

FILE COPY

PHASE II SITE INVESTIGATION

OF

THE FORMER GULF STATE CREOSOTE COMPANY PROCESS AREA

HATTIESBURG, MISSISSIPPI

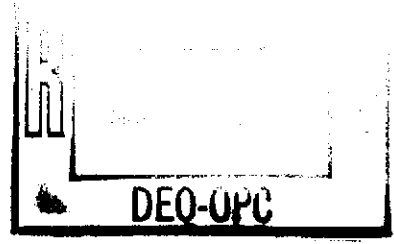
PREPARED FOR

J.B. VAN SLYKE, ATTORNEY
THE HATTIESBURG SCHOOL DISTRICT
HATTIESBURG, MISSISSIPPI

PREPARED BY

ENVIRONMENTAL PROTECTION SYSTEMS, INC.
5360 I-55 NORTH
JACKSON, MISSISSIPPI 39211

EPS REPORT NO. 1.V7101.002
JULY 1994



PHASE II SITE INVESTIGATION

OF

FILE COPY

**THE FORMER GULF STATES CREOSOTE COMPANY PROCESS AREA
HATTIESBURG, MISSISSIPPI**

PREPARED FOR

**J. B. VAN SLYKE, ATTORNEY
THE HATTIESBURG SCHOOL DISTRICT
HATTIESBURG, MISSISSIPPI**

Prepared by

**Environmental Protection Systems, Inc.
5360 I-55 North
Jackson, Mississippi 39211**

**EPS Report No. 1.V7101.002
July 1994**

TABLE OF CONTENTS

	<u>Page</u>
REPORT CERTIFICATION	iv
EXECUTIVE SUMMARY	v
1.0 INTRODUCTION	1
1.1 General	1
1.2 Scope of Work	2
2.0 BACKGROUND AND HISTORY OF CREOSOTE OPERATIONS	3
2.1 Site Location	3
2.2 Site Use	3
2.3 Previous Investigations	4
3.0 SITE CHARACTERISTICS	6
3.1 Site Topography	6
3.2 Regional Geology and Hydrogeology	6
3.3 Well Survey	8
3.4 Surface Waters	10
4.0 SITE RECONNAISSANCE	11
4.1 Process Area	11
4.2 Gordon's Creek	11
5.0 SUBSURFACE INVESTIGATION	13
5.1 Introduction	13
5.2 Soil Borings	13
5.3 Soil Sample Collection	15
5.4 Groundwater Monitoring Well Installation	16
5.5 Groundwater Sampling	17
5.6 Lithology	19

TABLE OF CONTENTS, Continued

5.7 Groundwater Flow Direction 19
5.8 Well Excavation 20
5.9 Water Line Excavation 21

6.0 LABORATORY ANALYSES 23

6.1 Introduction 23
6.2 Soil 23
6.3 Groundwater 24

7.0 CONCLUSIONS 25

TABLES:

- Table 1: Groundwater Field Measurements
- Table 2: Summary of Groundwater and Monitoring Well Data
- Table 3: Soil Analysis Results
- Table 4: Groundwater Analyses Results

FIGURES:

- Figure 1: Site Location
- Figure 2: Sampling Locations
- Figure 3: Groundwater Contour Plan
- Figure 4: Well Record Gulf States Creosoting Company
Hattiesburg, Mississippi
- Figure 5: Total PAHs 0-20 Feet

PHOTOGRAPHS

TABLE OF CONTENTS, Continued

APPENDICES:

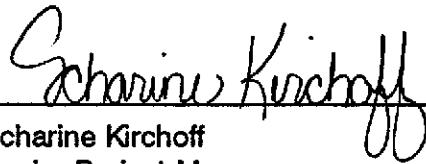
- Appendix A: Preliminary Site Investigation of the Gulf States
Creosote Company Plant, Hattiesburg, Mississippi,
August 1993, EPS
- Appendix B: Site Inspection, Phase II Report, Gulf States
Creosote Site, Hattiesburg, Mississippi,
January 1992, DEQ
- Appendix C: Soil Gas and Soil Sampling, Gulf States Creosote
Hattiesburg, Mississippi, May 1990
- Appendix D: Site Reconnaissance of Gordon's Creek
- Appendix E: Health and Safety Plan
- Appendix F: Boring Logs
- Appendix G: Chain of Custody
- Appendix H: Groundwater Monitoring Well Construction Details
- Appendix I: Laboratory Reports for Soil Samples
- Appendix J: Laboratory Reports for Groundwater Samples

REPORT CERTIFICATION

I hereby certify this report constitutes an accurate presentation of the results of the Phase II Environmental Site Assessment of the former Gulf States Creosote Company process area located in Hattiesburg, Mississippi, prepared for J.B. Van Slyke, Attorney, for the Hattiesburg School District.

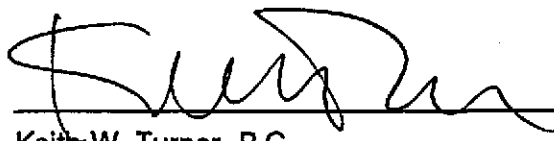
I have examined this report and hereby certify the accuracy and acceptability of its contents.

7-15-94
Date



Scharine Kirchoff
Senior Project Manager

7/15/94
Date



Keith W. Turner, P.G.
Vice President

EXECUTIVE SUMMARY

Environmental Protection Systems, Inc. (EPS) has conducted a site investigation at the former Gulf States Creosote Company plant process area to determine whether the site is a major source of creosote contamination discovered in nearby Gordon's Creek. The site investigation involved drilling sixteen (16) soil borings, installing four (4) groundwater monitoring wells, excavating trenches, analyzing soil and groundwater samples for Polynuclear Aromatic Hydrocarbons (PAHs), reviewing previous work conducted at the site, and identifying public water supply wells, pathways of contaminant migration and potential environmental receptors.

Information collected from the boring logs indicate that subsurface soils consist of interbedded layers of clayey sand and clay lenses. Depth to groundwater varied from 17.4 to 21.1 feet at the site. Laboratory analyses of soil and groundwater confirmed visual observations of creosote contamination.

