
Anthracene	mg/kg	2,400
Dibenzofuran	mg/kg	2,300
Fluoranthene	mg/kg	7,000
Fluorene	mg/kg	4,200
Phenanthrene	mg/kg	16,000
Pyrene	mg/kg	4,500

NOTES:

J = Reported results is above the Method Detection Limit, but below the laboratory Limit of Quantitation (LOQ).

(a) The sample was analyzed for Target Compound List volatile and semivolatile organics. Constituents not listed in this table were reported below the laboratory LOQ.

TABLE 2-2

Summary of Analytical Results - Waste Characterization Analyses
Interim Stabilization Measures

Houston Wood Preserving Works
Houston, Texas

<u>Analytical Parameter (a)</u>	<u>Unit</u>	<u>Reported Result</u>	<u>Hazardous Threshold (b)</u>
<u>Sample ID: South Ditch #2</u>			
<u>Reactivity by SW-846 Interim Method</u>			
Reactive Cyanide	mg/kg	ND (0.5)	Detection
Reactive Sulfide	mg/kg	ND (5)	Detection
<u>Corrosivity by SW-846 Method 9045</u>			
pH	Std. Units	8.01	<2.1 or >12.4
<u>Ignitability by In-house Method</u>			
Flashpoint	(Y/N)	>225 deg. F	<140 deg. F
<u>PCBs by SSW-846 Method 8080</u>			
none reported as detected above LOQ		—	—
<u>TCLP Metals by SW-846 Methods 6010A/7470</u>			
Barium	mg/L	0.7	100.0
<u>TCLP Volatiles by SW-846 Method 8260A</u>			
none reported as detected above LOQ		—	—
<u>TCLP Semivolatiles by SW-846 Method 8270</u>			
m,p-Cresol	mg/L	0.12	200
o-Cresol	mg/L	0.02	200
<u>Sample ID: South Ditch #3</u>			
<u>Corrosivity by SW-846 Method 9045</u>			
pH	Std. Units	8.30	<2.1 or >12.4
<u>TCLP Volatiles by SW-846 Method 8260A</u>			
Trichloroethylene	mg/L	0.16	0.5

NOTES:

ND (0.05) = Not Detected above the laboratory Limit of Quantitation indicated in parentheses.

(a) TCLP volatile and semivolatile organics and metals include those parameters listed in 40 CFR 261 (excluding pesticides and herbicides). Parameters not included in this table were reported at concentrations less than the laboratory Limit of Quantitation.

(b) Thresholds referenced from 40 CFR 261. Wastes with values exceeding the hazardous thresholds are considered to be characteristically hazardous wastes.

Laboratory Analytical Reports
Appendix A

April 27, 1998
W.O. #422-09

KG COH 002400

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

Storm Water Analytical Results

KG COH 002401

BN073422-D98



GULF STATES ANALYTICAL

ANALYSIS SUMMARY REPORT (Revised 12/16/97)

ERM-Southwest, Inc.
16300 Katy Freeway, Sta. 300
Houston, TX 77094-1609

GSA Group: 34522
Date Reported: 12/15/97
Date Received: 11/24/97

Attn: Mr. Bill Huff
Project: UP-HWP

Purchase Order:
Project No.: 6004-72

Revised to include the additional analysis of total cyanide and total sulfide.

<u>Test Analysis</u>	<u>Results as Received</u>	<u>Units</u>	<u>Limit of Quantitation</u>	<u>Date Extracted/ Analyzed</u>	<u>Anal.</u>
Sample: 179414 - 11/24/97 - HWP Discharge					
ICWTA Metals by ICP, Trace					
Arsenic	0.03	mg/l	0.01	12/07/97	CK
Cadmium	NO	mg/l	0.005	12/07/97	CK
Chromium	NO	mg/l	0.01	12/07/97	CK
Copper	NO	mg/l	0.010	12/07/97	CK
Lead	NO	mg/l	0.01	12/07/97	CK
Nickel	NO	mg/l	0.02	12/07/97	CK
Selenium	NO	mg/l	0.015	12/07/97	CK
Silver	NO	mg/l	0.005	12/07/97	CK
Zinc	0.148	mg/l	0.020	12/07/97	CK
0259A Mercury by Cold Vapor AA, SW-846	NO	mg/l	0.00050	12/02/97	CK
0206 Total Suspended Solids	23	mg/l	4	11/25/97	LD
0212 Total Dissolved Solids	269	mg/l	10	11/25/97	LD
0231 Oil and Grease, Gravimetric	NO	mg/l	5	12/02/97	BKB
0234 Chemical Oxygen Demand	104	mg/l	10	12/01/97	MLH
0235 Biochemical Oxygen Demand	20	mg/l	10	11/24/97	TL
0242L Cyanide, Automated	NO	mg/l	0.02	12/12/97	IP
0430 Flashpoint	> 212	deg. F		12/04/97	ES
0496A Corrosivity by pH	7.55	Std. Units	0.01	11/24/97	TL
5230 Sulfide, Mid Level	NO	mg/l	1	12/11/97	IP
6754 Reactivity - Cyanide and Sulfide					
Cyanide	NO	mg/l	10	11/26/97	IP
Sulfide	NO	mg/l	50	11/26/97	IP
8260C Volatiles, TCL OLM03.1 List					
Acetone	0.08	mg/l	0.01	12/08/97	HV
Benzene	0.008	mg/l	0.005	12/08/97	HV
Bromodichloromethane	NO	mg/l	0.005	12/08/97	HV
Bromoform	NO	mg/l	0.005	12/08/97	HV
Bromomethane (Methyl bromide)	NO	mg/l	0.01	12/08/97	HV
2-Butanone (MEK)	NO	mg/l	0.01	12/08/97	HV
Carbon disulfide	NO	mg/l	0.005	12/08/97	HV
Carbon tetrachloride	NO	mg/l	0.005	12/08/97	HV
Chlorodibromomethane	NO	mg/l	0.005	12/08/97	HV

KG COH 002402

ANALYSIS SUMMARY REPORT

Page 2

ERM-Southwest, Inc.

GSA Group: 34522

<u>Test Analysis</u>	<u>Results as Received</u>	<u>Units</u>	<u>Limit of Quantitation</u>	<u>Date Extracted/ Analyzed</u>	<u>Anal</u>
Sample: 179414 - 11/24/97 - HWP Discharge					
8260C Volatiles, TCL OLM03.1 List					
Chlorobenzene	ND	mg/l	0.005	12/08/97	HV
Chloroethane (Ethyl chloride)	ND	mg/l	0.005	12/08/97	HV
Chloroform	ND	mg/l	0.005	12/08/97	HV
Chloromethane (Methyl chloride)	ND	mg/l	0.01	12/08/97	HV
1,1-Dichloroethane	ND	mg/l	0.005	12/08/97	HV
1,2-Dichloroethane	ND	mg/l	0.005	12/08/97	HV
1,1-Dichloroethene	ND	mg/l	0.005	12/08/97	HV
1,2-Dichloroethene (total)	ND	mg/l	0.005	12/08/97	HV
1,2-Dichloropropane	ND	mg/l	0.005	12/08/97	HV
cis-1,3-Dichloropropene	ND	mg/l	0.005	12/08/97	HV
trans-1,3-Dichloropropene	ND	mg/l	0.005	12/08/97	HV
Ethylbenzene	0.027	mg/l	0.005	12/08/97	HV
2-Hexanone	ND	mg/l	0.01	12/08/97	HV
Dichloromethane	ND	mg/l	0.005	12/08/97	HV
4-Methyl-2-pentanone (MTBK)	ND	mg/l	0.01	12/08/97	HV
Styrene	ND	mg/l	0.005	12/08/97	HV
1,1,1,2-Tetrachloroethane	ND	mg/l	0.005	12/08/97	HV
Tetrachloroethene	ND	mg/l	0.005	12/08/97	HV
Toluene	0.055	mg/l	0.005	12/08/97	HV
1,1,1-Trichloroethane	ND	mg/l	0.005	12/08/97	HV
1,1,2-Trichloroethane	ND	mg/l	0.005	12/08/97	HV
Trichloroethene	ND	mg/l	0.005	12/08/97	HV
Vinyl chloride	ND	mg/l	0.005	12/08/97	HV
Xylene (total)	0.14	mg/l	0.02	12/08/97	HV
0923I Semivolatiles, TCL List					
Acenaphthene	0.23	mg/l	0.01	12/04/97	NG
Acenaphthylene	0.01	mg/l	0.01	12/04/97	NG
Anthracene	0.04	mg/l	0.01	12/04/97	NG
Benzo (a) anthracene	0.01	mg/l	0.01	12/04/97	NG
Benzo (b) fluoranthene	ND	mg/l	0.01	12/04/97	NG
Benzo (k) fluoranthene	ND	mg/l	0.01	12/04/97	NG
Benzo (ghi) perylene	ND	mg/l	0.01	12/04/97	NG
Benzo (a) pyrene	ND	mg/l	0.01	12/04/97	NG
bis (2-Chloroethoxy) methane	ND	mg/l	0.01	12/04/97	NG
bis (2-Chloroethyl) ether	ND	mg/l	0.01	12/04/97	NG
bis (2-Ethylhexyl) phthalate	ND	mg/l	0.01	12/04/97	NG
4-Bromophenyl-phenylether	ND	mg/l	0.01	12/04/97	NG
Butylbenzyl phthalate	0.01	mg/l	0.01	12/04/97	NG
Carbazole	0.02	mg/l	0.01	12/04/97	NG
4-Chloroaniline	ND	mg/l	0.01	12/04/97	NG
4-Chloro-3-methylphenol	ND	mg/l	0.01	12/04/97	NG

KG COH 002403

ANALYSIS SUMMARY REPORT

Page 3

ERM-Southwest, Inc.

GSA Group: 34522

<u>Test Analysis</u>	<u>Results as Received</u>	<u>Units</u>	<u>Limit of Quantitation</u>	<u>Date Extracted/ Analyzed</u>	<u>Analys</u>
Sample:179414 - 11/24/97 - RWP Discharge					
0923I Semivolatiles, TCL List					
2-Chloronaphthalene	ND	mg/l	0.01	12/04/97	NG
2-Chlorophenol	ND	mg/l	0.01	12/04/97	NG
4-Chlorophenyl-phenylether	ND	mg/l	0.01	12/04/97	NG
Chrysene	0.01	mg/l	0.01	12/04/97	NG
o-Cresol (2-Methylphenol)	0.01	mg/l	0.01	12/04/97	NG
p-Cresol (4-Methylphenol)	0.01	mg/l	0.01	12/04/97	NG
Di-n-butyl phthalate	ND	mg/l	0.01	12/04/97	NG
Dibenzo (a,h) anthracene	ND	mg/l	0.01	12/04/97	NG
Dibenzofuran	0.08	mg/l	0.01	12/04/97	NG
1,2-Dichlorobenzene	ND	mg/l	0.01	12/04/97	NG
1,3-Dichlorobenzene	ND	mg/l	0.01	12/04/97	NG
1,4-Dichlorobenzene	ND	mg/l	0.01	12/04/97	NG
3,3'-Dichlorobenzidine	ND	mg/l	0.02	12/04/97	NG
2,2'-oxybis (1-Chloropropane)	ND	mg/l	0.01	12/04/97	NG
2,4-Dichlorophenol	ND	mg/l	0.01	12/04/97	NG
Diethylphthalate	ND	mg/l	0.01	12/04/97	NG
2,4-Dimethylphenol	0.02	mg/l	0.01	12/04/97	NG
Dimethylphthalate	ND	mg/l	0.01	12/04/97	NG
4,6-Dinitro-o-cresol	ND	mg/l	0.05	12/04/97	NG
2,4-Dinitrophenol	ND	mg/l	0.05	12/04/97	NG
2,4-Dinitrotoluene	ND	mg/l	0.01	12/04/97	NG
2,6-Dinitrotoluene	ND	mg/l	0.01	12/04/97	NG
Di-n-octyl phthalate	ND	mg/l	0.01	12/04/97	NG
Fluoranthene	0.11	mg/l	0.01	12/04/97	NG
Fluorene	0.10	mg/l	0.01	12/04/97	NG
Hexachlorobenzene	ND	mg/l	0.01	12/04/97	NG
Hexachlorocyclopentadiene	ND	mg/l	0.01	12/04/97	NG
Hexachloroethane	ND	mg/l	0.01	12/04/97	NG
Hexachloro-1,3-butadiene	ND	mg/l	0.01	12/04/97	NG
Indeno (1,2,3-cd) pyrene	ND	mg/l	0.01	12/04/97	NG
Isophorone	ND	mg/l	0.01	12/04/97	NG
2-Methylnaphthalene	0.05	mg/l	0.01	12/04/97	NG
Naphthalene	0.02	mg/l	0.01	12/04/97	NG
2-Nitroaniline	ND	mg/l	0.01	12/04/97	NG
3-Nitroaniline	ND	mg/l	0.01	12/04/97	NG
4-Nitroaniline	ND	mg/l	0.01	12/04/97	NG
Nitrobenzene	ND	mg/l	0.01	12/04/97	NG
2-Nitrophenol	ND	mg/l	0.01	12/04/97	NG
4-Nitrophenol	ND	mg/l	0.05	12/04/97	NG
N-Nitrosodiphenylamine	ND	mg/l	0.01	12/04/97	NG
N-Nitrosodi-n-propylamine	ND	mg/l	0.01	12/04/97	NG

KG COH 002404

ANALYSIS SUMMARY REPORT

ERM-Southwest, Inc.

GSA Group: 34522

<u>Test Analysis</u>	<u>Results as Received</u>	<u>Units</u>	<u>Limit of Quantitation</u>	<u>Date Extracted/ Analyzed</u>	<u>Results</u>
Sample: 179414 - 11/24/97 - HWP Discharge					
0923I Semivolatiles, TCL List					
Pentachlorophenol	ND	mg/l	0.05	12/04/97	NG
Phenanthrene	0.06	mg/l	0.01	12/04/97	NG
Phenol	ND	mg/l	0.01	12/04/97	NG
Pyrene	0.04	mg/l	0.01	12/04/97	NG
1,2,4-Trichlorobenzene	ND	mg/l	0.01	12/04/97	NG
2,4,5-Trichlorophenol	ND	mg/l	0.01	12/04/97	NG
2,4,6-Trichlorophenol	ND	mg/l	0.01	12/04/97	NG

Test Method Summary:

0206 - EPA 160.2

0234 - EPA 410.4

0259A- SW-846 7470A

0923I- SW-846 8270B

8260C- SW-846 8260A

0212 - EPA 160.1

0235 - EPA 405.1

0430 - SW-846 1010

5230 - EPA 376.1

ICWTA- SW-846 6010A

0231 - EPA 413.1

0242L- EPA 335.3

0496A- SW-846 9040A

6754 - SW-846 INTERIM MOD

ND - Compound was analyzed but not detected.

KG COH 002405

Respectfully Submitted,
Reviewed and Approved by:


Hector Coronado
Project Manager

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:18
 Group: 345

Analysis Batch Number: 0206 -11/25/97-1226-1

Test Identification : 0206 -Total Suspended Solids

Units: mg/l

Sequence:

Number of Samples : 19

Batch Data-Date/Time : 12/01/97 / 10:07:13

<u>BLANK#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>LMT OF QUANTITATION</u>
BLK-112597	Total suspended solids	ND	4.0000
BLK-112597-2	Total suspended solids	ND	4.0000

DUPLICATE

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
34502-179354	Total suspended solids	0.0000	0.0000	0.0	20.0	1.00
34518-179406-2	Total suspended solids	2.0000	2.0000	0.0	20.0	1.00
34550-179555-3	Total suspended solids	2.0000	2.0000	0.0	20.0	1.00

CONTROL

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
					<u>LOWER</u>	<u>UPPER</u>
LCS-112597	Total suspended solids	1000.0000	1096.0000	91.2	80.0	120.0
LCS-112597-2	Total suspended solids	986.0000	1096.0000	90.0	80.0	120.0

Groups & Samples

34496-179348	34497-179349	34498-179350	34499-179351	34500-179352	34501-179353	34502-179354	34503-179355
34504-179356	34505-179357	34506-179358	34507-179359	34518-179406	34522-179414	34529-179428	34550-179555
34552-179560	34553-179561	34554-179562					

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:19
 Group: 345

Analysis Batch Number: 0212 -11/25/97-1226-1

Test Identification : 0212 -Total Dissolved Solids

Units: mg/l

Sequence:

Number of Samples : 10

Batch Data-Date/Time : 12/01/97 / 09:05:35

<u>BLANK#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>LMT OF QUANTITATION</u>
BLK-112597	Total dissolved solids	ND	10.0000

DUPLICATE

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
34492-179301	Total dissolved solids	297.0000	298.0000	0.3	20.0	1.00
34515-179396-2	Total dissolved solids	667.0000	668.0000	0.1	20.0	1.00

CONTROL

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
					<u>LOWER</u>	<u>UPPER</u>
LCS-112597	Total dissolved solids	3686.0000	3629.8000	101.5	90.0	110.0

Groups & Samples

 34492-179297 34492-179299 34492-179301 34492-179303 34492-179306 34492-179308 34492-179310 34515-179396
 34518-179408 34522-179414

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:19
 Group: 345

Analysis Batch Number: 0231 -12/02/97-1204-1
 Test Identification : 0231 -Oil and Grease. Gravimetric Units: mg/l Sequence:
 Number of Samples : 15
 Batch Data-Date/Time : 12/03/97 / 11:09:22

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
BLK-120297	Oil & Grease	ND	5.0000

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
34662-180132	Oil & Grease	1111.1000	1.7801	1150.5435	103.4	80.0	120.0

DUPLICATE						
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
34522-179414	Oil & Grease	1.9460	1.8947	2.7	20.0	1.00

CONTROL						QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	
LCS-120297	Oil & Grease	995.9000	1017.2000	97.9	90.0	110.0	

Groups & Samples

34515-179397	34516-179398	34516-179399	34516-179400	34516-179401	34522-179414	34587-179750	34591-179759
34602-179877	34607-179886	34607-179887	34638-180075	34640-180080	34662-180132	34662-180134	

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:20
 Group: 34522

Analysis Batch Number: 0234 -12/01/97-9920-1
 Test Identification : 0234 -Chemical Oxygen Demand Units: mg/l Sequence:
 Number of Samples : 6
 Batch Data-Date/Time : 12/01/97 / 17:24:34

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
BLK-120197	Chemical oxygen demand	0.1418	10.0000
BLK-120197-2	Chemical oxygen demand	ND	10.0000

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
34587-179751	Chemical oxygen demand	75.0000	48.7234	130.0709	108.5	80.0	120.0

DUPLICATE							
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION	
34587-179751	Chemical oxygen demand	48.7234	43.4043	11.5	20.0	1.00	

CONTROL						QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	
LCS-120197	Chemical oxygen demand	46.9504	50.0000	93.9	90.0	110.0	
LCS-120197-2	Chemical oxygen demand	48.0142	50.0000	96.0	90.0	110.0	

CV #							QC LIMITS	
SAMPLE#	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER		
CV-120197	Chemical oxygen demand	75.0000	71.4184	95.2	90.0	110.0		

Groups & Samples

.....
 34518-179407 34522-179414 34529-179429 34587-179751 34592-179760 34602-179877

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:21
 Group: 3452

Analysis Batch Number: 0235 -11/24/97-1121-1

Test Identification : 0235 -Biochemical Oxygen Demand

Units: mg/l

Sequence:

Number of Samples : 18

Batch Data-Date/Time : 12/01/97 / 10:50:33

<u>BLANK#</u>	<u>ANALYTE</u>	<u>CONC FOUND #</u>	<u>LMT OF QUANTITATION</u>
BLK-112497	Biochemical oxygen demand	0.0200	3.0000

DUPLICATE

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
34496-179348	Biochemical oxygen demand	0.0000	0.0000	0.0	20.0	1.00
34506-179358-2	Biochemical oxygen demand	0.0000	0.0000	0.0	20.0	1.00

CONTROL

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
					<u>LOWER</u>	<u>UPPER</u>
LCS-112497	Biochemical oxygen demand	189.3300	200.0000	94.7	84.6	115.4

Groups & Samples

34496-179348	34497-179349	34498-179350	34499-179351	34500-179352	34501-179353	34502-179354	34503-179355
34504-179356	34505-179357	34506-179358	34507-179359	34509-179379	34510-179382	34510-179383	34511-179386
34511-179387	34522-179414						

Core Lab-Gulf States Analytical
Daily QC Batching Data
Data Released for Reporting

12/08/97
18:05:22
Group: 34522

Analysis Batch Number: 0259 -12/02/97-1194-1
Test Identification : 0259 -Mercury by Cold Vapor AA Units: ug/l Sequence: 0259A-1
Number of Samples : 11
Batch Data-Date/Time : 12/02/97 / 14:51:32

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
PBW-120297	Mercury	0.0630	0.5000

SPIKE							QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER	
34629-180036	Mercury	1.0000	0.0420	1.0850	104.3	75.0	125.0	

HSD							QC LIMITS		
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
34629-180036	Mercury	1.0000	0.0420	1.1780	113.6	75.0	125.0	8.5	20.

DUPLICATE						
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
34629-180036	Mercury	0.0420	0.0980	80.0(11)	20.0	1.00

CONTROL						QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	
LCSW-120297	Mercury	3.0300	3.0000	101.0	80.0	120.0	

CCV #							QC LIMITS	
ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER			
Mercury	3.0000	2.9480	98.3	80.0	120.0			
Mercury	3.0000	3.0990	103.3	80.0	120.0			
Mercury	3.0000	3.1450	104.8	80.0	120.0			

STANDARD#	ANALYTE	DATE EXP	BATCH DATE	DAYS/EXP
1	Mercury	08/01/98	12/02/97	242

..... Result Footnotes
(11) - Both Duplicate results are less than the LOQ.

Groups & Samples

.....
34271-178072 34357-178502 34359-178504 34359-178505 34359-178504T 34522-179414 34557-179566 34557-179567
34557-179568 34629-180035 34629-180036

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:23
 Group: 34522

Analysis Batch Number: 0430 -12/04/97-1209-1
 Test Identification : 0430 -Flashpoint
 Number of Samples : 4
 Batch Data-Date/Time : 12/04/97 / 13:03:15

Units: deg. F

Sequence:

DUPLICATE

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
34654-180113	Ignitability	32.0000	32.0000	0.0	20.0	1.00

CONTROL

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
					<u>LOWER</u>	<u>UPPER</u>
LCS-120497	Ignitability	80.0000	81.0000	98.8	97.5	102.5
LCS-120497-2	Ignitability	80.0000	81.0000	98.8	97.5	102.5

Groups & Samples

.....
 34522-179414 34531-179431 34531-179432 34654-180113

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:24
 Group: 345

Analysis Batch Number: 0496 -11/24/97-1121-1
 Test Identification : 0496 -Corrosivity by pH
 Number of Samples : 1
 Batch Data-Date/Time : 11/25/97 / 18:53:17

Units: Std. Units Sequence: .

DUPLICATE

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>RESULT 1</u>	<u>RESULT 2</u>	<u>RPD #</u>	<u>LIMIT</u>	<u>DILUTION</u>
34522-179414	pH	7.5500	7.5500	0.0	20.0	1.00

CONTROL

<u>SAMPLE#</u>	<u>ANALYTE</u>	<u>CONC FOUND</u>	<u>CONC KNOWN</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
					<u>LOWER</u>	<u>UPPER</u>
LCS-112497	pH	7.0100	7.0000	100.1	90.0	110.0
ICV-112497-2	pH	6.9800	7.0000	99.7	90.0	110.0

<u>CCV #</u>	<u>ANALYTE</u>	<u>TRUE VALUE</u>	<u>BATCH READ</u>	<u>% REC #</u>	<u>QC LIMITS</u>	
					<u>LOWER</u>	<u>UPPER</u>
CCV-112497	pH	7.0000	7.0000	100.0	90.0	110.0
CCV-112497-2	pH	7.0000	7.0000	100.0	90.0	110.0

Groups & Samples

.....
 34522-179414

Ditch Material Analytical Results

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

September 28, 1997
Report No.: 00064648
Section A Page 1

LABORATORY ANALYSIS REPORT

CLIENT NAME: ERM SOUTHWEST INC.
ADDRESS: 16300 KATY FREEWAY, SUITE 300
HOUSTON, TX 77094-
ATTENTION: TOM PACIONI

LIMS CLIENT: 0119 0025
PACE PROJECT: H46950
PACE CLIENT: 621284
P.O. NO: 42209

SAMPLE ID: SOUTH DITCH #1
SAMPLE NO: H458566
SAMPLE MATRIX: SOLID

DATE SAMPLED: 12-SEP-97 0745
DATE RECEIVED: 15-SEP-97
PROJECT MANAGER: Elessa Sommers

LN	TEST CODE	DETERMINATION	RESULT	UNITS
1	OVTCS	TCL - Volatiles in Soil	< 1250	ug/kg
		1,1,1-Trichloroethane	< 1250	ug/kg
		1,1,2,2-Tetrachloroethane	< 1250	ug/kg
		1,1,2-Trichloroethane	< 1250	ug/kg
		1,1-Dichloroethane	< 1250	ug/kg
		1,1-Dichloroethene	< 1250	ug/kg
		1,2-Dichloroethane	< 1250	ug/kg
		1,2-Dichloroethene (total)	< 1250	ug/kg
		1,2-Dichloropropane	< 2500	ug/kg
		2-Butanone	< 2500	ug/kg
		2-Hexanone	< 2500	ug/kg
		4-Methyl-2-pentanone	1,000J	ug/kg
		Acetone	< 1250	ug/kg
		Benzene	< 1250	ug/kg
		Bromodichloromethane	< 1250	ug/kg
		Bromoform	< 2500	ug/kg
		Bromomethane	< 1250	ug/kg
		Carbon disulfide	< 1250	ug/kg
		Carbon tetrachloride	< 1250	ug/kg
		Chlorobenzene	< 2500	ug/kg
		Chloroethane	< 1250	ug/kg
		Chloroform	< 2500	ug/kg
		Chloromethane	< 1250	ug/kg
		Dibromochloromethane	1,200J	ug/kg
		Ethylbenzene	470J	ug/kg
		Methylene chloride	800J	ug/kg
		Styrene	< 1250	ug/kg
		Tetrachloroethene	< 1250	ug/kg
		Toluene	< 1250	ug/kg
		Trichloroethene	< 2500	ug/kg
		Vinyl acetate	< 2500	ug/kg
		Vinyl chloride	3,200	ug/kg
		Xylene(total)	< 1250	ug/kg
		cis-1,3-Dichloropropene	< 1250	ug/kg
		trans-1,3-Dichloropropene	< 1250	ug/kg

KG COH 002415

September 28, 1997
 Report No.: 00064648
 Section A Page 2

LABORATORY ANALYSIS REPORT

CLIENT NAME: ERM SOUTHWEST INC.
 SAMPLE ID: SOUTH DITCH #1
 SAMPLE NO: H458566

LN	TEST CODE	DETERMINATION	RESULT	UNITS
3	OSVTCS	TCL - Semi-volatile Extractables in Soil		
		1,2,4-Trichlorobenzene	< 2000	mg/kg
		1,2-Dichlorobenzene	< 2000	mg/kg
		1,3-Dichlorobenzene	< 2000	mg/kg
		1,4-Dichlorobenzene	< 2000	mg/kg
		2,4,5-Trichlorophenol	< 2000	mg/kg
		2,4,6-Trichlorophenol	< 2000	mg/kg
		2,4-Dichlorophenol	< 2000	mg/kg
		2,4-Dimethylphenol	< 2000	mg/kg
		2,4-Dinitrophenol	< 2000	mg/kg
		2,4-Dinitrotoluene	< 2000	mg/kg
		2,6-Dinitrotoluene	< 2000	mg/kg
		2-Chloronaphthalene	< 2000	mg/kg
		2-Chlorophenol	< 2000	mg/kg
		2-Methylnaphthalene	< 2000	mg/kg
		2-Methylphenol	< 2000	mg/kg
		2-Nitroaniline	< 2000	mg/kg
		2-Nitrophenol	< 2000	mg/kg
		3,3'-Dichlorobenzidine	< 2000	mg/kg
		3-Nitroaniline	< 2000	mg/kg
		4,6-Dinitro-o-cresol	< 2000	mg/kg
		4-Bromophenylphenylether	< 2000	mg/kg
		4-Chloro-3-methylphenol	< 2000	mg/kg
		4-Chloroaniline	< 2000	mg/kg
		4-Chlorophenylphenylether	< 2000	mg/kg
		4-Methylphenol	< 2000	mg/kg
		4-Nitroaniline	< 2000	mg/kg
		4-Nitrophenol	< 2000	mg/kg
		Acenaphthene	3,200	mg/kg
		Acenaphthylene	< 2000	mg/kg
		Anthracene	2,400	mg/kg
		Benzo(a)anthracene	< 2000	mg/kg
		Benzo(a)pyrene	< 2000	mg/kg
		Benzo(b)fluoranthene	< 2000	mg/kg
		Benzo(g,h,i)perylene	< 2000	mg/kg
		Benzo(k)fluoranthene	< 2000	mg/kg
		Benzoic acid	< 2000	mg/kg
		Benzyl alcohol	< 2000	mg/kg
		Butylbenzylphthalate	< 2000	mg/kg
		Chrysene	< 2000	mg/kg

KG COH 002416

Pace Analytical

Pace Analytical Services, Inc.
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September 28, 1997
Report No.: 00064648
Section A Page 3

LABORATORY ANALYSIS REPORT

CLIENT NAME: ERM SOUTHWEST INC.
SAMPLE ID: SOUTH DITCH #1
SAMPLE NO: H458566

LN	TEST CODE	DETERMINATION	RESULT	UNITS
		Di-n-butylphthalate	< 2000	mg/kg
		Di-n-octylphthalate	< 2000	mg/kg
		Dibenzo(a,h)anthracene	< 2000	mg/kg
		Dibenzofuran	2,300	mg/kg
		Diethylphthalate	< 2000	mg/kg
		Dimethylphthalate	< 2000	mg/kg
		Fluoranthene	7,000	mg/kg
		Fluorene	4,200	mg/kg
		Hexachlorobenzene	< 2000	mg/kg
		Hexachlorobutadiene	< 2000	mg/kg
		Hexachlorocyclopentadiene	< 2000	mg/kg
		Hexachloroethane	< 2000	mg/kg
		Indeno(1,2,3-cd)pyrene	< 2000	mg/kg
		Isophorone	< 2000	mg/kg
		N-Nitrosodi-n-propylamine	< 2000	mg/kg
		N-Nitrosodiphenylamine	< 2000	mg/kg
		Naphthalene	< 2000	mg/kg
		Nitrobenzene	< 2000	mg/kg
		Pentachlorophenol	< 2000	mg/kg
		Phenanthrene	16,000	mg/kg
		Phenol	< 2000	mg/kg
		Pyrene	4,500	mg/kg
		bis(2-Chloroethoxy)methane	< 2000	mg/kg
		bis(2-Chloroethyl)ether	< 2000	mg/kg
		bis(2-Chloroisopropyl)ether	< 2000	mg/kg
		bis(2-Ethylhexyl)phthalate	< 2000	mg/kg

COMMENTS: J-Reported values are less than the reporting limit.

Pace Analytical

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Fax: 281-488-4661

September 28, 1997
Report No.: 00064648
Section A Page 4

LABORATORY ANALYSIS REPORT

CLIENT NAME: ERM SOUTHWEST INC.
ADDRESS: 16300 KATY FREEWAY, SUITE 300
HOUSTON, TX 77094-
ATTENTION: TOM PACIONI

SAMPLE ID: SOUTH DITCH #2
SAMPLE NO: H458567
SAMPLE MATRIX: SOLID

LIMS CLIENT: 0119 0025
PACE PROJECT: H46950
PACE CLIENT: 621284
P.O. NO: 42209

DATE SAMPLED: 12-SEP-97 0745
DATE RECEIVED: 15-SEP-97
PROJECT MANAGER: Elessa Sommers

LN	TEST CODE	DETERMINATION	RESULT	UNITS
1	S903	TCLP Bottle Leaching Procedure	Done	
2	S904	TCLP ZHE Leaching Procedure	Done	
3	OVZHE	Volatiles - ZHE/Part 261		
		1,1-Dichloroethylene	< 0.05	mg/L
		1,2-Dichloroethane	< 0.05	mg/L
		Benzene	< 0.05	mg/L
		Carbon tetrachloride	< 0.05	mg/L
		Chlorobenzene	< 0.05	mg/L
		Chloroform	< 0.05	mg/L
		Methyl ethyl ketone	< 0.10	mg/L
		Tetrachloroethylene	< 0.05	mg/L
		Trichloroethylene	< 0.05	mg/L
		Vinyl chloride	< 0.10	mg/L
5	OTCLP	Semi-volatiles - TCLP/Part 261		
		1,4-Dichlorobenzene	< 0.01	mg/L
		2,4,5-Trichlorophenol	< 0.01	mg/L
		2,4,6-Trichlorophenol	< 0.01	mg/L
		2,4-Dinitrotoluene	< 0.01	mg/L
		Hexachlorobenzene	< 0.01	mg/L
		Hexachlorobutadiene	< 0.01	mg/L
		Hexachloroethane	< 0.01	mg/L
		Nitrobenzene	< 0.01	mg/L
		Pentachlorophenol	< 0.05	mg/L
		Pyridine	< 0.01	mg/L
		m-Cresol	0.12*	mg/L
		o-Cresol	0.02	mg/L
		p-Cresol	*	mg/L
7	AASL	Arsenic, Leachable (As)	< 0.1	mg/L
8	ABAL	Barium, Leachable (Ba)	0.7	mg/L
9	ACDL	Cadmium, Leachable (Cd)	< 0.005	mg/L
10	ACRL	Chromium, Leachable (Cr)	< 0.01	mg/L
11	APBL	Lead, Leachable (Pb)	< 0.05	mg/L
12	AHGL	Mercury, Leachable (Hg)	< 0.0002	mg/L
13	ASEL	Selenium, Leachable (Se)	< 0.1	mg/L

KG COH 002418

Pace Analytical

Pace Analytical Services, Inc.
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September 28, 1997
Report No.: 00064648
Section A Page 5

LABORATORY ANALYSIS REPORT

CLIENT NAME: ERM SOUTHWEST INC.
SAMPLE ID: SOUTH DITCH #2
SAMPLE NO: H458567

LN	TEST CODE	DETERMINATION	RESULT	UNITS
14	AAGL	Silver, Leachable (Ag)	< 0.01	mg/L
15	1278	Cyanide, Reactive (HCN)	< 0.5	mg/kg
16	1750	Sulfide, Reactive (as S)	< 5	mg/kg
17	S091	Flash Point (Setaflash)	> 225	F
18	I490S	Non-aqueous sample pH in Water	8.01	
19	G122S	PCB Analysis		
		PCB-1016	< 330**	ug/kg
		PCB-1221	< 330**	ug/kg
		PCB-1232	< 330**	ug/kg
		PCB-1242	< 330**	ug/kg
		PCB-1248	< 330**	ug/kg
		PCB-1254	< 330**	ug/kg
		PCB-1260	< 330**	ug/kg

COMMENTS: * The compounds m-cresol and p-cresol co-elute. The reported result is the sum of the two.
** The sample was analyzed at 1:10 dilution due to the presence of matrix interferences. The detection limit has been adjusted for the dilution.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

September 28, 1997
Report No.: 00064648
Section A Page 6

LABORATORY ANALYSIS REPORT

CLIENT NAME: ERM SOUTHWEST INC.
ADDRESS: 16300 KATY FREEWAY, SUITE 300
HOUSTON, TX 77094-
ATTENTION: TOM PACIONI

LIMS CLIENT: 0119 0025
PACE PROJECT: H46950
PACE CLIENT: 621284
P.O. NO: 42209

SAMPLE ID: SOUTH DITCH #3
SAMPLE NO: H458568
SAMPLE MATRIX: SOLID

DATE SAMPLED: 12-SEP-97 0750
DATE RECEIVED: 15-SEP-97
PROJECT MANAGER: Elessa Sommers

LN	TEST CODE	DETERMINATION	RESULT	UNITS
1	S903	TCLP Bottle Leaching Procedure	Done	
2	S904	TCLP ZHE Leaching Procedure	Done	
3	OVZHE	Volatiles - ZHE/Part 261		
		1,1-Dichloroethylene	< 0.05	mg/L
		1,2-Dichloroethane	< 0.05	mg/L
		Benzene	< 0.05	mg/L
		Carbon tetrachloride	< 0.05	mg/L
		Chlorobenzene	< 0.05	mg/L
		Chloroform	< 0.05	mg/L
		Methyl ethyl ketone	< 0.05	mg/L
		Tetrachloroethylene	< 0.10	mg/L
		Trichloroethylene	< 0.05	mg/L
		Vinyl chloride	0.16	mg/L
18	1490S	Non-aqueous sample pH in Water	< 0.10	mg/L
			8.30	

KG COH 002420

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full.