Total PAHs, per sample, varied at the site from 43.48 to 746,982 ppm in the soils. Two hot spots were identified in former creosote process areas. Total PAHs varied from 123 to 506.36 ppm in the groundwater. Based on quantitative analyses of total PAHs found from 0 to 20 feet below the surface, it was determined that the contamination is not confined by the local stratigraphy.

Based on the quantity of percentage creosote found at the site, the topographically upgradient location of the site, and the hydraulically upgradient location of the site, it was determined that the source of creosote contamination found at Gordon's Creek could be from the old Gulf States

1.0 INTRODUCTION

1.1 General

Environmental Protection Systems, Inc. (EPS) was contracted by Mr. J.B. Van Slyke, Attorney for the Hattiesburg Public School District, to conduct a detailed site history investigation of the Gulf States Creosote Company plant in Hattiesburg, Mississippi (Figure 1). The plant site is Section 16 land held in trust by the Hattiesburg Public School District. A copy of the investigation report, EPS report No. 1.V7101.001, August 1993, is included in Appendix A.

Between 1990 and 1992, the United States Army Corps of Engineers (COE), the United States Environmental Protection Agency (EPA), and the Mississippi Department of Environmental Quality (DEQ) had identified a creosote waste disposal area along Gordon's Creek in Hattiesburg, Mississippi (Appendix B and C). The Gordon's Creek waste disposal area is located 2,200 to 2,400 feet from the former Gulf States Creosote Company plant process area. EPA and DEQ have estimated the disposal area to contain between 12,000 to 28,000 cubic yards of creosote and soil waste.

Based on EPA, DEQ and EPS' investigations, the Gulf States Creosote Company plant was determined to be the most likely source of the waste deposited along Gordon's Creek. Subsequently, EPS was contracted by J. B. Van Slyke to conduct a site investigation of the Company plant process area. The purpose of the Phase II Site Investigation reported was to determine whether the former Gulf States Creosoting plant process area, a 5.5 acre segment of the entire 73.09 acre plant, is a source for the creosote contamination found along Gordon's Creek.

1.2 Scope of Work

The Phase II site investigation scope of work included the following activities:

1. Drilling sixteen (16) soil borings to a maximum depth of twenty feet below the surface;
2. Split spoon sampling soil borings at 5.0 foot intervals;
3. Determining site geology/stratigraphy;
4. Installation of four (4), four inch permanent groundwater monitoring wells;
5. Development and collection of groundwater samples;
6. Laboratory analyses of soil and groundwater samples for Polynuclear Aromatic Hydrocarbons (PAHs) using EPA Method 8270 GC/MS and EPA Method 625 GC/MS, respectively;
7. A site reconnaissance of the process area and Gordon's Creek;
8. Determining location of an old Gulf States Creosote plant water well; and,
9. Preparation of a summary report detailing: A) the field procedures; B) qualitative and quantitative analyses of soil and groundwater conditions; C) hydrogeological conditions including an assessment of vertical and horizontal groundwater contamination, information on groundwater quality and flow direction, surficial aquifer characteristics, area hydrogeology, location and existence of public and private water supply wells and surface waters approximate to the site; D) an assessment of vertical and horizontal soil contamination; and, E) pathways and receptors of contaminant migration.

2.0 BACKGROUND

2.1 Site Location

The Gulf States Creosoting Company plant process area site ("the site") is located at 1410 West Pine Street, Hattiesburg, Mississippi (Figure 1). This is in Section 16, Township 4 North, Range 13 West, Forrest County, Mississippi. The approximately 5.5 acre site is bordered to the northeast by Scooba Street and on the northwest by West Pine Street. The property southwest of the site is bordered by Timothy Street and on the southeast by a railroad track and its right-of-way. The former site process area is currently occupied by Courtesy Motors, Inc., a Ford automobile/truck dealership. Details regarding adjacent property operators, including photographs, are included in Appendix A. The site is owned by the Hattiesburg Public School District, Hattiesburg, Mississippi.

2.2 Site Use

The Gulf States Creosoting Company began operations around 1920 and continued operations until 1960 or 1961, at which time the plant was permanently closed and demolished. By 1966, the area started developing into a commercial trade area. As of the date of this report, the original plant area, 73.09 acres, is developed with automobile dealerships, car parts stores, a beverage distributorship, and a grocery store.

EPS obtained aerial photographs and Sanborn maps which clearly show the layout of the Gulf States Creosote Company plant and creosote wood ties storage areas (Appendix A). The 1993 EPS investigation determined the following physical components utilized at the Gulf States Creosote Company plant process area: the settling basin, oil tanks, a treatment room, a dry

kiln, a 120,000 gallon aboveground tank, a deep water supply well, a boiler house, oil dumping tanks, steel oil storage tanks, a blacksmith shop, a pumphouse, a warehouse and mixing room and adjacent storage tanks, a tile boring room, and an office. All components are depicted in Figure 2.

The Company business operations included: 1) the treatment of cross ties and all other timbers for preservation; 2) the purchasing and selling of preserved cross ties and other timbers; 3) the handling and preservation of any and all forest products; 4) the buying, owning and selling of the necessary preservatives; and 5) the manufacturing, production, buying, selling, trading and dealing in tar product, chemicals, spirits, acid and alkalies and their respective derivatives, compounds, products, by-products, and residuals. The components in the process area operated for approximately 40 years.

2.3 Previous Investigations

The Army Corps of Engineers (COE) first found evidence of creosote contamination while conducting borings along the east side of Gordon's Creek. The Mississippi Department of Environmental Quality, Office of Pollution Control, initially investigated the Gordon's Creek area in August of 1989. In January 1990, the Environmental Protection Agency (EPA) conducted a field investigation to determine the extent of the contamination along Gordon's Creek. In March 1990, EPA representatives returned to Hattiesburg to conduct a subsurface investigation. The EPA and DEQ determined creosote contamination to be present along Gordon's Creek. However, due to equipment failure, soil moisture and weather conditions, EPA's investigations regarding the extent of creosote contamination in areas adjacent to Gordon's Creek were inconclusive. DEQ, however identified several hotspots in the soils and sediment in the

Gordon's Creek area. A summary of EPA and DEQ findings are in Appendix B and C, respectively.

3.0 SITE CHARACTERISTICS

3.1 Site Topography

According to the U.S. Geological Survey 7.5 minute topographic map dated 1982, Hattiesburg, Mississippi Quadrangle, the site elevation is approximately 190 feet above mean sea level (msl). The site coordinates are 31° 18' 33" Latitude and 89° 18' 39". The surface area of the former process area is currently covered with a mix of asphalt paving and gravel. The site topography is relatively flat. All subsurface investigations were conducted within the property boundaries.

3.2 Regional Geology and Hydrogeology

The geology of Hattiesburg, Mississippi area is characterized by four (4) stratigraphic units: the Hattiesburg Formation, the Catahoula Sandstone, the undifferentiated Vicksburg Group and the Yazoo Clay. All units are listed in descending order. The Hattiesburg Formation consists of thick beds of massive clays approximately 150 to 200 feet thick. The clays contain some lime and trace amounts of sand. According to the Mississippi Department of Environmental Quality (DEQ), Office of Pollution Control (OPC), geophysical logs of wells east of Gordon's Creek show a clay layer at approximately 30 feet above sea level. The clay layer ranges from 110 to 180 feet in thickness. It grades upward into alternating layers of fine-grained silty sands and clays. The clay layer is underlain by interbedded sands and clays. The sands increase in prominence and become gravelly toward the base. A hydrogeologic section, obtained to the west of Gordon's Creek and within a two (2) mile radius of the creek, reveals multiple silty sand and clay lenses. The sands increase in prominence at approximately 100 feet below sea level. According to the OPC, there is no continuous clay layer within a two (2) mile radius of Gordon's Creek, based on the geophysical logs and hydrogeologic section.

The Hattiesburg Formation and the Catahoula Sandstone is referred to as the Miocene Aquifer System because the units are difficult to differentiate. The System is composed of numerous interbedded layers of sand and clay. The Miocene sand beds are characteristically lens shaped or wedge shaped. According to the Mississippi Geological, Economic and Topographical Survey, the Miocene Aquifer System formations cannot be reliably separated and correlated on the surface or subsurface due to their interbedded nature.

Underlying the Miocene Aquifer System is the undifferentiated Vicksburg Group. It is generally composed of limestone beds alternating with thin beds of limy sand and clay. The clay formations isolate the overlying Miocene Aquifer System.

According to the DEQ, fresh water aquifers in the Hattiesburg area consist of sandy beds or zones of sandy beds. The beds dip gently to the southwest and contain fresh water as much as forty (40) miles from where the aquifer outcrops.

Prediction of aquifer thickness and lithology is difficult due to the lenticular bedding of most units. Lithologic changes occur in short distances. Individual sand beds, which are regular and thicken or thin in short distances, are difficult to trace particularly along the dip of the beds.

The Hattiesburg Formation and the Catahoula Sandstone are a single hydraulic unit, known as the Miocene Aquifer System. The first water-bearing unit occurs in the surficial aquifer, the Hattiesburg Formation, at a depth ranging from approximately 25 to 30 feet below the land surface. This water-bearing unit consists primarily of sandy silts, silts, and silty clays. The hydraulic conductivity of the silty clays, the lowest hydraulic conductivity layer, is approximately 1×10^{-6} cm/s. It has an approximate thickness of 3 to 5 feet.

Recharge to the Miocene Aquifer is provided by rainfall percolating downward through the overlying units. Ten Forrest County aquifer tests of the Catahoula Sandstone, the lower unit of the Miocene Aquifer System, show hydraulic conductivities ranging from 18 to 170 feet/day. The average hydraulic conductivity for the Miocene Aquifer System is 95 feet/day. Lithologic data shows that the Miocene Aquifer System extends to a depth greater than 1000 feet below sea level with the base of fresh water occurring approximately 800 feet below sea level.

3.3 Well Survey

Information obtained from the United States Geological Survey (USGS), Water Resources Division, identified the following public water supply wells within a four (4) mile radius of the Gulf States Creosote site:

- City of Hattiesburg: Eleven (11) wells, serve a population of approximately 38,570 persons, water from the wells is mixed/blended into one distribution system;
- Central Water Association: Two (2) wells, serve a population of approximately 865 persons, water from the wells is mixed/blended into one distribution system;
- Palmers Water Association: Two (2) wells, serve a population of approximately 1250 persons, water from the wells is mixed/blended into one distribution system; and,
- Lamar Park Water Association: Three (3) wells, serve a population of approximately 2926 persons, the water from the wells is mixed/blended into one distribution system.

The wells listed above serve a total population of approximately 43,611 persons. These wells are screened from approximately 330 feet below the land surface to a maximum depth of approximately 665 feet.

The USGS identified approximately 62 domestic/private wells located within a four mile radius of the site that serve a total population of approximately 165 persons (62 wells x 2.66 people per household). The USGS also identified a number of irrigation wells within a four (4) mile radius of the site. These wells supply water to commercial food crops and/or commercial forage crops.

The closest drinking water well is located 1.5 miles east of the site. The City of Hattiesburg well, located upgradient from the former Gulf States Creosote process area, is 485 feet deep with the top of the screened interval at 435 feet below the surface.

The USGS also identified three (3) domestic/private wells within a .5 to 1 mile radius of the site. These wells are no longer in use.

The USGS files revealed a well drilled in 1924 at the Gulf States Creosote Company site (see Figure 3). The well is 385 feet deep, placing it within the same aquifer as the City of Hattiesburg well located 1.5 miles east of the site. The well is six (6) inches in diameter and has a capacity of 250 gallons per minute. The USGS has no record of abandonment for this well.

3.4 Surface Waters

The Gulf States Creosote Company process area was located near Gordon's Creek, the nearest perennial downgradient surface water. Gordon's Creek flows in a generally north-northeasterly direction before entering the Leaf River, approximately 4.5 stream miles from the site. The Leaf River is used for recreational purposes (i.e. swimming and fishing). The Gordon's Creek vicinity is relatively flat with a slight surface water runoff gradient to the west-southwest.