Pace Analytical

INVOICE

Number: 85020540

Date: 29-SEP-97

Sold To:

ERM SOUTHWEST, INC.
 16300 KATY FREEWAY, SUITE 300
 HOUSTON, TX 77094 -
 Attention: BRUCE WOODHOUSE
 Report sent to: TOM PACIONI

Please Remit To:

Pace Analytical Services, Inc.
 NW 8922
 PO Box 1450
 Minneapolis, Mn 55485-8922

Client No	Purchase Order No	Project Manager	Terms	Page No
621284	42209	Elessa Sommers		1
<p>DETAILED INVOICE</p> <p>Received: 15-SEP-97 Pace Project: H46950 3 Samples: H458566 - H458568 LIMS Client: 0119 0025</p>				
<p>H458566 SOUTH DITCH #1</p> <p>OSVTCS TCL - Semi-volatile Extractables in Soil \$175.00 OVTCS TCL - Volatiles in Soil \$75.00 Rush Charge (50%) \$135.00</p> <p style="text-align: right;">Sample Total: \$405.00</p>				
<p>H458567 SOUTH DITCH #2</p> <p>AAGL Silver, Leachable (Ag) \$8.00 AASL Arsenic, Leachable (As) \$8.00 ABAL Barium, Leachable (Ba) \$8.00 ACDL Cadmium, Leachable (Cd) \$8.00 ACRL Chromium, Leachable (Cr) \$8.00 AHGL Mercury, Leachable (Hg) \$14.00 APBL Lead, Leachable (Pb) \$8.00 ASEL Selenium, Leachable (Se) \$8.00 G122S PCB Analysis \$90.00 I278 Cyanide, Reactive (HCN) \$31.25 I490S Non-aqueous sample pH in Water \$12.50 I750 Sulfide, Reactive (as S) \$31.25 OTCLP Semi-volatiles - TCLP/Part 261 \$218.75 OVZHE Volatiles - ZHE/Part 261 \$106.25 S091 Flash Point (Setaflash) \$43.75 S903 TCLP Bottle Leaching Procedure \$62.50 S904 TCLP ZHE Leaching Procedure \$62.50</p> <p style="text-align: right;">Sample Total: \$728.75</p>				
<p>H458568 SOUTH DITCH #3</p> <p>I490S Non-aqueous sample pH in Water \$12.50</p>				

KG COH 002421

CLIENT

AN EQUAL OPPORTUNITY BUSINESS

Number: 85020540

Date: 29-SEP-97

Sold To:

ERM SOUTHWEST, INC.
 16300 KATY FREEWAY, SUITE 300
 HOUSTON, TX 77094
 Attention: BRUCE WOODHOUSE
 Report sent to: TOM PACIONI

Please Remit To:

Pace Analytical Services, Inc.
 NW 8922
 PO Box 1450
 Minneapolis, Mn 55485-8922

Client No	Purchase Order No	Project Manager	Terms	Page No
621284	42209	Elessa Somers		2
H458568 SOUTH DITCH #3 OVZHE Volatiles - ZHE/Part 261 S903 TCLP Bottle Leaching Procedure S904 TCLP ZHE Leaching Procedure Charge for sample prep, TCLP Semi-volatiles & PCB's (\$40X)				\$106.25 \$62.50 \$62.50 \$123.50 ----- Sample Total: \$367.25 ----- Invoice Total: \$1,501.00

KG COH 002422

8

Core Lab-Gulf States Analytical
Daily QC Batching Data
Data Released for Reporting

12/08/97
18:05:25
Group: 345:

Analysis Batch Number: 0923 -12/03/97-1008-3
Test Identification : 0923 -Semivolatiles - Water
Number of Samples : 3
Batch Data-Date/Time : 12/04/97 / 17:59:38

Units: ug/l

Sequence: s337a.bq

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
SBLKW-11/24	none detected		
SBLKW-11/25-2	none detected		

CONTROL					QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER
LCS-11/24	Phenol	45.6400	100.0000	45.6	10.0	112.0
	bis(2-Chloroethyl)ether	98.8800	100.0000	98.9	12.0	158.0
	2-Chlorophenol	94.1200	100.0000	94.1	23.0	134.0
	1,3-Dichlorobenzene	65.3600	100.0000	65.4	10.0	172.0
	1,4-Dichlorobenzene	67.0800	100.0000	67.1	20.0	124.0
	1,2-Dichlorobenzene	73.6000	100.0000	73.6	32.0	129.0
	Benzyl alcohol	82.5800	100.0000	82.6	45.0	100.0
	o-Cresol (2-Methylphenol)	87.7400	100.0000	87.7	49.0	103.0
	2,2'-oxybis(1-Chloropropane)	79.2600	100.0000	79.3	36.0	166.0
	p-Cresol (4-Methylphenol)	87.2400	100.0000	87.2	47.0	100.0
	N-Nitrosodi-n-propylamine	99.3200	100.0000	99.3	10.0	230.0
	Hexachloroethane	39.4200	100.0000	39.4(G)	40.0	113.0
	Nitrobenzene	85.1200	100.0000	85.1	35.0	180.0
	Isophorone	91.2800	100.0000	91.3	21.0	196.0
	2-Nitrophenol	77.7800	100.0000	77.8	29.0	182.0
	Benzoic acid	115.2800	100.0000	115.3(P)	10.0	100.0
	2,4-Dimethylphenol	92.8800	100.0000	92.9	32.0	119.0
	bis(2-Chloroethoxy)methane	89.0800	100.0000	89.1	33.0	184.0
	2,4-Dichlorophenol	97.9600	100.0000	98.0	39.0	135.0
	1,2,4-Trichlorobenzene	69.7800	100.0000	69.8	44.0	142.0
	Naphthalene	77.2600	100.0000	77.3	21.0	133.0
	4-Chloroaniline	138.9400	100.0000	138.9(K1)	52.0	104.0
	Hexachloro-1,3-butadiene	90.7600	100.0000	60.8	24.0	116.0
	4-Chloro-3-methylphenol	98.4600	100.0000	98.5	22.0	147.0
	2-Methylnaphthalene	86.0200	100.0000	86.0	57.0	129.0
	Hexachlorocyclopentadiene	29.0000	100.0000	29.0	10.0	100.0
	2,4,6-Trichlorophenol	95.7400	100.0000	95.7	37.0	144.0
	2,4,5-Trichlorophenol	94.2600	100.0000	94.3	30.0	128.0
	2-Chloronaphthalene	80.6000	100.0000	80.6	60.0	118.0
	2-Nitroaniline	72.0400	100.0000	72.0	56.0	118.0
	Dimethylphthalate	104.5400	100.0000	104.5	10.0	112.0
	Acenaphthylene	65.2600	100.0000	65.3	33.0	145.0
	2,6-Dinitrotoluene	81.2200	100.0000	81.2	50.0	158.0
	3-Nitroaniline	486.0000	100.0000	486.0(K1)	45.0	147.0
	Acenaphthene	86.6200	100.0000	86.6	47.0	145.0
	2,4-Dinitrophenol	39.8200	100.0000	39.8	10.0	191.0
	4-Nitrophenol	32.5000	100.0000	32.5	10.0	132.0
	Dibenzofuran	93.5000	100.0000	93.5	65.0	127.0
	2,4-Dinitrotoluene	231.0000	100.0000	231.0(K1)	39.0	139.0
	Diethylphthalate	95.5200	100.0000	95.5	10.0	114.0
	4-Chlorophenyl-phenylether	96.1400	100.0000	96.1	25.0	158.0
	Fluorene	94.9800	100.0000	95.0	59.0	121.0
	4-Nitroaniline	105.1000	100.0000	105.1	23.0	160.0
	4,6-Dinitro-o-cresol	65.2800	100.0000	65.3	10.0	181.0
	N-Nitrosodichenvlamine	125.6400	100.0000	125.6(K1)	53.0	114.0

Core Lab-Gulf States Analytical
Daily QC Batching Data
Data Released for Reporting

12/08/97
18:05:30
Group: 345

Analysis Batch Number: 0923 -12/03/97-1008-3
Test Identification : 0923 -Semivolatiles - Water Units: ug/l Sequence: s337a.bq
Number of Samples : 3
Batch Data-Date/Time : 12/04/97 / 17:59:38

CONTROL SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
					LOWER	UPPER
LCS-11/24	Hexachlorobenzene	106.3800	100.0000	106.4	10.0	152.0
	Pentachlorophenol	80.3000	100.0000	80.3	14.0	176.0
	Phenanthrene	104.2800	100.0000	104.3	54.0	120.0
	Anthracene	96.0400	100.0000	96.0	27.0	133.0
	Di-n-butyl phthalate	72.9400	100.0000	72.9	10.0	118.0
	Fluoranthene	98.0000	100.0000	98.0	26.0	137.0
	Pyrene	92.4000	100.0000	92.4	52.0	115.0
	Butylbenzyl phthalate	47.0000	100.0000	47.0	10.0	152.0
	3,3'-Dichlorobenzidine	158.4200	100.0000	158.4	10.0	262.0
	Benzo(a)anthracene	99.0800	100.0000	99.1	33.0	143.0
	bis(2-Ethylhexyl)phthalate	68.6800	100.0000	68.7	10.0	158.0
	Chrysene	100.3000	100.0000	100.3	17.0	168.0
	Di-n-octyl phthalate	63.6200	100.0000	63.6	10.0	146.0
	Benzo(b)fluoranthene	88.4200	100.0000	88.4	24.0	159.0
	Benzo(k)fluoranthene	91.4200	100.0000	91.4	11.0	162.0
	Benzo(a)pyrene	96.2600	100.0000	96.3	17.0	163.0
	Indeno(1,2,3-cd)pyrene	108.7600	100.0000	108.8	10.0	171.0
	Dibenzo(a,h)anthracene	108.7600	100.0000	108.8	10.0	227.0
	Benzo(ghi)perylene	112.2200	100.0000	112.2	10.0	219.0

SURG #:35-0923 -W-SU

SAMPLE#	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
SAMPLE 34473-179098	39	29	46	64	83	125
SAMPLE 34473-179099	43	29	50	64	63	107
SAMPLE 34522-179414	52	37	72	107	100	82
BLK 1 SBLKW-11/24	48	33	55	83	99	134
BLK 2 SBLKW-11/25	56	38	60	87	75	121
CTL 1 LCS-11/24	60	42	79	90	97	120

35-0923 -W-SU - SEMIVOLATILE WATER SURROGATES

SRG ABRV = SURROGATE DESCRIPTION	QC LIMITS	
	LOWER	UPPER
2FP 2-Fluorophenol	21.0	100.0
PHL Phenol-d6	10.0	94.0
NBZ Nitrobenzene-d5	35.0	114.0
FBP 2-Fluorobiphenyl	43.0	116.0
TBP 2,4,6-Tribromophenol	10.0	123.0
TPH Terphenyl-d14	33.0	141.0

----- Result Footnotes -----

- (G) - Marginal Outlier
- (P) - Compound Was Not Reported
- (K1) - See comment for explanation

----- Batch Notes -----

4-Chloroaniline, 3-Nitroaniline, and N-Nitrosodiphenylamine were above acceptable QC limits in the laboratory control. These compounds were not detected in any sample associated with the laboratory control. Therefore, data was released for reporting.

Core Lab-Gulf States Analytical
Daily QC Batching Data
Data Released for Reporting

12/08/97
18:05:32
Group: 3452

Analysis Batch Number: 0923 -12/03/97-1008-3

Test Identification : 0923 -Semivolatiles - Water

Units: ug/l

Sequence: s337a.bq

Number of Samples : 3

Batch Data-Date/Time : 12/04/97 / 17:59:38

Groups & Samples

.....

34473-179098 34473-179099 34522-179414

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:32
 Group: 345

Analysis Batch Number: 6754 -11/26/97-1239-1
 Test Identification : 6754 -Reactivity - Cyanide and Sulfide Units: mg/l Sequence:
 Number of Samples : 6
 Batch Data-Date/Time : 12/02/97 / 11:35:04

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
BLK-112697	Cyanide	NO	10.0000
BLK-112697-2	Sulfide	NO	50.0000

SPIKE

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	Σ REC #	QC LIMITS	
						LOWER	UPPER
34522-179414	Cyanide	1000.0000	0.0000	39.4833	3.9	0.0	115.0
34522-179414-2	Sulfide	279.6000	4.8000	214.8000	75.1	0.0	145.0

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
34522-179414	Cyanide	0.0000	0.0000	0.0	20.0	1.00
34522-179414-2	Sulfide	4.8000	4.8000	0.0	20.0	1.00

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	Σ REC #	QC LIMITS	
					LOWER	UPPER
LCS-112697	Cyanide	88.9119	1000.0000	8.9	0.0	133.0
LCS-112697-2	Sulfide	179.8000	279.6000	64.3	0.0	195.0

Groups & Samples

.....
 34522-179414 34531-179431 34531-179432

Core Lab-Gulf States Analytical
Daily QC Batching Data
Data Released for Reporting

12/08/97
18:05:33
Group: 34522

Analysis Batch Number: ICWTA-12/07/97-1194-1

Test Identification : ICWTA-Metals by ICP. Trace

Units: mg/l

Sequence: S120797

Number of Samples : 2

Batch Data-Date/Time : 12/08/97 / 10:28:31

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
PBW-120697	Arsenic	0.0014	0.0100
	Cadmium	ND	0.0050
	Chromium	0.0022	0.0100
	Lead	0.0027	0.0100
	Nickel	ND	0.0200
	Selenium	0.0005	0.0150
	Silver	ND	0.0050
	Zinc	ND	0.0200

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
34602-179875	Arsenic	0.5000	0.0125	0.5000	97.5	80.0	120.0
	Cadmium	0.0500	0.0000	0.0459	91.8	80.0	120.0
	Chromium	0.2000	0.0161	0.1928	88.4	80.0	120.0
	Lead	0.5000	0.0000	0.4903	98.1	80.0	120.0
	Nickel	0.5000	0.0000	0.4751	95.0	80.0	120.0
	Selenium	0.5000	0.0000	0.4157	83.1	80.0	120.0
	Silver	0.1000	0.0001	0.0913	91.2	80.0	120.0
	Zinc	0.5000	0.1446	0.6039	91.9	80.0	120.0

MSD						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC #	LOWER	UPPER	RPD #	LIM
34602-179875	Arsenic	0.5000	0.0125	0.5089	99.3	80.0	120.0	1.8	20
	Cadmium	0.0500	0.0000	0.0469	93.8	80.0	120.0	2.2	20
	Chromium	0.2000	0.0161	0.1957	89.8	80.0	120.0	1.6	20
	Lead	0.5000	0.0000	0.5000	100.0	80.0	120.0	1.9	20
	Nickel	0.5000	0.0000	0.4822	96.4	80.0	120.0	1.5	20
	Selenium	0.5000	0.0000	0.4223	84.5	80.0	120.0	1.7	20
	Silver	0.1000	0.0001	0.0925	92.4	80.0	120.0	1.3	20
	Zinc	0.5000	0.1446	0.6077	92.6	80.0	120.0	0.8	20

DUPLICATE						
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
34602-179875	Arsenic	0.0125	0.0134	6.9	20.0	1.00
	Cadmium	0.0000	0.0000	0.0	20.0	1.00
	Chromium	0.0161	0.0158	1.9	20.0	1.00
	Lead	0.0000	0.0002	200.0(11)	20.0	1.00
	Nickel	0.0000	0.0000	0.0	20.0	1.00
	Selenium	0.0000	0.0019	200.0(11)	20.0	1.00
	Silver	0.0001	0.0000	200.0(11)	20.0	1.00
	Zinc	0.1446	0.1328	8.5	20.0	1.00

CONTROL						QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	
LCSW-120697	Arsenic	1.4349	1.2500	114.8	80.0	120.0	
	Cadmium	0.7344	0.6250	117.5	80.0	120.0	
	Chromium	0.2754	0.2500	110.2	80.0	120.0	
	Nickel	0.7018	0.6250	112.3	80.0	120.0	
	Selenium	1.1964	1.2500	95.7	80.0	120.0	
	Silver	0.3218	0.3125	103.0	80.0	120.0	

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:35
 Group: 34522

Analysis Batch Number: ICNTA-12/07/97-1194-1

Test Identification : ICNTA-Metals by ICP, Trace

Units: mg/l.

Sequence: S120797

Number of Samples : 2

Batch Data-Date/Time : 12/08/97 / 10:28:31

CONTROL SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
					LOWER	UPPER
LCSW-120697	Zinc	0.6595	0.6250	105.5	80.0	120.0
	Lead	1.2800	1.2500	102.4	80.0	120.0

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	QC LIMITS	
					LOWER	UPPER
1	Arsenic	0.5000	0.4951	99.0	90.0	110.0
	Cadmium	0.5000	0.5001	100.0	90.0	110.0
	Chromium	0.5000	0.4943	98.9	90.0	110.0
	Lead	0.5000	0.5101	102.0	90.0	110.0
	Nickel	0.5000	0.4965	99.3	90.0	110.0
	Selenium	0.5000	0.4861	97.2	90.0	110.0
	Silver	0.2500	0.2430	97.2	90.0	110.0
	Zinc	0.5000	0.4954	99.1	90.0	110.0
2	Arsenic	0.5000	0.5141	102.8	90.0	110.0
	Cadmium	0.5000	0.5246	104.9	90.0	110.0
	Chromium	0.5000	0.5164	103.3	90.0	110.0
	Lead	0.5000	0.5357	107.1	90.0	110.0
	Nickel	0.5000	0.5185	103.7	90.0	110.0
	Selenium	0.5000	0.4883	97.7	90.0	110.0
	Silver	0.2500	0.2520	100.8	90.0	110.0
	Zinc	0.5000	0.5085	101.7	90.0	110.0
3	Arsenic	0.5000	0.5183	103.7	90.0	110.0
	Cadmium	0.5000	0.5253	105.1	90.0	110.0
	Chromium	0.5000	0.5147	102.9	90.0	110.0
	Lead	0.5000	0.5353	107.1	90.0	110.0
	Nickel	0.5000	0.5166	103.3	90.0	110.0
	Selenium	0.5000	0.4788	95.8	90.0	110.0
	Silver	0.2500	0.2535	101.4	90.0	110.0
	Zinc	0.5000	0.5377	107.5	90.0	110.0
4	Arsenic	0.5000	0.5034	100.7	90.0	110.0
	Cadmium	0.5000	0.5132	102.6	90.0	110.0
	Chromium	0.5000	0.5003	100.1	90.0	110.0
	Lead	0.5000	0.5257	105.1	90.0	110.0
	Nickel	0.5000	0.5048	101.0	90.0	110.0
	Selenium	0.5000	0.4564	91.3	90.0	110.0
	Silver	0.2500	0.2453	98.1	90.0	110.0
	Zinc	0.5000	0.5082	101.6	90.0	110.0
5	Arsenic	0.5000	0.5303	106.1	90.0	110.0
	Cadmium	0.5000	0.5404	108.1	90.0	110.0
	Chromium	0.5000	0.5172	103.4	90.0	110.0
	Lead	0.5000	0.5509	110.2(CC)	90.0	110.0
	Nickel	0.5000	0.5273	105.5	90.0	110.0
	Selenium	0.5000	0.4662	93.2	90.0	110.0
	Silver	0.2500	0.2513	100.5	90.0	110.0
	Zinc	0.5000	0.5187	103.7	90.0	110.0
6	Arsenic	0.5000	0.5650	113.0(CC)	90.0	110.0
	Cadmium	0.5000	0.5844	116.9(CC)	90.0	110.0
	Chromium	0.5000	0.5384	107.7	90.0	110.0
	Lead	0.5000	0.5940	118.8(CC)	90.0	110.0

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/08/97
 18:05:37
 Group: 3452

Analysis Batch Number: IC/TA-12/07/97-1194-1
 Test Identification : IC/TA-Metals by ICP. Trace Units: mg/l Sequence: S120797
 Number of Samples : 2
 Batch Data-Date/Time : 12/08/97 / 10:28:31

CCV #	ANALYTE	TRUE VALUE	BATCH READ	QC LIMITS		
				% REC #	LOWER	UPPER
6	Nickel	0.5000	0.5507	110.1(CC)	90.0	110.0
	Selenium	0.5000	0.4929	98.6	90.0	110.0
	Silver	0.2500	0.2563	102.5	90.0	110.0
	Zinc	0.5000	0.5477	109.5	90.0	110.0

STANDARD#	ANALYTE	DATE EXP	BATCH DATE	DAYS/EXP
1	Arsenic	02/01/98	12/07/97	56
	Cadmium	09/01/98	12/07/97	268
	Chromium	09/01/98	12/07/97	268
	Lead	11/01/98	12/07/97	329
	Nickel	07/01/98	12/07/97	206
	Selenium	02/01/98	12/07/97	56
	Silver	09/01/98	12/07/97	268
	Zinc	09/01/98	12/07/97	268

..... Result Footnotes
 (11) - Both Duplicate results are less than the LOQ.
 (CC) - The analyte CCV was not required to bracket data reported.

..... Batch Notes

Groups & Samples

.....
 34522-179414 34602-179875 34804-180775 34804-180776

Core Lab-Gulf States Analytical
Daily QC Batching Data
Data Released for Reporting

12/15/97
12:07:28
Group: 34522

Analysis Batch Number: 0259 -12/02/97-1194-1
Test Identification : 0259 -Mercury by Cold Vapor AA Units: ug/l Sequence: 0259A-1
Number of Samples : 11
Batch Data-Date/Time : 12/02/97 / 14:51:32

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
PBW-120297	Mercury	0.0630	0.5000

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
34629-180036	Mercury	1.0000	0.0420	1.0850	104.3	75.0	125.0

MSD						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC #	LOWER	UPPER	RPD #	LIMI
34629-180036	Mercury	1.0000	0.0420	1.1780	113.6	75.0	125.0	8.5	20.

DUPLICATE							
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION	
34629-180036	Mercury	0.0420	0.0980	80.0(11)	20.0	1.00	

CONTROL						QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	
LCSW-120297	Mercury	3.0300	3.0000	101.0	80.0	120.0	

		QC LIMITS				
CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER
1	Mercury	3.0000	2.9480	98.3	80.0	120.0
2	Mercury	3.0000	3.0990	103.3	80.0	120.0
3	Mercury	3.0000	3.1450	104.8	80.0	120.0

STANDARD#	ANALYTE	DATE EXP	BATCH DATE	DAYS/EXP
1	Mercury	08/01/98	12/02/97	242

..... Result Footnotes
(11) - Both Duplicate results are less than the LOQ.

Groups & Samples

.....
34271-178072 34357-178502 34359-178504 34359-178505 34359-178504T 34522-179414 34557-179566 34557-179567
34557-179568 34629-180035 34629-180036

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/15/97
 12:07:29
 Group: 345

Analysis Batch Number: 8260 -12/06/97-1094-1
 Test Identification : 8260 -Volatiles
 Number of Samples : 6
 Batch Data-Date/Time : 12/09/97 / 16:56:10

Units: ug/l Sequence: m340.bq

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
VBLK-120697	Isopropanol	2.6800	50.0000

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
34603-179880	1,1-Dichloroethene	50.0000	0.0000	35.7700	71.5	54.0	132.0
	Trichloroethene	50.0000	0.0000	41.0700	82.1	70.0	130.0
	Benzene	50.0000	0.0000	49.0300	98.1	74.0	134.0
	Toluene	50.0000	0.0000	46.8600	93.7	79.0	123.0
	Chlorobenzene	50.0000	0.0000	46.2300	92.5	78.0	127.0

MSD						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LI
34603-179880	1,1-Dichloroethene	50.0000	0.0000	36.2400	72.5	54.0	132.0	1.4	1
	Trichloroethene	50.0000	0.0000	44.9700	89.9	70.0	130.0	9.1	1
	Benzene	50.0000	0.0000	53.5700	107.1	74.0	134.0	8.8	1
	Toluene	50.0000	0.0000	53.9600	107.9	79.0	123.0	14.1(A)	1
	Chlorobenzene	50.0000	0.0000	51.5700	103.1	78.0	127.0	10.8(A)	1

CONTROL					QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER
LCS-120697	Acetone	29.3600	50.0000	58.7	30.0	187.0
	Benzene	49.7300	50.0000	99.5	82.0	124.0
	Bromodichloromethane	47.4900	50.0000	95.0	80.0	147.0
	Bromoform	45.1400	50.0000	90.3	77.0	135.0
	Bromomethane (Methyl bromide)	40.3700	50.0000	80.7	43.0	146.0
	2-Butanone (MEK)	51.5500	50.0000	103.1	43.0	159.0
	Carbon disulfide	64.6400	50.0000	129.3	68.0	147.0
	Carbon tetrachloride	52.7900	50.0000	105.6	81.0	131.0
	Chlorodibromomethane	47.0400	50.0000	94.1	76.0	144.0
	Chlorobenzene	49.1900	50.0000	98.4	83.0	127.0
	Chloroethane (Ethyl chloride)	39.8100	50.0000	79.6	68.0	123.0
	Chloroform	47.6000	50.0000	95.2	83.0	129.0
	Chloromethane (Methyl chloride)	40.2100	50.0000	80.4	50.0	134.0
	1,1-Dichloroethane	52.8300	50.0000	105.7	80.0	124.0
	1,2-Dichloroethane	48.4400	50.0000	96.9	79.0	131.0
	1,1-Dichloroethene	42.4100	50.0000	84.8	57.0	133.0
	cis-1,2-Dichloroethene	49.3500	50.0000	98.7	82.0	138.0
	trans-1,2-Dichloroethene	48.5500	50.0000	97.1	66.0	129.0
	1,2-Dichloropropane	49.2900	50.0000	98.6	82.0	128.0
	cis-1,3-Dichloropropene	47.6200	50.0000	95.2	76.0	132.0
	trans-1,3-Dichloropropene	48.9800	50.0000	98.0	78.0	133.0
	Ethylbenzene	48.6500	50.0000	97.3	82.0	129.0
	2-Hexanone	42.6600	50.0000	85.3	60.0	169.0
	Dichloromethane	46.5600	50.0000	93.1	75.0	133.0
	4-Methyl-2-pentanone (MIBK)	59.5800	50.0000	119.2	75.0	130.0
	Styrene	50.9700	50.0000	101.9	82.0	128.0
	1,1,1,2-Tetrachloroethane	48.4000	50.0000	96.8	79.0	130.0
	Tetrachloroethene	40.2600	50.0000	80.5(J)	82.0	127.0
	Toluene	48.9700	50.0000	97.9	81.0	130.0
	1,1,1-Trichloroethane	48.5500	50.0000	97.1	79.0	130.0

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/15/97
 12:07:31
 Group: 34522

Analysis Batch Number: 8260 -12/06/97-1094-1
 Test Identification : 8260 -Volatiles
 Number of Samples : 6
 Batch Data-Date/Time : 12/09/97 / 16:56:10

Units: ug/l

Sequence: m340.bq

CONTROL SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
					LOWER	UPPER
LCS-120697	1,1,2-Trichloroethane	51.8500	50.0000	103.7	79.0	130.0
	Trichloroethene	47.8700	50.0000	95.7	82.0	130.0
	Vinyl chloride	44.8700	50.0000	89.7	62.0	133.0
	o-Xylene	49.9400	50.0000	99.9	83.0	130.0
	m,p-Xylene	96.8800	100.0000	96.9	82.0	128.0

SURG #:30-8260 -W-SG

SAMPLE#	DBFM #	DCE #	TOL #	BFB #
SAMPLE 34522-179414	89	100	101	105
SAMPLE 34531-179431	84(L)	99	102	104
SAMPLE 34531-179432	84(L)	97	99	102
SAMPLE 34603-179878	85(L)	99	106	105
SAMPLE 34603-179880	86	98	100	103
SAMPLE 34603-179879	86(L)	101	102	107
BLK 1 VBLK-120697	88	98	102	104
SPK 1 34603-179880	88	99	101	105
CTL 1 LCS-120697	91	102	102	105
SD 1 34603-179880	87	100	101	104

30-8260 -W-SG - VOLATILES WATER SURROGATE

SRG ABRV =	SURROGATE DESCRIPTION	QC LIMITS	
		LOWER	UPPER
DBFM	Dibromofluoromethane	86.0	118.0
DCE	1,2-Dichloroethane-d4	80.0	120.0
TOL	Toluene-d8	88.0	110.0
BFB	p-Bromofluorobenzene	86.0	115.0

..... Result Footnotes

- (A) - Matrix Interference
- (J) - Within Method Requirements
- (L) - Sample Reanalyzed

Groups & Samples

.....
 34522-179414 34531-179431 34531-179432 34603-179878 34603-179879 34603-179880

Analysis Batch Number: 8260 -12/07/97-1094-1
Test Identification : 8260 -Volatiles
Number of Samples : 9
Batch Data-Date/Time : 12/11/97 / 16:34:50

Units: ug/l Sequence: 1341.bq

BLANK#	ANALYTE	CONC FOUND	#	LMT OF QUANTITATION
VBLK-120797	none detected			

						QC LIMITS	
SPIKE	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
34531-179432	1,1-Dichloroethene	25000.0000	0.0000	16490.0000	66.0	54.0	132.0
	Trichloroethene	25000.0000	0.0000	19905.0000	79.6	70.0	130.0
	Benzene	25000.0000	0.0000	23100.0000	92.4	74.0	134.0
	Toluene	25000.0000	0.0000	23145.0000	92.6	79.0	123.0
	Chlorobenzene	25000.0000	0.0000	22215.0000	88.9	78.0	127.0

						QC LIMITS			
MSD	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	% REC #	LOWER	UPPER	RPD #	LI
34531-179432	1,1-Dichloroethene	25000.0000	0.0000	16880.0000	67.5	54.0	132.0	2.2	1
	Trichloroethene	25000.0000	0.0000	20655.0000	82.6	70.0	130.0	3.7	1
	Benzene	25000.0000	0.0000	24135.0000	96.5	74.0	134.0	4.3	1
	Toluene	25000.0000	0.0000	23530.0000	94.1	79.0	123.0	1.6	1
	Chlorobenzene	25000.0000	0.0000	22300.0000	89.2	78.0	127.0	0.3	1

					QC LIMITS	
CONTROL	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER
LCS-120797	Acetone	26.9300	50.0000	53.9	30.0	187.0
	Benzene	45.9500	50.0000	91.9	82.0	124.0
	Bromodichloromethane	46.2200	50.0000	92.4	80.0	147.0
	Bromoform	42.4800	50.0000	85.0	77.0	135.0
	Bromomethane (Methyl bromide)	43.0600	50.0000	86.1	43.0	146.0
	2-Butanone (MEK)	47.1700	50.0000	94.3	43.0	159.0
	Carbon disulfide	62.9100	50.0000	125.8	68.0	147.0
	Carbon tetrachloride	51.5700	50.0000	103.1	81.0	131.0
	Chlorodibromomethane	45.9000	50.0000	91.8	76.0	144.0
	Chlorobenzene	44.1800	50.0000	88.4	83.0	127.0
	Chloroethane (Ethyl chloride)	40.5000	50.0000	81.0	68.0	123.0
	Chloroform	45.6900	50.0000	91.4	83.0	129.0
	Chloromethane (Methyl chloride)	36.7300	50.0000	73.5	50.0	134.0
	1,1-Dichloroethane	44.9200	50.0000	89.8	80.0	124.0
	1,2-Dichloroethane	44.9900	50.0000	90.0	79.0	131.0
	1,1-Dichloroethene	39.9600	50.0000	79.9	57.0	133.0
	cis-1,2-Dichloroethene	46.8500	50.0000	93.7	82.0	138.0
	trans-1,2-Dichloroethene	49.5100	50.0000	99.0	66.0	129.0
	1,2-Dichloropropane	45.7400	50.0000	91.5	82.0	128.0
	cis-1,3-Dichloropropene	45.2500	50.0000	90.5	76.0	132.0
	trans-1,3-Dichloropropene	47.6800	50.0000	95.4	78.0	133.0
	Ethylbenzene	45.3200	50.0000	90.6	82.0	129.0
	2-Hexanone	37.5900	50.0000	75.2	60.0	169.0
	Dichloromethane	46.9400	50.0000	93.9	75.0	133.0
	4-Methyl-2-pentanone (MIBK)	50.8000	50.0000	101.6	75.0	130.0
	Styrene	48.3200	50.0000	96.6	82.0	128.0
	1,1,2,2-Tetrachloroethane	44.2600	50.0000	88.5	79.0	130.0
	Tetrachloroethene	36.2700	50.0000	72.5(J)	82.0	127.0
	Toluene	44.7800	50.0000	89.6	81.0	130.0

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/15/97
 12:07:33
 Group: 3452

Analysis Batch Number: 8260 -12/07/97-1094-1
 Test Identification : 8260 -Volatiles
 Number of Samples : 9
 Batch Data-Date/Time : 12/11/97 / 16:34:50

Units: ug/l

Sequence: 1341.bq

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
					LOWER	UPPER
LCS-120797	1,1,2-Trichloroethane	47.4300	50.0000	94.9	79.0	130.0
	Trichloroethene	42.8600	50.0000	85.7	82.0	130.0
	Vinyl chloride	42.8000	50.0000	85.6	62.0	133.0
	o-Xylene	46.2100	50.0000	92.4	83.0	130.0
	m,p-Xylene	89.5500	100.0000	89.6	82.0	128.0

SURG #:30-8260 -W-SG

SAMPLE#	DBFM #	DCE #	TOL #	BFB #
SAMPLE 34522-179414	87	96	103	103
SAMPLE 34531-179431	86	99	106	107
SAMPLE 34531-179432	87	95	103	106
SAMPLE 34605-179882	88	94	103	102
SAMPLE 34605-179883	88	96	105	105
SAMPLE 34599-179866	88	94	104	101
SAMPLE 34599-179867	90	94	103	104
SAMPLE 34599-179868	98	92	102	103
SAMPLE 34603-179878	90	93	100	101
JLK 1 VBLK-120797	89	94	103	101
SPK 1 34531-179432	91	90	100	101
CTL 1 LCS-120797	91	99	100	100
HSD 1 34531-179432	88	94	103	103

30-8260 -W-SG - VOLATILES WATER SURROGATE

SRG ABRV =	SURROGATE DESCRIPTION	QC LIMITS	
		LOWER	UPPER
DBFM	Dibromofluoromethane	86.0	118.0
DCE	1,2-Dichloroethane-d4	80.0	120.0
TOL	Toluene-d8	88.0	110.0
BFB	p-Bromofluorobenzene	86.0	115.0

..... Result Footnotes
 (J) - Within Method Requirements

Groups & Samples

.....
 34522-179414 34531-179431 34531-179432 34599-179866 34599-179867 34599-179868 34603-179878 34605-179882
 34605-179883

Core Lab-Gulf States Analytical
Daily QC Batching Data
Data Released for Reporting

12/15/97
12:07:35
Group: 345

Analysis Batch Number: 8260 -12/08/97-1094-1
Test Identification : 8260 -Volatiles
Number of Samples : 12
Batch Data-Date/Time : 12/11/97 / 17:37:47

Units: ug/l

Sequence: 1342.bQ

BLANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
VBLK-120897	Bromomethane (Methyl bromide)	1.0500	10.0000
	Ethylbenzene	1.7300	5.0000
	2-Hexanone	1.1900	10.0000
	1.1.2.2-Tetrachloroethane	2.2600	5.0000
	m.p-Xylene	1.3400	5.0000
	1.2-Dichlorobenzene	1.2100	5.0000
	1.3-Dichlorobenzene	1.5100	5.0000
	1.4-Dichlorobenzene	1.4900	5.0000

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
34605-179882	1.1-Dichloroethene	500.0000	0.0000	370.2000	74.0	54.0	132.0
	Trichloroethene	500.0000	66.7000	578.2000	102.3	70.0	130.0
	Benzene	500.0000	0.0000	493.0000	98.6	74.0	134.0
	Toluene	500.0000	0.0000	485.8000	97.2	79.0	123.0
	Chlorobenzene	500.0000	0.0000	447.3000	89.5	78.0	127.0

MSD						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	L
34605-179882	1.1-Dichloroethene	500.0000	0.0000	389.1000	77.8	54.0	132.0	5.0	1
	Trichloroethene	500.0000	66.7000	562.2000	99.1	70.0	130.0	3.2	1
	Benzene	500.0000	0.0000	502.2000	100.4	74.0	134.0	1.8	1
	Toluene	500.0000	0.0000	488.5000	97.7	79.0	123.0	0.5	1
	Chlorobenzene	500.0000	0.0000	483.2000	96.6	78.0	127.0	7.6	1

CONTROL					QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER
LCS-120897	Acetone	24.4300	50.0000	48.9	30.0	187.0
	Benzene	47.2800	50.0000	94.6	82.0	124.0
	Bromodichloromethane	51.1000	50.0000	102.2	80.0	147.0
	Bromoform	43.9900	50.0000	88.0	77.0	135.0
	Bromomethane (Methyl bromide)	46.6700	50.0000	93.3	43.0	146.0
	2-Butanone (MEK)	41.9600	50.0000	83.9	43.0	159.0
	Carbon disulfide	64.5100	50.0000	129.0	68.0	147.0
	Carbon tetrachloride	59.8200	50.0000	119.6	81.0	131.0
	Chlorodibromomethane	48.2100	50.0000	96.4	76.0	144.0
	Chlorobenzene	46.2700	50.0000	92.5	83.0	127.0
	Chloroethane (Ethyl chloride)	40.7100	50.0000	81.4	68.0	123.0
	Chloroform	47.3500	50.0000	94.7	83.0	129.0
	Chloromethane (Methyl chloride)	36.2800	50.0000	72.6	50.0	134.0
	1.1-Dichloroethane	50.0700	50.0000	100.1	80.0	124.0
	1.2-Dichloroethane	45.3600	50.0000	90.7	79.0	131.0
	1.1-Dichloroethene	41.2800	50.0000	82.6	57.0	133.0
	cis-1.2-Dichloroethene	49.1600	50.0000	98.3	82.0	138.0
	trans-1.2-Dichloroethene	49.0300	50.0000	98.1	66.0	129.0
	1.2-Dichloropropane	46.7000	50.0000	93.4	82.0	128.0
	cis-1.3-Dichloropropene	48.8600	50.0000	97.7	76.0	132.0
	trans-1.3-Dichloropropene	50.6300	50.0000	101.3	78.0	133.0
	Ethylbenzene	47.9100	50.0000	95.8	82.0	129.0
	2-Hexanone	74.8400	50.0000	69.7	60.0	160.0

Core Lab-Gulf States Analytical
 Daily QC Batching Data
 Data Released for Reporting

12/15/97
 12:07:36
 Group: 3452

Analysis Batch Number: 8260 -12/08/97-1094-1
 Test Identification : 8260 -Volatiles
 Number of Samples : 12
 Batch Data-Date/Time : 12/11/97 / 17:37:47

Units: ug/l

Sequence: 1342.bq

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
					LOWER	UPPER
LCS-120897	Dichloromethane	45.4200	50.0000	90.8	75.0	133.0
	4-Methyl-2-pentanone (MIBK)	50.1100	50.0000	100.2	75.0	130.0
	Styrene	50.1300	50.0000	100.3	82.0	128.0
	1,1,2,2-Tetrachloroethane	43.8900	50.0000	87.8	79.0	130.0
	Tetrachloroethene	40.2700	50.0000	80.5(G)	82.0	127.0
	Toluene	49.1100	50.0000	98.2	81.0	130.0
	1,1,1-Trichloroethane	51.1400	50.0000	102.3	79.0	130.0
	1,1,2-Trichloroethane	48.2700	50.0000	96.5	79.0	130.0
	Trichloroethene	49.2400	50.0000	98.5	82.0	130.0
	Vinyl chloride	44.5700	50.0000	89.1	62.0	133.0
	o-Xylene	48.3200	50.0000	96.6	83.0	130.0
	m,p-Xylene	96.0000	100.0000	96.0	82.0	128.0

SURG #:30-8260 -W-SG

SAMPLE#	DBFM #	DCE #	TOL #	BFB #
SAMPLE 34599-179869	92	97	105	107
SAMPLE 34605-179882	87	97	103	106
SAMPLE 34522-179414	86	97	101	105
SAMPLE 34531-179431	86	99	101	105
SAMPLE 34649-180101	85(G)	96	100	103
SAMPLE 34649-180102	88	96	106	106
SAMPLE 34649-180103	94	96	103	105
SAMPLE 34649-180104	90	99	105	110
SAMPLE 34589-179754	86	96	104	107
SAMPLE 34589-179753	88	100	106	108
SAMPLE 34616-179930	86(G)	97	101	105
SAMPLE 34616-179928	88	94	103	103
BLK 1 VBLK-120897	88	94	101	102
SPK 1 34605-179882	88	98	103	106
CTL 1 LCS-120897	94	95	102	105
HSD 1 34605-179882	87	96	102	104

30-8260 -W-SG - VOLATILES WATER SURROGATE

SRG ABRV =	SURROGATE DESCRIPTION	QC LIMITS	
		LOWER	UPPER
DBFM	Dibromofluoromethane	86.0	118.0
DCE	1,2-Dichloroethane-d4	80.0	120.0
TOL	Toluene-d8	88.0	110.0
BFB	p-Bromofluorobenzene	86.0	115.0

..... Result Footnotes
 (G) - Marginal Outlier

Groups & Samples

34522-179414 34531-179431 34589-179753 34589-179754 34599-179869 34605-179882 34616-179928 34616-179930

Core Lab-Gulf States Analytical
Daily QC Batching Data
Data Released for Reporting

12/15/97
12:07:37
Group: 34522

Analysis Batch Number: 8260 -12/08/97-1094-1
Test Identification : 8260 -Volatiles
Number of Samples : 12
Batch Data-Date/Time : 12/11/97 / 17:37:47

Units: ug/l

Sequence: 1342.bq

Groups & Samples

.....

34649-180101 34649-180102 34649-180103 34649-180104



GULF STATES ANALYTICAL

6310 Railway, Houston, Texas 77040
(713) 690-4444, Fax (713) 690-5846

Company: **ERM SW** Address: **16300 Katy** Tele #: **281 579-8999**
Reports Sent To: **Bill Huff** P.O #: **6004-72** Project #: **6004-72**
Fax #: **281 579 8988**

Project Name: **UP - HWP** Project Location: **Houston Tx**
Sampler(s) Name: (Signature) **Jay Dehoussier**

② Field Sample ID	① Sampling		Matrix	Haz Sample (Y/N)
	Date	Time		
1. HWP DISCHARGE	11/24/97	1630	Water	N
2.			Other	
3.			Oil	
4.			Sludge	
5.			Soil	
6.			Water	
7.				

Request for Analysis	# of Containers	Matrix	
		Water	Other
BOD 55 TDS	1	X	
Semivol	2	X	
OIL & GREASE	2	X	
TOTAL METALS	1	X	
COO	1	X	
A.C.T	1	X	
VOCS	2	X	

Special Detection Limits

Requested Turnaround: **2-Week**

GSAI Group: **34527**

Relinquished by: (Signature) [Signature]	Date: 11/24/97	Time: 1700	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by Laboratory: (Signature)	Date	Time

Remarks:

QC Package: (check one)
 CLP Site Specific
 Tier 1 Tier 2 QC Summary

Excerpt from City of Houston Industrial Waste Ordinance

Appendix B

April 27, 1998

W.O. #422-09

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

PART II

CITY OF HOUSTON
INDUSTRIAL WASTE ORDINANCE

the user charge. The utility official shall grant such a request and accept the results of the permittee's self-monitoring if the permittee provides documentation in the format required by the utility official showing that the permittee used proper chain of custody and that sampling and analysis were conducted in accordance with subsection (c), below. All costs of such sampling and analyses for self-monitoring shall be borne by the permittee. Approval of sampling and analysis performed by an independent laboratory does not prevent representatives of the department from taking additional samples without prior notice to the permittee. Submission of any self-monitoring analyses that are not representative of the process discharge shall be grounds for permit revocation or termination of water and wastewater services.

(c) Sampling and analysis shall be conducted in accordance with 40 CFR Part 135.

(d) The utility official may make periodic tests of waste being discharged into the city sewer from the premises of an industrial user under the provisions hereof.

Sec. 47-134. Standard of quality.

(a) Unless otherwise required or approved, the delivery of all industrial waste from the industrial user to the sanitary sewer shall be at a reasonably uniform rate, as produced, without storage by the industrial user, except that storage which is necessary in the pretreatment plant of the industrial user.

(b) It shall be unlawful to discharge or cause to be discharged any subsurface drainage, storm or ground water, downspout or roof runoff, yard sprinklers, drains, fountains or ponds into the sanitary sewer system. Water from swimming pools, boiler drains, blow off pipes or cooling water from equipment may be discharged into the sewer system by an indirect connection whereby such discharge is cooled, if required, and flow into the sewer system is at a rate not to exceed the design capacity of the sewer system, provided that the waste does not contain materials or substances that would violate other provisions of this article.