4.0 SITE RECONNAISSANCE

4.1 Process Area

A site reconnaissance of the process area vicinity was conducted on May 23, 1994, by Scharine Kirchoff, Senior Project Manager, and Byron Campbell, Senior Environmental Technician. No visible evidence and/or physical remains of the former Gulf States Creosote Plant operations were found to exist at the site. However, a ditch that runs parallel to the railroad tracks on the south-southeast portion of the property was noted (Figure 2). The ditch appears to be located outside of the property boundaries and within the railroad right-of-way.

4.2 Gordon's Creek

On May 25, 1994, a site reconnaissance of Gordon's Creek was conducted by Scharine Kirchoff, Senior Project Manager, and Byron Campbell, Senior Environmental Technician. A detailed survey of the ditch area where DEQ conducted their investigation (Appendix B) was documented. The survey of the ditch area was documented in field notes (Appendix D), photographs, and on VCR tape (tape is available from J.B. Van Slyke).

During the site reconnaissance, creosote was observed to be leaching from the creek bank into Gordon's Creek (Photograph No. 1). Based on visual observation, the creosote ooze did not generally follow any preferential pathway of migration into the creek bed. The ooze was visible in numerous cutbank areas of the creek due to the unusually dry weather (Photograph No. 2). The bottom of the creek bed was wet, but it was not entirely covered with water. EPS conducted a brief walk-through survey of the ditch area on May 13, 1994. The water in the creek bed was 2 feet higher, therefore much of the leachate areas were covered by water at this

time, indicating the quantity of leachate appeared much less than the quantity observed on May 25, 1994.

On May 25, it was noted that some of the ooze leached-out above a compact, dense, gray clay layer observed in some cutbanks of the creek. The stratigraphy of the cutbank areas were similar to the stratigraphy observed in the soil borings in the process area. The subsurface geology consisted of interbedded layers of clayey sand and clay. In one area (see Appendix D) the creosote ooze appeared to be confined between a gray compact clay layer below and a white, water bearing sand above (Photograph No. 3).

5.0 SUBSURFACE INVESTIGATION

5.1 Introduction

A subsurface exploration program was conducted at the site May 23-27, 1994, under the direction of Scharine Kirchoff, Senior Project Manager. The subsurface exploration program was conducted in accordance with the guidelines presented in: 1) "Guidance for Remediation of Uncontrolled Hazardous Substance Sites in Mississippi", Mississippi Department of Environmental Quality, Office of Pollution Control, September 1990; 2) "Surface Water and Groundwater Use and Protection Regulations", Mississippi Department of Natural Resources, April 1990; and, 3) "Attachment 1 to Order: Remedial Investigation Plans", Mississippi Department of Environmental Quality.

The purpose of the program was to investigate the distribution of fill and natural deposits at the site. In addition, soil and groundwater samples were collected and analyzed in order to determine soil and groundwater quality. The locations of soil borings and groundwater monitoring wells are shown on Figure 2.

5.2 Soil Borings

On May 23, 1994, all major physical components of the Gulf States Creosote process areas were delineated and marked with fluorescent spray paint. In addition, boring locations were marked. Before any borings were advanced, all underground utilities were cleared with the Mississippi One-Call System, Inc. and the City of Hattiesburg, Mississippi Water Department.

On May 24-26, sixteen (16) soil borings were drilled at the site (Figure 2). The boring locations were selected based upon suspected areas of contamination (i.e. creosote treatment process areas) and visual observations. The borings were advanced by Griner Drilling Service, Inc. of Columbia, Mississippi (Photograph No. 4). All borings were advanced under the supervision of Scharine Kirchoff, Senior Project Manager, in accordance with American Society of Testing Materials (ASTM) standard D 1452-80 "Soil Investigation Sampling by Auger Borings".

Borings SB 10, SB 4-3, SB 1 and SB 14 were completed using 6.25 inch inside diameter (ID) continuous flight hollow stem augers in order to accommodate subsequent installation of 4 inch diameter monitoring wells. The additional borings were completed using 4.25 ID continuous flight hollow stem augers. Borings were advanced to twenty (20) feet below the existing ground surface. However, refusal was encountered in borings SB 4-1 at 5.5 feet, SB 4-2 at 3.0 feet, SB 6-1 at 4.0 feet, SB-7 at 12.0 feet, SB 8 at 2.0 feet, SB 9 at 1.5 feet, SB 11 at 2.0 feet, and SB 12 at 3.0 feet.

At SB 4-1 and SB 4-2, timbers saturated with a black tar-like substance were evident on the auger. At SB 6-1, SB 8, SB 11, and SB 12, concrete pieces were evident on the auger. In addition, reinforcing wire mesh and concrete was pulled-up by the auger at SB 9. At SB-7, a black tar-like liquid with a creosote-like odor flowed forth from the borehole (Photographs No. 5 and 6). Although refusal was met at 12.0 feet, the first encountered liquid continued to flow-out. Therefore, the soil cuttings and two (2) bags of concrete were used to quickly plug and abandon this boring.

The drill rig, augers, and associated equipment were cleaned with a high pressure, hot water, steam cleaner and allowed to air dry prior to and between work on individual boreholes to prevent cross contamination. All borings were backfilled with soil cuttings upon completion.

During drilling operations, all work areas were delineated and marked-off with survey tape and fluorescent traffic cones to minimize the impact on public health and safety. In addition, EPS field personnel followed the procedures and practices outlined in EPS's Site Specific Health and Safety Plan (Appendix E).

5.3 Soil Sample Collection

Soil samples were collected at approximately each 5.0 foot interval beginning at the 3.0 to 5.0 foot depth. Grab samples were taken directly from the auger in selected boreholes when refusal conditions occurred. Standard penetration tests were performed at each sample interval. The soil lithology was recorded on the boring logs (Appendix F) and was classified utilizing the ASTM standard D 2487 "Unified Soil Classification System". The soils in the borings consisted largely of clayey sand (SC) and clay (CH).