(c) It shall be unlawful to discharge or cause to be discharged into the sewer system, any of following described substances, materials, waters, or wastes:

- (1) Any liquid or vapor having a temperature higher than forty-five (45) degrees Celsius (one hundred thirteen (113) degrees Fahrenheit) at the place of discharge into the sewer system, or which causes the temperature of the influent reaching a city treatment plant to be forty (40) degrees Celsius (one hundred four (104) degrees Fahrenheit) or more.

- (2) Any water or waste which contains wax, grease, oil, plastic, or other substances that will solidify or become discernibly viscous at temperatures between sixty (60) to ninety (90) degrees Fahrenheit.
- (3) Flammable or explosive liquids, solids or gas, such as gasoline, kerosene, benzene, naphtha, etc.
- (4) Solid or viscous substances which may interfere with or obstruct the POTW, such as ashes, cinders, sand, mud, straw, shaving, metal, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, hair and fleshings, entrails, lime slurries, lime residues, sludge, chemical residues, paint residues, fiber glass, or bulk solids.
- (5) Waste from garbage grinders, except waste generated in the preparation of foods that are generally consumed on the premises, and not unless it has been properly comminuted or shredded to reduce all food escape and like particles to three-sixteenths inch or less in greatest dimensions. Garbage grinders shall not be used for grinding plastics, paper products, garden refuse, hospital or veterinarian refuse, or similar refuse for disposal into a city sewer.
- (6) Any noxious or malodorous substance which can form a gas; which either singly or by interaction with other wastes is capable of causing objectionable odors or hazard to life and property; which forms solids in concentrations exceeding limits established herein; which creates any other condition deleterious to structures or treatment processes; or which requires unusual facilities, attention, or expense to handle.
- (7) Wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Celsius.
- (8) Petroleum oil, nonbiodegradable cutting oil, or products of mineral origin in amounts that cause interference with or passes through the sanitary sewer system.
- (9) Pollutants producing toxic vapors, gases, or fumes within the sanitary sewer system that may cause acute worker health and safety problems.

(10) Any trucked or hauled waste, except at discharge points designated by the utility official. Only domestic septic tank waste generated within the city will be allowed at these designated points. Provided, however, the city may move waste it collects within its sanitary sewer system to designated points.

(d) It shall be unlawful for any industrial user to discharge into the publicly owned treatment system:

- (1) Free or emulsified oil and grease, if such materials:
 - a. Exceed on analysis an average of four hundred (400) milligrams per liter (mg/l) of free or emulsified oil and grease;
 - b. Form a discernible floating layer on the surface of the discharge waters;
 - c. Overload the industrial user's skimming and grease handling equipment;
 - d. Are not amenable to biological treatment and will therefore pass through to the receiving waters without being affected by normal sewage treatment processes;
 - e. Have adverse effects on the treatment process due to the excessive quantities; or
 - f. Deposit oil or grease in the sewer lines in such a manner as to obstruct the sewer.
- (2) Acids or alkalies which attack or corrode sewers or sewage disposal structures or have a pH value lower than 3.0 or higher than 11.0, or which, due to contents, may be reduced or changed with age or by sewage, to produce acid or alkaline reactions.
- (3) Any salt of the following heavy metals in concentrations greater than the amounts specified below. The permit shall specify pollutant limitations based on a method for allocating pollutant loadings approved by EPA and incorporated into the city's approved pretreatment program.

Metal	Grab	Composite
	Limit mg/l	Limit mg/l
Arsenic ✓	3.0	2.0
Cadmium ✓	0.4	0.2
Chromium ✓	3.0	1.0
Copper ✓	3.0	2.0
Lead ✓	1.5	1.0
Mercury ✓	0.02	0.01
Nickel ✓	3.0	2.0
Selenium ✓	5.0	3.0
Silver ✓	2.0	1.0
Zinc ✓	6.0	3.0

- (4) Cyanides (CN) or cyanogen compounds capable of liberating hydrocyanic gas upon acidification in excess of two (2) milligrams per liter (mg/l) as CN based upon a grab or composite sample.
- (5) Radioactive materials exceeding the existing standards of the state.
- (6) Substances in such concentrations as to produce odor or taste in the effluent as to affect the taste and odor of the receiving waters.
- (7) Substances which exert or cause:
 - a. Unusual BOD or an immediate oxygen demand;
 - b. Unusual concentrations of solids or composition, as an example, in total suspended solids of an inert nature (such as Fuller's earth) or in total dissolved solids (such as sodium chloride or sodium sulfate); or
 - c. Unusual flow or concentration.
- (8) Any substance which is not amenable to treatment or reduction by the wastewater treatment process employed, or is amenable to treatment only to such degree that the sanitary sewer system cannot meet the requirements of agencies having jurisdiction over discharge to the receiving waters.
- (9) Substances which exert or cause excessive discoloration, such as dye wastes and tanning solutions, which would cause an interference in or pass through the sewer system.
- (10) Sulfides in concentrations greater than five (5) milligrams per liter (mg/l).

- (11) Any discharge which fails to meet applicable pretreatment standards or requirements.

or order from a state or federal agency.

- (3) The utility official determines that an industrial user is discharging wastewater that does not comply with the requirements of this article.

Sec. 47-195. Accidental discharges.

(a) Each industrial user shall provide protection from accidental discharge of prohibited materials or other wastes regulated by this article.

(b) In order to facilitate countermeasures to be taken by the city to minimize damage to the sanitary sewer system and degradation of the receiving waters, industrial users shall notify the department immediately after the occurrence of any accidental discharge of wastes in violation of this article. This notification shall be followed within fifteen (15) days of the date of occurrence by a detailed written statement describing the causes of the accidental discharge and the measures taken to prevent future occurrences.

(c) In order to keep employees of permittees informed of the departments' requirements, permittees shall make available to their employees copies of this article, together with such other wastewater information and notices which may be furnished by the city from time to time for the purpose of improving and making more effective water pollution control. A notice shall be furnished and permanently posted on the permittee's bulletin board advising officers, agents, and employees the number to call in case of an accidental discharge in excess of the limits authorized.

Pretreatment facilities shall be provided, operated, and maintained at the permittee's expense.

(b) Any sludge or other material removed from the industrial waste by the pretreatment facility shall be disposed of in accordance with applicable federal, state, and local laws, and records or manifests for such disposal shall be made available for inspection upon request by the department.

(c) Except where expressly authorized by applicable pretreatment standards, no industrial user shall increase the use of the process water or in any other way attempt to dilute its industrial waste discharge as a partial or complete substitute for adequate treatment to achieve compliance with the discharge standards established in accordance with this article.

(d) Detailed plans showing any pretreatment facilities shall be submitted to the utility official for approval before construction of the facilities. The review and approval of plans will in no way relieve any permittee from the responsibility of modifying and operating the facilities to produce an effluent complying with this article and the permit. Any subsequent, significant changes in the approved facilities or method of operation shall be reported to the utility official and must be reviewed and approved by the utility official as complying with the provisions herein established.

Sec. 47-196. Change of ownership or location of discharge.

Industrial waste permits may neither be assigned nor be transferred. Whenever a person other than the permittee becomes the industrial user at the site of a permitted establishment, or whenever there is a change in discharge location, the prior permit is void and an application for a new permit shall be made.

(e) After the construction plans for such pretreatment plants have been approved and an industrial waste permit issued, a building permit for the construction may be issued.

Sec. 47-197. Pretreatment.

(a) Pretreatment shall be required in the following instances:

- (1) The utility official determines upon the initial application for a permit that the proposed industrial waste must be pretreated by the permittee to comply with the requirements of this article.
- (2) The utility official determines that pretreatment, or an additional level of pretreatment, is required for the city to improve the discharge from the sewer system to comply with a city discharge permit, court order,

(2) The city's industrial waste pretreatment program has been approved by the EPA. Thereby, the city as POTW/Control Authority accedes to all powers, duties, and responsibilities promulgated by the EPA for a POTW/Control Authority.

The utility official shall be authorized to act for the city as Control Authority of POTW. As POTW/Control Authority, the city shall have the legal authority, pursuant to this subsection, to enforce any and all pretreatment standards as well as pretreatment requirements specified by regulations promulgated by the EPA, but including not limited to the powers enumerated in 40 CFR 401.3(f)(1) as well as any amendments thereto, and same are hereby incorporated herein by this reference.

Any industrial user who is subject to pretreatment standards shall file with the utility

Waste Manifests
Appendix C

April 27, 1998
W.O. #422-09

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

KG COH 002445

BN073422-098

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



DIRTY SOI
 TCK-0247577
 T-10.88

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01789				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking				6. US EPA ID Number N/A		C. State Transporter's ID 84829				
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				10. US EPA ID Number TX 0016673147		E. State Transporter's ID				
						F. Transporter's Phone				
						G. State Facility's ID H1307				
						H. Facility's Phone 281-446-6545				
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.		Non-Regulated Material (soil)				01 DT		12	Y	04003011
b.										
c.										
d.										
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above				
Waste Management Profile Number 511481						ME2				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name Ervin H. Honig				Signature <i>Ervin H. Honig</i>		Month Day Year 11/14/97				
17. Transporter 1 Acknowledgement of Receipt of Materials										
Printed/Typed Name Ramiro Partida				Signature <i>Ramiro Partida</i>		Month Day Year 11/14/97				
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name				Signature		Month Day Year				
19. Discrepancy Indication Space KG COH 002446										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
Printed/Typed Name				Signature		Date Month Day Year				

TRANSFORMER

TRANSFORMER

FACILITY



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 T-7.71

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01788		B. State Generator's ID 31547		
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TX D 0 1 6 6 7 3 1 4 7				
GENERATOR	11. A HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.	Non-Regulated Material (soil)		01	DT	Y	04003011
	b.				12		
	c.						
	J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481		K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Year 11/14/97			
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials						
	Printed/Typed Name Rogelio V		Signature Rogelio Valladares		Month Day Year 11/14/97		
	18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year			
FACILITY	19. Discrepancy Indication Space KG COH 002447						
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year			

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 P.O. Box 13087
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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01787		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TX 0016673147		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	13. Total Quantity	14. Unit Wt/Vol
a.	Non-Regulated Material (soil)			01	12	Y
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig			Signature <i>Edwin H. Honig</i>		Month Day Year 11/14/97	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials					
	Printed/Typed Name MENTOR LEAL			Signature <i>Mentor Leal</i>		Date 11/14/97
	18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name			Signature		Date	
FACILITY	19. Discrepancy Indication Space KG COH 002448					
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
						Date

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000020266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01786		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		
7. Transporter 2 Company Name BIAZOS TRUCKING		8. US EPA ID Number N/A		F. Transporter's Phone		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TXD016673147		G. State Facility's ID H1307	
			H. Facility's Phone 281-446-6545			
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	Non-Regulated Material (soil)	01	D	12	Y	04003011
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Year 11/14/97		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Sime Mendez		Signature <i>Sime Mendez</i>		Month Day Year 11/14/97		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature <i>[Signature]</i>		Month Day Year		
19. Discrepancy Indication Space KG COH 002449						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						

GENERATOR

TRANSPORTER

FACILITY

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01785		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name ISKAZOS TRUCKING		8. US EPA ID Number N/A		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a.	Non-Regulated Material (soil)		01	DT	12	Y
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above M132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig			Signature <i>Edwin H. Honig</i>		Month Day Year 11/14/19	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Sergio Cardoso			Signature <i>Sergio Cardoso</i>		Month Day Year 11/14/19	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002450						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

GENERATOR

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T-11.96

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01784		B. State Generator's ID 31547		
4. Generator's Phone (402) 271-5979				C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone		
7. Transporter 2 Company Name Brazos Trucking		8. US EPA ID Number N/A		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				10. US EPA ID Number TX-D016673147				
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	Non-Regulated Material (soil)			01	DT	12	Y	04003011
b.								
c.								
d.								
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information								
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Printed/Typed Name Edwin H. Honig				Signature <i>[Signature]</i>		Month Day Year 11/14/97		
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>[Signature]</i>		Date 11/14/97		
Printed/Typed Name H. Belardo Sanchez				Signature		Date		
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Date		
Printed/Typed Name				Signature		Date		
19. Discrepancy Indication Space KG COH 002451								
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.								
Date								

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01775					
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547					
5. Transporter 1 Company Name Pulido Trucking				6. US EPA ID Number N/A		C. State Transporter's ID 84829					
7. Transporter 2 Company Name BRAZOS TRUCKING				8. US EPA ID Number N/A		D. Transporter's Phone 713-864-6540					
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						E. State Transporter's ID					
						F. Transporter's Phone					
						G. State Facility's ID H1307					
						H. Facility's Phone 281-446-6545					
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	15. Waste No.
a.		Non-Regulated Material (soil)				01 D		12		Y	04003011
b.											
c.											
d.											
17. Additional Descriptions for Materials Listed Above						18. Handling Codes for Wastes Listed Above					
Waste Management Profile Number 511481						H132					
15. Special Handling Instructions and Additional Information											
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Printed/Typed Name Edwin H. Honig				Signature <i>Edwin H. Honig</i>				Month Day Year 11/13/99			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name Angel Velasquez				Signature <i>Angel Velasquez</i>				Month Day Year 11/13/99			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Discrepancy Indication Space											
KG COH 002452											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.											
Date											

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
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TCK-0247379
T-12.03

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01774				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID 84829				
7. Transporter 2 Company Name LACHOS TRUCKING			8. US EPA ID Number N/A			D. Transporter's Phone 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77395						E. State Transporter's ID				
						F. Transporter's Phone				
						G. State Facility's ID H1307				
						H. Facility's Phone 281-446-6545				
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.		Non-Regulated Material (soil)				01 DV		12	Y	04003011
b.										
c.										
d.										
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481						K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name Edwin H. Honig				Signature <i>Edwin H. Honig</i>		Month Day Year 11/13/97				
17. Transporter 1 Acknowledgement of Receipt of Materials										
Printed/Typed Name BENEDICTO LANDAUEN				Signature BENEDICTO LANDAUEN		Month Day Year 11/13/97				
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name				Signature		Month Day Year				
19. Discrepancy Indication Space KG COH 002453										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087



TCK-0247376
T-1158

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Form approved. OMB No. 2050-0039. expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX					A. State Manifest Document Number WMA 01773			
4. Generator's Phone (402) 271-5979					B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking				6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396					10. US EPA ID Number TX 0016673147		E. State Transporter's ID	
					F. Transporter's Phone		G. State Facility's ID H1307	
					H. Facility's Phone 281-446-6545			
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
	a.	Non-Regulated Material (soil)		01	DT	12	Y	04003011
	b.							
	c.							
	d.							
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481						K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name Edwin H. Honig				Signature <i>[Signature]</i>		Month Day Year 11/1/97		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>[Signature]</i>		Month Day Year 11/1/97	
	Printed/Typed Name Horacio Miranda				Signature <i>[Signature]</i>		Date	
	18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Month Day Year	
Printed/Typed Name				Signature		Date		
19. Discrepancy Indication Space KG COH 002454								
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.								
								Date
FACILITY								

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087



TCK-0247469
T-12.12

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				6. US EPA ID Number N/A		A. State Manifest Document Number WMA 01781	
4. Generator's Phone (402) 271-5979				8. US EPA ID Number		B. State Generator's ID 31547	
5. Transporter 1 Company Name Pulido Trucking				10. US EPA ID Number		C. State Transporter's ID 84829	
7. Transporter 2 Company Name				13. Total Quantity		D. Transporter's Phone 713-864-6540	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				14. Unit Wt/Vol		E. State Transporter's ID	
11. A HM				12. Containers No. Type		F. Transporter's Phone	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				13. Total Quantity		G. State Facility's ID H1307	
a. Non-Regulated Material (soil)				14. Unit Wt/Vol		H. Facility's Phone 281-446-6545	
b.				15. Waste No.			
c.				16. Waste No.			
d.				17. Waste No.			
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481						K. Handling Codes H132	
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edwin H. Honig				Signature <i>Edwin H. Honig</i>		Month Day Year 11/13/97	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Horacio Mercede				Signature <i>Horacio Mercede</i>		Month Day Year 11/13/97	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002455							

GENERATOR

TRANSPORTER

FACIL

Continuation of receipt of hazardous materials covered by this manifest except as noted in Item 19.

TEXAS NATURAL RESOURCE
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TK-0247467
 T-14.91

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01782		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name BRADOS TRUCKING		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TX-D016673147		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes for Wastes MI32		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Erwin H. Honig		Signature <i>Erwin H. Honig</i>		Month Day Year 11/13/91		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Angel Velasquez		Signature <i>Angel Velasquez</i>		Month Day Year 11/13/91		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002456						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

GENERATOR

TRANSPORTER

FACILITY



TCK-0247465
 T-12.44

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Form approved. OMB No 2050-0039. expires 09/30/

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.		2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX					A. State Manifest Document Number WMA 01780		
4. Generator's Phone (402) 271-5979					B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name BRAZOS TRUCKING			8. US EPA ID Number N/A		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396					E. State Transporter's ID		
					F. Transporter's Phone		
					G. State Facility's ID H1307		
					H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	Non-Regulated Material (soil)		01 DT		2	Y	04003011
b.							
c.							
d.							
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481					K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edwin H. Honig			Signature <i>Edwin H. Honig</i>		Month Day Year 11/13/99		
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name BENEDICTO LANOYAN			Signature <i>Benedicto Lanoyan</i>		Month Day Year 11/13/99		
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name			Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002457							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name			Signature		Month Day Year		

DUPLICATE

REPRODUCIBLE

FACILITY



TCK-0247330
 T-11.53

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Form approved. OMB No 2050-0039. expires 09/30/9

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01772			
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				10. US EPA ID Number TX 0016673147		G. State Facility's ID H1307 H. Facility's Phone 281-446-6545	
11. A HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L Waste No.
	a. Non-Regulated Material (soil)		01	DT	12	Y	04003011
	b.						
	c.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above M132			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Year 11/13/97			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name MIGUEL CARRASCO		Signature <i>Miguel Carrasco</i>		Month Day Year 11/13/97			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name		Signature		Month Day Year			
19. Discrepancy Indication Space KG COH 002458							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Date							

GENERATOR

TRANSPORTER

FACILITY



TCK-0247309
 T-13.06

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Form approved. OMB No 2050-0039. expires 09/30/92

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX			A. State Manifest Document Number WMA 01464		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TX D 0 1 6 6 7 3 1 4 7			
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Erick H. Honig		Signature <i>Erick H. Honig</i>		Month Day Year 11/13/97		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Horacio Hernandez		Signature <i>Horacio Hernandez</i>		Month Day Year 11/13/97		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002459						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-0247312
 T-11.93

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1		Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01770					
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547					
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID 84829					
7. Transporter 2 Company Name BENEDICTO TRUCKING			8. US EPA ID Number N/A			D. Transporter's Phone 713-864-6540					
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						E. State Transporter's ID					
10. US EPA ID Number TX 0016673147						F. Transporter's Phone					
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol	
a. Non-Regulated Material (soil)						01 DT		12		Y	
b.											
c.											
d.											
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481						K. Handling Codes for Wastes Listed Above H132					
15. Special Handling Instructions and Additional Information											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.											
Printed/Typed Name Edwin H. Honig						Signature <i>Edwin H. Honig</i>			Month Day Year 11/13/97		
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name BENEDICTO LANOA						Signature <i>BENEDICTO LANOA</i>			Month Day Year 11/13/97		
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name						Signature <i>BENEDICTO LANOA</i>			Month Day Year		
19. Discrepancy Indication Space KG COH 002460											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.											
Printed/Typed Name						Signature			Date Month Day Year		

GENERATOR

TRANSPORTER

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TEXAS NATURAL RESOURCE
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TCK-0247313
 T -13.85

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01771					
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547					
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540			
7. Transporter 2 Company Name Bates Trucking			8. US EPA ID Number N/A			E. State Transporter's ID		F. Transporter's Phone			
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						10. US EPA ID Number TX-08156673147		G. State Facility's ID H1307			
						H. Facility's Phone 281-446-6545					
GENERATOR	11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.		Non-Regulated Material (soil)				01 DT		12	Y	04003011
	b.										
	c.										
	d.										
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 517481						K. Handling Codes for Wastes Listed Above M132					
15. Special Handling Instructions and Additional Information											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.											
Printed/Typed Name Edwin H. Honig				Signature <i>Edwin H. Honig</i>				Month Day Year 11/13/97			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name Angel Velazquez				Signature <i>Angel Velazquez</i>				Month Day Year 11/13/97			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Discrepancy Indication Space KG COH 002461											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.											

GENERATOR

TRANSPORTER

FACILITY

Date

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087

TCK-0247472
 T-1214



* LAST TRUCK TO-DAY

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded area is not required by Federal law	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01783		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			6. US EPA ID Number N/A		C. State Transporter's ID 84829	
5. Transporter 1 Company Name Pulido Trucking			7. Transporter 2 Company Name		D. Transporter's Phone 713-864-6540	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			8. US EPA ID Number		E. State Transporter's ID	
10. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			10. US EPA ID Number TX 0016673147		F. Transporter's Phone	
11. A HM			12. Containers No. Type		13. Total Quantity	
a. Non-Regulated Material (soil)			01 DT		12 Y	
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481			K. Handling Codes for Wastes Listed Above H132			
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig			Signature <i>Edwin H. Honig</i>		Month Day Year 11/1/39	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name MIGUEL CARRASCO			Signature <i>Miguel Carrasco</i>		Month Day Year 11/1/39	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002462						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name						Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087



TCK-0247447
T-1105

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Form approved. CMB No. 2050-0039. expires 09/30/93.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01779		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TXD016673147		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
b.						
c.						
d.						
J: Additional Descriptions for Materials Listed Above Waste Management Profile Number - 511481				K: Handling Codes for Wastes Listed Above M32		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edrin H. Honig			Signature <i>Edrin H. Honig</i>		Month Day Year 11/1/89	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name MIGUEL CARPZOS			Signature <i>Miguel Carpzos</i>		Month Day Year 11/1/89	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002463						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

QUARTER 4-OR

1-8220A OEL-1-1-89

FAC-1-1-89

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 Austin, Texas 78711-3087



TCK-0246977
 T-949

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Form approved. OMB No 2950-0039. expires 09/30.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.		2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX					A. State Manifest Document Number WMA 01437		
4. Generator's Phone (402) 271-5979					B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396					10. US EPA ID Number TX 00156673347		G. State Facility's ID H1307
					H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.	
a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011	
b.							
c.							
d.							
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481					K. Handling Codes for Wastes Listed Above M132		
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name EDWIN H. HONIG				Signature <i>Edwin H. Honig</i>		Month Day Ye. 11/12/9	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name MENTOR LEAL				Signature <i>Mentor Leal</i>		Month Day Ye. 11/12/9	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Ye.	
19. Discrepancy Indication Space KG COH 002464							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
							Date

GENERATOR'S SIGNATURE

TRANSPORTER'S SIGNATURE

FACILITY'S SIGNATURE



TCK-0247148
T-1042

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Form approved. OMB No 2055-0039. expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01460			
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address Atascocita RDF- 3623 Wilson Road Humble, TX 77396				10. US EPA ID Number TX 0016673147			
G. State Facility's ID HI307				H. Facility's Phone 281-446-6545			
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No	
a.	Non-Regulated Material (soil)	01	DT	1.2	Y	04003011	
b.							
c.							
d.							
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above MI32			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name EOWIN H. HONG				Signature <i>Eowin H. Hong</i>		Month Day Year 11/12/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Heracio Miranda				Signature <i>Heracio Miranda</i>		Month Day Year 11/12/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002465							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
							Date

UNIFORM HAZARDOUS WASTE MANIFEST

TRANSPORTER 1

TRANSPORTER 2

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087



TCK-0246993
T-11.10

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX				A. State Manifest Document Number WMA 01445		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name BANEOS TRUCKING		8. US EPA ID Number N/A		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol
a.	Non-Regulated Material (soil)		01 DT		12	Y
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above M132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Erwin H. Honig			Signature <i>Erwin H. Honig</i>		Month Day Year 11 12 97	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Angel Velasquez			Signature <i>Angel Velasquez</i>		Month Day Year 11 12 97	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002466						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						

GENERATOR

TRANSPORTER

FACILITY

Date

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-0246992
 T-1151

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Form approved. OMB No 2050-0039. expires 09/30/87

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01444		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name BRAZOS TRUCKING		8. US EPA ID Number N/A		D. State Transporter's ID 713-864-6540		
9. Designated Facility Name and Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number T X 0000820266		E. State Facility's ID H1307		
				F. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	Non-Regulated Material (soil)			1.2	Y	04003011
b.						
c.						
d.						
J. Additional Descriptions for Materials Covered Above Waste Management				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by the mode of transport according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H Honig			Signature <i>Edwin H Honig</i>		Month Day Year 11/12/97	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials					
	Printed/Typed Name BENEDICTO LANDAUCHE			Signature BENEDICTO L		Date 11/12/97
	18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name			Signature BENEDICTO LANDAUCHE		Date	
FACILITY	19. Discrepancy Indication Space KG COH 002467					
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
						Date

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
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 Austin, Texas 78711-3087



Tck-024699
 T-9.16

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Form approved. GMB No 2050-0033. expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX				A. State Manifest Document Number WMA 01441		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				10. US EPA ID Number T.X.D.01.667.3		
				G. State Facility's ID 41307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	Containers	13. Hazardous Waste No.	14. Unit Wt/Vol	15. Waste No.	
a.	Non-Regulated Material (soil)	1-01	DT	72	Y	04003011
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number				K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to the international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EOWIN H. HONIC		Signature <i>Eowin Honic</i>		Month Day Year 11/12/97		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name R. Prayas		Signature <i>R. Prayas</i>		Month Day Year 11/12/97		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002468						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						

GENERATOR

TRANSPORTER

FACILITY

Date

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
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TCK-0246987
 T-10.17

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01443			
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84929			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540			
9. Designated Facility Name and Site Address Atascocita RDF 3523 Wilson Road Humble, TX 77396		10. US EPA ID Number TX 0016673		E. State Facility's ID H1307			
				F. Facility's Phone 281-446-6545			
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers	13. Total Net Weight	14. Unit W/Vol	15. Waste No.	
	a.	Non-Regulated Material (soft)	01	DT	12	Y	04003011
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to the international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Year 11 12 9			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Rogelio Valledares		Signature <i>Rogelio Valledares</i>		Month Day Year 11 12 9			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name		Signature		Month Day Year			
19. Discrepancy Indication Space KG COH 002469							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
						Date	

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
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TKK-0246985
 T-1119

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Form approved OMB No 2050-0039, expires 09/30/9

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820256	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX			A. State Manifest Document Number WMA 01442		B. State Generator's ID 31547			
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 64829		D. Transporter's Phone 6540			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545		
9. Designated Facility Name and Site Address Atascocita RDF 3523 Wilson Road Humble, TX 77396			10. US EPA ID Number TX 0015673147					
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Container No.	Total Quantity	Unit Wt/Vol	Waste No.	
		a. Non-Regulated Material (soil)		01	12	Y	04003011	
		b.						
		c.						
		d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes for Wastes Listed Above H11				
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state, and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the extent I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name EODIN H HONIG			Signature <i>Eodin H Honig</i>		Month Day Year 11 12 97			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Theresa Miranda			Signature <i>Theresa Miranda</i>		Date 11 12 97			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date			
19. Discrepancy Indication Space KG COH 002470								
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Date								

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
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TCK-0247022
 T-11.83

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820256	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX				A. State Manifest Document Number WMA 01669		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TXD016673147		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID 51307		
				H. Facility's Phone 6545		
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		Unit
	a.	Non-Regulated Material (soil)		No.	Type	Wt/Vol
	b.					
	c.					
	d.					
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511431				K. Hazard Codes for Wastes Listed Above H132		

15. Special Handling Instructions and Additional Information.

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are properly packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
 As a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Ernie H. Honig Signature: [Signature] Month Day Year: 11/12/19

17. Transporter 1 Acknowledgement of Receipt of Materials
 Printed/Typed Name: _____ Signature: _____ Date: 11/12/19

18. Transporter 2 Acknowledgement of Receipt of Materials
 Printed/Typed Name: Ramiro Partida Signature: [Signature] Date: 11/12/19

19. Discrepancy Indication Space
 KG COH 002471

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
 Date: _____

GENERATOR
TRANSPORTER
RECEIVER



TCK-0247021
T-10.77

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Form approved OMB No 2050-0039, expires 09/30/99

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01448		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TXD016673147		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No. Type	13. Total Quantity	Waste No.
a.	Non-Regulated Material (soil)			01 DT	12	04003011
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				Wastes Listed Above		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are properly packaged, labeled, and are in all respects in proper condition for transport by highway according to applicable international and national regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically achievable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig			Signature Edwin H. Honig		Month Day Year 11/19/97	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Angel Herrera Leal			Signature Angel Herrera Leal		Month Day Year 11/12/97	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space						
KG COH 002472						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 13.						
						Date

GENERATOR

TRANSPORTER

RECU-JIT



TCK-0246902
 T-7.98

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

Form approved. OMB No 2050-0039. expires 09/30/87

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01433		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				10. US EPA ID Number TX 0016673147		G. State Facility's ID H1307
				H. Facility's Phone 281-446-6545		
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
	a.	Non-Regulated Material (soil)	01	DT	12	Y
	b.					
	c.					
	d.					
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481						
15. Special Handling Instructions and Additional Information						
16. GENERAL CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present or future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EDWIN H. HONIC			Signature <i>[Signature]</i>		Month Day Yr 11/1/89	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials					
	Printed/Typed Name Horacio Hernandez			Signature <i>[Signature]</i>		Date 11/1/89
	18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name			Signature		Date	
19. Discrepancy Indication Space KG COH 002473						
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
	Printed/Typed Name			Signature <i>[Signature]</i>		Date Month Day Yr

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TCK-0246901
 T-11.02

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Form approved GMB No 2050-0039, expires 09/30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01432		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979		6. US EPA ID Number N/A		C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540
5. Transporter 1 Company Name Pulido Trucking		7. Transporter 2 Company Name BRAZOS TRUCKING		E. Transporter's ID		F. Transporter's Phone 713-242-9200
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TXD016673147		G. Facility's ID H1307	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers		13. Total Quantity	
a. Non-Regulated Material (soil)			No. Type		14. Unit Wt/Vol	
			01 DT		Y	
					04003011	
15. Special Handling Instructions and Additional Information			K. Handling Instructions			
Waste Management Profile Number 511481						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and selected the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edward H. Honig		Signature <i>Edward H. Honig</i>		Month Day Y 11/1/11		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name SIEL CASTILLO		Signature <i>Siel Castillo</i>		Month Day Y 11/1/11		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Y		
19. Discrepancy Indication Space KG COH 002474						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

GENERATOR

TRANSPORTER

FACILITY



TCK-0246900
T-10.75

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Form approved. CMB No 2050-0039. expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T.X.0000820256		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01431				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking				6. US EPA ID Number N/A		C. State Transporter's ID 84829				
7. Transporter 2 Company Name BRATOS TRUCKING				8. US EPA ID Number N/A		D. Transporter's Phone 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						10. US EPA ID Number TX0016673147		E. State Transporter's ID		
								F. Transporter's Phone 713-242-		
								G. State Facility's ID H1307 9323		
								H. Facility's Phone 281-446-6545		
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.		Non-Regulated Material (soil)				01 DT		1.2	Y	04003011
b.										
c.										
d.										
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481						K. Handling Code H132				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the most practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. If I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name EDWIN H. HONIG				Signature <i>Edwin H. Honig</i>		Month 11		Day 11		Year 95
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature <i>Sergio Cardoso</i>		Month 11		Day 11
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature		Month		Day
19. Discrepancy Indication Space KG COH 002475										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
								Date		

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



EIGHT LOADS OF STORM
 STORM WATER REMOVED FROM
 TWO EPAC TANKS FOR
 DISPOSAL (17,735 gal)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039. expires 09 30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 000082026 LI		Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Parkway 4710 Liberty Rd Houston, TX					A. State Manifest Document Number 00966485			
4. Generator's Phone (402) 271-5977					B. State Generator's ID 31547			
5. Transporter 1 Company Name U.S. Filter				6. US EPA ID Number TXD-98808942.1		C. State Transporter's ID F1052		
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone		
9. Designated Facility Name and Site Address Southern Pacific water treatment 5900 Wallisville Houston, TX				10. US EPA ID Number		E. State Transporter's ID		
						F. Transporter's Phone		
						G. State Facility's ID		
						H. Facility's Phone 713-223-6500		
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L Waste No.
	a. NON-Regulated Material (water)					350	GAL	0400201
	b.							
	c.							
	d.							
J. Additional Descriptions for Materials Listed Above					K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name George H. Evans				Signature <i>George H. Evans</i>		Month Day Year 12 19 15		
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name Tommy T. Williams		Signature <i>Tommy T. Williams</i>		Date 12 19 15
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature		Month Day Year
19. Discrepancy Indication Space KG COH 002476								
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.								Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



960/02

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Form approved. GMB No. 2050-0039. expires 09 30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 000082026 L		Manifest Document No.		2. Page 1 of		Information in the shaded area is not required by Federal law	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Rd Houston, TX						A. State Manifest Document Number 00966487			
4. Generator's Phone (402) 271-5477						B. State Generator's ID 31547			
5. Transporter 1 Company Name U.S. Filter			6. US EPA ID Number T.Y.D. 98808942/			C. State Transporter's ID 81059			
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone			
						E. State Transporter's ID			
						F. Transporter's Phone			
9. Designated Facility Name and Site Address Southern Pacific Water Treatment 5800 Wallisville Houston, TX						10. US EPA ID Number			
						G. State Facility's ID			
						H. Facility's Phone 713-223-1597			
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	L. Waste No.
a.	NON-Regulated material (water)						2498	gal	0400301
b.									
c.									
d.									
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name George H. Evans					Signature <i>George H. Evans</i>			Month Day Year 12 15 9	
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name Tommy T. Williams					Signature <i>Tommy T. Williams</i>			Month Day Year 12 19 9	
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name					Signature			Month Day Year	
19. Discrepancy Indication Space KG COH 002477									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
									Date

GENERATOR

TRANSPORTER

FACILITY

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960102

3

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Form approved. OMB No. 2050-0035. expires 09 30 95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>TX0000P20266</i>	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address <i>Southern Pacific Railroad 4410 Liberty Rd Houston, TX</i>				A. State Manifest Document Number <i>00966488</i>				
4. Generator's Phone (<i>402</i>) <i>271-5497</i>				B. State Generator's ID <i>31547</i>				
5. Transporter 1 Company Name <i>U.S. Filter</i>		6. US EPA ID Number <i>TXD.988 DP94.2.1</i>		C. State Transporter's ID <i>81054</i>		D. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address <i>Southern Pacific Water Treatment 5800 Wallisville Houston, TX</i>				10. US EPA ID Number		G. State Facility's ID		
						H. Facility's Phone <i>713-223-6887</i>		
11A. HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L. Waste No.
a.	<i>NON-Regulated material (water)</i>					<i>2498 Gal</i>		<i>0400301</i>
b.								
c.								
d.								
J. Additional Descriptions for Materials Listed Above					K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name <i>George H. Evans</i>				Signature <i>George H. Evans</i>			Month Day Year <i>12 19 15</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>Tommy T. Williams</i>			Month Day Year <i>12 19 15</i>	
Printed/Typed Name <i>Tommy T. Williams</i>				Signature			Date	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature			Month Day Year	
Printed/Typed Name				Signature			Date	
19. Discrepancy Indication Space <i>KG COH 002478</i>								
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.								Date
Printed/Typed Name				Signature			Month Day Year	

GENERATOR

TRANSPORTER

FACILITY



①

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Form approved. OMB No. 2050-0039. expires 09-30-

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>TX000082026</i>	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address <i>Southern Pacific Railroad 4910 Liberty Rd. Houston, TX</i>				A. State Manifest Document Number <i>00966489</i>				
4. Generator's Phone (<i>402</i>) <i>271-5474</i>				B. State Generator's ID <i>31547</i>				
5. Transporter 1 Company Name <i>U.S. Filter</i>		6. US EPA ID Number <i>TX00-988-08942-1</i>		C. State Transporter's ID <i>81059</i>		D. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address <i>Southern Pacific Waste Water Treatment 5800 Wallisville Houston, TX</i>				10. US EPA ID Number		G. State Facility's ID		
						H. Facility's Phone <i>(713) 223-6587</i>		
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Container's No.	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.	
a.	<i>NON-Regulated material (water)</i>				<i>2.495 Gal</i>		<i>04003011</i>	
b.								
c.								
d.								
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above				
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name <i>George H. Evans</i>				Signature <i>George H. Evans</i>		Month Day Yr <i>12 19 12</i>		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials				Date			
	Printed/Typed Name <i>Tommy T. Williams</i>		Signature <i>Tommy T. Williams</i>		Month Day Yr			
	18. Transporter 2 Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name		Signature		Month Day Yr				
19. Discrepancy Indication Space KG COH 002479								
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							Date
								Month Day Yr



Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039. expires 09-30-9

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>TX.0.0.0.08.202.6.4</i>		Manifest Document No.		2. Page 1 of		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address <i>Southern Pacific Railroad 4910 Liberty Rd. Houston, TX.</i>						A. State Manifest Document Number 00966490			
4. Generator's Phone <i>(402) 271-5974</i>						B. State Generator's ID <i>31547</i>			
5. Transporter 1 Company Name <i>U.S. Filter</i>				6. US EPA ID Number <i>TXD.988.08942.1.</i>		C. State Transporter's ID <i>81547 81059</i>			
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address <i>Southern Pacific Waste Water Treatment 5800 Walkville Houston, TX</i>						10. US EPA ID Number			
						E. State Transporter's ID			
						F. Transporter's Phone			
						G. State Facility's ID			
						H. Facility's Phone <i>713-223-6587</i>			
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	L. Waste No.
	a. <i>NON-Regulated material (water)</i>						<i>2400</i>	<i>Gal</i>	<i>04003011</i>
	b.								
	c.								
	d.								
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name <i>George H. Evans</i>					Signature <i>George H. Evans</i>			Month Day Year <i>12 19 97</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name <i>DAVID G. HEAD</i>					Signature <i>David G. Head</i>			Month Day Year <i>12 19 97</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name					Signature			Month Day Year	
19. Discrepancy Indication Space KG COH 002480									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
									Date

GENERATOR

TRANSPORTER

FACILITY



960102

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Form approved. OMB No. 2050-0033, expires 09 30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000 820 266		Manifest Document No.		2. Page 1 of		Information in the shaded area is not required by Federal law							
3. Generator's Name and Mailing Address SOUTHERN PACIFIC RAILROAD 4910 LIBERTY ROAD HOUSTON, TX						A. State Manifest Document Number 00966491									
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547									
5. Transporter 1 Company Name G.S. FELTZ				6. US EPA ID Number TX 0000 988 089 421		C. State Transporter's ID 820 266									
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone									
9. Designated Facility Name and Site Address Southern Pacific Water Treatment 5800 WALLISVILLE						10. US EPA ID Number									
11A. HM						11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.	
a.						NON REGULATED MATERIAL (WATER)		.. .		2448		GAL		0A003011	
b.								.. .							
c.								.. .							
d.								.. .							
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above									
15. Special Handling Instructions and Additional Information															
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.															
Printed/Typed Name George H. Evans					Signature <i>George H. Evans</i>					Month Day Year 12 19 95					
17. Transporter 1 Acknowledgement of Receipt of Materials										Date					
Printed/Typed Name Tommy T. Williams					Signature <i>Tommy T. Williams</i>					Month Day Year 12 19 95					
18. Transporter 2 Acknowledgement of Receipt of Materials										Date					
Printed/Typed Name					Signature					Month Day Year					
19. Discrepancy Indication Space KG COH 002481															
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										Date					
Printed/Typed Name					Signature					Month Day Year					

GENERATOR

TRANSPORTER

FACILITY



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Form approved. OMB No. 2050-0039. expires 09.30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>TX0000820264</i>		Manifest Document No.		2. Page 1 of		Information in the shaded area is not required by Federal law		
3. Generator's Name and Mailing Address <i>Southern Pacific Railroad 4410 Liberty Rd Houston, TX</i>						A. State Manifest Document Number 00966492				
4. Generator's Phone (<i>402</i>) <i>271-5979</i>						B. State Generator's ID 31547				
5. Transporter 1 Company Name <i>U.S. Filter</i>				6. US EPA ID Number <i>TXD-988-08942-1</i>		C. State Transporter's ID 81059				
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone				
9. Designated Facility Name and Site Address <i>Southern Pacific Waste Water Treatment 5800 Wallisville Houston, TX</i>						10. US EPA ID Number				
						E. State Transporter's ID				
						F. Transporter's Phone				
						G. State Facility's ID				
						H. Facility's Phone 713-223-6587				
11A. HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	15. Waste No.
a.		<i>NON-Regulated Material (Water)</i>			.. .		<i>249.8 GAL</i>			<i>0400301</i>
b.							
c.							
d.							
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name <i>George H. Evans</i>					Signature <i>George H. Evans</i>			Month Day 12 19 91		
17. Transporter 1 Acknowledgement of Receipt of Materials					Signature <i>David G. Heath</i>			Month Day 12 19 91		
Printed/Typed Name <i>David G. Heath</i>					Signature <i>David G. Heath</i>			Month Day 12 19 91		
18. Transporter 2 Acknowledgement of Receipt of Materials					Signature			Month Day		
Printed/Typed Name					Signature			Month Day		
19. Discrepancy Indication Space KG COH 002482										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
									Date	

GENERATOR

TRANSPORTER

FACILITY



460102

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Form approved. OMB No 2050-0039. 2-12-85 09 J

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>T.X.0000820262</i>		Manifest Document No.		2. Page 1 of		Information in the shaded area is not required by Federal law	
3. Generator's Name and Mailing Address <i>Southern Pacific Railroad 4910 Liberty Rd Houston, TX</i>						A. State Manifest Document Number <i>00966493</i>			
4. Generator's Phone <i>(402) 271-5979</i>						B. State Generator's ID <i>31547</i>			
5. Transporter 1 Company Name <i>U.S. Filter</i>			6. US EPA ID Number <i>T.XD 988 089421</i>			C. State Transporter's ID <i>81054</i>			
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone			
9. Designated Facility Name and Site Address <i>Southern Pacific Waste Water Treatment 5900 Wallisville Houston, TX</i>			10. US EPA ID Number			E. State Transporter's ID			
						F. Transporter's Phone			
						G. State Facility's ID			
						H. Facility's Phone <i>713-223-6587</i>			
11A. HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	<i>DDH - Regulated material (water)</i>						<i>.2498</i>	<i>Gal</i>	<i>0400301</i>
b.									
c.									
d.									
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name <i>George Evans</i>					Signature <i>George A. Evans</i>			Month Day Year <i>12/19/85</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name <i>Tommy T. Williams</i>					Signature <i>Tommy T. Williams</i>			Month Day Year <i>12/17/85</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name					Signature			Month Day Year	
19. Discrepancy Indication Space KG COH 002483									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
Printed/Typed Name					Signature			Date Month Day Year	

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087



U. F. R. H. C. TRUNK
CONTAINING S
AND PP

T. [Signature]

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0035, expires 03-

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX.D.0008.Z0.Z66	Manifest Document No. 09	2. Page 1 of 1	Information in the shaded area is not required by Federal	
3. Generator's Name and Mailing Address SOUTHERN PACIFIC RR. 4910 Liberty Houston, TX			A: State Manifest Document Number 0096649		B: State Generator's ID 31547	
4. Generator's Phone 409 271 5979		5. Transporter 1 Company Name USA Environmental		6. US EPA ID Number		C: State Transporter's ID 43327
7. Transporter 2 Company Name		8. US EPA ID Number		D: Transporter's Phone 713-977-...		E: State Transporter's ID
9. Designated Facility Name and Site Address Arascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TX.D.0.1.6.6.73.1.47		F: Transporter's Phone		G: State Facility's ID H 1507
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol
a. Non Regulated Material (Sol. PPE.)		001 DR 0.0 P. 55 gal		9.1		040030
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
Waste Material				M132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are truly and accurately described above by proper shipping name and classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and use the best waste management method that is available to me and that I can afford.						
Printed/Typed Name George H Evans		Signature [Signature]		Month Day 01/02		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name FARAD GONZALES		Signature [Signature]		Month Day 01/10/98		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day		
19. Discrepancy Indication Space KG COH 002484						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name Chris Jones		Signature [Signature]		Date 01/10/98		

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



THIS IS THE WASH WATER
 FROM 2ND CLEANING OF FR
 TRUCKS USED FOR
 STORM WATER STORAGE

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-C039. expires 09 30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX0000820266		Manifest Document No.		2. Page 1 of		Information in the shaded area is not required by Federal law	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Rd Houston, TX						A. State Manifest Document Number 00966497			
4. Generator's Phone (402) 271-5977						B. State Generator's ID 31547			
5. Transporter 1 Company Name			6. US EPA ID Number			C. State Transporter's ID			
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone			
9. Designated Facility Name and Site Address Southern Pacific Water Treatment 5800 Wallisville Houston, TX			10. US EPA ID Number			E. State Transporter's ID			
						F. Transporter's Phone			
						G. State Facility's ID			
						H. Facility's Phone 713-223-6587			
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L Waste No.	
	a. Non-Regulated material (WATER)			3	DR	1.30	gal	04003011	
	b.								
	c.								
	d.								
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name George H. Evans				Signature <i>George H. Evans</i>			Month Day Y 01 02 96		
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name FACON GOVALDES				Signature <i>Facon Govaldes</i>			Month Day Y 01 02 96		
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name				Signature			Month Day Y		
19. Discrepancy Indication Space KG COH 002485									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. 112501 TREATMENT PLANT									
									Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087

ORIGINALS
 FED-X TO ED
 HONIG on 1-8-95
 WDA



THIS IS THE CATCH WATER
 FROM THE CLEANING OF THE
 FRET TANKS USED FOR
 STEAM WATER STORAGE

Please print or type. (Form designed for use on site (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX0000820266		Manifest Document No.		2. Page 1 of		Information in the shaded area is not required by Federal law	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Rd Houston, TX						A. State Manifest Document Number 00966494			
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547			
5. Transporter 1 Company Name USA Environmental				6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address Southern Pacific Water Treatment 5800 Wallisville Houston, TX				10. US EPA ID Number		E. State Transporter's ID			
						F. Transporter's Phone			
						G. State Facility's ID			
						H. Facility's Phone 713-223-6587			
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	Type	13. Total Quantity	14. Unit Wt.-Vol	L Waste No.	
	a. NON-Regulated Material (water)					5	55 gal drum	040030	
	b.								
	c.								
	d.								
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name George N. Evans				Signature <i>George N. Evans</i>		Month Day Year 12 24 95			
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name Adam Cortez				Signature <i>Adam Cortez</i>		Month Day Year 12 24 95			
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name				Signature		Month Day Year			
19. Discrepancy Indication Space KG COH 002486									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
Printed/Typed Name				Signature		Date			

GENERATOR
TRANSPORTER
FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-0247445
 T-12.45

Form approved. OMB No. 2050-0039. expires 09/30/05

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01778		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name ISRAZOS TRUCKING		8. US EPA ID Number N/A		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM		11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity
		a. Non-Regulated Material (soil)		01 DT		12 Y
		b.				
		c.				
		d.				
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig			Signature <i>[Signature]</i>		Month Day Year 11/1/07	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Annel Velasquez			Signature <i>[Signature]</i>		Month Day Year 11/1/07	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002487						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Date						Month Day

GENERATOR

TRANSPORTER

FACILITY

42

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCL-0247442
 T-11.38

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01776		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
10. US EPA ID Number TX 0016673147		12. Containers		13. Total Quantity		14. Unit Wt/Vol
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		No.	Type	Waste No.
a.		Non-Regulated Material (soil)		01	DT	04003011
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig			Signature <i>Edwin H. Honig</i>		Month Day Year 11/1/99	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Horacio Miranda			Signature <i>Horacio Miranda</i>		Month Day Year 11/13/99	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002488						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name 43			Signature <i>[Signature]</i>		Date Month Day Year	

GENERATOR

TRANSPORTER

FACILITY



TCK-0247439
 T-1139

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Form approved. OMB No. 2050-0039 expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01777		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name BRYANT TRUCKING		8. US EPA ID Number N/A		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity
a.		Non-Regulated Material (soil)		01 DT		1.2
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Year 11/1/97		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name BENEDICTO LANOSUENCA		Signature <i>Benedicto Lanosuenc</i>		Month Day Year 11/1/97		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002489						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name A A		Signature <i>A A</i>		Date Month Day Year		

GENERATOR

TRANSPORTER

FACILITY



TCK-0247408
 T-1315

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Form approved. CMB No. 2050-0039, expires 09/30/9

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1		Information in the shaded areas is not required by Federal law						
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01465								
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547								
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540						
7. Transporter 2 Company Name			8. US EPA ID Number			E. State Transporter's ID		F. Transporter's Phone						
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						10. US EPA ID Number TXD016673147								
G. State Facility's ID H1307						H. Facility's Phone 281-446-6545								
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.				
	a. Non-Regulated Material (soil)					01 DT		12	Y	04003011				
	b.													
	c.													
	d.													
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481						K. Handling Codes for Wastes Listed Above MI32								
15. Special Handling Instructions and Additional Information														
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree that is economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste present and select the best waste management method that is available to me and that I can afford.														
Printed/Typed Name Edwin H. Monig					Signature <i>Edwin H. Monig</i>					Month Day Year 11/13/97				
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials													
	Printed/Typed Name MIGUEL CARREON					Signature <i>Miguel Carreon</i>					Date 11/13/97			
FACILITY	18. Transporter 2 Acknowledgement of Receipt of Materials													
	Printed/Typed Name					Signature					Date			
19. Discrepancy Indication Space KG COH 002490														
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.														
Printed/Typed Name					Signature 45					Date 11/13/97				



TCK-0247008
 T-10.68

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Form approved. OMB No 2050-0039. expires 09/80

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX			A. State Manifest Document Number WMA 01447		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			6. US EPA ID Number N/A		C. State Transporter's ID 84829	
5. Transporter 1 Company Name Pulido Trucking		7. Transporter 2 Company Name		D. Transporter's Phone 713-864-6540		E. State Transporter's ID
9. Designated Facility Name and Site Address - Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TX 0015573147		F. Transporter's Phone	
11. A HM 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No. Type		13. Total Quantity 14. Unit Wt/Vol 15. Waste No.	
a. Non-Regulated Material (soil)			01 DT		12 Y 04003011	
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481						
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national transportation regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined is economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and selected the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EOWIN H. HONIG		Signature <i>Eowin Honig</i>		Month Day Year 11/12/79		
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Rodolfo Maldonado		Signature <i>Rodolfo Maldonado</i>		Month Day Year 11/12/79		
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002491						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Date						

GENERATOR

TRANSPORTER

FACILITY



TCK-0247003
 T-11.67

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Form approved. OMB No 2050-0039. expires 09/93

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01446		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone
7. Transporter 2 Company Name <i>[Signature]</i>		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TX 0016673147			
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	13. Total Quantity	14. Unit W/Vol
a.	Non-Regulated Material (soil)			01	DT	12 Y
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Sites Listed Above		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig			Signature <i>[Signature]</i>		Month Day Year 11 12 97	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name MIGUEL CAVAZOS			Signature <i>[Signature]</i>		Date 11 12 97	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Date	
19. Discrepancy Indication Space KG COH 002492						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name A. J. [Signature]						Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-0247158
 T-10.79

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Form approved. OMB No. 2050-0039. expires 09/30/85

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01459		B. State Generator's ID 31547		
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TXD016573147				
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
	a.	Non-Regulated Material (soil)	01	DT	1.2	Y	04003011
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes H132			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edward H. Honig		Signature <i>Edward H. Honig</i>		Month Day Year 11/1/21			
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials						
	Printed/Typed Name Felipe Castillo		Signature <i>Felipe Castillo</i>		Month Day Year 11/1/21		
	18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year			
FACILITY	19. Discrepancy Indication Space KG COH 002493						
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year			

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TCK-0247155
 T-12.15

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Form approved. CMB No. 2050-0039, expires 09/30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01458		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TXD016573147			
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.	Non-Regulated Material (soil)	01 DT		12	Y	04003011
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edward H. Honig		Signature <i>Edward H. Honig</i>		Month Day Year 11/1/21		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Regt. /is 21		Signature <i>Regt. Valladares</i>		Month Day Year 11/1/21		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002494						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087

TCK-0247190
 T-11161



* LAST LOAD TO-DA

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Form approved. OMB No. 2050-0039. expires 09/30/92

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01463				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID 84829				
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TX 0016673147			E. State Transporter's ID				
						F. Transporter's Phone				
						G. State Facility's ID H1307				
						H. Facility's Phone 281-446-6545				
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.		Non-Regulated Material (soil)				01 DT		12	Y	04003011
b.										
c.										
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481						K. Handling Codes for Wastes MI32				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name EWIN H. HONG				Signature <i>Ewin H. Hong</i>		Month Day Year 11/12/97				
17. Transporter 1 Acknowledgement of Receipt of Materials										
Printed/Typed Name Francis Alvarez				Signature <i>Francis Alvarez</i>		Month Day Year 11/12/97				
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name				Signature		Month Day Year				
19. Discrepancy Indication Space KG COH 002495										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.										
									Date	

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TK-0247189
 T-9.46

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Form approved. OMB No 2050-0039. expires 09/30/85

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820256	Manifest Document No.	2. Page 1 I	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01462		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TXD016673147		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity	14. Unit Wt/Vol
	a. Non-Regulated Material (soil)		No.	Type		
			01	DT	12	Y
						Waste No. 04003011
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EOWIN H HONG		Signature <i>Ewin H Hong</i>		Month Day Year 11/12/97		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Felipe C.		Signature <i>Felipe C.</i>		Month Day Year 11/12/97		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002496						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087



TCK-0247188
T-10,30

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Form approved. OMB No 2050-0039. expires 09/30/9

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01461				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID: 84829				
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone: 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RBF 3623 Wilson Road Humble, TX 77396						E. State Transporter's ID				
						F. Transporter's Phone				
						G. State Facility's ID H1307				
						H. Facility's Phone 281-446-6545				
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.		Non-Regulated Material (soil)				01 DT		1.2	Y	04003011
b.										
c.										
d.										
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481						K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name Edwin H. Honig				Signature <i>Edwin H. Honig</i>			Month Day Year 11/12/9			
17. Transporter 1 Acknowledgement of Receipt of Materials										
Printed/Typed Name Rogelio V. Valdez				Signature <i>Rogelio V. Valdez</i>			Month Day Year 11/12/9			
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name				Signature			Month Day Year			
19. Discrepancy Indication Space KG COH 002497										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
									Date	

GENERATOR

TRANSPORTER

FACILITY



JCK-0247044
T-13.21

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Form approved. OMB No 2950-0039. expires 09/30/91

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX						A. State Manifest Document Number WMA 01453					
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547					
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540			
7. Transporter 2 Company Name			8. US EPA ID Number			E. State Transporter's ID		F. Transporter's Phone			
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						10. US EPA ID Number TX 0016673147		G. State Facility's ID H1307			
						H. Facility's Phone 281-446-6545					
GENERATOR	11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.		Non-Regulated Material (soil)				01 DT		1.2	Y	04003011
	b.										
	c.										
	d.										
J. Additional Descriptions of Materials Listed Above Waste Management Profile Number 511481						K. Handling Codes for Wastes Listed Above H132					
15. Special Handling Instructions and Additional Information											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.											
Printed/Typed Name Gavin H. Honig				Signature <i>Gavin H. Honig</i>				Month Day Year 11/12/9			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name VICENTE VILLARREAL				Signature <i>Vicente Villarreal</i>				Month Day Year 11/12/9			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Discrepancy Indication Space KG COH 002498											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.											
Date											

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-024705
 T-1187

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Form approved. CMB No. 2050-0039. expires 09/30/85

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01454			
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540			
9. Designated Facility Name and Site Address - Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TX 0016673147		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID H1307			
				H. Facility's Phone 281-446-6545			
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above H132			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Ewin H. Hong		Signature <i>Ewin H. Hong</i>		Month Day Year 11/1/87			
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials						
	Printed/Typed Name R. Rojas		Signature <i>R. Rojas</i>		Month Day Year 11/1/87		
	18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year			
19. Discrepancy Indication Space KG COH 002499							
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
	Date						

TEXAS NATURAL RESOURCE
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TCK-0242072
 T-10.75

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Form approved. CMB No. 2050-0039. expires 09/30/

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0 0 0 0 8 2 0 2 6 6	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01457		B. State Generator's ID 31547			
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-445-6545		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TX 0 0 1 6 6 7 3 1 4 7					
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	E Waste No.		
a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011		
b.								
c.								
d.								
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name Erwin H. Honig		Signature <i>Erwin H. Honig</i>		Date 11/12/97				
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Abricio Hernandez		Signature <i>Abricio Hernandez</i>		Date 11/12/97				
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date				
19. Discrepancy Indication Space KG COH 002500								
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.								
Printed/Typed Name 55		Signature <i>[Signature]</i>		Date				

GENERATOR

TRANSPORTER

FACILITY



TCK-0247076
 T-034

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

Form approved. OMB No 2050-0039. expires 09/30/...

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01455		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			6. US EPA ID Number N/A		C. State Transporter's ID 84829	
5. Transporter 1 Company Name Pulido Trucking			7. Transporter 2 Company Name		D. Transporter's Phone 713-864-6540	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			8. US EPA ID Number		E. State Transporter's ID	
10. US EPA ID Number TX D 0 1 6 6 7 3 1 4 7			F. Transporter's Phone		G. State Facility's ID H1307	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers		13. Total Quantity	
11. A HM			No. Type		14. Unit Wt/Vol	
a. Non-Regulated Material (soil)			01 DT		Y	
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481			K. Handling Codes for Wastes Listed Above H132			
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EWIN H. HONG			Signature <i>Ewin H. Hong</i>		Month Day Year 11/12/97	
17. Transporter 1 Acknowledgement of Receipt of Materials			Printed/Typed Name Felipe Castillo		Signature <i>Felipe Castillo</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials			Printed/Typed Name		Signature	
19. Discrepancy Indication Space KG COH 002501						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name						Date

GENERATOR

TRANSPORTER

FACILITY



TCK-0247080
 T-9.18

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Form approved. OMB No 2050-0039. expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0 0 0 0 8 2 0 2 6 6	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA - 01456		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			6. US EPA ID Number N/A		C. State Transporter's ID 84829	
5. Transporter 1 Company Name Pulido Trucking			7. Transporter 2 Company Name		D. Transporter's Phone 713-864-6540	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			8. US EPA ID Number		E. State Transporter's ID	
			10. US EPA ID Number TX 0 0 1 6 6 7 3 1 4 7		F. Transporter's Phone	
					G. State Facility's ID H1307	
					H. Facility's Phone 281-446-6545	
GENERATOR	11. A HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.	Non-Regulated Material (soil)	01	1.2	Y	04003011
	b.					
	c.					
	d.					
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481			K. Handling Codes for Wastes Listed Above H132			
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Erwin H. Honig		Signature <i>Erwin H. Honig</i>		Date 11/1/97		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials					
	Printed/Typed Name Rogelio V		Signature <i>Rogelio Valladares</i>		Date 11/1/97	
	18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name		Signature		Date		
19. Discrepancy Indication Space KG COH 002502						
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
	Printed/Typed Name					
						Date

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TCL-0247030
 T-11.16

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01450				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID 84829				
7. Transporter 2 Company Name <i>BRAD'S TRUCKING</i>			8. US EPA ID Number N/A			D. Transporter's Phone 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77395						E. State Transporter's ID				
						F. Transporter's Phone				
						G. State Facility's ID H1307				
						H. Facility's Phone 281-446-6545				
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.		Non-Regulated Material (soil)				01 DT		12	Y	04003011
b.										
c.										
d.										
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481						K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name EOWEN H. HONG				Signature <i>E. Hong</i>			Month Day Year 11/12/97			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name OSIEL J. CASTILLO				Signature <i>O. Castillo</i>			Date 11/12/97			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature			Date			
19. Discrepancy Indication Space KG COH 002503										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										

GENERATOR

TRANSPORTER

FACILITY



TCK-0247023
T-12.71

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Form approved. OMB No. 2050-C039. Expires 09/30/94

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX 4. Generator's Phone (402) 271-5979				A. State Manifest Document Number WMA 01451				
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TX 0016673147		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545		
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.	Non-Regulated Material (soil)		01	DT	12	Y	04003011
	b.							
	c.							
	d.							
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: S11481				K. Handling Codes for Wastes Listed Above MI32				
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name Eddie H. Honick				Signature <i>Eddie H. Honick</i>		Month Day Year 11/12/91		
17. Transporter 1 Acknowledgement of Receipt of Materials								
Printed/Typed Name MENDOZA LEA				Signature <i>Mendoza Lea</i>		Month Day Year 11/12/91		
18. Transporter 2 Acknowledgement of Receipt of Materials								
Printed/Typed Name				Signature		Month Day Year		
19. Discrepancy Indication Space								
KG COH 002504								
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.								
Date								

TRANSPORTER

FACTORY



TCK-0247043
 T-10.71

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01452			
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540			
9. Designated Facility Name and Site Address - Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TXD016673147		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID H1307			
				H. Facility's Phone 281-446-6545			
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above			K. Handling Codes for Wastes Listed Above				
Waste Management Profile Number: 511481			H132				
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name EOWIN H. HONIG		Signature Eowin H. Honig		Month Day Year 11/1/21			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Martin Sanchez		Signature Martin Sanchez		Month Day Year 11/1/21			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name		Signature		Month Day Year			
19. Discrepancy Indication Space							
KG COH 002505							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name						Date	

FACILITY

TEXAS NATURAL RESOURCE
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TCK-0246837
 T-11.78

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01424		B. State Generator's ID 31547		
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone	
7. Transporter 2 Company Name BRATOS TRUCKING		8. US EPA ID Number N/A		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545	
9. Designated Facility Name and Site Address Atascocita RDF. 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number . TX D O 1 6 6 7 3 1 4 7 .				
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
	a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481			K. Handling Codes for Wastes Listed Above M132				
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name EWIN H. HONIG		Signature <i>Ewin H. Honig</i>		Month Day Year 11 11 9			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Sergio Cardoso		Signature <i>Sergio Cardoso</i>		Month Day Year 11 11 9			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name		Signature		Month Day Year			
19. Discrepancy Indication Space KG COH 002506							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.							
Date							

FACILITY



Tck-0246841
 T-10.69

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Form approved. OMB No 2050-0039. expires 09/30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T X 0 0 0 0 8 2 0 2 5 6	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01426		B. State Generator's ID 31547		
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number T X 0 0 1 6 6 7 3 1 4 7				
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 5T1481			K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name EDWIN H. HONIG			Signature <i>Edwin H. Honig</i>		Month Day Year 11/1/19		
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name MENTOR LEAL			Signature <i>Mentor Leal</i>		Month Day Year 11/1/19		
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name			Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002507							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest exc pt as noted in Item 19.							
Printed/Typed Name						Date	

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-0246845
 T-11.91

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Form approved. OMB No 2050-0039. expires 09/30/80

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T X 0 0 0 0 8 2 0 2 6 6		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01427				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking				6. US EPA ID Number N/A		C. State Transporter's ID 84829				
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						10. US EPA ID Number TX 0 0 1 6 6 7 3 1 4 7				
E. State Transporter's ID						F. Transporter's Phone				
G. State Facility's ID H1307						H. Facility's Phone 281-446-6545				
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.		
	a.	Non-Regulated Material (soil)			01	1.2	Y	04003011		
	b.									
	c.									
	d.									
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481						K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name Eduardo H. Honor				Signature <i>Eduardo H. Honor</i>		Month Day Year 11/11/91				
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials									
	Printed/Typed Name Horacio Miranda				Signature <i>H. Miranda</i>		Month Day Year 11/11/91			
	18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name				Signature		Month Day Year				
FACILITY	19. Discrepancy Indication Space KG COH 002508									
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
									Date	



TCK-0246848
 T-897

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01428		
4. Generator's Phone (402) 271-5979			B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking	6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name	8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			E. State Transporter's ID		
10. US EPA ID Number TX 0016673147			F. Transporter's Phone		
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers	13. Total Quantity	14. Unit Wt/Vol
a. Non-Regulated Material (soil)			No. Type		Waste No.
			01 DT	12	Y 04003011
b.					
c.					
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481			K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Year 11/11/97	
17. Transporter 1 Acknowledgment of Receipt of Materials					
Printed/Typed Name R. Reyes		Signature <i>R. Reyes</i>		Date 11/11/97	
18. Transporter 2 Acknowledgment of Receipt of Materials					
Printed/Typed Name		Signature		Date	
19. Discrepancy Indication Space KG COH 002509					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
					Date

UNITED STATES OF AMERICA

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087

TCK-0246905
 T-9.58



* LIST LEAD TO DRY

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T X 0 0 0 0 8 2 0 2 6 6	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01436		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			C. State Transporter's ID: 84829		D. Transporter's Phone: 713-864-6540	
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number T X 0 0 1 6 6 7 3 3 & 7			
GENERATOR	11. A HM	11. US DOT Proper Shipping Name, Hazard Class, and ID Number	12. Containment No.	13. Quantity	14. Unit Wt/Vol	15. Waste No.
	a.	Non-Regulated Material (soil)	01	72	Y	04003011
	b.					
	c.					
	d.					
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481			K. Handling Codes for Wastes Listed Above M132			
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EOWIN H HANIS			Signature <i>Eowin H Hanis</i>		Month Day Year 11/11/91	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials			Date		
	Printed/Typed Name JOSE SANCHEZ		Signature <i>Jose Sanchez</i>		Month Day Year 11/11/91	
18. Transporter 2 Acknowledgement of Receipt of Materials			Date			
Printed/Typed Name			Signature		Month Day Year	
FACILITY	19. Discrepancy Indication Space KG COH 002510					
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Date					

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TCK-0246904
 T-6879



*
 [Handwritten signature]

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T X 0 0 0 0 8 2 0 2 6 5	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01435		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number H/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-5540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number T X 0 0 1 6 6 7 3 3 4 7		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
GENERATOR	11. A HM	11. US DOT Description and Proper Shipping Name, Hazard Class, and ID		12. Containers		13. Total Quantity
	a.	Non-Regulated Material (soil)		No.	Type	14. Unit Wt/Vol
				01	DT	Y
	b.					
	c.					
	d.					
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 5E1481				K. Handling Codes for Wastes Listed Above M132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EWIN H HONIG		Signature [Signature]		Month Day Year 11/1/97		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials					
	Printed/Typed Name R. ROYAS		Signature [Signature]		Month Day Year 11/1/97	
	18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002511						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Date						

FACILITY

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TCK-0246903
 T-8.23

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Form approved, CMB No 2050-0039, e-pres 09/30/9

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 000 082 0266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX				A. State Manifest Document Number WMA 01434			
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540			
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TX 001 667 3147		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID H1307			
				H. Facility's Phone 281-446-6545			
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
	a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above M132			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edward H. Honig		Signature <i>Edward H. Honig</i>		Month Day Year 11/1/19			
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials						
	Printed/Typed Name MENDOR LEAL		Signature <i>Mendor Leal</i>		Month Day Year 11/1/19		
	18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year			
FACILITY	19. Discrepancy Indication Space KG COH 002512						
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date	

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TCK-0246833
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Form approved. CMB No 2050-0039. Expires 09/30/99

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820265		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01423				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking / BRAZOS			6. US EPA ID Number N/A			C. State Transporter's ID 84829				
7. Transporter 2 Company Name BRAZOS TRUCKING			8. US EPA ID Number N/A			D. Transporter's Phone 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						10. US EPA ID Number TX D 016673147				
G. State Facility's ID H1307						H. Facility's Phone 281-446-6545				
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.	Non-Regulated Material (soil)					01 DT		12	Y	04003011
b.										
c.										
d.										
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481						K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name Edwin H. Honig					Signature <i>Edwin H. Honig</i>			Month Day Year 11/1/97		
17. Transporter 1 Acknowledgement of Receipt of Materials										
Printed/Typed Name Brazos Trucks					Signature <i>Abelardo Sanchez</i>			Month Day Year 11/1/97		
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name					Signature			Month Day Year		
19. Discrepancy Indication Space KG COH 002513										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
									Date	

GENERATOR

TRANSPORTER

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Tck-0246850
 T-12.35

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Form approved. OMB No 2050-0039. expires 09/30/85

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820256	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01429			
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540			
9. Designated Facility Name and Site Address -Atascocita RDF 3523 Wilson Road Humble, TX 77396		10. US EPA ID Number TX 0016673147		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID H1307			
				H. Facility's Phone 281-446-6545			
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No
	a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above H132			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Year 11/11/79			
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials						
	Printed/Typed Name Jose Sanchez		Signature <i>Jose Sanchez</i>		Month Day Year 11/11/79		
	18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year			
FACILITY	19. Discrepancy Indication Space KG COH 002514						
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
							Date

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 CONSERVATION COMMISSION
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TCK-0246899
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Form approved. OMB No. 2050-C039. expires 09/30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01430				
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking			6. US EPA ID Number N/A			C. State Transporter's ID: 84829				
7. Transporter 2 Company Name <i>BRAZOS TRUCKING</i>			8. US EPA ID Number N/A			D. Transporter's Phone: 713-864-6540				
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						E. State Transporter's ID				
						F. Transporter's Phone: 713-242-732				
						G. State Facility's ID: H1307				
						H. Facility's Phone: 281-446-6545				
11. A HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.		Non-Regulated Material (soil)				01 DT		1.2	Y	04003011
b.										
c.										
d.										
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511431						K. Hazard Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name <i>Edward H. Honig</i>				Signature <i>Edward H. Honig</i>				Month Day Year 11/11/9		
17. Transporter 1 Acknowledgement of Receipt of Materials										
Printed/Typed Name				Signature				Month Day Year 11/11/9		
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name <i>Abelardo Sanchez</i>				Signature <i>Abelardo Sanchez</i>				Month Day Year 11/11/9		
19. Discrepancy Indication Space KG COH 002515										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
									Date	

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
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TCK-0246824
 T-15.13

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T X 0 0 0 0 8 2 0 2 6 6	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01425				
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547				
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
7. Transporter 2 Company Name BOAZOS TRUCKING		8. US EPA ID Number 16/64		E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				10. US EPA ID Number T X 0 0 1 6 6 7 3 1 4 7		G. State Facility's ID H1307 H. Facility's Phone 281-446-6545		
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.	Non-Regulated Material (soil)		01	DT	12	Y	04003011
	b.							
	c.							
	d.							
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above M132				
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and an classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present or future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name EDWARD H. HODIG		Signature <i>Edward H. Hodig</i>		Month Day Year 11/11/97				
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials							
	Printed/Typed Name OSIEL J CASTILLO		Signature <i>Osiel J. Castillo</i>		Date 11/11/97			
	18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name		Signature		Date				
FACILITY	19. Discrepancy Indication Space KG COH 002516							
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
						Date		

TEXAS NATURAL RESOURCE
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TCK-0246651
 T-9.10

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Form approved: GMB No 2050-0039, expires 09/30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820256		Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01415		B. State Generator's ID 31547		
4. Generator's Phone (402) 271-5979				C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396				10. US EPA ID Number TX 0016673147				
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.	
	a.	Non-Regulated Material (soil)		01	DT	12	Y 04003011	
	b.							
	c.							
	d.							
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Waste Listed Above H132				
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name EDWIN H. HONIG				Signature <i>Edwin H. Honig</i>		Date 11/11/97		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>[Signature]</i>		Date 11/11/97	
	Printed/Typed Name Harold M. ...				Signature <i>[Signature]</i>		Date 11/11/97	
	18. Transporter 2 Acknowledgement of Receipt of Materials				Signature <i>[Signature]</i>		Date 11/11/97	
Printed/Typed Name				Signature		Date		
19. Discrepancy Indication Space								
KG COH 002517								
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
	Date							



TCK-0246645
 T-779

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

Form approved. OMB No. 2050-0039. expires 09/30/90

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T X 0 0 0 0 8 2 0 2 6 6	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01414		B. State Generator's ID 31547			
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number T X D 0 1 6 6 7 3 1 4 7					
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.		
a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011		
b.								
c.								
d.								
J. Additional Descriptions for Materials Listed Above Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name EDWIN H. HONIG			Signature <i>Edwin H. Honig</i>		Month Day Yea 11 11 9			
17. Transporter 1 Acknowledgement of Receipt of Materials								
Printed/Typed Name MENDOR LEAL			Signature <i>M. Leal</i>		Month Day Yea 11 11 9			
18. Transporter 2 Acknowledgement of Receipt of Materials								
Printed/Typed Name			Signature		Month Day Yea			
19. Discrepancy Indication Space KG COH 002518								
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.								
Printed/Typed Name			Signature		Date Month Day Yea			

GENERATOR
 TRANSPORTER
 FACILITY



TCK 0246655
 T-8.04

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Form approved. OMB No 2050-3039. expires 01

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1	Information in the shaded area is not required by Federal law	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01417		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TX D-0-396-625-147			
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
b.						
c.						
d.						
J. Additional Description Waste Management Manifest Number 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this manifest are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the quantity and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EDWIN H. HONIG			Signature <i>Edwin H. Honig</i>		Month Day Year 11/11/99	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Rosendo Rayas			Signature <i>Rosendo Rayas</i>		Date 11/11/99	
19. Discrepancy Indication Space KG COH 002519						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name _____ Signature _____ Date _____						

GENERATOR

TRANSPORTER

FACILITY



TKK-0246666
 T-14.26

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Form approved, OMB No 2050-0039, e-print 09/3

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820265	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01418			
4. Generator's Phone (402) 271-5979			B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX. 77396		10. US EPA ID Number TX D O 1 6 6 7 3 1 4 7		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class and ID Number)			12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol
a.	Non-Regulated Material (soil)			01 DT	12	Y
b.						
c.						
d.						
J. Additional Descriptions Waste Management Project Number 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport on the highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the quantity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, and disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I certify that I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
17. Transporter 1 Acknowledgement of Receipt of Materials			Signature Edwin H. Honig		Date 11/11/19	
18. Transporter 2 Acknowledgement of Receipt of Materials			Signature Jose Sanchez		Date 11/11/19	
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						

GENERATOR

TRANSPORTER

FACILITY

KG COH 002520

Date



TK-0246755
 T-8.50

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01419		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		C. State Transporter's ID 84829		
7. Transporter 2 Company		8. US EPA ID Number		D. Transporter's Phone 713-864-6540		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TX D.0.166.731.4.7		E. State Facility's ID B1307		
				F. Facility's Phone 281-446-6545		
GENERATOR	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.	
	a. Non-Regulated Material (soil)	No. 01 Type DT	12	Y	04003011	
	b.					
	c.					
	d.					
J. Additional Descriptions for Materials Waste Management Profile Number 511481				K. Handling Codes for Wastes Listed Above H132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are accurately and completely described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name EDWIN H. HONIG		Signature <i>Edwin H. Honig</i>		Month Day Year 11/11/97		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name MENTOR LEAC		Signature <i>Mentor Leac</i>		Date 11/11/97		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Date		
19. Discrepancy Indication Space KG COH 002521						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-0246759
 T-9.62

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820265	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX				A. State Manifest Document Number WMA 01420		
4. Generator's Phone (402) 271-5979				B. State Generator's ID 31547		
5. Transporter 1 Company Name Pulido Trucking	6. US EPA ID Number N/A	C. State Transporter's ID: 84829		D. Transporter's Phone: 713-864-6540		
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396		10. US EPA ID Number TX 0016673147		G. State Facility's ID H1307		
				H. Facility's Phone 281-446-6545		
11. A HM	11. USDOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	Waste No.	
a.	Non-Regulated Material (soil)	01 DT	12	Y	04003011	
b.						
c.						
d.						
Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481				K. Handling Codes for Wastes Listed Above M132		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, air, rail, water, or by applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Year 11/1/11		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Harcia Miranda		Signature <i>Harcia Miranda</i>		Month Day Year 11/1/11		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space KG COH 002522						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
						Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087



TCK-0246762
T-9.35

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Form approved. OMB No. 2050-0039 e-pres 09/30/99

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01421		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540	
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TXD016673147			
11. A HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
b.						
c.						
d.						
15. Special Handling Instructions and Additional Information				K. Handling Codes for Wastes Listed Above H132		
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edwin H. Honig			Signature <i>Edwin H. Honig</i>		Date 11/11/97	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Rosendo Rayos			Signature <i>Rosendo Rayos</i>		Date 11/11/97	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date	
19. Discrepancy Indication Space KG COH 002523						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name T... 78			Signature <i>[Signature]</i>		Date Month Day Year	

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-0246765
 T-11.28

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266		Manifest Document No.		2. Page 1 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX						A. State Manifest Document Number WMA 01422			
4. Generator's Phone (402) 271-5979						B. State Generator's ID 31547			
5. Transporter 1 Company Name Pulido Trucking				6. US EPA ID Number [REDACTED]		C. State Transporter's ID 84829			
7. Transporter 2 Company Name				US EPA ID Number		D. Transporter's Phone: 713-864-6540			
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396						US EPA ID Number TX D 016673147		G. State Facility's ID H1307	
						H. Facility's Phone 281-446-6545			
11. A HM	11. US DOT Description including Proper Shipping Name, Hazard Class, and ID Number			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.	
a.	Non-Regulated Material (soil)			01	DT	12	Y	04003011	
b.									
c.									
d.									
16. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481						17. Handling Codes for Wastes Listed Above M132			
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name Edwin H. Honig				Signature [Signature]		Month Day Year 11/11/19			
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name Jose Sanchez				Signature [Signature]		Month Day Year 11/11/19			
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name				Signature		Month Day Year			
19. Discrepancy Indication Space KG COH 002524									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
Printed/Typed Name				Signature		Date Month Day Year			

OWNER'S USE ONLY

TRANSPORTER'S USE ONLY

RECEIVER'S USE ONLY



TCK-0246983
 T-10.83

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Form approved. OMB No 2050-0039. expires 09/30/83

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01439		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			6. US EPA ID Number N/A		C. State Transporter's ID 84829	
5. Transporter 1 Company Name Pulido Trucking			7. Transporter 2 Company Name		D. Transporter's Phone 713-864-6540	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			8. US EPA ID Number		E. State Transporter's ID	
			10. US EPA ID Number TX 0016673147		F. Transporter's Phone	
					G. State Facility's ID H1307	
					H. Facility's Phone 281-446-6545	
GENERATOR	11. A HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers	13. Total Quantity	14. Unit Wt/Vol	15. Waste No
	a.	Non-Regulated Material (soil)	01 DT	12	Y	04003011
	b.					
	c.					
	d.					
B. Additional Descriptions for Materials Listed Above Waste Management Profile Number: 511481			C. Handling Codes for Wastes Listed Above H132			
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Edward H Honig			Signature <i>Edward H Honig</i>		Month Day Year 11/12/91	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Felipe Castilla			Signature <i>Felipe Castilla</i>		Month Day Year 11/11/91	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space KG COH 002525						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name R N			Signature <i>R N</i>		Month Day Year	
FACILITY						



TCK-0246982
 T-12.20

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Form approved. CMB No 2050-0039, expires 09/30.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston TX			A. State Manifest Document Number WMA 01440		B. State Generator's ID 31547	
4. Generator's Phone (402) 271-5979			6. US EPA ID Number N/A		C. State Transporter's ID 84829	
5. Transporter 1 Company Name Pulido Trucking			8. US EPA ID Number		D. Transporter's Phone 713-864-6540	
7. Transporter 2 Company Name			10. US EPA ID Number		E. State Transporter's ID	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			13. Total Quantity 12		F. Transporter's Phone	
11. A HM 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) a. Non-Regulated Material (soil)			12. Containers No. Type 01 DT		G. State Facility's ID H1307	
b.					H. Facility's Phone 281-446-6545	
c.						
d.						
J. Additional Descriptions and Information Waste Management Profile Number 511481			K. Handling Codes for Wastes Listed Above M132			
15. Special Handling Instructions and Additional Information						
<p>GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are properly packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.</p> <p>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.</p>						
Printed/Typed Name Edward H Honig			Signature <i>[Signature]</i>		Month Day Year 11/12/97	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Vicente V. Harreal			Signature <i>[Signature]</i>		Date 11/12/97	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date	
19. Discrepancy Indication Space						
FACILITY KG COH 002526						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name						Date

GENERATOR

TRANSPORTER

FACILITY

TEXAS NATURAL RESOURCE
 CONSERVATION COMMISSION
 P.O. Box 13087
 Austin, Texas 78711-3087



TCK-0246979
 T-10.17

Please print or type. (Form designed for use on elite (12 pitch) typewriter)

Form approved. OMB No 2050-0039. expires 09/

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TX 0000820266	Manifest Document No.	2. Page 1 1	Information in the shaded area is not required by Federal law		
3. Generator's Name and Mailing Address Southern Pacific Railroad 4910 Liberty Road Houston, TX			A. State Manifest Document Number WMA 01438		B. State Generator's ID 31547		
4. Generator's Phone (402) 271-5979			C. State Transporter's ID 84829		D. Transporter's Phone 713-864-6540		
5. Transporter 1 Company Name Pulido Trucking		6. US EPA ID Number N/A		E. State Transporter's ID		F. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility's ID H1307		H. Facility's Phone 281-446-6545	
9. Designated Facility Name and Site Address Atascocita RDF 3623 Wilson Road Humble, TX 77396			10. US EPA ID Number TX 0016673147				
GENERATOR	11. A HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
	a.	Non-Regulated Material (soil)	01	DT	12	Y	04003011
	b.						
	c.						
	d.						
J. Additional Description of Materials Listed Above Waste Management Profile Number 511481			K. Handling Codes for Wastes Listed Above H132				
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select best waste management method that is available to me and that I can afford.							
Printed/Typed Name Edwin H. Honig		Signature <i>Edwin H. Honig</i>		Month Day Y 11 12			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Martin Sanchez		Signature <i>Martin Sanchez</i>		Month Day Y 11 13			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name		Signature		Month Day Y			
19. Discrepancy Indication Space KG COH 002527							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name		Signature		Date Month Day Y			

TRANSPORTER

FACILITY

KG COH 002528

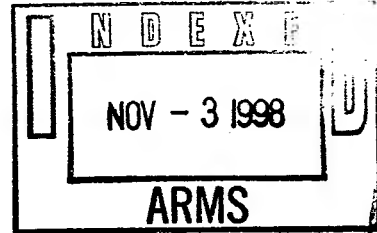
AVERY

Southern Pacific Transportation Company
**Semiannual Monitoring
 Report: First Semiannual
 Event 1998**
*Houston Wood Preserving Works
 Houston, Texas*

July 16, 1998

W.O. #422-09

v.30



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

SOUTHERN PACIFIC TRANSP. CO.