The soil samples were collected using a 1.375 inch ID, 24 inch split spoon sampler advanced into undisturbed soil by dropping a 140 pound weight 30 inches for each blow in accordance with ASTM standard D 1586-89 "Penetration Test and Split-Barrel Sampling of Soils".

A grab sample from each split spoon sampler was transferred into clean, 8 ounce amber colored glass jars and sealed with a screw-on plastic cap. The samples were then immediately placed into coolers and kept at 4° C for transport to the laboratory. The split spoon sampler

was decontaminated prior to each sampling event. Decontamination procedures consisted of cleaning with a wire brush to remove any clinging soils, followed by washing with potable water and Alconox detergent. The equipment was then scrubbed and rinsed with deionized water with a final rinse consisting of a 3 to 1 solution of water and methanol.

Many soil samples collected displayed black tar-like staining and discoloration of the natural deposits and a strong creosote-like odor (Photograph No. 7). Information regarding field observations noted for each soil boring are summarized in the boring logs in Appendix F.

Based on field observations, thirty six (36) soil samples were collected and submitted for laboratory analysis. Soil samples were transported to EPS Analytical Services, Inc., Jackson, Mississippi, within 48 hours after collection by Sunbelt Couriers of Jackson, Mississippi. Soil samples were submitted for Polynuclear Aromatic Hydrocarbon (PAH) Analysis using EPA Method 8270 GC/MS. Samples were picked-up and transported at 11:30 hours on May 26, 1994 and 13:30 hours on May 27, 1994. Chain-of-custody procedures and forms were utilized to track the samples from source to laboratory to ensure sample transport integrity and to minimize the opportunity for tampering (Appendix G).

5.4 Groundwater Monitoring Well Installation

Groundwater monitoring wells were installed in borings SB 1 (MW 3), SB 4-3 (MW 2), SB 10 (MW 1), and SB 14 (MW 4) by Griner Drilling Service, Inc. (Figure 2). The wells were installed on May 25-26, 1994, under the supervision of Scharine Kirchoff, an EPS hydrogeologist. The wells were constructed using four inch diameter, flush joint, threaded, Schedule 40 polyvinyl chloride (PVC) pipe with a 10 foot long 0.010 machine slotted screen and a solid riser section.

The well screen of each well was emplaced so as to span the inferred water table boundary (i.e. approximately 2 feet above and 8 feet below the water table).

All PVC well casing and screening materials were decontaminated prior to entering the site and stored in sealed plastic bags until use to prevent contamination. The annular space between the well screen pipe and borehole wall was filled with clean silica sand to a point approximately 24 inches above the top of the well screen, followed by a 12 inch thick bentonite seal was placed above the sandpack. The bentonite seal was allowed to hydrate. The remaining annular space was grouted with a 5% bentonite-cement mix. A flush-mounted, water tight steel roadway box was cemented in place to protect the well. In addition, all wells were capped with protective covers and a padlock to prevent unauthorized access. Individual groundwater well construction details are available in Appendix H.

Upon completion, the wells were purged a minimum of three well volumes of groundwater using a PVC constructed hand pump on May 26, 1994. The pump was decontaminated between each well using an Alconox detergent/potable water solution, a deionized water rinse, and a 3 to 1 solution of water and methanol.

5.5 Groundwater Sampling

On May 27, 1994, the wells were again developed a minimum of three well volumes. Each well was developed to a relatively sediment-free condition and allowed to recharge. All of the monitoring wells recharged within 10 minutes after development. Prior to sampling, the field parameters of pH, conductivity, and temperature were stabilized (Table 1). The purging of the wells agitated the water column of the well and subsequently aided in the removal of fines from

the sandpack around the well screen. In addition, well development enhanced the hydraulic connection between the well and the aquifer. The evacuated water was discharged in the area of the well to allow it to percolate back into the same location from which it had been collected. A summary of groundwater and monitoring well data is presented in Table 2.

Groundwater samples were collected following the United States Environmental Protection Agency (EPA) protocols outlined in EPA document 600/285-104 and EPA Standard Method SW-846. Groundwater samples were collected from each well with a dedicated teflon bailer and attached ball-valve. The bailer was slowly lowered into the water and raised carefully to minimize agitation of the sample and water in the well. Samples were placed in clean amber colored laboratory bottles. Creosote-like odors were noted in samples collected from MW-1, MW-2 and MW-3. No free product was observed in any of the wells. The groundwater samples were immediately placed in coolers and kept at 4° C until transported to the laboratory. Groundwater samples were picked-up by Sunbelt Couriers on May 27, 1994, the same day they were collected. Samples were submitted to EPS Analytical Services, Inc. for Polynuclear Aromatic Hydrocarbon (PAH) analysis using EPA Method 625 GC/MS. Chain-of-custody procedures were utilized to track the samples from source through laboratory analysis and to minimize the opportunity for tampering (Appendix G).

5.6 Lithology

The general lithology of the site can be characterized as follows:

Miscellaneous Fill: The miscellaneous fill represents the upper stratigraphic unit in all borings where refusal was met. The fill consists of red clay and unconsolidated sand and gravel. The fill ranges in thickness from 0 feet to 12 feet (Photograph No. 8). The source of the fill is unknown.

Clayey Sand and Clay: Interbedded layers of clayey sand and clay lenses were encountered as the upper stratigraphic unit in all soil borings advanced to 20 feet except in SB-1. The clayey sand deposits range in thickness from 5.0 feet to 14.0 feet. The clay deposits range in thickness from 2.0 feet to 15.0 feet. The clay is typically compact, plastic, dense and fine-grained (Photograph No. 9). See Photograph No. 10 for an example of soil cuttings at the site.

5.7 Groundwater Flow Direction

On May 27, 1994, a level survey was conducted by EPS personnel to establish relative groundwater elevations and local groundwater flow direction. Elevations were established with a Lietz Model B-1 level relative to an assumed benchmark datum of 100 feet. The designated benchmark datum on-site was a spray painted symbol located on the asphalt paving east of SB 7. Groundwater depths were obtained in the four (4) wells using an electric water level indicator. Relative groundwater elevations were calculated by subtracting groundwater depths from measured well elevations.