ISW -000031547-RP VOL: 030
 REPORT 1998 SEMIANNUAL MONITORING REPORT

KG COH 002529

UNION PACIFIC RAILROAD COMPANY

K. R. (KEN) WELCH
Assistant Vice President
Environmental Management

Mailing Address:
Room 930
1416 Dodge Street
Omaha, Nebraska 68179
Fax No. (402) 271-4461



Key 15204

Assind 7/24/98

July 10, 1998

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L. A. (LANNY) SCHMID
Director-Environmental Operations-West
B. A. (BROCK) NELSON
Director-Environmental Operations-North
R. (RICK) EADES
Director-Environmental Site Remediation

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JUL 20 1998

TNRCC-PERMITS SECTION
I & HW DIVISION

Dr. Ata-ur-Rahman
Permits Section
Industrial & Hazardous Waste Division
Texas Natural Resource Conservation Commission
12100 Park 35 Circle - MC130
Austin, Texas 78753

Subject: Transmittal, Semiannual Monitoring Report: First Semiannual Event 1998 –
January 1, 1998 through June 30, 1998; Houston Wood Preserving Works Site,
Houston, Texas

Dear Dr. Rahman:

Pursuant to Compliance Plan No. CP-50343, issued in conjunction with Post-Closure Care Permit No. HW-50343-000, please find enclosed two copies of the referenced report. As you are aware, we are actively pursuing access to off-site properties to complete the ongoing RFI/Extent of Contamination investigations. Based on our progress to date, we have made some aggressive assumptions regarding schedule, which are reflected in the updated Compliance Schedule herein. Upon obtaining access, we will notify the TNRCC of the actual dates for field activities. If you have any questions regarding the enclosed report, please call me at (402) 271-5979.

Sincerely,

UNION PACIFIC RAILROAD

Ed Honig, P.E.
Environmental Site Remediation Manager

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JUL 22 1998

REMEDIATION DIVISION
Corrective Action Section

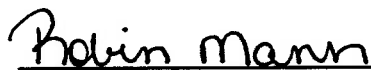
Enclosure

cc: Ray Risner, TNRCC – Austin
Marsha Hill, TNRCC Region 12 – Houston
Allyn Davis, EPA Region VI – Dallas
Thomas Whitehurst, Environmental Resources Management

Southern Pacific Transportation Company
Semiannual Monitoring Report:
First Semiannual Event 1998
Houston Wood Preserving Works
Houston, Texas

July 16, 1998

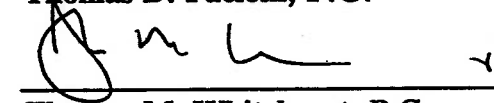
W.O. #422-09



Robin Mann



Thomas D. Pacioni, P.G.



Thomas M. Whitehurst, P.G.
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- B FIELD PARAMETERS**
- C LABORATORY ANALYTICAL REPORTS**
- D UPDATED COMPLIANCE SCHEDULE**

1.0 INTRODUCTION

1.1 BACKGROUND

On March 3 and 4, 1998, 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 1998 (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, 1998, 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 FIRST 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 FIRST 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 completed monitoring activities at the site on March 3 and 4, 1998. The 15 A-TZ and B-TZ wells and piezometers listed in Section 2.1.1 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.

Dedicated polyethylene tubing placed in the well during the previous sampling event was used for this sampling event. 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 dedicated polyethylene 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 Pyrex® measuring cup was used to collect purge water in one-liter increments to evaluate field parameters, including temperature, pH, specific conductivity, and turbidity. When three successive readings indicated that the field parameters had stabilized, the well was sampled. A compilation of recorded field parameters is included in Appendix B.

For each well, one 250-mL. polyethylene bottle, two 40-mL glass volatile organic compound bottles, and two 1000-mL amber glass semivolatile organic compounds bottles were filled directly from the sample tubing. The bottles, which had been preserved previously by the lab, were sealed and packed in coolers with sufficient ice to maintain a sample temperature of approximately 4° C. The coolers were delivered to Pace Analytical Services, Inc. of Houston, Texas 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 1998 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, water levels were measured on March 3 and 4, 1998, prior to sampling, using a Solinst® Model 101 electronic water level meter capable of producing measurements to a depth of 100 feet with an accuracy of 0.01 feet. Since the meter came into contact with only the upper surface of the water column, disruption of the water column was reduced. No non-aqueous phase liquid (NAPL) was noted on the probe at any of the wells measured. Total depth measurements were collected following ground water sampling 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.

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, 1998, 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 measurements, 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, 1998, 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 using a logarithmic Kriging method. Locations with reported non-detects were assigned a value equal to one-half of the reported detection limit.

A-TZ and B-TZ BTEX concentrations measured during the first semiannual sampling event of 1998 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*

A change was made to the NAPL and total well depth measurement protocol. Instead of obtaining all measurements before sampling, NAPL and depth to water were measured prior to low-flow sampling and DNAPL and total well depth were measured after sampling to reduce disturbance of the water column. No recovery wells or ground water recovery system is present on site. Accordingly, there were no recovery well inspections, repairs, or operations conducted. However, 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 1998 Annual Report.

2.12 *RECOMMENDATIONS FOR CHANGES*

Beginning with the second 1998 ground water sampling event, ground water samples required pursuant to the Compliance Plan will be collected utilizing dedicated polytetrafluoroethylene (PTFE) tubing. The PTFE tubing will be dedicated in each well, and will be affixed to disposable silicon tubing at the surface in order to collect samples using low-flow pumping.

In addition, as described in a letter to the TNRCC dated June 1, 1998, it is proposed that the following sequence of activities be continued in the second 1998 sampling event.

- measure for light non-aqueous phase liquid (LNAPL) measurements;
- complete purging and sampling; and
- measure for DNAPL and total well depth.

2.13

OTHER REQUESTED ITEMS

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

Tables

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

KG COH 002541

TABLE 2-1

Summary of Analytical Results for the A-Transmissive Zone (A-TZ)

First Semiannual Sampling Event, 1998
Houston Wood Preserving Works
Houston, Texas

Analyte	PQL & GWPS	MW-01A 3-3-98	MW-02 3-3-98	MW-03 3-3-98	MW-04 3-3-98	MW-05 3-4-98	MW-07 3-4-98	MW-08 3-4-98	MW-09 3-4-98	MW-10A 3-3-98	MW-11A 3-3-98
Benzene	0.005	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND
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	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	0.005	0.024	ND	ND	ND	0.007	ND	ND	ND	ND	0.006
Acenaphthene	0.010	0.094	0.028	0.060	ND	ND	ND	0.032	ND	ND	0.063
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	ND
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	0.059	0.020	0.044	ND	ND	ND	0.022	ND	ND	0.017
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	0.023
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	0.068	0.020	0.052	ND	ND	ND	0.023	ND	ND	0.023
2-Methylnaphthalene	0.010	0.041	ND	ND	ND	ND	ND	0.016	ND	ND	ND
Naphthalene	0.010	0.320	0.031	ND	ND	ND	ND	0.300	ND	ND	ND
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	0.028	ND	ND	ND	ND	ND	ND	ND	ND	ND
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:

- 1) All values reported in mg/L. ND - Not detected at the Practical Quantitation Limit (PQL).
- 2) PQL - Practical Quantitation Limit as defined on Table I of the Compliance Plan, and determined by the analytical methods of the EPA Publication SW-846, Test Methods for Evaluating Solid Waste, 3rd ed., November 1986, and as listed in the July 8, 1987 edition of the Federal Register and later editions. The PQL is the Ground Water Protection Standard (GWPS).
- 3) Bold-italic indicates values reported above the Ground Water Protection Standard.

TABLE 2-2

Summary of Analytical Results for the B-Transmissive Zone (B-TZ)

First Semiannual Sampling Event, 1998
Houston Wood Preserving Works
Houston, Texas

Analyte	PQL & GWPS	MW-10B 3-3-98	MW-11B 3-3-98	P-10 3-4-98	P-11 3-4-98	P-12 3-4-98
Benzene	0.005	ND	ND	ND	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	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND
Xylene (total)	0.005	ND	ND	ND	ND	ND
Acenaphthene	0.010	0.018	ND	0.089	0.023	ND
Acenaphthylene	0.010	ND	ND	ND	ND	ND
Anthracene	0.010	ND	ND	ND	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	ND	ND	0.038	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	0.012	ND	0.060	0.014	ND
2-Methylnaphthalene	0.010	ND	ND	0.018	ND	ND
Naphthalene	0.010	ND	ND	5.800	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	ND	ND	0.028	ND	ND
Phenol	0.010	ND	ND	ND	ND	ND
Pyrene	0.010	ND	ND	ND	ND	ND

NOTES:

- 1) All values reported in mg/L. ND - Not detected at the Practical Quantitation Limit (PQL).
- 2) PQL - *Practical Quantitation Limit* as defined on Table I of the Compliance Plan, and determined by the analytical methods of the EPA Publication SW-846, *Test Methods for Evaluating Solid Waste*, 3rd ed., November 1986, and as listed in the July 8, 1987 edition of the *Federal Register* and later editions. *The PQL is the Ground Water Protection Standard (GWPS).*
- 3) Bold-italic indicates values reported above the Ground Water Protection Standard.

TABLE 2-3

Water Level and Total Depth of Well Measurements

First Semiannual Sampling Event, 1998
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'	2.87'	45.08'	19.65'	20.20'
MW-02	48.03'	2.88'	45.15'	18.52'	20.30'
MW-03	48.55'	3.37'	45.18'	19.95'	20.90'
MW-04	49.85'	5.00'	44.85'	21.75'	23.40'
MW-05	49.35'	4.54'	44.81'	27.42'	28.30'
MW-07	48.86'	4.14'	44.72'	24.76'	N/A
MW-08	49.37'	4.38'	44.99'	25.06'	26.80'
MW-09	49.29'	4.15'	45.14'	25.40'	26.80'
MW-10A	49.90'	4.87'	45.03'	25.60'	25.90'
MW-11A	50.04'	5.16'	44.88'	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'	5.00'	44.97'	46.52'	48.80'
MW-11B	50.19'	5.35'	44.84'	46.73'	46.80'
P-10	47.72'	N/A	N/A	N/A	N/A
P-11	49.02'	4.08'	44.94'	42.79'	51.80'
P-12	48.82'	3.78'	45.04'	42.84'	51.70'

NOTES:

- 1) msl - feet above mean sea level
- 2) ft TOC-feet below the Top Of (the well) Casing
- 3) * Logged during well installation
- 4) N/A - Information not available

TABLE 2-4

Compliance Status of Wells and Piezometers

First Semiannual Sampling Event, 1998

Houston Wood Preserving Works

Houston, Texas

A-TZ Monitoring Location	Compliance Status
MW-01A	Non-Compliant
MW-02	Non-Compliant
MW-03	Non-Compliant
MW-04	Compliant
MW-05	Non-Compliant
MW-07	Compliant
MW-08	Non-Compliant
MW-09	Compliant
MW-10A	Compliant
MW-11A	Non-Compliant

B-TZ Monitoring Location	Compliance Status
MW-10B	Non-Compliant
MW-11B	Compliant
P-10	Non-Compliant
P-11	Non-Compliant
P-12	Compliant

Figures

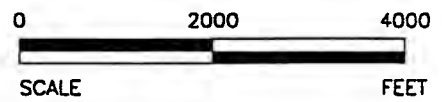
Environmental Resources Management
16300 Katy Freeway, Suite 300
Houston, Texas 77094-1611
(281) 579-8999

KG COH 002546

BK624422-G98



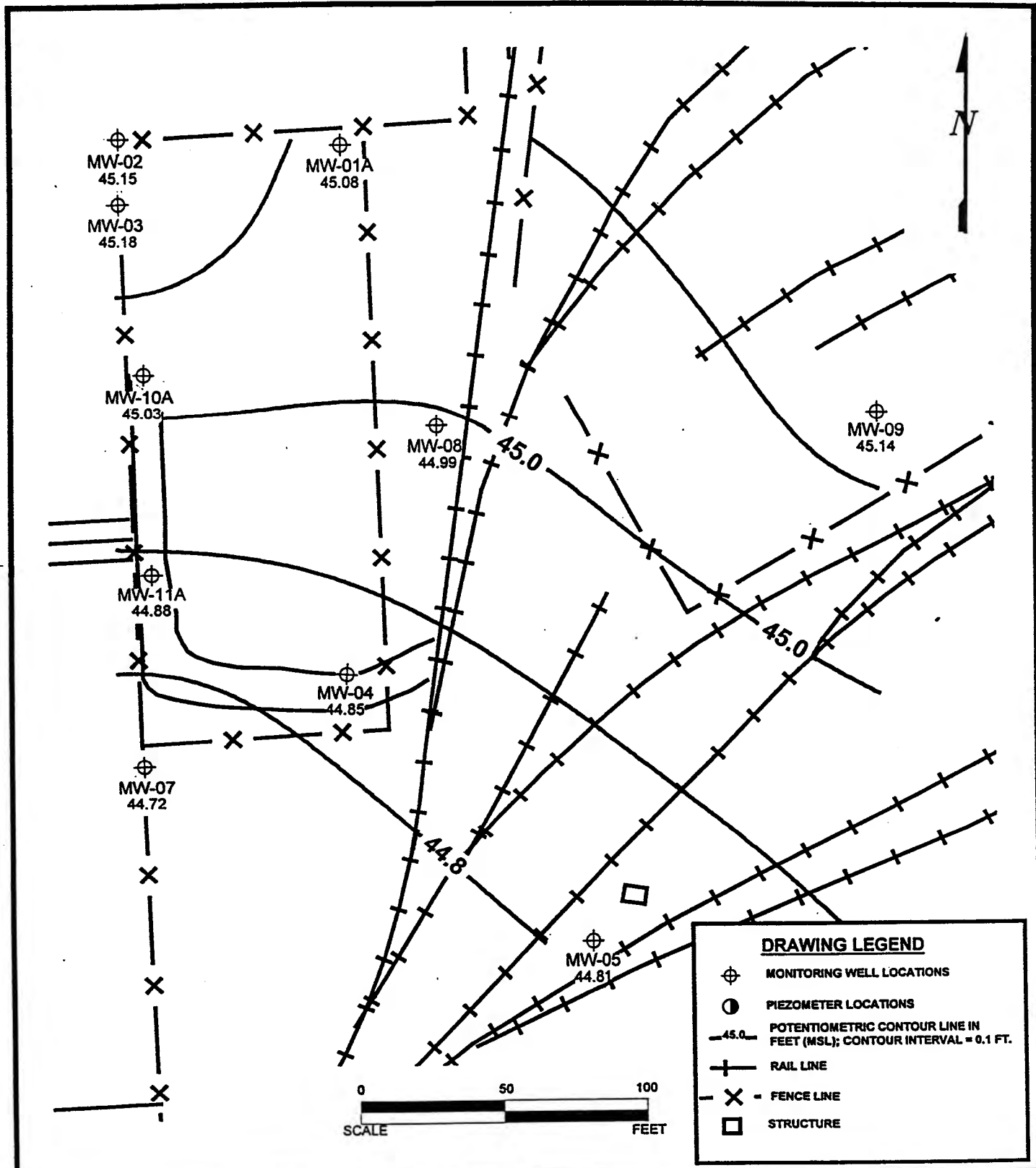
Source: U.S.G.S. Quadrangle
 Settegast, Texas
 1982
 7.5 Minute Series (Topographic)



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FIGURE 1-1
 SITE LOCATION MAP
 Houston Wood Preserving Works
 Houston, Texas

DATE: 11/17/97 W.O.NO.: 42209A17

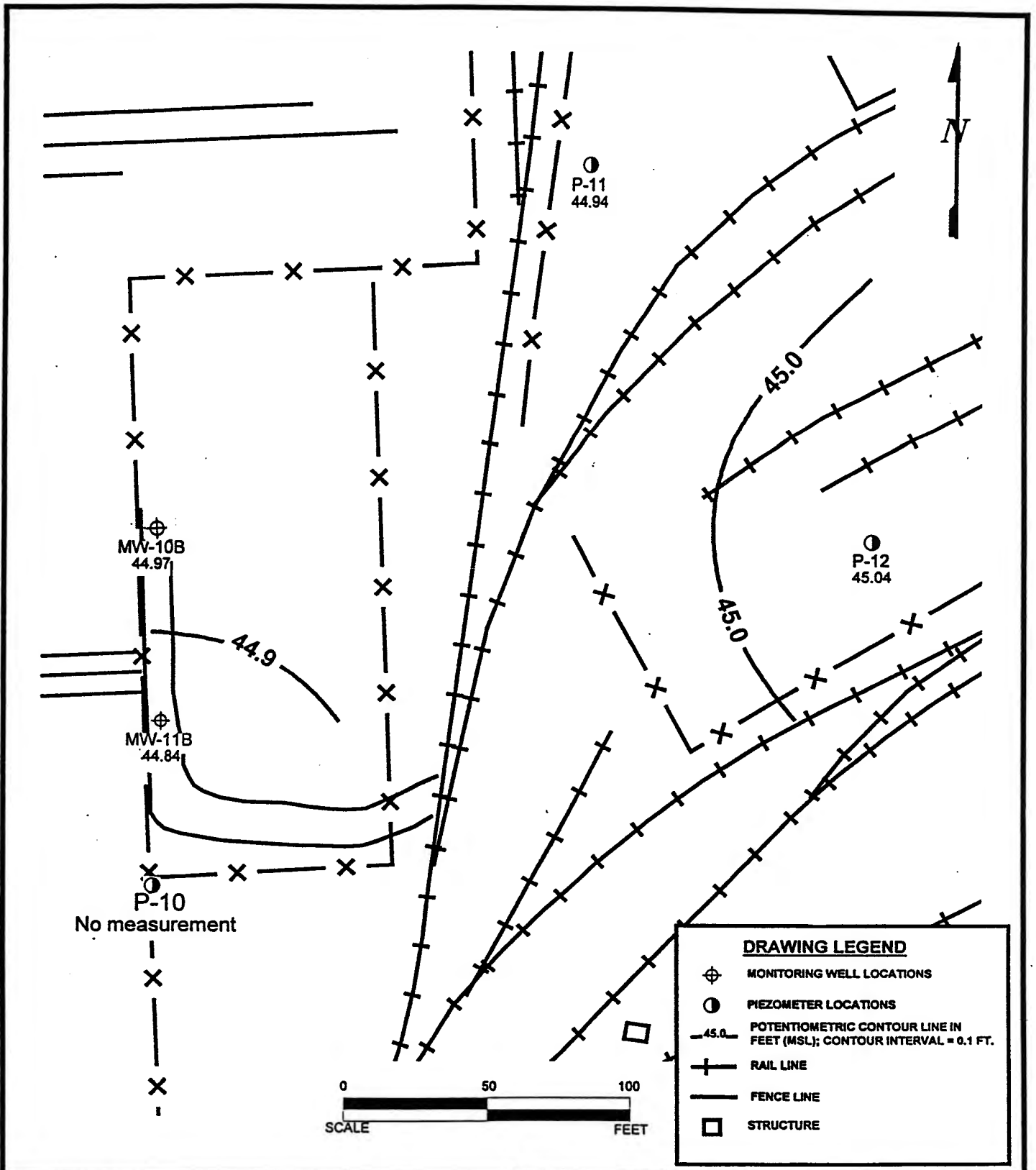


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DATE: 6/24/98

DRAWING NO.: 42209A51F98

FIGURE 2-1
A-TZ - POTENTIOMETRIC SURFACE
MARCH 4, 1998
 TNRCC PERMIT UNIT No. II.B.1.
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS



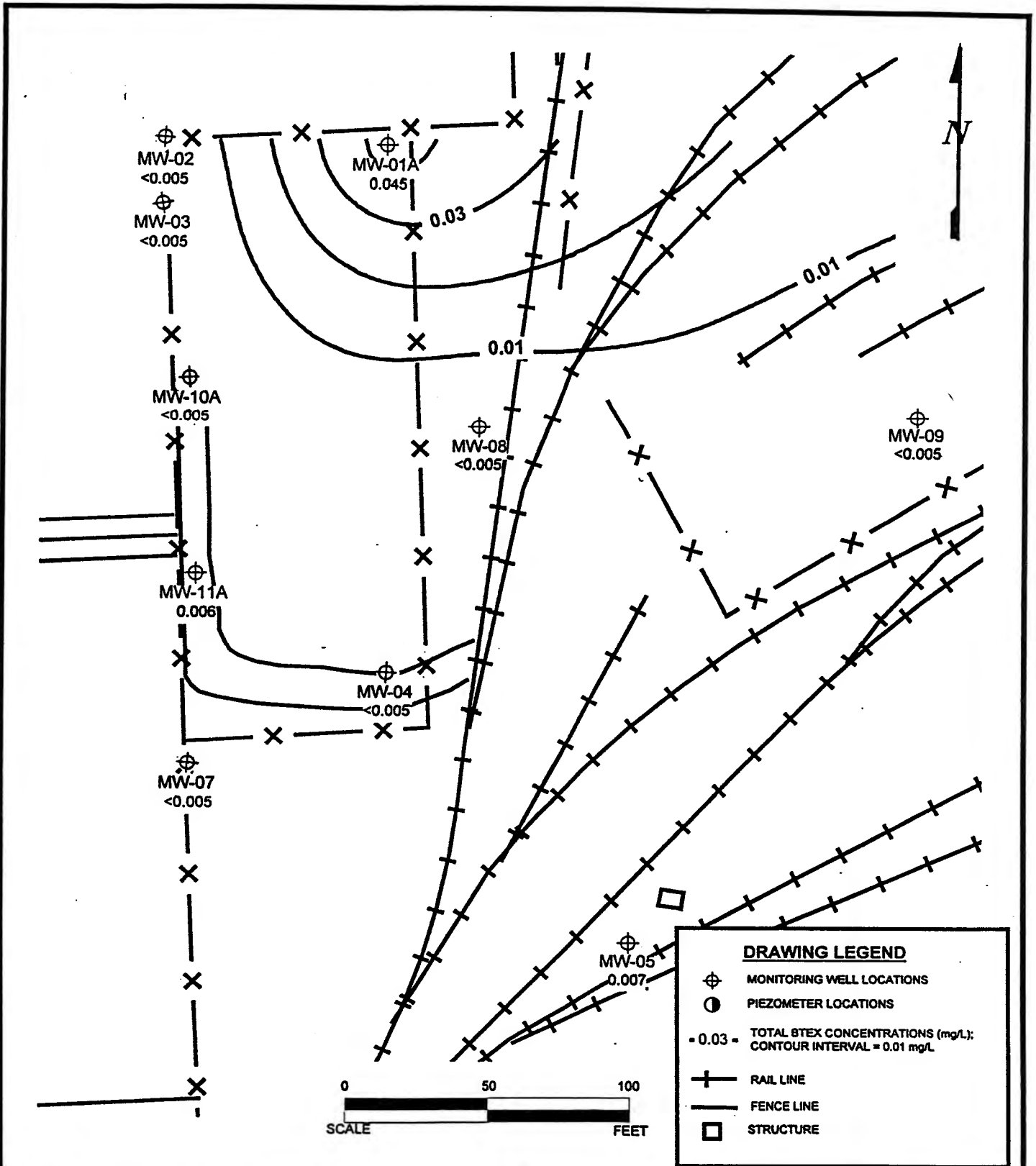
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DATE: 6/24/98

DRAWING NO.: 42209A52F98

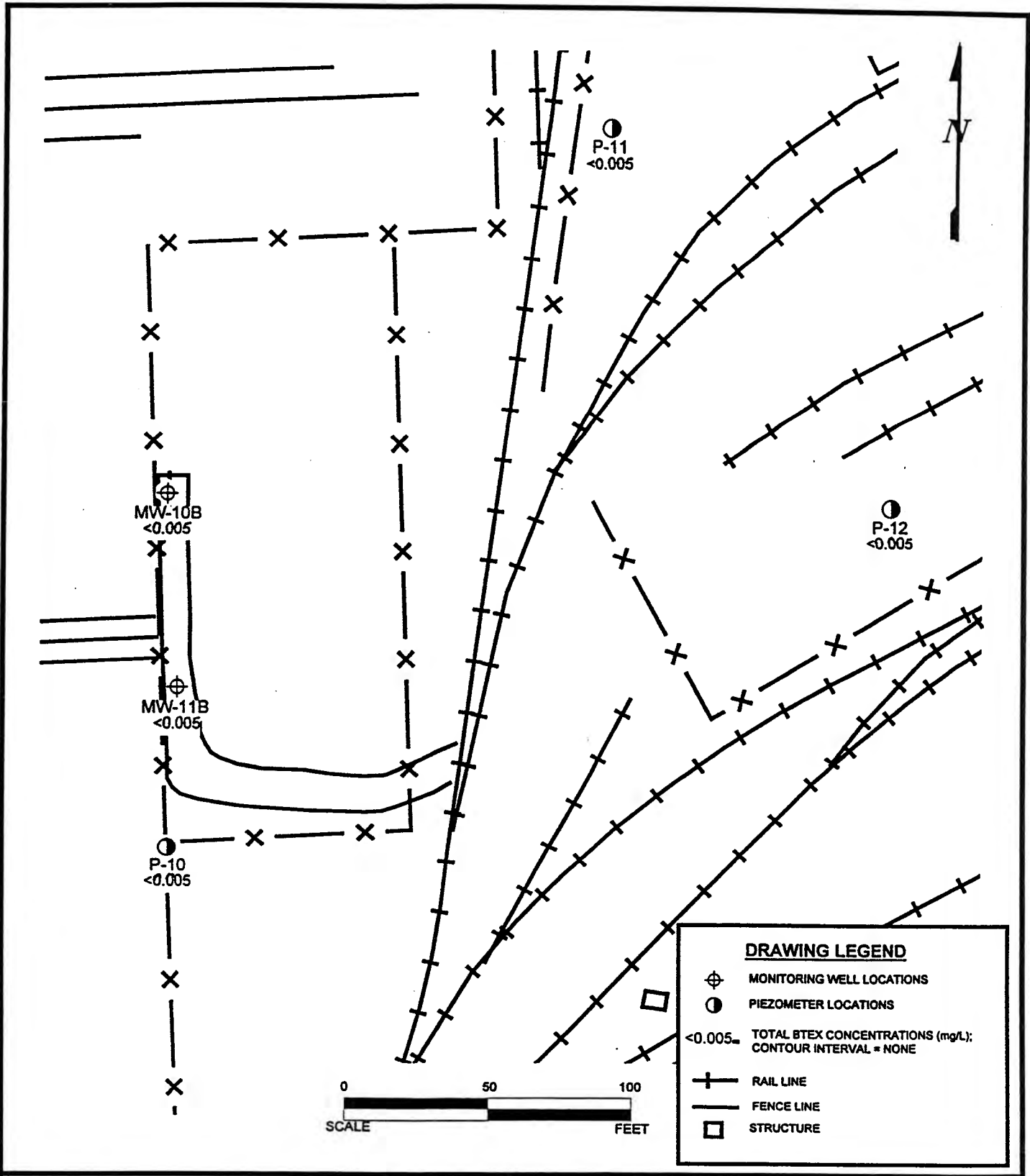
FIGURE 2-2
 B-TZ - POTENTIOMETRIC SURFACE
 MARCH 4, 1998
 TNRCC PERMIT UNIT No. II.B.1.
 HOUSTON WOOD PRESERVING WORKS
 HOUSTON, TEXAS



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FIGURE 2-3
TOTAL BTEX IN A-TZ - GROUND WATER (mg/L)
 MARCH 4, 1998
 TNRC PERMIT UNIT No. II.B.1.
 HOUSTON WOOD PRESERVING WORKS
 HOUSTON, TEXAS

DATE: 6/24/98 DRAWING NO.: 42209A53F98

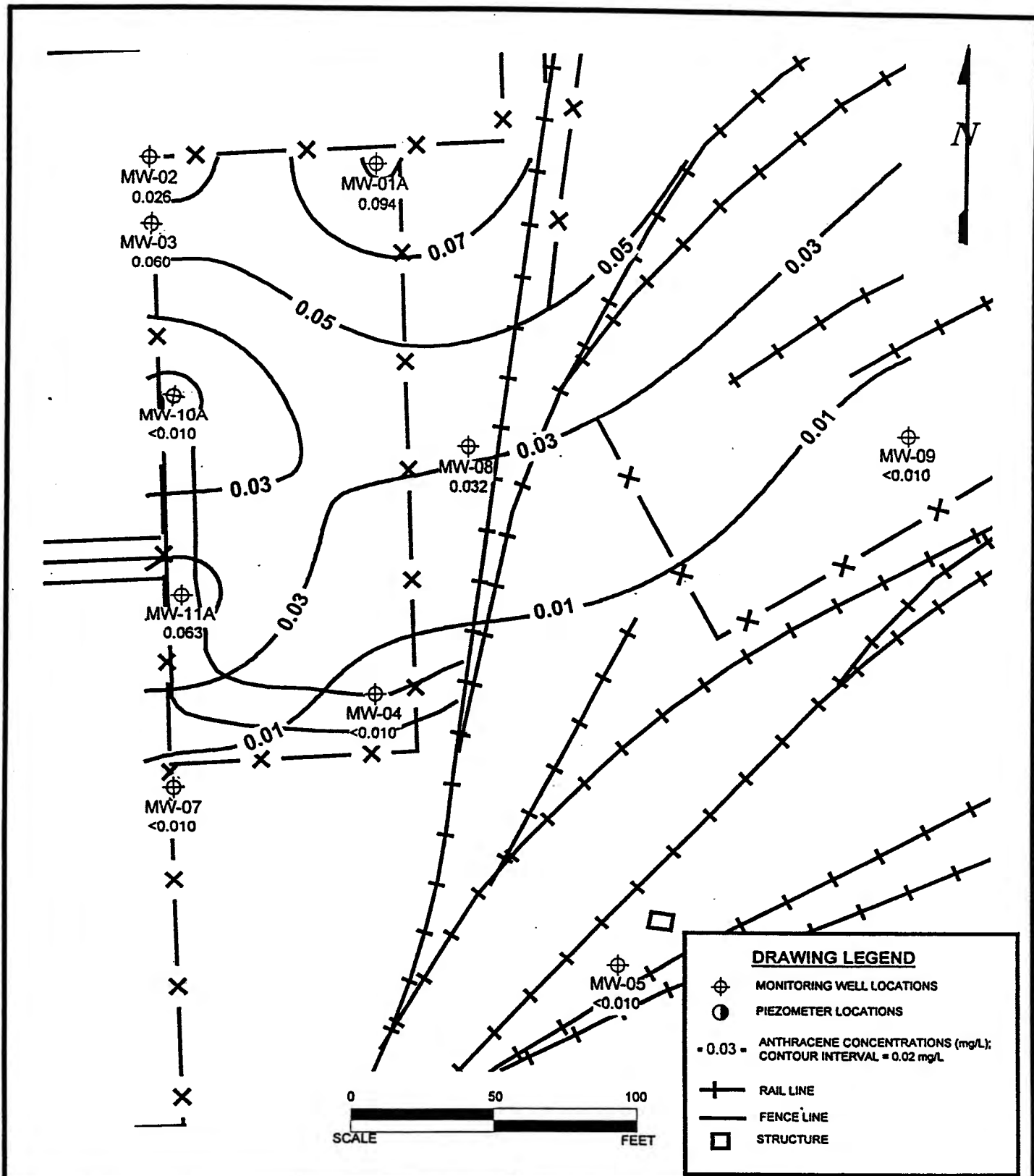


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DATE: 5/22/98 DRAWING NO.: 42209A54E98

FIGURE 2-4
 TOTAL BTEX IN B-TZ - GROUND WATER (mg/L)
 MARCH 4, 1998
 TNRCC PERMIT UNIT No. II.B.1.
 HOUSTON WOOD PRESERVING WORKS
 HOUSTON, TEXAS



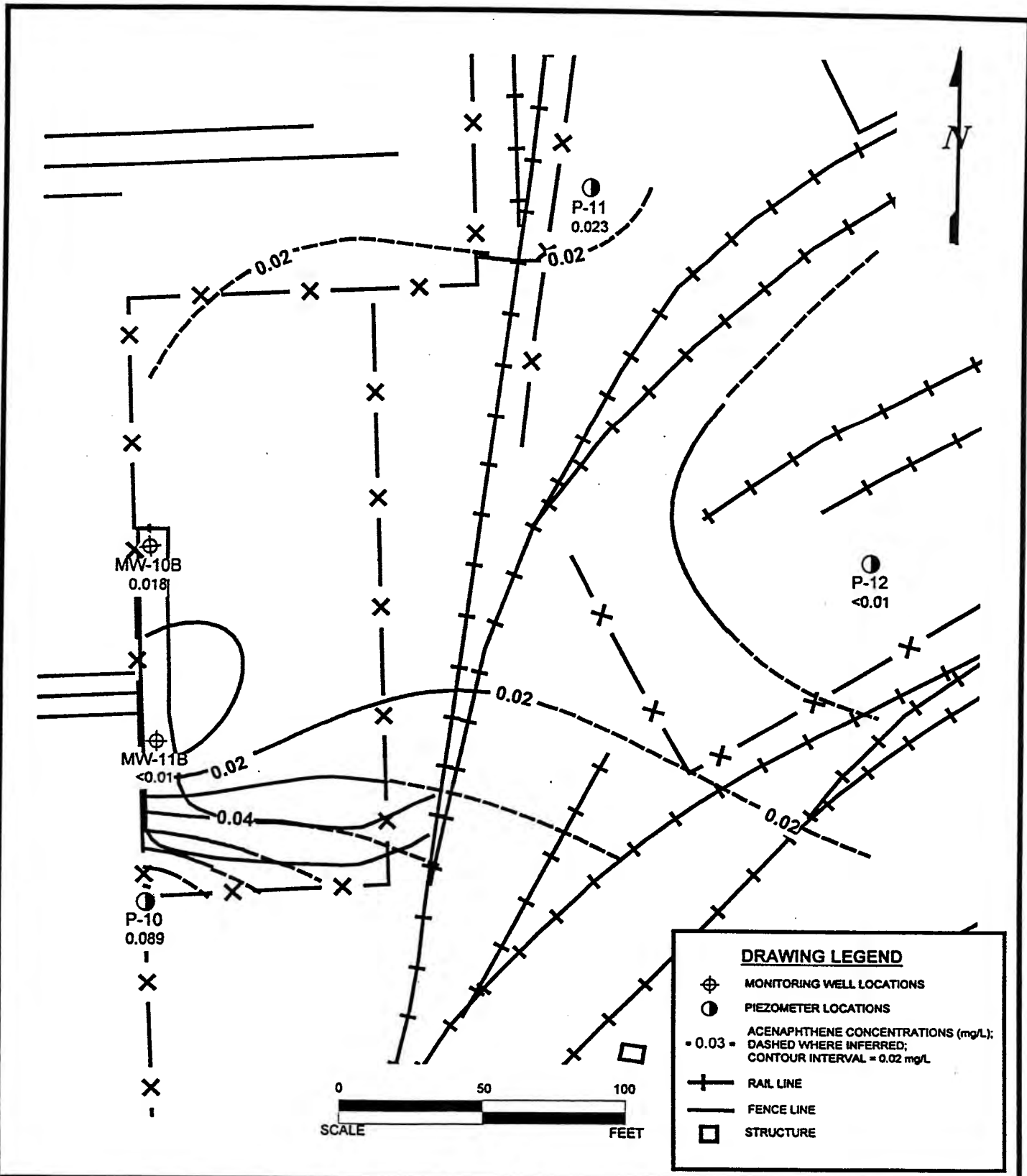
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DATE: 5/22/98

DRAWING NO.: 42209A55E98

FIGURE 2-5
ACENAPHTHENE IN A-TZ - GROUND WATER (mg/L)
 MARCH 4, 1998
 TNRCC PERMIT UNIT No. II.B.1.
 HOUSTON WOOD PRESERVING WORKS
 HOUSTON, TEXAS

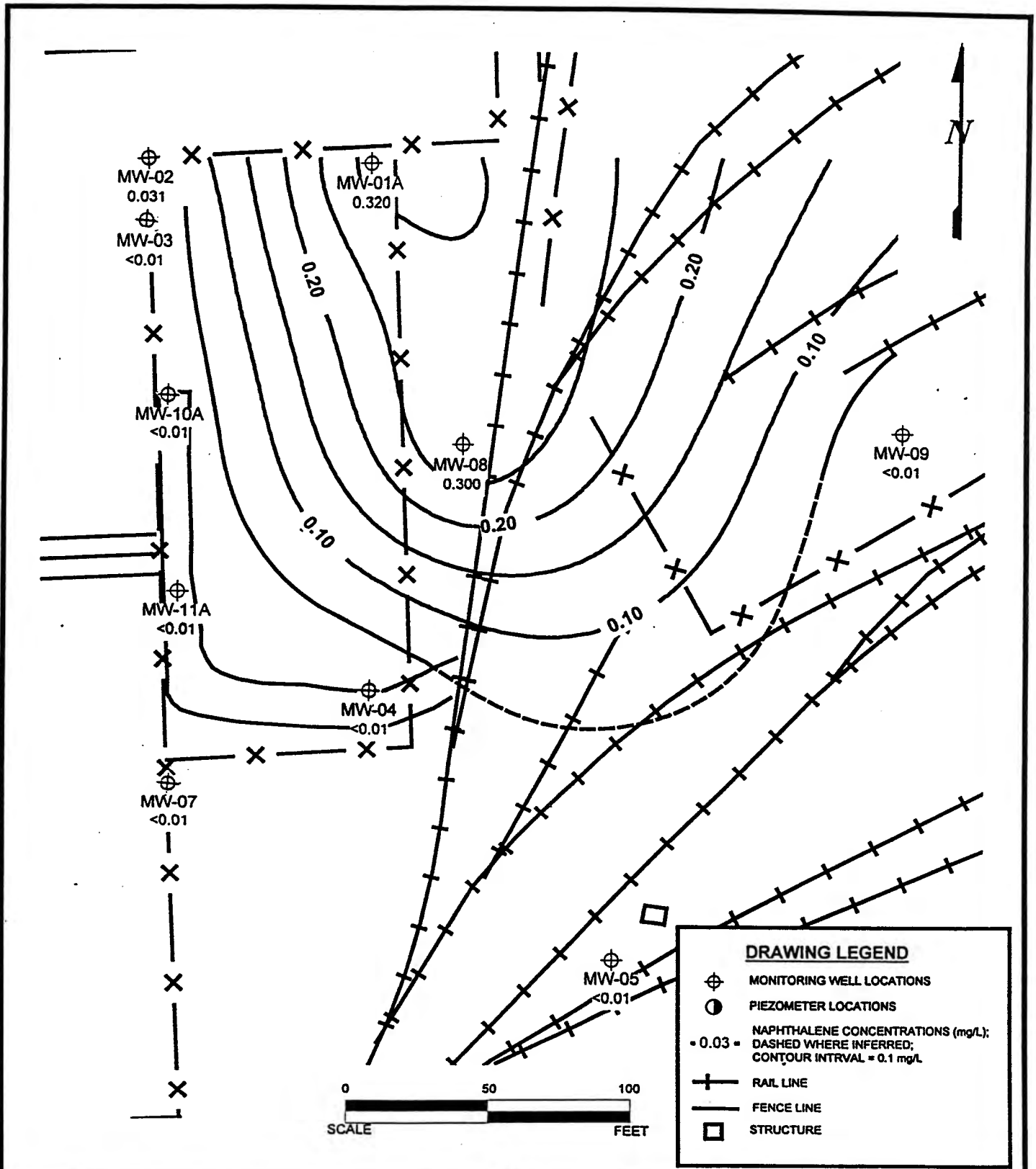


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DATE: 6/24/98 DRAWING NO.: 42209A56F98

FIGURE 2-6
ACENAPHTHENE IN B-TZ - GROUND WATER (mg/L)
 MARCH 4, 1998
 TNRCC PERMIT UNIT No. II.B.1.
 HOUSTON WOOD PRESERVING WORKS
 HOUSTON, TEXAS

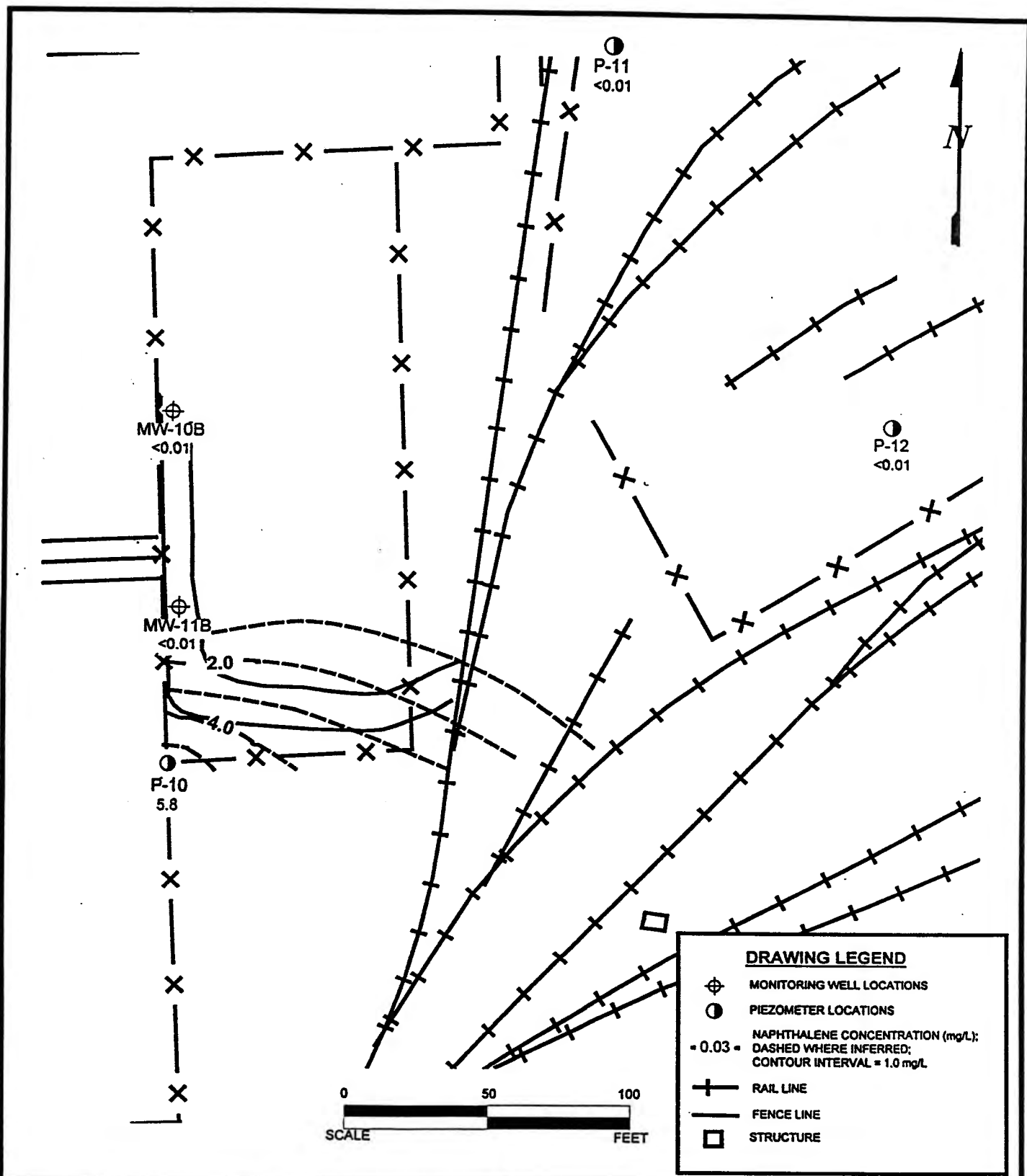


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DATE: 6/24/98 DRAWING NO.: 42209A57F98

FIGURE 2-7
NAPHTHALENE IN A-TZ - GROUND WATER (mg/L)
MARCH 4, 1998
TNRCC PERMIT UNIT No. II.B.1.
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS



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FIGURE 2-8
NAPHTHALENE IN B-TZ - GROUND WATER (mg/L)
 MARCH 4, 1998
 TNRCC PERMIT UNIT No. II.B.1.
 HOUSTON WOOD PRESERVING WORKS
 HOUSTON, TEXAS

DATE: 6/24/98 DRAWING NO.: 42209A58F98

Compliance Plan Tables
Appendix A

July 16, 1998
W.O. #422-09

Environmental Resources Management
16300 Katy Freeway, Suite 300
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KG COH 002556

BK624422-G98

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

<u>1. POINT OF COMPLIANCE WELLS</u>	<u>SAMPLING FREQUENCY</u>
A. A-TZ or Upper Transmissive Zone	
MW-1	Semiannual
MW-2	Semiannual
MW-3	Semiannual
MW-10	Semiannual
MW-11	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.