The depth to groundwater measured in monitoring wells MW-1 to MW-2 ranged from approximately 17.4 to 21.1 feet below the ground surface (Table 2). Based on the data presented in Table 2, the general groundwater flow direction at the site is to the northwest with a gradient of approximately 0.01 feet/feet (Figure 3).

5.8 Well Excavation

The Gulf States Creosote supply well (Figures 2 and 4) was completed in the Miocene Aquifer System where the nearby City of Hattiesburg water supply well is also screened. According to the United States Geological Survey (USGS), there is no record that the Gulf States well had been properly plugged and abandoned.

Due to the field observations made during the subsurface investigation, there was concern that the Gulf States well could be a direct conduit for on-site contaminant migration to the City of Hattiesburg water supply well. On May 26, 1994, a 6 foot by 4 foot trench was dug on-site as an attempt to locate the old well. This method proved successful as the 4 foot deep trench was completed, the well was located.

A solid concrete plug was observed in the well (see Photographs No. 11 and 12). Based on the field evidence, the well had been plugged and abandoned. The surrounding soils (clayey sand, clay and fill) showed visible evidence of creosote contamination with no preferential pathways of contaminant migration evident. The contamination within the trench was not constrained by the stratigraphy of the site. The soil in the trench was black, tar-like, and saturated (see Photograph No. 13). A strong creosote-like odor emanated from the trench during excavation activities. In addition, an abandoned creosote treated timber was observed

in the excavated area (Photograph No. 14). All excavated soil was returned to the trench upon completion of field activities.

5.9 Water Line Excavation

On May 26, 1994, a backhoe was utilized to investigate the existence of a historically documented 6 inch water line network at the site (Figure 2). Based on the extensive network of the on-site water line, EPS decided to investigate the potential for this system to provide a preferential pathway of contaminant migration in the area. The water line had been in-place during the operation of the creosote plant.

Therefore, a 4 foot by 4 foot trench was dug southeast of SB 6 (Figure 2) down to a depth of 4 feet. A brittle ceramic 6 inch water line was found (Photograph No. 15). The ceramic pipe was broken to check for any visible contamination inside the pipe, however no visible evidence was found.

Black stained soil was observed throughout the excavated area in the fill and clayey sand (Photograph No. 16). The black, tar-like stained soil had a strong creosote-like odor. Two (2) grab samples were taken from the trench. One sample, WPN, was taken from the north wall of the excavation whereas WPS was taken from the south wall of the excavation. Details regarding soil quality at WPN and WPS are included in Table 3, Soil Analyses Results.

A gravel pack was not observed around the water line. Based on visual observations, the water line does not appear to provide a preferential pathway for migration of contaminants in the area.

In addition, the contamination was not constrained by the local stratigraphy. All excavated soil was replaced in the trench upon completion of field activities.

6.0 LABORATORY ANALYSES

6.1 Introduction

Soil and groundwater samples were submitted to EPS Analytical Services, Inc., Jackson, Mississippi. The samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8270 GC/MS for soils, and EPA Method 625 GC/MS for water. All laboratory analyses were conducted in accordance with 40 CFR Part 261, November, 1986, "Test Methods for Evaluating Solid Waste" (SW-846).

6.2 Soil

Laboratory analyses of the soil samples indicated the presence of PAHs in all borings except in SB 14. Soil samples were not taken at SB 4-2 and SB 6. Total PAHs at the 3 to 5 foot interval varied from 237.81 ppm to 601,930 ppm (approximately 60% creosote). From the 8 to 10 foot interval, total PAHs varied from 43.48 ppm to 746,982 ppm (approximately 75% creosote). Total PAHs at the 13 to 15 foot interval varied from 3,946.89 ppm to 37,488.88 ppm. At the 18 to 20 foot interval, total PAHs varied from 4,391.16 ppm to 69,373.34 ppm.

In borings where refusal was met during drilling, a higher range of total PAH levels were found. Total PAHs varied from 35,478 ppm at 2 feet in SB 8 to 728,763 ppm (approximately 72% creosote) at 1.5 feet in SB 9.

In the water line trench, total PAH levels for WPN (north side of trench) was 233 ppm and 4125.29 ppm at WPS (south side of trench).

PAH constituents found in two or more of the soil samples included methylnaphthalene, acenaphthene, anthracene, dibenzofuran, fluoranthene, fluorene, naphthalene, phenanthrene, pyrene, chrysene, and phenol. Methylnaphthalene, anthracene, dibenzofuran, fluoranthene, fluorene, naphthalene, phenanthrene, pyrene and chrysene are common chemical constituents found on the gas chromatograph identifying creosote. A summary of laboratory analyses results with chemical parameters detected in one or more soil samples are summarized in Table 3. Complete laboratory reports for all soil samples are in Appendix I.

6.3 Groundwater

Laboratory analyses for PAHs in the groundwater indicated the presence of PAHs in all groundwater monitoring wells except MW 4. Total PAHs ranged from 123 ppm in MW 1, 218.87 ppm in MW 2 to 506.36 ppm in MW 3. Naphthalene was found in all three (3) groundwater monitoring wells. Phenol was found in MW 2 and 2,4 Dimethylphenol was identified in MW 3. Naphthalene and Phenol are common chemical constituents found on the gas chromatograph identifying creosote. A summary of laboratory analytical results, with chemical parameters detected in one or more groundwater samples, are summarized in Table 4. Complete laboratory reports for all groundwater samples are in Appendix J.

7.0 CONCLUSIONS

A site investigation was conducted at the former Gulf States Creosote Company process area in Hattiesburg, Mississippi. The investigation included a site reconnaissance, a subsurface investigation, qualitative and quantitative analyses of soil and groundwater samples, investigation of potential contaminant migration pathways and receptors, and a review of available files on public and private water supply wells and surface waters approximate to the site.