<u>3. CORRECTIVE ACTION OBSERVATION WELLS</u>	<u>SAMPLING FREQUENCY</u>
A. On-site A-TZ or Uppermost Transmissive Zone	
MW-4	Semiannual
MW-5	Semiannual
MW-7	Semiannual
MW-8	Semiannual
MW-9	Semiannual

NOTE:

This table has been modified from CP-50343.

Field Parameters
Appendix B

July 16, 1998
W.O. #422-09

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

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BK624422-G98

TABLE B-1
 Ground Water Sampling Field Parameters
 First Semiannual Sampling Event, 1998
 Houston Wood Preserving Works
 Houston, Texas

Well ID	MW-01A	MW-02	MW-03	MW-04	MW-05	MW-07	MW-08	MW-09
Date Sampled	3/3/98	3/3/98	3/3/98	3/3/98	3/4/98	3/4/98	3/4/98	3/4/98
Time Sampled (hrs)	1504	1550	1615	1125	1218	0807	1327	1021
Temperature (°C)	20.4	19.4	19.6	21.0	21.5	20.0	21.1	21.9
pH (Standard Units)	6.72	6.70	6.71	6.60	6.79	6.90	6.85	6.80
Specific Conductivity (uS)	1620	590	1440	930	784	1028	607	865
Turbidity (ntu)	2.71	6.40	2.01	0.09	0.45	2.78	1.04	1.86

Well ID	MW-10A	MW-10B	MW-11A	MW-11B	P-10	P-11	P-12
Date Sampled	3/3/98	3/3/98	3/3/98	3/3/98	3/4/98	3/4/98	3/4/98
Time Sampled (hrs)	1338	1410	1208	1254	0857	1423	1113
Temperature (°C)	20.1	21.0	20.8	21.7	21.3	22.5	22.8
pH (Standard Units)	6.80	6.80	6.80	6.90	6.65	6.46	6.53
Specific Conductivity (uS)	1640	1410	1410	1230	1282	1432	1501
Turbidity (ntu)	11	8	31	13	8.62	1.23	0.33

Laboratory Analytical Reports
Appendix C

July 16, 1998
W.O. #422-09

Environmental Resources Management
16300 Katy Freeway, Suite 300
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Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058

Tel: 281-488-1810
Fax: 281-488-4661

April 01, 1998

Mr. Tom Pacioni
ERM-Southwest, Inc.
16300 Katy Frwy, Suite 300
Houston, TX 77094

RE: Pace Project Number: 851674
Client Project ID: HWPW

Dear Mr. Pacioni:

Enclosed are the results of analyses for sample(s) received by the laboratory on March 5, 1998. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Elessa Sommers
Project Manager

Enclosures

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

DATE: 04/01/98
PAGE: 1

ERM-Southwest, Inc.
16300 Katy Frwy, Suite 300
Houston, TX 77094

Pace Project Number: 851674
Client Project ID: HWPW

Attn: Mr. Tom Pacioni
Phone: 281-579-8999

Solid results are reported on a wet weight basis

Pace Sample No: 85173763 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-01A-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/17/98 NZAI 75-09-2
Benzene	11 ug/L 5	03/17/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/17/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/17/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/17/98 NZAI 108-90-7
Ethylbenzene	9.6 ug/L 5	03/17/98 NZAI 100-41-4
Xylene (Total)	24 ug/L 5	03/17/98 NZAI 1330-20-7
Dibromofluoromethane (S)	97 x	03/17/98 NZAI 1868-53-7
Toluene-d8 (S)	98 x	03/17/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	95 x	03/17/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/16/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/16/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/16/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/16/98 VHEB 111-91-1
Naphthalene	320 ug/L 20	03/16/98 VHEB 91-20-3
2-Methylnaphthalene	41 ug/L 10	03/16/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/16/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/16/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 606-20-2
Acenaphthene	94 ug/L 10	03/16/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/16/98 VHEB 100-02-7
Dibenzofuran	59 ug/L 10	03/16/98 VHEB 132-64-9

KG COH 002563

2

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Fax: 281-488-4661

DATE: 04/01/98

PAGE: 2

Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173763 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-01A-ISA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4-Dinitrotoluene	ND	ug/L	10	03/16/98	VHEB	121-14-2	
Fluorene	68	ug/L	10	03/16/98	VHEB	86-73-7	
4,6-Dinitro-2-methylphenol	ND	ug/L	50	03/16/98	VHEB	534-52-1	
N-Nitrosodiphenylamine	ND	ug/L	10	03/16/98	VHEB	86-30-6	
Pentachlorophenol	ND	ug/L	50	03/16/98	VHEB	87-86-5	
Phenanthrene	28	ug/L	10	03/16/98	VHEB	85-01-8	
Anthracene	ND	ug/L	10	03/16/98	VHEB	120-12-7	
Di-n-butylphthalate	ND	ug/L	10	03/16/98	VHEB	84-74-2	
Fluoranthene	ND	ug/L	10	03/16/98	VHEB	206-44-0	
Pyrene	ND	ug/L	10	03/16/98	VHEB	129-00-0	
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	43	x		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	58	x		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	21	x		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	8	x		03/16/98	VHEB	367-12-4	1
2,4,6-Tribromophenol (S)	44	x		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	79	x		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

KG COH 002564

3

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DATE: 04/01/98
PAGE: 3

Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173771 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-02-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/17/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/17/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/17/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/17/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/17/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/17/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/17/98 NZAI 1330-20-7
Dibromofluoromethane (S)	98 %	03/17/98 NZAI 1868-53-7
Toluene-d8 (S)	96 %	03/17/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	99 %	03/17/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/16/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/16/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/16/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/16/98 VHEB 111-91-1
Naphthalene	31 ug/L 10	03/16/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/16/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/16/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/16/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 606-20-2
Acenaphthene	26 ug/L 10	03/16/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/16/98 VHEB 100-02-7
Dibenzofuran	20 ug/L 10	03/16/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 121-14-2
Fluorene	20 ug/L 10	03/16/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/16/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/16/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/16/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/16/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/16/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/16/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/16/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/16/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173771 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-02-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	48	×		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	60	×		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	34	×		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	25	×		03/16/98	VHEB	367-12-4	
2,4,6-Tribromophenol (S)	58	×		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	66	×		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173789 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-03-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	96 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	96 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	102 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatiles Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/17/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/17/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/17/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/17/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/17/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/17/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/17/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/17/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/17/98 VHEB 606-20-2
Acenaphthene	60 ug/L 10	03/17/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/17/98 VHEB 100-02-7
Dibenzofuran	44 ug/L 10	03/17/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/17/98 VHEB 121-14-2
Fluorene	52 ug/L 10	03/17/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/17/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/17/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/17/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/17/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/17/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/17/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/17/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/17/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173789 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-03-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/17/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/17/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/17/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/17/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/17/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	35	%		03/17/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	44	%		03/17/98	VHEB	321-60-8	
Phenol-d6 (S)	16	%		03/17/98	VHEB	13127-88-3	
2-Fluorophenol (S)	6	%		03/17/98	VHEB	367-12-4	1
2,4,6-Tribromophenol (S)	52	%		03/17/98	VHEB	118-79-6	
Terphenyl-d14 (S)	76	%		03/17/98	VHEB	1718-51-0	
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Pace Project Number: 851674
 Client Project ID: HWPW

Pace Sample No: 85173797 Date Collected: 03/03/98 Matrix: Water
 Client Sample ID: HWPW-MW-04-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	104 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	100 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	98 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/23/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/23/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/23/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/23/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/23/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/23/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/23/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/23/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 606-20-2
Acenaphthene	ND ug/L 10	03/23/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/23/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/23/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 121-14-2
Fluorene	ND ug/L 10	03/23/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/23/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/23/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/23/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/23/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/23/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/23/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/23/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/23/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173797 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-04-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/23/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/23/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/23/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/23/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/23/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	26	%		03/23/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	32	%		03/23/98	VHEB	321-60-8	
Phenol-d6 (S)	4	%		03/23/98	VHEB	13127-88-3	2
2-Fluorophenol (S)	5	%		03/23/98	VHEB	367-12-4	2
2,4,6-Tribromophenol (S)	13	%		03/23/98	VHEB	118-79-6	
Terphenyl-d14 (S)	31	%		03/23/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
 Client Project ID: HWPW

Pace Sample No: 85173805 Date Collected: 03/04/98 Matrix: Water
 Client Sample ID: HWPW-MW-05-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/15/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/15/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/15/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/15/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/15/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/15/98 NZAI 100-41-4
Xylene (Total)	6.6 ug/L 5	03/15/98 NZAI 1330-20-7
Dibromofluoromethane (S)	110 x	03/15/98 NZAI 1868-53-7
Toluene-d8 (S)	96 x	03/15/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	104 x	03/15/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/17/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/17/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/17/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/17/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/17/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/17/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/17/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/17/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/17/98 VHEB 606-20-2
Acenaphthene	ND ug/L 10	03/17/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/17/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/17/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/17/98 VHEB 121-14-2
Fluorene	ND ug/L 10	03/17/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/17/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/17/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/17/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/17/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/17/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/17/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/17/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/17/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173805 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-MW-05-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/17/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/17/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/17/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/17/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/17/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	70	x		03/17/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	75	x		03/17/98	VHEB	321-60-8	
Phenol-d6 (S)	40	x		03/17/98	VHEB	13127-88-3	
2-Fluorophenol (S)	26	x		03/17/98	VHEB	367-12-4	
2,4,6-Tribromophenol (S)	60	x		03/17/98	VHEB	118-79-6	
Terphenyl-d14 (S)	70	x		03/17/98	VHEB	1718-51-0	
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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173813 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-MW-07-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	102 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	94 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	98 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatiles Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/23/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/23/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/23/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/23/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/23/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/23/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/23/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/23/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 606-20-2
Acenaphthene	ND ug/L 10	03/23/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/23/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/23/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 121-14-2
Fluorene	ND ug/L 10	03/23/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/23/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/23/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/23/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/23/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/23/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/23/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/23/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/23/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173813 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-MW-07-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/23/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/23/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/23/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/23/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/23/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	37	µ		03/23/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	57	µ		03/23/98	VHEB	321-60-8	
Phenol-d6 (S)	5	µ		03/23/98	VHEB	13127-88-3	2
2-Fluorophenol (S)	6	µ		03/23/98	VHEB	367-12-4	2
2,4,6-Tribromophenol (S)	0	µ		03/23/98	VHEB	118-79-6	3
Terphenyl-d14 (S)	55	µ		03/23/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
 Client Project ID: HWPW

Pace Sample No: 85173839 Date Collected: 03/04/98 Matrix: Water
 Client Sample ID: HWPW-MW-08-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/15/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/15/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/15/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/15/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/15/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/15/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/15/98 NZAI 1330-20-7
Dibromofluoromethane (S)	112 %	03/15/98 NZAI 1868-53-7
Toluene-d8 (S)	96 %	03/15/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	104 %	03/15/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatiles Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/16/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/16/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/16/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/16/98 VHEB 111-91-1
Naphthalene	300 ug/L 20	03/16/98 VHEB 91-20-3
2-Methylnaphthalene	16 ug/L 10	03/16/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/16/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/16/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 606-20-2
Acenaphthene	32 ug/L 10	03/16/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/16/98 VHEB 100-02-7
Dibenzofuran	22 ug/L 10	03/16/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 121-14-2
Fluorene	23 ug/L 10	03/16/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/16/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/16/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/16/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/16/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/16/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/16/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/16/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/16/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173839 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-MW-08-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	67	x		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	64	x		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	34	x		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	18	x		03/16/98	VHEB	367-12-4	1
2,4,6-Tribromophenol (S)	65	x		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	110	x		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
 Client Project ID: HWPW

Pace Sample No: 85173847 Date Collected: 03/04/98 Matrix: Water
 Client Sample ID: HWPW-MW-09-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/15/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/15/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/15/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/15/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/15/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/15/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/15/98 NZAI 1330-20-7
Dibromofluoromethane (S)	112 %	03/15/98 NZAI 1868-53-7
Toluene-d8 (S)	96 %	03/15/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	104 %	03/15/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/23/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/23/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/23/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/23/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/23/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/23/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/23/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/23/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 606-20-2
Acenaphthene	ND ug/L 10	03/23/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/23/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/23/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 121-14-2
Fluorene	ND ug/L 10	03/23/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/23/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/23/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/23/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/23/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/23/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/23/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/23/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/23/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173847 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-MW-09-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/23/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/23/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/23/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/23/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/23/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	62	×		03/23/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	63	×		03/23/98	VHEB	321-60-8	
Phenol-d6 (S)	16	×		03/23/98	VHEB	13127-88-3	
2-Fluorophenol (S)	14	×		03/23/98	VHEB	367-12-4	
2,4,6-Tribromophenol (S)	29	×		03/23/98	VHEB	118-79-6	
Terphenyl-d14 (S)	70	×		03/23/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173854 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-10A-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	100 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	96 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	100 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/16/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/16/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/16/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/16/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/16/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/16/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/16/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/16/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 606-20-2
Acenaphthene	ND ug/L 10	03/16/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/16/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/16/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 121-14-2
Fluorene	ND ug/L 10	03/16/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/16/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/16/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/16/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/16/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/16/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/16/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/16/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/16/98 VHEB 129-00-0

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Pace Project Number: 851674

Client Project ID: HWPW

Pace Sample No: 85173854 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-10A-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	57	×		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	64	×		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	35	×		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	24	×		03/16/98	VHEB	367-12-4	
2,4,6-Tribromophenol (S)	56	×		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	76	×		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173862 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-108-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	100 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	94 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	98 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/16/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/16/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/16/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/16/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/16/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/16/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/16/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/16/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 606-20-2
Acenaphthene	18 ug/L 10	03/16/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/16/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/16/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 121-14-2
Fluorene	12 ug/L 10	03/16/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/16/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/16/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/16/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/16/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/16/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/16/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/16/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/16/98 VHEB 129-00-0

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Client Project ID: HWPW

Pace Sample No: 85173862 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-108-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	47	x		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	59	x		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	34	x		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	22	x		03/16/98	VHEB	367-12-4	
2,4,6-Tribromophenol (S)	51	x		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	74	x		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173870 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-11A-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GC/MS -- VOA							
GC/MS VOCs, RCRA		Method: EPA 8260		Prep Method: EPA 8260			
Methylene Chloride	ND	ug/L	5	03/16/98	NZAI	75-09-2	
Benzene	ND	ug/L	5	03/16/98	NZAI	71-43-2	
1,2-Dichloroethane	ND	ug/L	5	03/16/98	NZAI	107-06-2	
Toluene	ND	ug/L	5	03/16/98	NZAI	108-88-3	
Chlorobenzene	ND	ug/L	5	03/16/98	NZAI	108-90-7	
Ethylbenzene	ND	ug/L	5	03/16/98	NZAI	100-41-4	
Xylene (Total)	6.0	ug/L	5	03/16/98	NZAI	1330-20-7	
Dibromofluoromethane (S)	102	%		03/16/98	NZAI	1868-53-7	
Toluene-d8 (S)	96	%		03/16/98	NZAI	2037-26-5	
4-Bromofluorobenzene (S)	96	%		03/16/98	NZAI	460-00-4	

GC/MS -- Semi-VOA

Semivolatile Organics, Water		Method: EPA 8270		Prep Method: EPA 3520			
Phenol	ND	ug/L	10	03/16/98	VHEB	108-95-2	
Nitrobenzene	ND	ug/L	10	03/16/98	VHEB	98-95-3	
2,4-Dimethylphenol	ND	ug/L	10	03/16/98	VHEB	105-67-9	
bis(2-Chloroethoxy)methane	ND	ug/L	10	03/16/98	VHEB	111-91-1	
Naphthalene	ND	ug/L	10	03/16/98	VHEB	91-20-3	
2-Methylnaphthalene	ND	ug/L	10	03/16/98	VHEB	91-57-6	
2-Chloronaphthalene	ND	ug/L	10	03/16/98	VHEB	91-58-7	
Acenaphthylene	ND	ug/L	10	03/16/98	VHEB	208-96-8	
2,6-Dinitrotoluene	ND	ug/L	10	03/16/98	VHEB	606-20-2	
Acenaphthene	63	ug/L	10	03/16/98	VHEB	83-32-9	
4-Nitrophenol	ND	ug/L	50	03/16/98	VHEB	100-02-7	
Dibenzofuran	17	ug/L	10	03/16/98	VHEB	132-64-9	
2,4-Dinitrotoluene	23	ug/L	10	03/16/98	VHEB	121-14-2	
Fluorene	23	ug/L	10	03/16/98	VHEB	86-73-7	
4,6-Dinitro-2-methylphenol	ND	ug/L	50	03/16/98	VHEB	534-52-1	
N-Nitrosodiphenylamine	ND	ug/L	10	03/16/98	VHEB	86-30-6	
Pentachlorophenol	ND	ug/L	50	03/16/98	VHEB	87-86-5	
Phenanthrene	ND	ug/L	10	03/16/98	VHEB	85-01-8	
Anthracene	ND	ug/L	10	03/16/98	VHEB	120-12-7	
Di-n-butylphthalate	ND	ug/L	10	03/16/98	VHEB	84-74-2	
Fluoranthene	ND	ug/L	10	03/16/98	VHEB	206-44-0	
Pyrene	ND	ug/L	10	03/16/98	VHEB	129-00-0	

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Pace Project Number: 851674

Client Project ID: HWPW

Pace Sample No: 85173870 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-11A-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	54	x		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	68	x		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	38	x		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	28	x		03/16/98	VHEB	367-12-4	
2,4,6-Tribromophenol (S)	61	x		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	65	x		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173896 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-11B-1SA98 Date Received: 03/05/98

Parameters Results Units PRL Analyzed Analyst CAS# Footnotes

GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	96 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	96 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	102 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatiles Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/23/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/23/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/23/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/23/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/23/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/23/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/23/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/23/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 606-20-2
Acenaphthene	ND ug/L 10	03/23/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/23/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/23/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 121-14-2
Fluorene	ND ug/L 10	03/23/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/23/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/23/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/23/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/23/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/23/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/23/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/23/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/23/98 VHEB 129-00-0

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Pace Project Number: 851674

Client Project ID: HWPW

Pace Sample No: 85173896 Date Collected: 03/03/98 Matrix: Water
Client Sample ID: HWPW-MW-11B-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/23/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/23/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/23/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/23/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/23/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	26	x		03/23/98	VHEB	4165-60-0	2
2-Fluorobiphenyl (S)	38	x		03/23/98	VHEB	321-60-8	2
Phenol-d6 (S)	4	x		03/23/98	VHEB	13127-88-3	2
2-Fluorophenol (S)	4	x		03/23/98	VHEB	367-12-4	2
2,4,6-Tribromophenol (S)	22	x		03/23/98	VHEB	118-79-6	
Terphenyl-d14 (S)	52	x		03/23/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173904 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-MW-999-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	104 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	98 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	100 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/16/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/16/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/16/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/16/98 VHEB 111-91-1
Naphthalene	7800 ug/L 100	03/16/98 VHEB 91-20-3
2-Methylnaphthalene	25 ug/L 10	03/16/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/16/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/16/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 606-20-2
Acenaphthene	120 ug/L 10	03/16/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/16/98 VHEB 100-02-7
Dibenzofuran	50 ug/L 10	03/16/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 121-14-2
Fluorene	74 ug/L 10	03/16/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/16/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/16/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/16/98 VHEB 87-86-5
Phenanthrene	34 ug/L 10	03/16/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/16/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/16/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/16/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/16/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173904 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-MW-999-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	61	x		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	62	x		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	30	x		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	18	x		03/16/98	VHEB	367-12-4	1
2,4,6-Tribromophenol (S)	70	x		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	120	x		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173920 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-P-10-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	106 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	96 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	98 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/16/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/16/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/16/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/16/98 VHEB 111-91-1
Naphthalene	5800 ug/L 100	03/16/98 VHEB 91-20-3
2-Methylnaphthalene	18 ug/L 10	03/16/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/16/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/16/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 606-20-2
Acenaphthene	89 ug/L 10	03/16/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/16/98 VHEB 100-02-7
Dibenzofuran	38 ug/L 10	03/16/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 121-14-2
Fluorene	60 ug/L 10	03/16/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/16/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/16/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/16/98 VHEB 87-86-5
Phenanthrene	28 ug/L 10	03/16/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/16/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/16/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/16/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/16/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173920 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-P-10-ISA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	46	×		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	47	×		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	22	×		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	14	×		03/16/98	VHEB	367-12-4	1
2,4,6-Tribromophenol (S)	55	×		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	95	×		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173938 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-P-11-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	108 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	98 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	100 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/16/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/16/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/16/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/16/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/16/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/16/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/16/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/16/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 606-20-2
Acenaphthene	23 ug/L 10	03/16/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/16/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/16/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/16/98 VHEB 121-14-2
Fluorene	14 ug/L 10	03/16/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/16/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/16/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/16/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/16/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/16/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/16/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/16/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/16/98 VHEB 129-00-0

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Pace Project Number: 851674

Client Project ID: HWPW

Pace Sample No: 85173938 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-P-11-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/16/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/16/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/16/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/16/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/16/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	44	×		03/16/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	51	×		03/16/98	VHEB	321-60-8	
Phenol-d6 (S)	24	×		03/16/98	VHEB	13127-88-3	
2-Fluorophenol (S)	18	×		03/16/98	VHEB	367-12-4	
2,4,6-Tribromophenol (S)	55	×		03/16/98	VHEB	118-79-6	
Terphenyl-d14 (S)	74	×		03/16/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
 Client Project ID: HWPW

Pace Sample No: 85173946 Date Collected: 03/04/98 Matrix: Water
 Client Sample ID: HWPW-P-12-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/17/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/17/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/17/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/17/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/17/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/17/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/17/98 NZAI 1330-20-7
Dibromofluoromethane (S)	101 %	03/17/98 NZAI 1868-53-7
Toluene-d8 (S)	97 %	03/17/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	101 %	03/17/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/20/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/20/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/20/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/20/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/20/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/20/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/20/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/20/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/20/98 VHEB 606-20-2
Acenaphthene	ND ug/L 10	03/20/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/20/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/20/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/20/98 VHEB 121-14-2
Fluorene	ND ug/L 10	03/20/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/20/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/20/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/20/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/20/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/20/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/20/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/20/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/20/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173946 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-P-12-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/20/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/20/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/20/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/20/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/20/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	55	%		03/20/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	72	%		03/20/98	VHEB	321-60-8	
Phenol-d6 (S)	6	%		03/20/98	VHEB	13127-88-3	2
2-Fluorophenol (S)	8	%		03/20/98	VHEB	367-12-4	2
2,4,6-Tribromophenol (S)	34	%		03/20/98	VHEB	118-79-6	
Terphenyl-d14 (S)	68	%		03/20/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
 Client Project ID: HWPW

Pace Sample No: 85173953 Date Collected: 03/04/98 Matrix: Water
 Client Sample ID: HWPW-EB-01-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

GC/MS -- VOA

GC/MS VOCs, RCRA	Method: EPA 8260	Prep Method: EPA 8260
Methylene Chloride	ND ug/L 5	03/16/98 NZAI 75-09-2
Benzene	ND ug/L 5	03/16/98 NZAI 71-43-2
1,2-Dichloroethane	ND ug/L 5	03/16/98 NZAI 107-06-2
Toluene	ND ug/L 5	03/16/98 NZAI 108-88-3
Chlorobenzene	ND ug/L 5	03/16/98 NZAI 108-90-7
Ethylbenzene	ND ug/L 5	03/16/98 NZAI 100-41-4
Xylene (Total)	ND ug/L 5	03/16/98 NZAI 1330-20-7
Dibromofluoromethane (S)	106 %	03/16/98 NZAI 1868-53-7
Toluene-d8 (S)	96 %	03/16/98 NZAI 2037-26-5
4-Bromofluorobenzene (S)	98 %	03/16/98 NZAI 460-00-4

GC/MS -- Semi-VOA

Semivolatile Organics, Water	Method: EPA 8270	Prep Method: EPA 3520
Phenol	ND ug/L 10	03/23/98 VHEB 108-95-2
Nitrobenzene	ND ug/L 10	03/23/98 VHEB 98-95-3
2,4-Dimethylphenol	ND ug/L 10	03/23/98 VHEB 105-67-9
bis(2-Chloroethoxy)methane	ND ug/L 10	03/23/98 VHEB 111-91-1
Naphthalene	ND ug/L 10	03/23/98 VHEB 91-20-3
2-Methylnaphthalene	ND ug/L 10	03/23/98 VHEB 91-57-6
2-Chloronaphthalene	ND ug/L 10	03/23/98 VHEB 91-58-7
Acenaphthylene	ND ug/L 10	03/23/98 VHEB 208-96-8
2,6-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 606-20-2
Acenaphthene	ND ug/L 10	03/23/98 VHEB 83-32-9
4-Nitrophenol	ND ug/L 50	03/23/98 VHEB 100-02-7
Dibenzofuran	ND ug/L 10	03/23/98 VHEB 132-64-9
2,4-Dinitrotoluene	ND ug/L 10	03/23/98 VHEB 121-14-2
Fluorene	ND ug/L 10	03/23/98 VHEB 86-73-7
4,6-Dinitro-2-methylphenol	ND ug/L 50	03/23/98 VHEB 534-52-1
N-Nitrosodiphenylamine	ND ug/L 10	03/23/98 VHEB 86-30-6
Pentachlorophenol	ND ug/L 50	03/23/98 VHEB 87-86-5
Phenanthrene	ND ug/L 10	03/23/98 VHEB 85-01-8
Anthracene	ND ug/L 10	03/23/98 VHEB 120-12-7
Di-n-butylphthalate	ND ug/L 10	03/23/98 VHEB 84-74-2
Fluoranthene	ND ug/L 10	03/23/98 VHEB 206-44-0
Pyrene	ND ug/L 10	03/23/98 VHEB 129-00-0

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173953 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-EB-01-1SA98 Date Received: 03/05/98

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Benzo(a)anthracene	ND	ug/L	10	03/23/98	VHEB	56-55-3	
Chrysene	ND	ug/L	10	03/23/98	VHEB	218-01-9	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	03/23/98	VHEB	117-81-7	
Benzo(a)pyrene	ND	ug/L	10	03/23/98	VHEB	50-32-8	
1,2-Diphenylhydrazine	ND	ug/L	10	03/23/98	VHEB	122-66-7	
Nitrobenzene-d5 (S)	41	%		03/23/98	VHEB	4165-60-0	
2-Fluorobiphenyl (S)	49	%		03/23/98	VHEB	321-60-8	
Phenol-d6 (S)	9	%		03/23/98	VHEB	13127-88-3	2
2-Fluorophenol (S)	12	%		03/23/98	VHEB	367-12-4	
2,4,6-Tribromophenol (S)	18	%		03/23/98	VHEB	118-79-6	
Terphenyl-d14 (S)	68	%		03/23/98	VHEB	1718-51-0	
Date Extracted				03/10/98			

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Pace Project Number: 851674
Client Project ID: HWPW

Pace Sample No: 85173961 Date Collected: 03/04/98 Matrix: Water
Client Sample ID: HWPW-TB-01-ISA98 Date Received: 03/05/98

Parameters Results Units PRL Analyzed Analyst CAS# Footnotes

GC/MS -- VOA

GC/MS VOCs, RCRA

Method: EPA 8260

Prep Method: EPA 8260

Methylene Chloride	ND	ug/L	5	03/16/98	NZAI	75-09-2	
Benzene	ND	ug/L	5	03/16/98	NZAI	71-43-2	
1,2-Dichloroethane	ND	ug/L	5	03/16/98	NZAI	107-06-2	
Toluene	ND	ug/L	5	03/16/98	NZAI	108-88-3	
Chlorobenzene	ND	ug/L	5	03/16/98	NZAI	108-90-7	
Ethylbenzene	ND	ug/L	5	03/16/98	NZAI	100-41-4	
Xylene (Total)	ND	ug/L	5	03/16/98	NZAI	1330-20-7	
Dibromofluoromethane (S)	100	x		03/16/98	NZAI	1868-53-7	
Toluene-d8 (S)	98	x		03/16/98	NZAI	2037-26-5	
4-Bromofluorobenzene (S)	100	x		03/16/98	NZAI	460-00-4	

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Pace Project Number: 851674

Client Project ID: HWPW

PARAMETER FOOTNOTES

- ID Not Detected
- NC Not Calculable
- PRL Pace Reporting Limit
- S) Surrogate
- 1] Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid's surrogate.
- 2] The surrogate recovery was outside QC acceptance limits due to matrix interference.
- 3] Surrogate recovery could not be quantified due to matrix interference.

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IRM-Southwest, Inc.
16300 Katy Frwy, Suite 300
Houston, TX 77094

Pace Project Number: 851674
Client Project ID: HWPW

Attn: Mr. Tom Pacioni
Phone: 281-579-8999

QC Batch ID: 3663
Analysis Method: EPA 8270
Associated Pace Samples:

QC Batch Method: EPA 3520
Analysis Description: Semivolatile Organics, Water

85173763	85173771	85173789	85173797	85173805
85173813	85173839	85173847	85173854	85173862
85173870	85173896	85173904	85173920	85173938
85173946	85173953			

METHOD BLANK: 85180149

Associated Pace Samples:

85173763	85173771	85173789	85173797	85173805	85173813	85173839
85173847	85173854	85173862	85173870	85173896	85173904	85173920
85173938	85173946	85173953				

Parameter	Units	Method Blank Result	PRL	Footnotes
benzene	ug/L	ND	10	
nitrobenzene	ug/L	ND	10	
2,4-Dimethylphenol	ug/L	ND	10	
1,2-Dichloroethane	ug/L	ND	10	
naphthalene	ug/L	ND	10	
2-Methylnaphthalene	ug/L	ND	10	
1-Chloronaphthalene	ug/L	ND	10	
acenaphthylene	ug/L	ND	10	
1,6-Dinitrotoluene	ug/L	ND	10	
Acenaphthene	ug/L	ND	10	
1-Nitrophenol	ug/L	ND	50	
isobenzofuran	ug/L	ND	10	
2,4-Dinitrotoluene	ug/L	ND	10	
Toluene	ug/L	ND	10	
1,6-Dinitro-2-methylphenol	ug/L	ND	50	
N-Nitrosodiphenylamine	ug/L	ND	10	
Pentachlorophenol	ug/L	ND	50	
phenanthrene	ug/L	ND	10	
thracene	ug/L	ND	10	
Di-n-butylphthalate	ug/L	ND	10	

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Pace Project Number: 851674
 Client Project ID: HWPW

METHOD BLANK: 85180149
 associated Pace Samples:

85173763	85173771	85173789	85173797	85173805	85173813	85173839
85173847	85173854	85173862	85173870	85173896	85173904	85173920
85173938	85173946	85173953				

Parameter	Units	Method Blank Result	PRL	Footnotes
Fluoranthene	ug/L	ND	10	
Pyrene	ug/L	ND	10	
benzo(a)anthracene	ug/L	ND	10	
Chrysene	ug/L	ND	10	
bis(2-Ethylhexyl)phthalate	ug/L	ND	10	
benzo(a)pyrene	ug/L	ND	10	
2,2-Diphenylhydrazine	ug/L	ND	10	
Nitrobenzene-d5 (S)	%	53		
Fluorobiphenyl (S)	%	54		
Phenol-d6 (S)	%	30		
2-Fluorophenol (S)	%	24		
2,4,6-Tribromophenol (S)	%	36		
Perphenyl-d14 (S)	%	96		

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 85186260 85186278		Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
		85173763	Spike Conc.						
Phenol	ug/L	0	200	81.00	40.5	60.00	30.0	30	
Acenaphthene	ug/L	94.00	100	162.0	68.0	155.0	61.0	11	
4-Nitrophenol	ug/L	0	200	165.0	82.5	135.0	67.5	20	
1,4-Dinitrotoluene	ug/L	0	100	119.0	119	114.0	114	4	
2,4-Dichlorophenol	ug/L	0	200	206.0	103	207.0	104	0	
Pyrene	ug/L	0	100	86.00	86.0	87.00	87.0	1	
Nitrobenzene-d5 (S)					53		38		
Fluorobiphenyl (S)					58		50		
Phenol-d6 (S)					32		22		
2-Fluorophenol (S)					26		14		1
2,4,6-Tribromophenol (S)					56		54		
Perphenyl-d14 (S)					73		80		

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Pace Project Number: 851674
Client Project ID: HWPW

LABORATORY CONTROL SAMPLE: 85180156

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Phenol	ug/L	200	140.0	70.0	
Acenaphthene	ug/L	100	74.00	74.0	
4-Nitrophenol	ug/L	200	29.00	14.5	
2,4-Dinitrotoluene	ug/L	100	93.00	93.0	
Pentachlorophenol	ug/L	200	280.0	140	
Pyrene	ug/L	100	92.00	92.0	

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ERM-Southwest, Inc.
 16300 Katy Frwy, Suite 300
 Houston, TX 77094

Pace Project Number: 851674
 Client Project ID: HWP

Attn: Mr. Tom Pacioni
 Phone: 281-579-8999

QC Batch ID: 3824
 Analysis Method: EPA 8260
 Associated Pace Samples: 85173920

QC Batch Method: EPA 8260
 Analysis Description: GC/MS VOCs, RCRA
 85173961

METHOD BLANK: 85191757
 Associated Pace Samples:

Parameter	Units	85173920	85173961	PRL	Footnotes
			Method Blank Result		
Methylene Chloride	ug/L		ND	5	
Benzene	ug/L		ND	5	
1,2-Dichloroethane	ug/L		ND	5	
Toluene	ug/L		ND	5	
Chlorobenzene	ug/L		ND	5	
o-Xylylene	ug/L		ND	5	
p-Xylylene (Total)	ug/L		ND	5	
Dibromofluoromethane (S)	%		92		
Toluene-d8 (S)	%		100		
4-Bromofluorobenzene (S)	%		102		

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 85200079 85200087		Matrix Spike Result	Matrix Spike % Rec	Matrix Sp. Dup. Result	Matrix Sp. Dup. % Rec	RPD	Footnotes
		85174977	Conc.						
Benzene	ug/L	0	50	49.29	98.6	46.32	92.6	6	
Toluene	ug/L	0	50	46.31	92.6	44.42	88.8	4	
Chlorobenzene	ug/L	0	50	44.30	88.6	44.28	88.6	0	
Dibromofluoromethane (S)					103		96		
Toluene-d8 (S)					94		96		
4-Bromofluorobenzene (S)					94		95		

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Pace Project Number: 851674
 Client Project ID: HWPW

LABORATORY CONTROL SAMPLE: 85190130

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	20	19.84	99.2	
Toluene	ug/L	20	18.75	93.8	
Chlorobenzene	ug/L	20	18.97	94.9	

LABORATORY CONTROL SAMPLE: 85191062

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	50	45.57	91.1	
Toluene	ug/L	50	45.37	90.7	
Chlorobenzene	ug/L	50	46.80	93.6	

LABORATORY CONTROL SAMPLE: 85191575

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	60	63.21	105	
Toluene	ug/L	60	63.51	106	
Chlorobenzene	ug/L	60	62.41	104	

LABORATORY CONTROL SAMPLE: 85191765

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	60	60.00	100	
Toluene	ug/L	60	54.00	90.0	
Chlorobenzene	ug/L	60	57.00	95.0	