On the basis of the work conducted, EPS has reached the following conclusions:

1. The site currently consists of commercially developed land in Hattiesburg, Mississippi. The site topography is relatively flat. Most of the site process area surface is covered with a mix of asphalt paving and gravel.
2. A site reconnaissance of the process area did not reveal any physical remains of the former Gulf States Creosote Plant operations to exist at the surface of the site. During the reconnaissance, however, a ditch that runs parallel to the railroad tracks on the south-southeast portion of the property was noted. The ditch appears to be located outside of the property boundaries and within the railroad right-of-way. The ditch is a potential contaminant migration receptor.
3. A site reconnaissance of Gordon's Creek, topographically downgradient from the process area, revealed creosote leaching from the creek banks along Gordon's

Creek. Based on visual observation, the creosote ooze did not follow any preferential pathway of migration into the creek bed. The ooze was visible in numerous cutbank areas of the creek. Some of the visible ooze leached-out above a compact, dense, gray clay layer found in the cutbanks of Gordon's Creek.

4. The results of the field exploration program indicated that the subsurface stratigraphy consists of miscellaneous fill and interbedded lenses of clayey sand and clay. The miscellaneous fill appeared to be concentrated in the near surface in areas where the auger met refusal with concrete. Groundwater flow at the site flows to the northwest.

5. Laboratory analyses of soil and groundwater samples indicate the presence of creosote contamination at the site. The concentrations of total PAHs at the site revealed two (2) hot spots in the soils. One hot spot is located in the plant "mixing" area on the southern portion of the site. The other hot spot is located in the "settling basin" area (see Figure 5). The percentage concentrations of creosote found in these process areas are 70% creosote in the mixing area and 73% creosote in the settling basin area. The total PAHs found in the groundwater was highest, 506.36 ppm, in the "mixing" area.

The high percentage of creosote in the mixing area may be due to the process activities that had occurred there (i.e. mixing of creosote and "oils"). See Photographs No. 17 and 18. In addition, some creosote contamination may be attributed to the disposal of creosote treated timbers (found when the auger met refusal at SB 4-1 and SB 4-2) in the "mixing" area.

The high percentage of creosote in the settling basin is likely due to the process activities that had occurred there. Settling basins were typically used to store wood treating process effluent. The effluent was placed in the basin to separate-out the water from the creosote chemicals. Many creosote wood treating facilities attempted to recapture as much of the wastewater as possible in order to recycle the separated chemicals. The settling basin was, therefore, used as a cost-effective means to separate and recycle creosote chemicals.

6. Based on a quantitative analysis of total PAHs found at depths from 0 to 20 feet below the surface, the creosote contamination is not confined by the local stratigraphy. Visual observations of creosote contamination in the two (2) trenches dug at the sight confirm that the creosote is essentially found throughout the process area soils. The laboratory and field evidence suggest that the creosote used in the process areas had percolated downward until it was either adsorbed, trapped in the soil or until it reached the groundwater table. The clayey sand and clay do not act as confining layers due to the permeability of the clayey sand and the lenticular nature of the clayey sand and clay.

However, the higher range of total PAHs found in the areas where the auger met refusal with concrete suggests that there may be confining layers of concrete at the site. The miscellaneous fill observed in the soil borings was concentrated only in the areas where the auger met refusal. This suggests that concrete pads from the oil tanks, a concrete retaining wall around the settling basin, and a concrete containment

area or foundation in the treating room may have been abandoned in-place and covered with fill.

During drilling activities at SB 7 and SB 8, a black two-phase liquid with a creosote odor (i.e. creosote and water) was observed in the borehole prior to the auger meeting refusal with concrete at 12 feet and 2 feet, respectively, below the surface. The liquid flowed forth from the hole as if it had been confined. This suggests that creosote constituents that are relatively insoluble in water and less dense than water may have continued a downward migration from the surface around the oil dumping and storage tanks until it reached a relatively impermeable layer of concrete to form liquid pools on the concrete surface. See Photographs No. 19 to 22.

7. The quantity of percentage creosote found at the site, the topographically upgradient location of the site, and the hydraulically upgradient location of the site suggests that the source of creosote contamination found at Gordon's Creek could be from the Gulf States Creosote Company process area. In addition, the nonconfining subsurface stratigraphy and the hydraulic conductivity of the Miocene Aquifer System also support the migration of contamination from the site to downgradient areas. See Appendix A for details on the estimated rate of migration and permeability of conduit necessary for the creosote to migrate from a source area to Gordon's Creek.

The reason no PAHS were found in the soil or groundwater at SB 14 and MW-4 is unknown. It is possible that subsurface utilities could be blocking the flow of contaminants towards the west. Contaminant migration may actually be directed

towards the southwest by subsurface utilities. Evidence from DEQ's investigation supports this theory (see location of clean soil borings in Appendix B). In addition, groundwater flow may be directed in a more southwesterly direction towards Gordon's Creek where hot spots were identified by DEQ (see Appendix B). Installation of additional groundwater monitoring wells is required to confirm a southwest groundwater flow direction.

TAB 1

**GROUNDWATER FIELD MEASUREMENTS - MAY 27, 1994
 GULF STATES CREOSOTE, PHASE II
 HATTIESBURG, MISSISSIPPI
 PROJECT NO. 1.V7101.002**

MONITORING WELL NO.	pH (UNITS)	TEMP (°C)	CONDUCTIVITY (µmhos/cm)	COLOR	ODOR
MW1	5.54	24.0	61.0	CLEAR, SOME SILT	CREOSOTE
	5.55	23.8	62.0		
	5.58	23.9	59.0		
MW2	5.93	22.5	39.0	CLEAR, SOME SILT	CREOSOTE
	6.10	22.1	29.0		
	6.25	22.5	21.0		
	6.30	22.0	19.0		
MW3	5.01	23.6	92.0	CLEAR, SOME SILT	CREOSOTE
	5.07	22.8	88.0		
	5.10	22.7	87.0		
MW4	5.76	25.3	47.0	CLEAR, SOME SILT	NONE
	5.80	24.8	44.0		
	5.80	24.4	46.0		
	5.80	24.4	43.0		