LABORATORY CONTROL SAMPLE: 85200061

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	50	45.86	91.7	
Toluene	ug/L	50	42.06	84.1	
Chlorobenzene	ug/L	50	42.45	84.9	

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Pace Project Number: 851674
 Client Project ID: HWPW

Attn: Mr. Tom Pacioni
 Phone: 281-579-8999

QC Batch ID: 3942
 Analysis Method: EPA 8260
 Associated Pace Samples: 85173805 85173839 85173847

QC Batch Method: EPA 8260
 Analysis Description: GC/MS VOCs, RCRA

METHOD BLANK: 85191666
 Associated Pace Samples:

Parameter	Units	85173805	85173839	85173847	Footnotes
			Method Blank Result	PRL	
Methylene Chloride	ug/L		ND	5	
Benzene	ug/L		ND	5	
1,2-Dichloroethane	ug/L		ND	5	
Toluene	ug/L		ND	5	
Chlorobenzene	ug/L		ND	5	
Ethylbenzene	ug/L		ND	5	
Xylylene (Total)	ug/L		ND	5	
Dibromofluoromethane (S)	%		108		
Toluene-d8 (S)	%		96		
4-Bromofluorobenzene (S)	%		106		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 85200509 85200517

Parameter	Units	85200509		85200517		Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
		85141935	Spike Conc.	Matrix Spike Result	Spike % Rec				
Benzene	ug/L	0	40	39.52	98.8	42.46	106	7	
Toluene	ug/L	0	40	36.83	92.1	39.14	97.9	6	
Chlorobenzene	ug/L	0	40	35.14	87.9	37.29	93.2	6	
Dibromofluoromethane (S)							100		
Toluene-d8 (S)							98		
4-Bromofluorobenzene (S)							94		

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Pace Project Number: 851674

Client Project ID: HWPW

LABORATORY CONTROL SAMPLE: 85191591

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	50	56.00	112	
Toluene	ug/L	50	56.00	112	
Chlorobenzene	ug/L	50	57.00	114	

LABORATORY CONTROL SAMPLE: 85191674

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	50	53.00	106	
Toluene	ug/L	50	50.00	100	
Chlorobenzene	ug/L	50	55.00	110	

LABORATORY CONTROL SAMPLE: 85191716

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	50	48.11	96.2	
Toluene	ug/L	50	51.30	103	
Chlorobenzene	ug/L	50	49.50	99.0	

LABORATORY CONTROL SAMPLE: 85200491

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	50	45.86	91.7	
Toluene	ug/L	50	42.06	84.1	
Chlorobenzene	ug/L	50	42.45	84.9	

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Pace Project Number: 851674
 Client Project ID: HWPW

Attn: Mr. Tom Pacioni
 Phone: 281-579-8999

C Batch ID: 4107
 Analysis Method: EPA 8260
 Associated Pace Samples: 85173789 85173797 85173813 85173854 85173862
 85173870 85173896 85173904 85173938 85173953

METHOD BLANK: 85199792
 Associated Pace Samples: 85173789 85173797 85173813 85173854 85173862 85173870 85173896
 85173904 85173938 85173953

Parameter	Units	Method Blank Result	PRL	Footnotes
Ethylene Chloride	ug/L	ND	5	
Benzene	ug/L	ND	5	
1,2-Dichloroethane	ug/L	ND	5	
Toluene	ug/L	ND	5	
Chlorobenzene	ug/L	ND	5	
Ethylbenzene	ug/L	ND	5	
Xylylene (Total)	ug/L	ND	5	
Dibromofluoromethane (S)	%	90		
Toluene-d8 (S)	%	100		
4-Bromofluorobenzene (S)	%	98		

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 85205615 85205623		Matrix Spike Result	Matrix Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
		85158897	Spike Conc.						
Benzene	ug/L	0	30	30.73	102	27.17	90.6	12	
Toluene	ug/L	0	30	29.23	97.4	26.25	87.5	11	
Chlorobenzene	ug/L	0	30	28.26	94.2	25.61	85.4	10	
Dibromofluoromethane (S)					109		108		
Toluene-d8 (S)					98		99		
4-Bromofluorobenzene (S)					93		96		

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Pace Project Number: 851674
Client Project ID: HWPW

LABORATORY CONTROL SAMPLE: 85199800

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	40	39.00	97.5	
Toluene	ug/L	40	33.00	82.5	
Chlorobenzene	ug/L	40	34.00	85.0	

LABORATORY CONTROL SAMPLE: 85199842

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	40	50.27	126	
Toluene	ug/L	40	46.14	115	
Chlorobenzene	ug/L	40	45.49	114	

LABORATORY CONTROL SAMPLE: 85205607

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	40	36.36	90.9	
Toluene	ug/L	40	34.63	86.6	
Chlorobenzene	ug/L	40	34.82	87.1	

Pace Analytical

Pace Analytical Services, Inc.
 900 Gemini Avenue
 Houston, TX 77058
 Tel: 281-488-1810
 Fax: 281-488-4661

QUALITY CONTROL DATA

DATE: 04/01/98
 PAGE: 46

ERM-Southwest, Inc.
 16300 Katy Frwy, Suite 300
 Houston, TX 77094

Pace Project Number: 851674
 Client Project ID: HWPW

Attn: Mr. Tom Pacioni
 Phone: 281-579-8999

QC Batch ID: 4108 QC Batch Method: EPA 8260
 Analysis Method: EPA 8260 Analysis Description: GC/MS VOCs, RCRA
 Associated Pace Samples: 85173763 85173771 85173946

METHOD BLANK: 85199818
 Associated Pace Samples:

Parameter	Units	85173763	85173771 Method Blank Result	85173946 PRL	Footnotes
Methylene Chloride	ug/L		ND	5	
Benzene	ug/L		ND	5	
1,2-Dichloroethane	ug/L		ND	5	
Toluene	ug/L		ND	5	
Chlorobenzene	ug/L		ND	5	
o-Xylylene	ug/L		ND	5	
m-Xylylene (Total)	ug/L		ND	5	
Dibromofluoromethane (S)	%		96		
Toluene-d8 (S)	%		98		
1-Bromofluorobenzene (S)	%		100		

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 85199875 85199883		Matrix Spike Result	Matrix Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
		85149219	Conc.						
Benzene	ug/L	0	50	38.10	76.2	41.65	83.3	9	
Toluene	ug/L	0	50	43.12	86.2	44.55	89.1	3	
Chlorobenzene	ug/L	0	50	43.02	86.0	45.78	91.6	6	
Dibromofluoromethane (S)					101		99		
Toluene-d8 (S)					98		98		
4-Bromofluorobenzene (S)					90		96		

KG COH 002608

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058

Tel: 281-488-1810
Fax: 281-488-4661

QUALITY CONTROL DATA

DATE: 04/01/98

PAGE: 47

Pace Project Number: 851674

Client Project ID: HWPW

LABORATORY CONTROL SAMPLE: 85199826

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	40	50.27	126	
Toluene	ug/L	40	46.14	115	
Chlorobenzene	ug/L	40	45.49	114	

LABORATORY CONTROL SAMPLE: 85199867

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	50	42.18	84.4	
Toluene	ug/L	50	38.20	76.4	
Chlorobenzene	ug/L	50	38.62	77.2	

LABORATORY CONTROL SAMPLE: 85200004

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	50	45.86	91.7	
Toluene	ug/L	50	42.06	84.1	
Chlorobenzene	ug/L	50	42.45	84.9	

KG COH 002609

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Project Number: 851674

Client Project ID: HWPW

QUALITY CONTROL DATA PARAMETER FOOTNOTES

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

ID Not Detected

NC Not Calculable

PRL Pace Reporting Limit

:PD Relative Percent Difference

.S) Surrogate

[1] Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid's surrogate.

Pace Analytical

CHAIN-OF-CUSTODY RECORD Analytical Request

Client: ERM South East, Inc.
 Address: 16300 KATY FRWY, SUITE 300
Houston, Texas 77094
 Phone: (281) 579-8999

Report To: Tom Paciari
 Bill To: Tom Paciari
 P.O. # / Billing Reference: 422-09
 Project Name / No.: _____

Pace Client No.: _____
 Pace Project Manager: _____
 Pace Project No.: _____

*Requested Due Date: 3/25/98

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS		PRESERVATIVES				ANALYSES REQUEST	REMARKS
					UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA (HCL)	H ₂ O	H ₂ O		
1	HUPW-MW-01A-ISA98	1510	water	3/3/98	4	2		2			✓	
2	HUPW-MW-01A-MS-ISA98	1610	water	3/3/98	4	2		2			✓	
3	HUPW-MW-01A-MSD-ISA98	1510	w	3/3/98	4	2		2			✓	
4	HUPW-MW-02-ISA98	1530	w	3/3/98	4	2		2			✓	
5	HUPW-MW-03-ISA98	1615	w	3/3/98	4	2		2			✓	
6	HUPW-MW-04-ISA98	1125	w	3/3/98	4	2		2			✓	
7	HUPW-MW-05-ISA98	1218	w	3/4/98	4	2		2			✓	
8	HUPW-MW-07-2SA98	1357	w	3/4/98	4	2		2			✓	

COOLER NOS.	BAILERS	SHIPMENT METHOD	RETURNED DATE	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
				1	Christopher E. Williams	Erga H. Babich	3/5	1300
				2	Erga H. Babich			

Additional Comments: KG COH 002611
1 of 3 COC's
(4 coolers)

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD Analytical Request

Report To: ERM-SOUTHWEST, Inc.
 Bill To: K300 KATY FERRYWAY, STE 300
 P.O. # / Billing Reference: HOUSTON, TX 77094
 Project Name / No.: (281) 579-8999

Pace Client No.: Tom PACIONI
 Pace Project Manager: Tom PACIONI
 Pace Project No.: 422-09
 *Requested Due Date: 3/25/98

Analyzed By (PRINT): CHRISTOPHER E. WENIAMS
 Analyt. Signature: [Signature] Date Sampled: 3/3/98 - 3/4/98

ITEM NUMBER	UNPRESERVED	PRESERVATIVES			ANALYSES REQUEST	REMARKS
		H ₂ O ₂	HNO ₃	VOA (Ave)		
1	4	2	2	2	✓	87608 87609
2	4	2	2	2	✓	
3	4	2	2	2	✓	
4	4	2	2	2	✓	
5	4	2	2	2	✓	
6	4	2	2	2	✓	
7	4	2	2	2	✓	
8	4	2	2	2	✓	

COOLER NOS.	BAILERS	SHIPMENT METHOD	RETURNED DATE	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		W	3/4/98	1. [Signature] / ERM	[Signature] / ERM	3/5	1300
		W	3/4/98	2. [Signature] / ERM			
		W	3/4/98				
		W	3/4/98				
		W	3/4/98				
		W	3/4/98				
		W	3/4/98				

Additional Comments:
2 of 3 CO2's
(A coolers)
 5i
 KG COH 002612 ORIGINAL

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD Analytical Request

Client: ERM-SOUTHWEST, INC.
 Address: 16300 KATY FREEWAY, STE 300
HOUSTON, TEXAS 77094
 Phone: (281) 579-8999

Report To: TOM PACIONI
 Bill To: TOM PACIONI
 P.O. # / Billing Reference: 422-09
 Project Name / No.:

Pace Client No.:
 Pace Project Manager:
 Pace Project No.:
 *Requested Due Date: 3/25/98

EM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PAGE NO.	NO. OF CONTAINERS				PRESERVATIVES			ANALYSES REQUEST	REMARKS	
					UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA (H ₂ O)	H ₂ SO ₄	HNO ₃	VOA (H ₂ O)			
1	HWPW-P-11-1SA98	1423	W	3/4/98	4	2	2	2	2	2	2	2	✓	
2	HWPW-P-12-1SA98	1113	W	3/4/98	4	2	2	2	2	2	2	2	✓	
3	HWPW-EB-01-1SA98	1007	W	3/4/98	4	2	2	2	2	2	2	2	✓	
4	HWPW-TB-01-1SA98	1007	W	3/4/98	2								✓	
5														
6														
7														
8														

COOLER NOS.	BAILERS	SHIPMENT METHOD	RETURNED/DATE	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
				1	Cheryl E. Williams / ERM	Ernie H. Bobby	3/5	1300
				2	Ernie H. Bobby			

Additional Comments:
Box 3 Cores
(4 cores)

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD Analytical Request

Client: ERM Southwest, Inc.
 Address: 16300 KATY FRWY. SUITE 300
Houston, Texas 77094
 Phone: (281) 579-8999

Report To: Tom Pacrow

Pace Client No.

Bill To: Tom Pacrow

Pace Project Manager

P.O. # / Billing Reference 422-09

Pace Project No.

Project Name / No. _____
 *Requested Due Date: 3/25/98

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	PRESERVATIVES			ANALYSES REQUEST	NO. OF CONTAINERS	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
					H ₂ O ₂	HNO ₃	VOA (HCL)							
1	HWPW-MW-01A-ISA98	1610	water	3/3/98	2			✓	4	8160B	8160B	8160B	8160B	85 173763
2	HWPW-MW-01A-MS-ISA98	1610	water	3/3/98	2			✓	4	8160B	8160B	8160B	8160B	
3	HWPW-MW-01A-MSP-ISA98	1510	w	3/3/98	2			✓	4	8160B	8160B	8160B	8160B	
4	HWPW-MW-02-ISA98	1530	w	3/3/98	2			✓	4	8160B	8160B	8160B	8160B	85 173761
5	HWPW-MW-03-ISA98	1615	w	3/3/98	2			✓	4	8160B	8160B	8160B	8160B	789
6	HWPW-MW-04-ISA98	1125	w	3/3/98	2			✓	4	8160B	8160B	8160B	8160B	777
7	HWPW-MW-05-ISA98	1218	w	3/4/98	2			✓	4	8160B	8160B	8160B	8160B	805
8	HWPW-MW-07-ISA98	1357	w	3/4/98	2			✓	4	8160B	8160B	8160B	8160B	85173813 Time 0807 on bottles

Additional Comments

1 of 3 COCs
 (4 coolers) 0.1°

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD Analytical Request

Client: ERM-Southwest, Inc.
 Address: 13300 KATY FREEWAY STE 300
HOUSTON, TX 77094
 Phone: (281) 579-8999

Report To: Tom Pacioli
 Bill To: Tom Pacioli
 P.O. # / Billing Reference: 422-09
 Project Name / No.: _____

Pace Client No. _____

Pace Project Manager _____

Pace Project No. _____

*Requested Due Date: 3/25/98

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS			PRESERVATIVES			ANALYSES REQUESTED	REMARKS
					UNPRESERVED	H ₂ SO ₄	HNO ₃	VON (H ₂ O)	H ₂ SO ₄	HNO ₃		
1	HUPW-MW-08-15A98	1327	W	3/4/98	4	2	2	2	2	2	2	85-173839
2	HUPW-MW-09-15A98	1021	W	3/4/98	4	2	2	2	2	2	2	847
3	HUPW-MW-10A-15A98	1330	W	3/3/98	4	2	2	2	2	2	2	854
4	HUPW-MW-10B-15A98	1357	W	3/3/98	4	2	2	2	2	2	2	862
5	HUPW-MW-11A-15A98	1142	W	3/3/98	4	2	2	2	2	2	2	870
6	HUPW-MW-11B-15A98	1245	W	3/3/98	4	2	2	2	2	2	2	896
7	HUPW-MW-999-15A98	0857	W	3/4/98	4	2	2	2	2	2	2	904
8	HUPW-P-10-15A98	0857	W	3/4/98	4	2	2	2	2	2	2	900

COOLER NOS.	BAILERS	SHIPMENT METHOD	RETURNED/DATE	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
				1	Erin H. Buehler / ERM	Erin H. Buehler / ERM	3/5	1300
				2	Erin H. Buehler / ERM	Erin H. Buehler / ERM	3/5	1430

Additional Comments:
 2 of 3 CO2's
 (A coolers)
 54
 2

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD Analytical Request

Client: ERM-SOUTHWEST, INC.
 Address: 6300 NATY FREEMAN, STE 300
HOUSTON, TEXAS 77094
 Phone: (281) 579-8999
 Report To: Tom Pacioni
 Bill To: Tom Pacioni
 P.O. # / Billing Reference: 422-09
 Project Name / No.: _____

Pace Client No. _____
 Pace Project Manager _____
 Pace Project No. _____
 Requested Due Date: 3/25/98

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	PRESERVATIVES				ANALYSES REQUEST	REMARKS	DATE	TIME
					UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA (H ₂ O)				
1	HWPW-P-11-1SA98	1103	W	3/4/98	4	2	2	2	✓	82608 82700	3/5	1300
2	HWPW-P-12-1SA98	1113	W	3/4/98	4	2	2	2	✓		3/5	1430
3	HWPW-EB-01-1SA98	1351	W	3/4/98	4	2	2	2	✓			
4	HWPW-TB-01-1SA98	1007	W	3/4/98	2	2	2	2	✓			
5												
6												
7												
8												

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION
		OUT/DATE	RETURNED/DATE			
				1	Christopher Williams / ERM	Edna H. Boney
				2	Edna H. Boney	Paula Antley

Additional Comments: Box 3 Coors (4 coors)
 55
 KG COH 002616

SEE REVERSE SIDE FOR INSTRUCTIONS

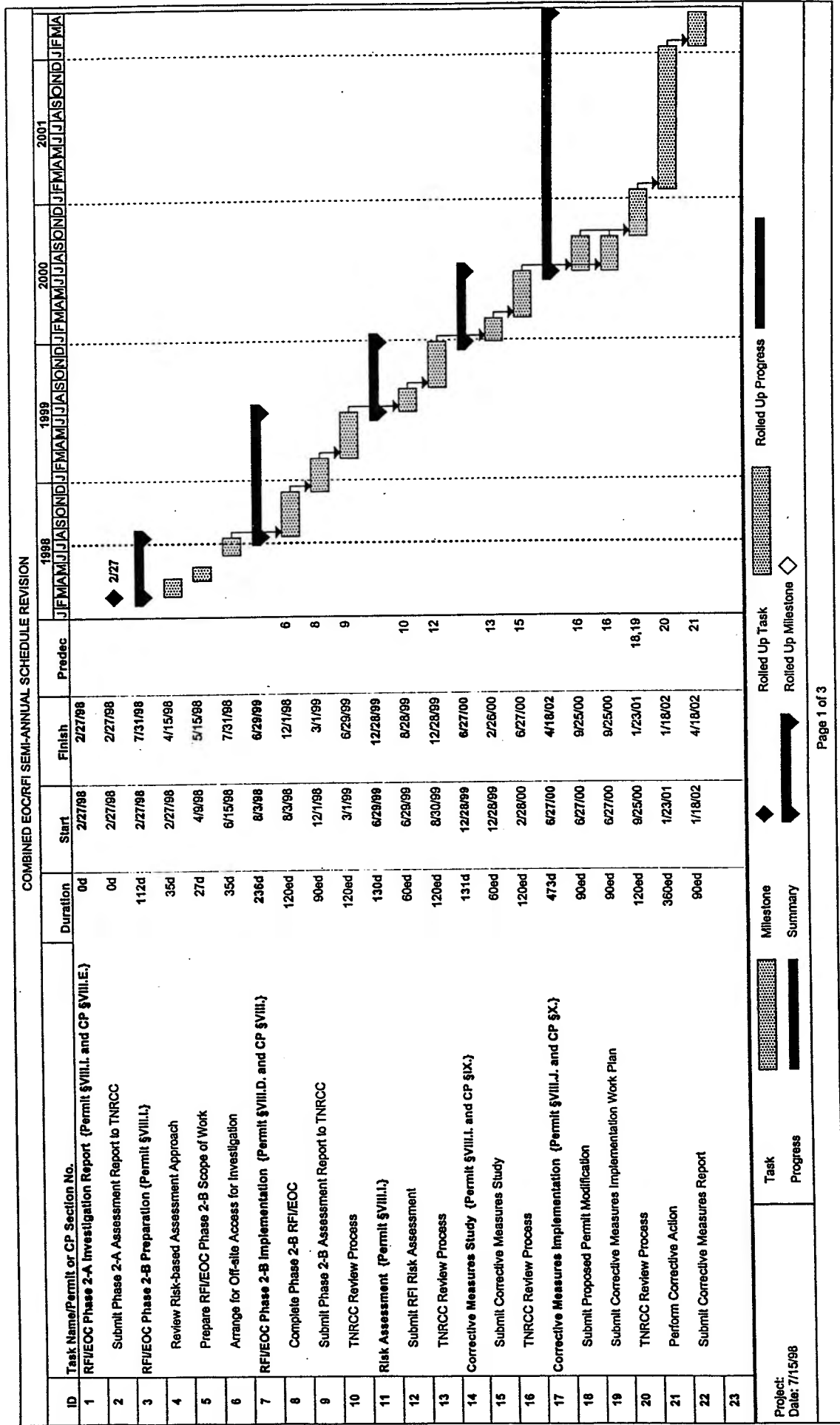
Updated Compliance Schedule
Appendix D

July 16, 1998
W.O. #422-09

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

KG COH 002617

BK624422-G98









COMBINED EOCR/FI SEMI-ANNUAL SCHEDULE REVISION									
ID	Task Name/Permit or CP Section No.	Duration	Start	Finish	Predec	1998	1999	2000	2001
24	Compliance Activities (Permit §IV.C. and CP §VI.)	770d	1/7/98	12/13/00		JFMAMJJJASO	NDDJFMAMJJJASO	NDDJFMAMJJJASO	NDDJFMAMJJJASO
25	Impoundment Inspections (Weekly)	770d	1/7/98	12/13/00					
180	Water Level Measurements (Monthly)	740d	1/21/98	11/15/00					
216	Monitor Well Inspections (Quarterly)	658d	3/18/98	9/20/00					
228	Ground Water Sampling (Semiannual)	659d	3/18/98	9/22/00					
235									
236									
237	Post-Closure Care Reporting 1987 through 2000	656d	1/21/98	7/21/00					
238	Semiannual Report - January 21, 1998 (CP §VII.B.2.)	0d	1/21/98	1/21/98					
239	Submit Report to TNRCC	0d	1/21/98	1/21/98					
240	1997 Annual Report - January 25, 1998 (Permit §V.F. and §III.B.1)	1d	1/25/98	1/25/98					
241	Semiannual Report - July 21, 1998 (CP §VII.B.2.)	87d	3/20/98	7/21/98					
242	Perform Data Evaluation	60ed	3/20/98	5/19/98	229				
243	Submit Report to TNRCC	63ed	5/19/98	7/21/98	242				
244	Semiannual Report - January 21, 1999 (CP §VII.B.2.)	89d	9/18/98	1/21/99					
245	Perform Data Evaluation	60ed	9/18/98	11/17/98	230				
246	Submit Report to TNRCC	65ed	11/17/98	1/21/99	245				
247	1998 Annual Report - January 25, 1999 (Permit §V.F. and §III.B.1)	1d	1/25/99	1/25/99					
248	Semiannual Report - July 21, 1999 (CP §VII.B.2.)	88d	3/19/99	7/21/99					
249	Perform Data Evaluation	60ed	3/19/99	5/18/99	231				
250	Submit Report to TNRCC	64ed	5/18/99	7/21/99	249				
251	Semiannual Report - January 21, 2000 (CP §VII.B.2.)	91d	9/17/99	1/21/00					
252	Perform Data Evaluation	60ed	9/17/99	11/16/99	232				

Project:
 Date: 7/15/98

	Task		Milestone		Roll Up Task		Roll Up Progress
	Progress		Summary		Roll Up Milestone		

COMBINED EOC/RFI SEMI-ANNUAL SCHEDULE REVISION											
ID	Task Name/Permit or CP Section No.	Duration	Start	Finish	Predec	1998	1999	2000	2001		
253	Submit Report to TNRCC	66ed	11/16/99	1/21/00	252	JFMAMJJJJAISONNDJF	JFMAMJJJJAISONNDJF	JFMAMJJJJAISONNDJF	JFMAMJJJJAISONNDJF		
254	1999 Annual Report - January 25, 1999 (Permit §V.F. and §III.B.1)	1d	1/25/00	1/25/00							
255	Semiannual Report - July 21, 2000 (CP §VII.B.2.)	91d	3/17/00	7/21/00							
256	Perform Data Evaluation	60ed	3/17/00	5/16/00	233						
257	Submit Report to TNRCC	66ed	5/16/00	7/21/00	256						

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

Project:	
Date:	7/15/98

KG COH 002621

AVERY



Industrial Compliance

10025 W. Technology Blvd., Suite 147 Dallas, TX 75220 214/352-9400 FAX 214/352-3200

**AMENDMENT 3 TO OPERATION AND MAINTENANCE PLAN FOR
GROUNDWATER MONITORING
AND RECOVERY SYSTEM**

**Southern Pacific Transportation Company
Wood Preserving Works
4910 Liberty Road
Houston, Texas**

**Post-Closure Care Permit No. HW-50343-000
Industrial Solid Waste Registration No. 31547
EPA ID No. TXD000820266**

IC Project No. 44102069

Prepared For:

**Southern Pacific Lines
One Market Plaza
San Francisco, California 94105**

June 23, 1995

KG COH 002622

Denver • Phoenix • Kansas City • Dallas • Houston • Los Angeles • Sacramento • Little Rock • Knoxville



**AMENDMENT 3 TO OPERATION AND MAINTENANCE PLAN FOR
GROUNDWATER MONITORING
AND RECOVERY SYSTEM**

**Southern Pacific Transportation Company
Wood Preserving Works
4910 Liberty Road
Houston, Texas**

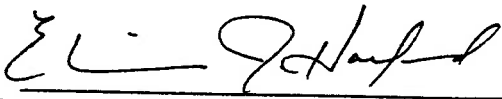
**Post-Closure Care Permit No. HW-50343-000
Industrial Solid Waste Registration No. 31547
EPA ID No. TXD000820266**


Prepared By:



Elaine J. Hanford
Technical Manager

Approved by:



 Curtis L. Jones
Project Manager



QUARTERLY WELL INSPECTION CHECKLIST

FACILITY: _____

WELL NUMBER/LOCATION: _____

INSPECTOR: _____ DATE: _____

TIME (START): _____ TIME (END): _____

1. Is well access clear and properly maintained?
YES NO COMMENT
2. Is well area free of standing water or eroded areas?
YES NO COMMENT
3. Are required placards, notices, and instructions present and legible?
YES NO COMMENT
4. Are safety barrier pipes in place and in good repair?
YES NO COMMENT
5. Is concrete pad at well base in good repair and free of cracks?
YES NO COMMENT
6. Is soil around base of concrete pad eroded?
YES NO COMMENT
7. Are insect nests or animal burrows beneath or around the concrete pad?
YES NO COMMENT
8. Is wellhead protective collar in good repair?
YES NO COMMENT
9. Are well collar markings present and visible?
YES NO COMMENT



10. Is wellhead cap in place and in good repair?
 YES NO COMMENT
11. Is wellhead cap locked?
 YES NO COMMENT
12. Is wellhead cap vent open and unobstructed?
 YES NO COMMENT
13. Is well casing integrity intact and is casing in good repair?
 YES NO COMMENT

Comments: _____

Signature of Inspector: _____

Signature of Reviewer: _____

Date of Review: _____

Description of Recommended Corrective Actions: _____

Corrective Action Approval: _____

Date of Approval: _____

Corrective Actions Completed: _____
 (Signature and Date)



WEEKLY SURFACE IMPOUNDMENT INSPECTION CHECKLIST

FACILITY: _____

INSPECTOR: _____ DATE: _____

TIME (START): _____ TIME (END): _____

1. Is impoundment cover free of erosion?
 YES NO COMMENT
2. Is there any evidence of woody vegetation growth?
 YES NO COMMENT
3. Is there any evidence of dead or distressed vegetation?
 YES NO COMMENT
4. Is cover vegetation around wells trimmed to proper height?
 YES NO COMMENT
5. Is there any evidence of animal or insect burrows?
 YES NO COMMENT
6. Is the area free of standing or ponded water, including recent evidence of ponding?
 YES NO COMMENT
7. Is the perimeter fence breached or damaged in any way?
 YES NO COMMENT
8. Are fence posts upright?
 YES NO COMMENT
9. Is fencing mesh sagging?
 YES NO COMMENT
10. Is there any evidence of excavation or erosion under fencing?
 YES NO COMMENT



11. Are warning signs on fencing posted, legible, or in good condition?
 YES NO COMMENT
12. Are satellite storage drums being used for storage or has accumulation exceeded 55 gallons at any one satellite location? If YES, then items 12a through 12h must be answered.
 YES NO COMMENT
- 12a. Has container(s) holding excess amount been clearly marked with beginning date of excess accumulation?
 YES NO COMMENT
- 12b. Have excess amounts remained in satellite area for more than three (3) days?
 YES NO COMMENT
- 12c. Are containers compatible with the material contained for storage?
 YES NO COMMENT
- 12d. Are the satellite storage drums in good condition?
 YES NO COMMENT
- 12e. Are the satellite storage drums securely closed (except when adding or removing waste)?
 YES NO COMMENT
- 12f. Are the satellite storage drum areas free from evidence of leaks and spills?
 YES NO COMMENT
- 12g. Are containers marked "hazardous waste" and labeled to identify the contents?
 YES NO COMMENT
- 12h. Can emergency equipment access the satellite drum areas?
 YES NO COMMENT



Comments: _____

Signature of Inspector: _____

Signature of Reviewer: _____

Date of Review: _____

Description of Recommended Corrective Actions: _____

Corrective Action Approval: _____

Date of Approval: _____

Corrective Actions Completed: _____
(Signature and Date)





SWR 31547
PC
FYI

SOUTHERN PACIFIC LINES

Environmental Affairs Group

913 Franklin Avenue, Houston, Texas 77002

M. H. Belco
Sr. Manager of Environmental Field Ops.

(713) 223-7539
FAX (713) 223-7538

June 25, 1993

Ms. Wendy J. Rozacky
Supervisor-RCRA Ground Water Enforcement, Unit 1
Industrial and Hazardous Waste Division
Texas Water Commission
P.O. Box 13087
Austin, Texas 78711-3087

Re: Southern Pacific Transportation Company (SPTCo)
Post-Closure Care Permit No. HW-50343-000
Industrial Solid Waste Registration No. 31547
Post-Closure Care Quarterly Groundwater Monitoring Report

Dear Ms. Rozacky:

Enclosed are the analytical results for the first quarterly groundwater monitoring report for 1993. This report is in compliance with SPTCo's RCRA Part B Post-Closure Care Permit application and Groundwater Compliance Plan.

Please contact me at (713) 223-7539 with questions or requests for additional information.

Best Regards,

Michelle H. Belco
Michelle H. Belco

enclosures

TWC cc: Dr. Ata-Ur-Rahman, Groundwater Team Leader
Mr. Robert Brydson, Permits Section
Industrial and Hazardous Waste Division
Mr. Richard Clarke, Leader, Closure Team
Corrective Action Section
Ms. Susan Bredehoeft, Program Manager
Hazardous and Solid Waste Program, District 7

SPTCo cc: G. F. Shepherd

IC cc: W. F. (Rick) Bowles
R. E. Coffman

KG COH 002629

FIRST QUARTER MONITORING WELL SUMMARY AND ANALYTICAL RESULTS

SOUTHERN PACIFIC TRANSPORTATION COMPANY

4910 LIBERTY ROAD

HOUSTON, TEXAS

TWC Facility I.D. No.: 31547

Prepared by:

SOUTHERN PACIFIC TRANSPORTATION COMPANY

913 Franklin Avenue
Houston, Texas 77002

March 1993

On March 31, 1993, Industrial Compliance performed the first quarterly sampling of seven (7) monitoring wells at the closed surface impoundment located at Southern Pacific Transportation Company's (SPTCo) Englewood Yard, 4910 Liberty Road, Houston, Texas. The quarterly sampling was conducted as part of the post-closure care monitoring proposed in the RCRA Part B Post-Closure Care Permit application and Groundwater Compliance Plan application of May, 1991. Industrial Compliance completed this effort with assistance from SPTCo's Utility department.

Static water levels were measured in each monitoring well prior to the beginning of the sampling in order to obtain representative levels without influence from the evacuation procedure. Those static levels were obtained through the use of an electrical sounding device capable of producing measurements to a precision of 0.01 feet. The electrical sounding probe was decontaminated between well readings to prevent the possibility of cross-contamination. The probe was washed in a detergent and water solution, rinsed in fresh water, and wiped dry with a clean paper towel.

Well evacuation was accomplished using a Grundfos Redi-Flow 2™ submersible pump. Three (3) well volumes of water were evacuated from each well prior to sampling. Wells were purged at a rate which allowed recharge water not to be excessively agitated. Total well volume calculated for each well includes both the well casing and sand pack volumes. After each evacuation, the wells were allowed to recover to 80 percent of the initial recording before a sample was taken.

Water samples from each well were collected in clean glass containers, labeled, documented, and placed directly into a chest cooled with ice. Standard chain-of-custody procedures were followed at all times. Samples were submitted to Professional Services Industries, Inc. (PSI) of Deer Park, Texas. The water samples were analyzed for volatiles by EPA method 8240 and semi-volatiles by EPA method 8270.

Purged well water was placed in DOT-approved 55-gallon drums, sealed and properly labeled for disposal pending completion of waste profiling. The submersible pump was thoroughly decontaminated between wells by cycling detergent and water, followed by fresh water rinse. Both the decon water and the purged well water, found to have no hazardous constituents above the allowed regulatory limits, were disposed of in SPTCo's Hardy Street wastewater treatment plant.

The following attachments include a summary sheet listing the groundwater monitoring constituents for each well, groundwater sampling forms, the field tracking report and results of the analytical work performed.

IST QUARTER 1993 ANALYTICAL RESULTS: SPTC_o ENGLEWOOD YARD, HOUSTON, TEXAS

IC PROJECT NO.: 44101294

TWC FACILITY I.D. NO.: 21547

COMPOUND (UG/L)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-7	MW-8
BENZENE	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
CHLOROBENZENE	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
DICHLOROMETHANE	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
ETHYLBENZENE	14	ND<5	11	ND<5	6	ND<5	ND<5
TOLUENE	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
XYLENES	15	ND<5	12	ND<5	15	ND<5	ND<5
ACENAPHTHENE	170	33	170	16	47	20	12
ACENAPHTHYLENE	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
ANTHRACENE	13	ND<10	17	ND<10	ND<10	ND<10	ND<10
BENZO(A)ANTHRACENE	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
BIS(2-ETHYLHEXYL)PHTHALATE	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
CHRYSENE	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
DIBENZOFURAN	130	26	140	ND<10	20	ND<10	ND<10
FLUORANTHENE	11	ND<10	21	ND<10	ND<10	ND<10	ND<10
FLOURENE	130	28	130	ND<10	26	ND<10	ND<10
2-METHYLNAPHTHALENE	170	ND<10	40	ND<10	42	ND<10	ND<10
NAPHTHALENE	370	47	ND<10	35	440	ND<10	50
NITROBENZENE	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
PHENANTHRENE	100	23	100	ND<10	ND<10	ND<10	ND<10
PHENOL	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
PYRENE	ND<10	ND<10	12	ND<10	ND<10	ND<10	ND<10
2,4-DIMETHYLPHENOL	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-NITROPHENOL	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50

NOTE: Concentrations reported in micrograms per liter (ug/L).

PROJECT NUMBER: 44101294

PROJECT NAME: Englewood Yard

FIELD TRACKING REPORT NO.: One

FIELD SAMPLE CODE	BRIEF DESCRIPTION	DATE	TIME(S)	SAMPLER
04001/MW-1	Water	3/31/93	12:50 p.m.	VanCompernelle
04002/MW-2	Water	3/31/93	12:30 p.m.	VanCompernelle
04003/MW-3	Water	3/31/93	12:10 p.m.	VanCompernelle
04004/MW-4	Water	3/31/93	10:48 a.m.	VanCompernelle
04005/MW-5	Water	3/31/93	10:15 a.m.	VanCompernelle
04007/MW-7	Water	3/31/93	11:20 a.m.	VanCompernelle
04008/MW-8	Water	3/31/93	8:45 a.m.	VanCompernelle

GROUNDWATER SAMPLING FORM

WELL NUMBER: MW-1

1st Quarter 1993

Job Name: Englewood Yard

Job Number: 44101294

Client: Southern Pacific Transportation Company

Date Sampled: 3/31/93

Site Location: 4910 Liberty Rd., Houston, Texas

Time Sampled: 12:50 P.M.

Weather: Clear, Sunny, 78

Sampled By: VanCompernelle

EXCAVATION DATA

Description of Measuring Point (MP):	Top of PVC Casing (East Side)
Depth of Well (From Ground Level):	18.5 Feet
Depth to Water (From MP):	3.79 Feet
Depth to Water (From Ground Level):	2.25 Feet
Casing Stick-Up:	1.54 Feet
Volume of Water in Well:	2.64 Gallons
Volume of Water Evacuated:	8 Gallons

FIELD PARAMETERS

pH:	7.11
Specific Conductivity:	1317
Sampling Method/Equipment:	Purged with Grundfos Redi-Flo 2 Submersible Pump
Remarks:	Sample # 04001

FIELD TESTING: MW - 1

TIME	WATER PUMPED	TEMP °C	pH	SPEC COND. (mV)
1	2.66 Gallons	22.3	6.58	1301
2	2.67 Gallons	21.8	6.76	1292
3	2.67 Gallons	22.4	6.64	1313
Sample		22.5	7.11	1317

GROUNDWATER SAMPLING FORM

WELL NUMBER: MW-2

1st Quarter 1993

Job Name: Englewood Yard

Client: Southern Pacific Transportation Company

Site Location: 4910 Liberty Rd., Houston, Texas

Weather: Clear, Sunny, 78

Job Number: 44101294

Date Sampled: 3/31/93

Time Sampled: 12:30 P.M.

Sampled By: VanCompernelle

EXCAVATION DATA

Description of Measuring Point (MP):	Top of PVC Casing (East Side)
Depth of Well (From Ground Level):	18.5 Feet
Depth to Water (From MP)	3.50 Feet
Depth to Water (From Ground Level):	1.98 Feet
Casing Stick-Up:	1.52 Feet
Volume of Water in Well:	2.69 Gallons
Volume of Water Evacuated:	8 Gallons

FIELD PARAMETERS

pH:	7.67
Specific Conductivity:	498
Sampling Method/Equipment:	Purged with Grundfos Redi-Flo 2 Submersible Pump
Remarks:	Sample # 04002

FIELD TESTING: MW - 2

TIME	WATER PUMPED	TEMP °C	pH	SPEC COND. (mV)
1	2.66 Gallons	21.6	7.14	439
2	2.67 Gallons	21.2	6.96	478
3	2.67 Gallons	21.8	6.88	472
Sample		21.7	7.67	498

GROUNDWATER SAMPLING FORM

WELL NUMBER: MW-3

1st Quarter 1993

Job Name: Englewood Yard

Job Number: 44101294

Client: Southern Pacific Transportation Company

Date Sampled: 3/31/93

Site Location: 4910 Liberty Rd., Houston, Texas

Time Sampled: 12:10 P.M.

Weather: Clear, Sunny, 78

Sampled By: VanCompernelle

EXCAVATION DATA

Description of Measuring Point (MP):	Top of PVC Casing (East Side)
Depth of Well (From Ground Level):	18.5 Feet
Depth to Water (From MP):	4.35 Feet
Depth to Water (From Ground Level):	2.25 Feet
Casing Stick-Up:	2.10 Feet
Volume of Water in Well:	2.60 Gallons
Volume of Water Evacuated:	8 Gallons

FIELD PARAMETERS

pH:	6.80
Specific Conductivity:	1418
Sampling Method/Equipment:	Purged with Grundfos Redi-Flo 2 Submersible Pump
Remarks:	Sample # 04003

FIELD TESTING: MW - 3

TIME	WATER PUMPED	TEMP °C	pH	SPEC COND. (mV)
1	2.66 Gallons	23.2	6.78	1510
2	2.67 Gallons	21.7	6.59	1375
3	2.67 Gallons	21.3	6.31	1327
Sample		23.8	6.80	1418

GROUNDWATER SAMPLING FORM

WELL NUMBER: MW-4

1st Quarter 1993

Job Name: Englewood Yard

Job Number: 44101294

Client: Southern Pacific Transportation Company

Date Sampled: 3/31/93

Site Location: 4910 Liberty Rd., Houston, Texas

Time Sampled: 10:48 P.M.

Weather: Clear, Sunny, 78

Sampled By: VanCompernelle

EXCAVATION DATA

Description of Measuring Point (MP):	Top of PVC Casing (East Side)
Depth of Well (From Ground Level):	21.0 Feet
Depth to Water (From MP):	5.23 Feet
Depth to Water (From Ground Level):	3.34 Feet
Casing Stick-Up:	1.86 Feet
Volume of Water in Well:	2.87 Gallons
Volume of Water Evacuated:	9 Gallons

FIELD PARAMETERS

pH:	6.65
Specific Conductivity:	828
Sampling Method/Equipment:	Purged with Grundfos Redi-Flo 2 Submersible Pump
Remarks:	Sample # 04004

GROUNDWATER SAMPLING FORM

WELL NUMBER: MW-5

1st Quarter 1993

Job Name: Englewood Yard

Job Number: 44101294

Client: Southern Pacific Transportation Company

Date Sampled: 3/31/93

Site Location: 4910 Liberty Rd., Houston, Texas

Time Sampled: 10:15 P.M.

Weather: Clear, Sunny, 78

Sampled By: VanCompernelle

EXCAVATION DATA

Description of Measuring Point (MP):	Top of PVC Casing (East Side)
Depth of Well (From Ground Level):	26.0 Feet
Depth to Water (From MP):	1.18 Feet
Depth to Water (From Ground Level):	1.18 Feet
Casing Stick-Up:	0 Feet
Volume of Water in Well:	4.04 Gallons
Volume of Water Evacuated:	20 Gallons

FIELD PARAMETERS

pH:	7.10
Specific Conductivity:	851
Sampling Method/Equipment:	Purged with Grundfos Redi-Flo 2 Submersible Pump
Remarks:	Sample # 04005

GROUNDWATER SAMPLING FORM

WELL NUMBER: MW-7

1st Quarter 1993

Job Name: Englewood Yard

Job Number: 44101294

Client: Southern Pacific Transportation Company

Date Sampled: 3/31/93

Site Location: 4910 Liberty Rd., Houston, Texas

Time Sampled: 11:20 A.M.

Weather: Partly Cloudy, 65

Sampled By: VanCompernelle

EXCAVATION DATA

Description of Measuring Point (MP):	Top of PVC Casing (East Side)
Depth of Well (From Ground Level):	23.0 Feet
Depth to Water (From MP):	4.25 Feet
Depth to Water (From Ground Level):	2.04 Feet
Casing Stick-Up:	1.71 Feet
Volume of Water in Well:	13.55 Gallons
Volume of Water Evacuated:	40 Gallons

FIELD PARAMETERS

pH:	7.09
Specific Conductivity:	933
Sampling Method/Equipment:	Purged with Grundfos Redi-Flo 2 Submersible Pump
Remarks:	Sample # 04006

FIELD TESTING: MW - 7

TIME	WATER PUMPED	TEMP °C	pH	SPEC COND. (mV)
1	13.33 Gallons	22.7	7.50	951
2	13.33 Gallons	22.7	7.22	917
3	13.34 Gallons	22.8	7.15	921
Sample		22.7	7.09	933

GROUNDWATER SAMPLING FORM

WELL NUMBER: MW-8

1st Quarter 1993

Job Name: Englewood Yard

Job Number: 44101294

Client: Southern Pacific Transportation Company

Date Sampled: 3/31/93

Site Location: 4910 Liberty Rd., Houston, Texas

Time Sampled: 8:45 A.M.

Weather: Clear, Sunny, 78

Sampled By: VanCompernelle

EXCAVATION DATA

Description of Measuring Point (MP):	Top of PVC Casing (East Side)
Depth of Well (From Ground Level):	24 Feet
Depth to Water (From MP):	4.52 Feet
Depth to Water (From Ground Level):	1.93 Feet
Casing Stick-Up:	2.77 Feet
Volume of Water in Well:	14.63 Gallons
Volume of Water Evacuated:	44 Gallons

FIELD PARAMETERS

pH:	7.18
Specific Conductivity:	1060
Sampling Method/Equipment:	Purged with Grundfos Redi-Flo 2 Submersible Pump
Remarks:	Sample # 04007

FIELD TESTING: MW - 8

TIME	WATER PUMPED	TEMP °C	pH	SPEC COND. (mV)
1	13.33 Gallons	20.9	7.21	984
2	13.33 Gallons	20.3	7.11	109
3	13.34 Gallons	18.9	7.22	112
Sample		18.3	7.18	106

ce
31547

John Hall, *Chairman*
Pam Reed, *Commissioner*
Peggy Garner, *Commissioner*
Dan Pearson, *Executive Director*



TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

CERTIFIED MAIL December 29, 1994
RETURN RECEIPT REQUESTED

Ms. Aniko Molnar
Sr. Environmental Project Manager
Southern Pacific Lines
1920 Main Street, Suite 400
Irvine, CA 92714

Re: Southern Pacific Transportation Company - Houston,
Compliance Plan CP-50343, SWR No. 31547,
EPA ID No. TXD000820266
Extent of Contamination Work Plan

Dear Ms. Molnar:

The Texas Natural Resource Conservation Commission (TNRCC) has reviewed the above referenced Extent of Contamination (EOC) Work Plan dated September 16, 1994. During the review process of the above referenced work plan, the following deficiencies were noted.

- Section 3.6.3. page 39: Describe the rationale and methods used to determine which intervals of the soil borings are to be analyzed for creosote constituents.
- Section 3.6.4. page 39: Include porosity and fractional organic carbon content (f_{oc}) tests for the representative soil samples described.
- Section 3.7.2. page 45: The second paragraph discusses the use of a two foot sediment trap below the base of the well screen. Discuss whether sediment traps will be installed on all new monitor wells.
- Section 3.7.3. page 47: Since the potential for Dense Non-Aqueous Phase Liquids (DNAPLs) exists at this facility, please describe the methods which will be used to monitor for DNAPLs accumulating in the monitor wells. Include with this description the means by which a potential accumulation of DNAPL would be measured and removed from a monitor well.
- Section 3.3.2. page 26: Upon completion, please submit a copy of the results of the wetland assessment and determination.
- Section 6, Schedule for EOC Investigation: The four to five month time period between

KG COH 002648

Ms. Molnar
Page 2
December 29, 1994

"Monitoring Well Sampling-First Event" and "Data Evaluation", and the ten month time period between "Data Evaluation" and submittal of the EOC Investigation Report, appear excessive. Please submit a schedule with more realistic time frames or provide justification for the submitted schedule.

- Section 6.3: Include with the final report a map or aerial photograph showing the location of all monitor wells, soil borings, Cone Penetrometer Tests (CPT), drainage, potential wetlands, residential homes, and buildings and structures within a half mile radius of the surface impoundment.

Within forty-five (45) days of the date of this letter, please submit a response which addresses the above noted deficiencies. If you have any questions or comments regarding this letter, please contact Mr. Stephen Omo of my staff at 512/239-2308.

Sincerely,



Ata-ur-Rahman, Supervisor
Permits Ground-Water Team
Industrial and Hazardous Waste Division

SMO:smo

cc: TNRCC Region 12 - Houston



Industrial Compliance

10025 W. Technology Blvd., Suite 147 Dallas, TX 75220 214/352-9400 FAX 214/352-3200

**AMENDMENT TO OPERATION AND MAINTENANCE PLAN FOR
GROUNDWATER MONITORING
AND RECOVERY SYSTEM**

**Southern Pacific Transportation Company
Wood Preserving Works
4910 Liberty Road
Houston, Texas**

IC Project No. 44102069/01

Prepared For:

**Southern Pacific Lines
One Market Plaza
San Francisco, California 94105**

December 8, 1994

KG COH 002650

Denver • Phoenix • Kansas City • Dallas • Houston • Los Angeles • Sacramento • Little Rock • Knoxville

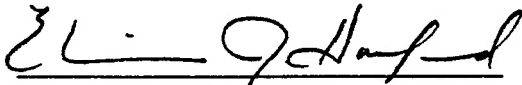
A Subsidiary of SP Environmental Systems, Inc.



AMENDMENT TO OPERATION AND MAINTENANCE PLAN FOR
GROUNDWATER MONITORING
AND RECOVERY SYSTEM

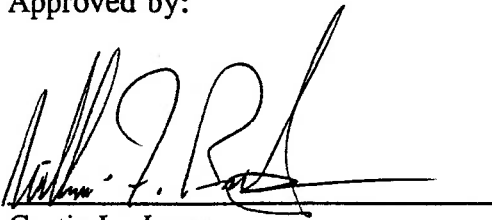
Southern Pacific Transportation Company
Wood Preserving Works
4910 Liberty Road
Houston, Texas

Prepared By:



Elaine J. Hanford
Technical Manager

Approved by:



Curtis L. Jones
Project Manager



AMENDMENT TO OPERATION AND MAINTENANCE PLAN FOR GROUNDWATER MONITORING AND RECOVERY SYSTEM

3.0 WELL OPERATION AND MAINTENANCE

3.1 Sampling

Following well installation and development, periodic sampling will be conducted at each well in accordance with the frequency outlined in the Permit and the Compliance Plan. Typical sampling protocols and approved analytical methods are described in the Sampling and Analysis Plan (Appendix A) as approved in the Compliance Plan. Reporting requirements relative to the results of groundwater monitoring are outlined in the Compliance Plan.

3.2 Well Maintenance

Well heads will be visually inspected for damage, cracking, heaving, and settling. Any deterioration of the well head that could compromise the quality of representative groundwater samples will be noted, and corrective action will be taken to repair or replace the well head, as appropriate.

Concrete pads around the monitor wells will be visually inspected for insect or animal nests or burrows. Monitor well pad areas may become inhabited by fire ant mounds or red ant burrows which will be removed by an appropriate application of insecticides (e.g., Amdro) either by direct contact or bait. Burrowing animals such as ground squirrels, and various burrowing rodents will be bait trapped with a Have-a-Hart or similar live animal trap and released away from the vicinity of the wells. Burrow holes will be filled in and a rodent repellent applied to prevent reinfestation. If burrowing animals persist, hardware cloth will be installed around the perimeter security fence. Burrowing under the fence will be checked during scheduled inspections.

Monitor wells may accumulate silt within the well bore above the silt trap. Total depth of the interior of the open well bore will be measured in conjunction with periodic sampling conducted at each well in accordance with the frequency outlined in the Permit and the Compliance Plan. Total depth should be compared with screened interval. If more than a one-foot interval or more than ten percent of the screened interval, whichever is greater, has been silted then the well should be scheduled for redevelopment or reconditioning. A jetting tool with variable controlled pressure is used to suspend accumulated silt, followed by air induction redevelopment to remove the silt. If needed, the well may then be surged to tighten the sand pack, followed by air induction to complete redevelopment. The rate of siltation within the well bore and the rate of recharge of the well will be monitored; if these rates not be within the norm, then the well may be designated for abandonment and/or replacement.



Where maintenance activities are not sufficient to repair damage to a well, abandonment and possible replacement of the well will be proposed for TNRCC approval. Any abandonment and/or replacement will be conducted in accord with applicable regulations, and with TNRCC concurrence.

Periodic inspection of wells is required to ensure that proper access, security, and identification are maintained. Inspection requirements, schedules, and documentation procedures are provided in Section 5.0.



TABLE 5.1
INSPECTION PROGRAM

Item	Potential Problem(s)	Inspection Frequency
Closed Surface Impoundment	Erosion of cover; growth of woody vegetation; overgrown, dead, or distressed vegetation; animal burrows, ponded water	Monthly
Closed Surface Impoundment Fence	Breached or damaged fencing; tilting posts; sagging fence mesh; excavation or erosion under fencing; missing, illegible, or damaged signs	Monthly
Grounds	Inadequate or poorly maintained access; vegetation obscuring well; poor drainage; missing, illegible, or damaged signs	Monthly
Barriers	Damaged or missing bollards	Quarterly
Concrete Pad	Cracked concrete; erosion under pad; insect or animal nests or burrows	Quarterly
Protective Cover	Damaged or rusted cover	Quarterly
Well Markings	Missing, inadequate, or illegible markings	Quarterly
Well Cap	Missing or damaged cap, missing or damaged lock, plugged cap vent	Quarterly
Casing and Screen	Collapsed or damaged casing; silted screen	Quarterly/semi-annually with sampling



**APPENDIX B
INSPECTION CHECKLISTS**

O&M Plan Amendment 12/8/94

KG COH 002655



WELL INSPECTION CHECKLIST

FACILITY: _____

WELL NUMBER/LOCATION: _____

INSPECTOR: _____

DATE: _____

1. Is well access clear and properly maintained?
YES NO COMMENT
2. Is well area free of standing water or eroded areas?
YES NO COMMENT
3. Are required placards, notices, and instructions present and legible?
YES NO COMMENT
4. Are safety barrier pipes in place and in good repair?
YES NO COMMENT
5. Is concrete pad at well base in good repair and free of cracks?
YES NO COMMENT
6. Is soil around base of concrete pad eroded?
YES NO COMMENT
7. Are insect nests or animal burrows beneath or around the concrete pad?
YES NO COMMENT
8. Is wellhead protective collar in good repair?
YES NO COMMENT
9. Are well collar markings present and visible?
YES NO COMMENT
10. Is wellhead cap in place and in good repair?
YES NO COMMENT



11. Is wellhead cap locked?

YES NO COMMENT

12. Is wellhead cap vent open and unobstructed?

YES NO COMMENT

13. Is well casing integrity intact and is casing in good repair?

YES NO COMMENT

Comments: _____

Signature of Inspector: _____

Signature of Reviewer: _____

Date of Review: _____

Description of Recommended Corrective Actions: _____

Corrective Action Approval: _____

Date of Approval: _____

Corrective Actions Completed: _____
(Signature and Date)



SP TANK ID
LOCATION
DATE OF REMOVAL

44-023-21
Houston, Texas
June 7, 1990

SPEvS FIELD TECHNICIAN
SPEvS REGIONAL COORDINATOR

Brigitte Lievens
Patricia Curl

CONTRACTOR

D & H Pump Services
El Paso, Texas

SP Environmental Systems, Inc.
9719 Lincoln Village Drive, Suite 310
Sacramento, California 95827
(916) 369-8971

Notification for Underground Storage Tanks

FORM APPROVED
GND NC 2030-0319
APPROVAL EXPIRES 6-30-88

FOR
TANKS
IN
TX

RETURN
COMPLETED
FORM
TO

Underground Storage Tank Program
Texas Water Commission
P.O. Box 13087
Austin, TX 78711

I.D. Number

STATE USE ONLY

Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances; and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;

4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1977, or which is an intrastate pipeline facility regulated under State law;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mine-working, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify May 8, 1986. 2. Owners who bring underground storage tanks into use after May 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

0

IDENTIFICATION OF OWNER

LOCATION OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

(If same as Section 1, mark box here)

Southern Pacific Transportation Co.

Facility Name or Company Site Identifier, as applicable

Street Address

SPTCO

One Market Plaza Rm. 1004

Street Address or State Road, as applicable

County

4910 Liberty

City

State

ZIP Code

San Francisco CA 94105

County

Harris

Area Code

Phone Number

415 541-2385

City (nearest)

State

ZIP Code

Houston TX 77026

Type of Owner (Mark all that apply)

Current

State or Local Gov't

Private or Corporate

Former

Federal Gov't (GSA facility I.D. no.)

Ownership uncertain

Indicate number of tanks at this location

1

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands

CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here)

Job Title

Area Code

Phone Num

DAN HOFFERER

Utility Supervisor

512

224-35

TYPE OF NOTIFICATION

KG COH 002659

Mark box here only if this is an amended or subsequent notification for this location.

NOTIFICATION (Read and sign after completing Section VI)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete.

[Signature]

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank (Mark all that apply <input checked="" type="checkbox"/>) Currently in Use <input type="checkbox"/> Temporarily Out of Use <input type="checkbox"/> Permanently Out of Use <input checked="" type="checkbox"/> Brought into Use after 5/8/86 <input type="checkbox"/>	44-023-21 Removed				
2. Estimated Age (Years)	Unkn				
3. Estimated Total Capacity (Gallons)	200				
4. Material of Construction (Mark one <input checked="" type="checkbox"/>) Steel <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5. Internal Protection (Mark all that apply <input checked="" type="checkbox"/>) Cathodic Protection <input type="checkbox"/> Interior Lining (e.g., epoxy resins) <input type="checkbox"/> None <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6. External Protection (Mark all that apply <input checked="" type="checkbox"/>) Cathodic Protection <input type="checkbox"/> Painted (e.g., asphaltic) <input type="checkbox"/> Fiberglass Reinforced Plastic Coated <input type="checkbox"/> None <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
7. Piping (Mark all that apply <input checked="" type="checkbox"/>) Bare Steel <input checked="" type="checkbox"/> Galvanized Steel <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Cathodically Protected <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply <input checked="" type="checkbox"/>) a. Empty <input type="checkbox"/> b. Petroleum <input type="checkbox"/> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Gasoline (including alcohol blends) <input checked="" type="checkbox"/> Used Oil <input type="checkbox"/> Other, Please Specify _____ c. Hazardous Substance <input type="checkbox"/> Please Indicate Name of Principal CERCLA Substance _____ OR Chemical Abstract Service (CAS) No. _____ Mark box <input checked="" type="checkbox"/> if tank stores a mixture of substances d. Unknown <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
9. Additional Information (for tanks permanently taken out of service) a. Estimated date last used (mo/yr) b. Estimated quantity of substance remaining (gal.) c. Mark box <input checked="" type="checkbox"/> if tank was filled with inert material	Removed 6/90	/	/	/	/

KG COH 002660

GENERAL UGST REMOVAL WORK PLAN

1. PURPOSE

The purpose of this work plan is to outline the general procedures used during the removal of underground storage tanks (UST) from a Southern Pacific site. The removal of an UST includes the permanent removal of the tank and associated piping (if any), disposal of the tank and piping, and proper closure of the excavation. The procedures documented in this work plan are not site specific and do not cover special circumstances which may be encountered. Any variation to these procedures will be documented and included as an amendment to the site specific report.

2. PROCEDURES FOR TANK REMOVAL

- o The UST will be exposed by removing the overlying material (asphalt, concrete, gravel, soil) by means of a backhoe, jackhammer, shovel or other appropriate equipment.
- o Any residual liquid will be removed from the tank by pumping the material into a vacuum truck or drums. This liquid will be transported for either recycling or proper disposal.
- o Prior to pulling the tank from the excavation, the tank will be rendered inert by purging with carbon dioxide. An explosimeter, or LEL meter will be used in the field to determine that the tank is inert. All local regulations governing procedures and inspections will be followed.
- o The tank will be removed from the excavation by means of a backhoe, crane, or other applicable equipment. The tank will be loaded onto a flatbed truck, and transported under the proper manifests to a site which is certified to receive tanks.
- o The tanks will then be cleaned (if necessary) and cut into scrap metal. A certificate for each tank will be obtained after its destruction to document that the tanks will not be re-used for any purpose other than scrap metal.

3. EXCAVATION SAMPLING PROCEDURES

3.1 Excavation Procedures

Upon removal of each tank, the tank backfill material will be removed from the excavation with the backhoe. The excavation will be visually inspected as well as screened with a Photovac TIP II (a photo-ionization detector) for an indication of soil contamination. If contamination is found to be present, the affected soil will be separated from soil which is deemed clean, and will be either stockpiled on and covered with plastic, or placed in 55-gallon soil drums until receipt of analytical results from soil samples.

Once the extent of obvious contamination has been removed, or if no contamination was found, the native soil beneath either end of the tank will be sampled. If the extent of contamination could not be removed, then samples would be obtained from the bottom (or sidewalls) of the excavation.

3.2 Sampling Procedures

Upon deciding the sample locations, each sample will be obtained by the following procedures:

- o Native soil from the desired location will be obtained with the backhoe bucket and brought to the ground surface.
- o The top portion of the material will be scraped away with a clean hand trowel to expose undisturbed soil.
- o To obtain a sample, the field technician will drive a clean brass tube into the undisturbed soil with a mallet. (The brass tubes will be cleaned prior to use by washing in a solution of tri-sodium phosphate, rinsing in distilled water, and allowing to air dry.)
- o The sample tube will be removed from the soil and each end will be covered with Teflon sheeting and tight fitting plastic end caps.
- o Each sample will be labeled, logged onto a chain-of-custody, and stored in an iced cooler until delivery to a state certified laboratory.
- o A portion of the soil from the backhoe bucket will be described and screened with a Photovac Tip II (photo-ionization detector), which is calibrated frequently following the manufacturers instructions. The description and TIP reading will be noted in the Field Technician's field notes and will be reported in the site specific report for each tank.

4. EXCAVATION CLOSURE

Upon completion of sample collection, each excavation will be closed by backfilling with either the material removed (if no contamination was indicated), or by backfilling with clean imported fill from an offsite source. The excavations will be compacted as each site deems necessary.

- : After the excavation has been backfilled, the site will be restored to its original condition. Either asphalt, concrete, or gravel will be replaced, if necessary, and any fencing, etc. removed during construction activities, will be replaced.

5. ANALYTICAL ANALYSIS

As a minimum, two samples from each tank excavation will be analyzed for total petroleum hydrocarbons, and benzene, toluene, ethylbenzene, and xylenes, unless otherwise instructed or deemed necessary. Samples will be analyzed by a state certified laboratory on a standard 2-week turn around time.

6. HEALTH AND SAFETY PROCEDURES

At each tank site, the minimum level of protection required for all personnel on site will be:

- o steel toe boots
- o hard hats
- o safety glasses or goggles
- o disposable gloves

The level of protection may be upgraded if field observations and TIF readings deem it to be necessary.

Safe work practices will be followed. The work area will be barricaded so as not to allow the public to have access to the work area. In addition, any excavation left open will be fenced.

A tailgate safety meeting will be given by the field technician with the field crew, in order to assure safe work practices.

SP ENVIRONMENTAL SYSTEMS, INC.
UNDERGROUND STORAGE TANK REMOVAL REPORT

GENERAL SITE INFORMATION

1. a) SP Tank Number: 44-023-21
b) State Tank Number: Tank not registered. Registration form included.
2. Date On Site: 6/7/90
3. Facility Name: Southern Pacific Transportation Company
4. Street Address: 4910 Liberty
5. City/State/County: Houston/Texas/Harris
6. Comments: Woodworks

TANK INFORMATION

1. Diameter: 3'
2. Length: 4'
3. Tank Capacity (volume): 200 gallons
4. Product Type: Gasoline
5. Amount of product in tank (if any): 200 gallons
 - a) Was product pumped?: Yes
 - b) If so, destination of product: Used on site
 - c) Comments:
6. Condition of Tank/Comments: Tank in good condition. No holes.

EXCAVATION INFORMATION

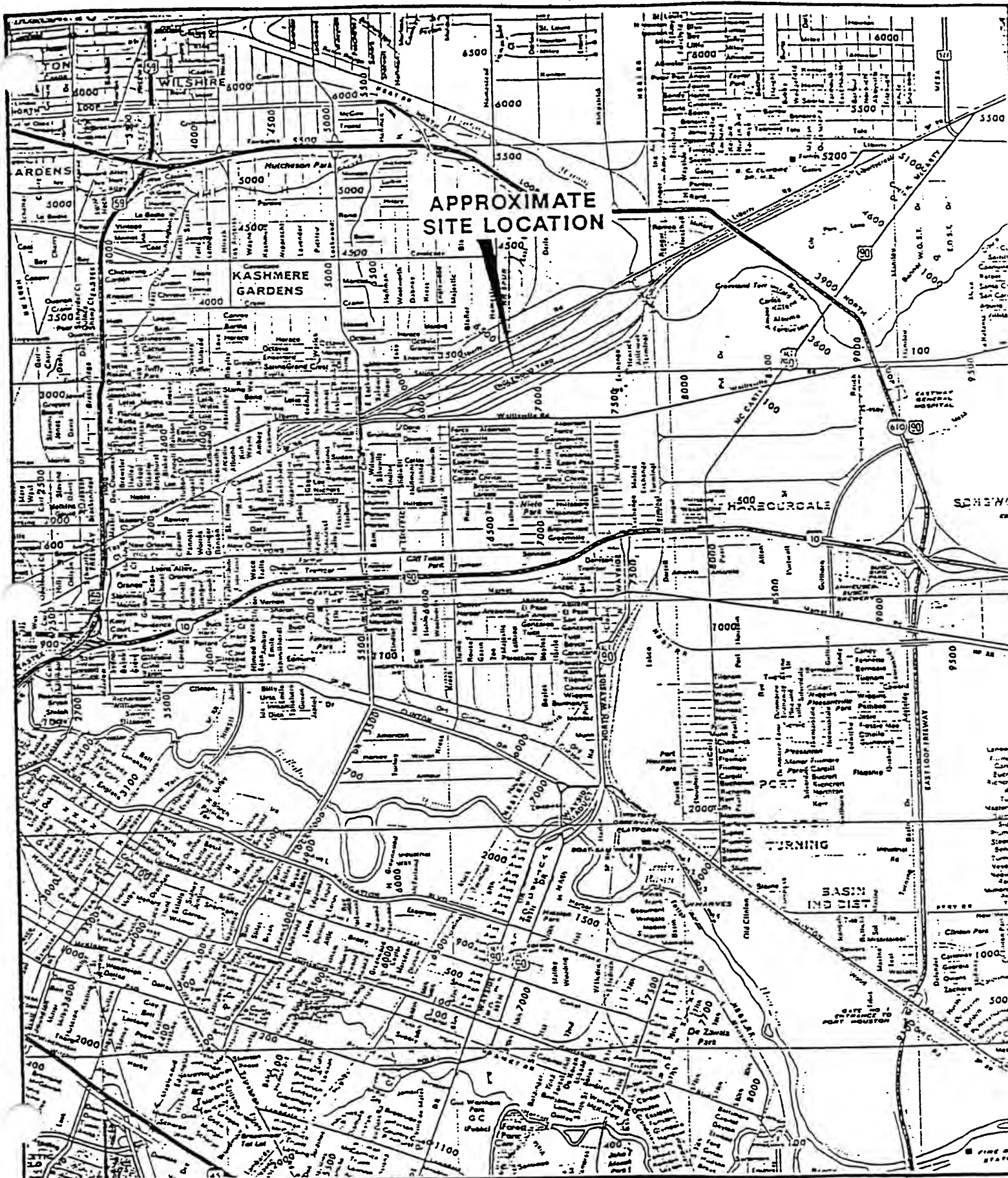
1. Length (in feet) and orientation: 6' North to South
2. Width (in feet) and orientation: 5' East to West
3. Final excavation depth (in feet): 6'
4. Visible Contamination?: Yes
a) Describe extent: Appears to be tar-like material, not from the tank.
b) Field TIP Reading(s): 9999+ ppm
5. Soil Description (include type, color, moisture, odor, other):
Sandy silt, black, moist, strong odor.
6. Excavation Backfilled?: Yes
a) Source(s) of fill material: Local source.
7. Is there soil stockpiled?: Yes.
a) Location: Semmes St.
b) Quantity: 20 cu yds

LABORATORY INFORMATION

1. Number of samples taken: 1 — plan says minimum of 2

<u>Sample ID</u>	<u>Sample Location and Depth</u>	<u>Analyses</u>
10334	Bottom Center-6' depth	TPH/BTEX

2. Performing Laboratory: Radian Corp.
3. Chain-of-Custody Number: 10942
4. Date Sent to Lab: 6/7/90
5. Comments: ?



APPROXIMATE
SITE LOCATION

KASHMERE
GARDENS

HAMBURG
CURSALE

TURNING

BASIN
INDUSTRIAL



**SP ENVIRONMENTAL
SYSTEMS**

SITE LOCATION MAP

KG COH 002666 ENGLEWOOD YARD

FIGURE

LIBERTY



only one sample



SAMPLE NO.
10334

TANK NO.
44-023-21



CREOSOTE
BLDG.

ACCESS ROAD

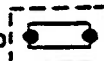


AGST



REF. to tank



10360  SAMPLE NO.
10361

RR

TANK NO.
44-023-05

KG-COH 002667



SP ENVIRONMENTAL SYSTEMS

SAMPLE LOCATION MAP

WOODWORKS
HOUSTON, TX

FIGURE

PROJECT NO. 99003

DATE: 7/90

NTS

UNDERGROUND STORAGE TANK REMOVALS
SOUTHERN PACIFIC TRANSPORTATION COMPANY

Region No.	Tank No.	Location	Capacity Gallons	Product	Date Installed	Date Added	Date Removed	TPII (mg/kg)	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl (ug/kg)	Xylene (ug/kg)	STATE ID
4	44-023-01	Houston-Computer Room, TX	1000	Diesel	1980	Original	05/17/90	ND	ND	14	4.2	45	0007935
4	44-023-02	Houston-Computer Room, TX	1000	Diesel	1979	Original	05/17/90	ND	ND	14	2.8	26	0007935
4	44-023-03	Houston-Bowl Tower, TX	10000	Gasoline	1980	Original	06/25/90	ND	ND	43	4	27	0007936
4	44-023-04	Houston-Bowl Tower, TX	5000	Gasoline	Unkn	Original	06/28/90*	ND	ND	43	4.2	27	0007936
4	44-023-05	Houston-PMDC, TX	2000	Gasoline	1966	Original	06/05/90	990	370	7900	3200	18000	0007937
4	44-023-06	Houston-AWE, TX	350	Used Oil	1961	Original	06/14/90	500	ND	20	3.9	27	0007938
4	44-023-07	Houston-AWE, TX	400	Diesel	1976	Original	PREVIOUSLY REMOVED						0007938
4	44-023-09	Houston-Rail Welding, TX	1700	Gasoline	1974	Original	05/21/90	ND	ND	230	4.6	23	0007941
4	44-023-10	Houston-M&W, TX	2000	Gasoline	1981	Original	05/21/90	ND	ND	230	4.6	23	0007942
4	44-023-11	Houston-Diesel Shop, TX	3500	Lube Oil	1936	Original	06/19/90*	23	ND	34	5.5	130	0007943
4	44-023-12	Houston-P&M Dept., TX	800	Kerosene	1936	Original	PREVIOUSLY REMOVED						0007944
4	44-023-13	Houston-Fulton, TX	1200	Lube Oil	Unkn	06/04/90	06/19/90*	ND	ND	22	2.9	19	
4	44-023-14	Houston-Wheel Shop, TX	1000	Gasoline	Unkn	06/04/90	06/15/90	23	ND	300	23	150	
4	44-023-15	Houston-Mech. Shop, TX	5000	Gasoline	Unkn	06/04/90	06/22/90	30	ND	220	17	120	
4	44-023-16	Houston-Wallsville, TX	10000	Water	Unkn	06/04/90	06/04/90	ND	ND	14	13	25	
4	44-023-17	Houston-Old Mech., TX	13000	Lube Oil	Unkn	06/04/90	06/18/90*	ND	ND	9	ND	14	
4	44-023-18	Houston-Old Mech., TX	9000	Lube Oil	Unkn	06/04/90	06/18/90*	ND	ND	10	ND	16	
4	44-023-19	Houston-Galena Park, TX	10000	Gasoline	Unkn	06/04/90	06/13/90	ND	ND	18	3.6	22	
4	44-023-20	Houston-Car Shop, TX	1700	Gasoline	Unkn	06/04/90	06/07/90	ND	ND	22	3.9	34	
4	44-023-21	Houston-Liberty, TX	200	Gasoline	Unkn	06/04/90	06/07/90	ND	ND	18	5.1	44	
4	44-023-22	Houston-Fulton, TX	5000	Gasoline	Unkn	06/19/90	06/19/90*						
4	44-023-23	Houston-Fulton, TX	5000	Gasoline	Unkn	06/19/90	06/19/90*						
									COMBINED WITH 44-023-13				
									COMBINED WITH 44-023-13				

ND=NOT DETECTED

NOTE: WHERE MORE THAN ONE SAMPLE WAS COLLECTED PER TANK, THE HIGHEST CONCENTRATIONS ARE SHOWN.

NOTE: TANKS 44-023-13, 22, AND 23 WERE CLOSED IN PLACE AT THE SAME LOCATION. DUE TO OVERHEAD AND UNDERGROUND LINES, ONLY 1 BORING COULD BE DRILLED IN THE AREA.

* THIS TANK WAS CLOSED IN PLACE

Analytical Report
07/05/90

SP Environmental

SP Environmental
9719 Lincoln Village Dr.
Suite 310
Sacramento, CA 95827
Patricia Curl

Customer Work Identification PMDC Woodworks - Houston
Purchase Order Number

Contents:


- 1 Analytical Data Summary
- 2 Sample History
- 3 Comments Summary
- 4 Notes and Definitions

Radian Analytical Services
8501 Mo-Pac Boulevard
P. O. Box 201088
Austin, TX 78720-1088

512/454-4797

Client Services Coordinator: WLBROWN

Certified by:



SP Environmental
Radian Work Order: 90-06-129

Sample ID: 10334
103-44-023-21

Method: Volatile aromatics (1)
List: BTEX
Sample ID: 10334 Reagent: Blank
Factor: 12.5 12.5
Results in: ug/kg ug/kg
01A 03A
Matrix: solid solid

	Result	Det. Limit	Result	Det. Limit
Benzene	ND	2.5	ND	2.5
Ethylbenzene	5.1 B ^a	2.5	4.2 B ^a	2.5
Toluene	18 B	2.5	12 B ^a	2.5
Total xylenes	44 B	2.5	25 B	2.5
Surrogate Recovery(%)				
1-Bromo-4-fluorobenzene	114		96	
Control Limits: 76 to 140				

how do these compare to MSCs

ND Not detected at specified detection limit. B Inorg CLP-result < CRDL but > than IDL/Org-detected in blank.
a Est. result less than 5 times detection limit.
(1) For a detailed description of flags and technical terms in this report refer to Appendix A in this report.

no clue on GW

SP Environmental
Radian Work Order: 90-06-129

Method/Analyte		Sample Identifications				
	10334	Method Blank				
Matrix	01 solid	02 solid				
	Result	Det. Limit	Result	Det. Limit	Result	Det. Limit
Hydrocarbons, total E418.1	ND	mg/kg 20	ND	mg/kg 20		
Hydrocarbons						
Percent Moisture	16	% moisture				
Percent moisture						

ND: Not detected at specified detection limit

(1) For a detailed description of flags and technical terms in this report refer to the glossary.

SP: Environmental
Radian Work Order: 90-06-129

Sample Identifications and Dates			
Sample ID	10334	Method Blank	Reagent Blank
Date Sampled	06/07/90		
Date Received	06/13/90	06/13/90	06/13/90
Matrix	solid	solid	solid
	01	02	03

Volatile aromatics						
Prepared	06/18/90		06/18/90			
Analyzed	06/18/90		06/18/90			
Analyst	BM		JB			
File ID	dd061815		dd06186			
Blank ID	dd06186					
Instrument	d		d			
Report as	received		received			
Hydrocarbons, total E418.1						
Prepared	07/02/90	07/02/90				
Analyzed	07/02/90	07/02/90				
Analyst	RDO	RDO				
File ID						
Blank ID						
Instrument	PE IR	PE IR				
Report as	received	received				
Percent Moisture						
Prepared						
Analyzed	06/15/90					
Analyst	JB					
File ID						
Blank ID						
Instrument						
Report as	received					

Appendix A
Comments, Notes and Definitions

SP Environmental
Radian Work Order: 90-06-129

A ALL METHODS EXCEPT CLP

The results which are less than five times the method specified detection limit.

EXPLANATION

Uncertainty of the analysis will increase as the method detection limit is approached. These results should be considered approximate.

B INORGANIC CLP

This flag indicates that a reported value is less than the Contract Required Detection Limit (CRDL), but greater than the Instrument Detection Limit (IDL).

ORGANIC METHODS

This flag indicates that an analyte is found in the associated blank, but the sample results are not corrected for the amount in the blank.

ND ALL METHODS EXCEPT CLP

This flag is used to denote analytes which are not detected at or above the specified detection limit.

EXPLANATION

The value to the right of the < symbol is the method specified detection limit for the analyte.

SP Environmental
Radian Work Order: 90-06-129

TERMS USED IN THIS REPORT:

Analyte - A chemical for which a sample is to be analyzed. The analysis will meet EPA method and QC specifications.

Compound - See Analyte.

Detection Limit - The method specified detection limit, which is the lower limit of quantitation specified by EPA for a method. Radian staff regularly assess their laboratories' method detection limits to verify that they meet or are lower than those specified by EPA. Detection limits which are higher than method limits are based on experimental values at the 99% confidence level. The detection limits for EPA CLP (Contract Laboratory Program) methods are CRQLs (contract required quantitation limits) for organics and CRDLs (contract required detection limits) for inorganics. Note, the detection limit may vary from that specified by EPA based on sample size, dilution or cleanup. (Refer to Factor, below)

EPA Method - The EPA specified method used to perform an analysis. EPA has specified standard methods for analysis of environmental samples. Radian will perform its analyses and accompanying QC tests in conformance with EPA methods unless otherwise specified.

Factor - Default method detection limits are based on analysis of clean water samples. A factor is required to calculate sample specific detection limits based on alternate matrices (soil or water), reporting units, use of cleanup procedures, or dilution of extracts/digestates. For example, extraction or digestion of 10 grams of soil in contrast to 1 liter of water will result in a factor of 100.

Matrix - The sample material. Generally, it will be soil, water, air, oil, or solid waste.

Radian Work Order - The unique Radian identification code assigned to the samples reported in the analytical summary.

Units - ug/L	micrograms per liter (parts per billion); liquids/water
ug/kg	micrograms per kilogram (parts per billion); soils/solids
ug/M3	micrograms per cubic meter; air samples
mg/L	milligrams per liter (parts per million); liquids/water
mg/kg	milligrams per kilogram (parts per million); soils/solids
%	percent; usually used for percent recovery of QC standards
uS/cm	conductance unit; microSiemens/centimeter
mL/hr.	milliliters per hour; rate of settlement of matter in water
NTU	turbidity unit; nephelometric turbidity unit
CU	color unit; equal to 1 mg/L of chloroplatinate salt

Quit Claim Deed for
Underground Petroleum Storage Tanks

KNOW ALL MEN BY THESE PRESENTS:

That So. Pacific a RR
having an office at 5820 Wallaceville Houston TX
(hereinafter called "Transferor"), and S & H TANK
a CORP. (hereinafter called "Transferee"), agree as follows:

Transferor hereby sells, assigns and quit claims to Transferee; his (its) heirs, successors and assigns, all of the right, title and interest of Transferor in and to the following described property AS IS, WITHOUT ANY WARRANTY OF MERCHANTABILITY OR WARRANTY OF ANY KIND:

- | | | | |
|---------|------|-----|-----------|
| Item 1. | 2000 | UST | 44-023-14 |
| " 2. | 2000 | UST | 44-023-20 |
| " 3. | 2000 | UST | 44-023-05 |
| " 4. | 150 | UST | 44-023-21 |

TO HAVE AND TO HOLD said property unto Transferee, his (its) heirs, successors and assigns forever.

The property conveyed hereunder is presently located on the premises at 5820 Wallaceville HOUSTON, TX.

In consideration of said sale, Transferee agrees to defend, indemnify and hold Transferor, and Transferor's parent, subsidiaries and affiliates, harmless against all claims, losses and liability of every kind arising from the date hereof and arising from or related to the existence, removal, location, use or condition of said property.

* Transferee further acknowledges that property is transferred for destruction purposes only and that all local, state and federal laws, codes and guidelines will be followed for its safe destruction. Transferee further recognizes that said equipment may contain harmful and explosive fumes and that extreme caution should be used when disposing of said equipment.

This instrument contains the entire agreement between the parties covering the subject matter.

Executed and delivered this 15 day of June, 19 .

ATTEST:
By Haidi Lopez

By Paul Bidwell
As Its S & H TANK (Transferor)

KG COH 002677

Attest:
By Louces Valles

S & H TANK, INC.
3146 N. Beltling
By Unkei J
As Its Grand Prairie TX 75050 (Transferee)

STANDARD FORM 7

TANK CLOSURE MATERIAL
DISPOSAL FORM

PROJECT: UST Removal DATE: 10/15/90

Owner OR OPERATOR OF DISPOSAL FACILITY:

NAME: SAME AS BELOW

ADDRESS: SAME AS BELOW

CITY, STATE, ZIP: SAME AS BELOW

PHONE: (214) 263-7172

NAME OF DISPOSAL FACILITY:

NAME: S&H Tank

ADDRESS: 3146 N. Bettline

CITY, STATE, ZIP: Grand Prairie, TX

PHONE: (214) 263-7172

HAULER: _____

TYPE OF MATERIAL DISPOSED OF: SOIL _____ LIQUID

APPROXIMATE VOLUME OF MATERIAL RECEIVED: _____

TYPE OF CONTAINER: 3 - 2,000 GAL. UST ; 1 - 150 GAL. UST

CONTAINERS LABELLED? YES _____ NO

CERTIFIED TEST RESULTS ATTACHED: _____

DISPOSAL METHOD USED: _____

I certify that the above statements are true and that the disposal facility has all approvals required for the disposal of hydrocarbon contaminated materials as required by U.S. Environmental Protection Agency, the Texas Water Commission and the Texas Department of Health.

for Vicar's Stamp
[Signature]
DISPOSAL FACILITY AUTHORIZED SIGNATURE