TABLE 2
SUMMARY OF GROUNDWATER AND
MONITORING WELL DATA

TABLE 2

SUMMARY OF GROUNDWATER AND MONITORING WELL DATA
 GULF STATES CREOSOTE, PHASE II
 HATTIESBURG, MISSISSIPPI
 PROJECT NO. 1.V7101.002

MONITORING WELL NO.	SAMPLING DATE	TOP OF CASING ELEVATION (FEET)	SCREENED INTERVAL (FEET)	DEPTH TO WATER (FEET)	WATER TABLE ELEVATION (FEET)	VOLUME PURGED (GALLONS)
MW1	MAY 27, 1994	99.20	20.00-30.00	16.88	82.33	26.0
MW2	MAY 27, 1994	97.64	20.00-30.00	17.60	80.04	24.0
MW3	MAY 27, 1994	99.33	20.00-30.00	16.70	82.63	26.0
MW4	MAY 27, 1994	98.62	24.00-34.00	19.72	78.90	20.0

NOTE: WELLHEAD ELEVATIONS ARE FROM A LEVEL SURVEY CONDUCTED BY EPS PERSONNEL ON MAY 27, 1994.
 WATER LEVEL DATA COLLECTED ON MAY 27, 1994. ELEVATIONS ARE RELATIVE TO AN ARBITRARY BENCHMARK
 ON-SITE ASSUMED TO BE 100.00 FEET.

TABLE B

**SOIL ANALYSIS RESULTS
EPA METHOD 8270 GC/MS, POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI
PROJECT NO. 1.V7101.002**

BOREHOLE	SB1	SB2	SB2	SB2
DATE SAMPLED	MAY 24, 1994	MAY 24, 1994	MAY 24, 1994	MAY 24, 1994
SAMPLE NO.	001	002	003	004
SAMPLE DEPTH	3-5 FEET	8-10 FEET	13-15 FEET	18-20 FEET
STRATUM	CLAY	CLAYEY SAND	CLAYEY SAND	CLAY
CHEMICAL CONSTITUENT:				
METHYLNAPHALENE	41.5 ppm	52.77 ppm	18.12 ppm	449 ppm
ACENAPTHENE	1.63 ppm	51.52 ppm	49.19 ppm	
ANTHRACENE	7,685 ppm	19,261 ppm	3,339 ppm	3,486 ppm
DIBENZOFURAN	136 ppm	42.72 ppm	36.89 ppm	66.60 ppm
FLUORANTHENE	942 ppm	668 ppm	210 ppm	241 ppm
FLUORENE	290 ppm	119 ppm	91.91 ppm	82.46 ppm
NAPHALENE	219 ppm	28.9 ppm	22.65 ppm	
PHENANTHRENE	189 ppm	37.7 ppm		
PYRENE	521 ppm	168 ppm	62.78 ppm	66.10 ppm
BENZO (b) FLUORANTHENE			10.35 ppm	
ACENAPHTHYLENE			106 ppm	
TOTAL PAHs	10,025.13 ppm	20,533.9 ppm	3,946.89 ppm	4,391.16 ppm

NOTE: TABLE INCLUDES ONLY THOSE PARAMETERS DETECTED IN ONE OR MORE SAMPLES.
METHOD DETECTION LIMIT (MDL) = 0.01 ppm

TABL 3

**SOIL ANALYSIS RESULTS
EPA METHOD 8270 GC/MS, POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI
PROJECT NO. 1.V7101.002**

BOREHOLE	SB3	SB3	SB4-1	SB4-3
DATE SAMPLED	MAY 24, 1994	MAY 24, 1994	MAY 24, 1994	MAY 25, 1994
SAMPLE NO.	001	002	001	002
SAMPLE DEPTH	3-5 FEET	8-10 FEET	3-5 FEET	8-10 FEET
STRATUM	CLAYEY SAND	CLAY	FILL	CLAYEY SAND
CHEMICAL CONSTITUENT:				
METHYLNAPHALENE	818 ppm		21,778 ppm	1,475 ppm
ACENAPTHENE	357 ppm		4,396 ppm	2,541 ppm
ANTHRACENE	13,115 ppm		284,781 ppm	327,549 ppm
DIBENZOFURAN	247 ppm			2,459 ppm
FLUORANTHENE	1,555 ppm		33,566 ppm	97,625 ppm
FLUORENE	404 ppm		4,529 ppm	8,524 ppm
NAPTHALENE	23,857 ppm	1,390 ppm	250,882 ppm	195,742 ppm
PHENANTHRENE	504 ppm	31.12 ppm	1,998 ppm	
PYRENE	409 ppm			105,084 ppm
CHRYSENE	23.79 ppm			4,344 ppm
BENZO (a) PYRENE				573 ppm
BENZO (k) FLUORANTHENE				1,066 ppm
TOTAL PAHs	41,289.79 ppm	1,421.12 ppm	601,930 ppm	746,982 ppm

NOTE: TABLE INCLUDES ONLY THOSE PARAMETERS DETECTED IN ONE OR MORE SAMPLES.
METHOD DETECTION LIMIT (MDL) = 0.01 ppm

TABLE 3

EPA METHOD 8270 GC/MS, POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
 SOIL ANALYSIS RESULTS
 GULF STATES CREOSOTE, PHASE II
 HATTIESBURG, MISSISSIPPI
 PROJECT NO. 1.V7101.002

BOREHOLE	SB4-3	SB4-3	SB4-3	SB5	SB5
DATE SAMPLED	MAY 25, 1994	MAY 25, 1994	MAY 25, 1994	MAY 24, 1994	MAY 24, 1994
SAMPLE NO.	003	004	001	002	
SAMPLE DEPTH	13-15 FEET	18-20 FEET	3-5 FEET	8-10 FEET	
STRATUM	CLAYEY SAND	CLAY	CLAYEY SAND	CLAYEY SAND	
CHEMICAL CONSTITUENT:					
METHYLNAPHTHALENE				20.45 ppm	
ACENAPTHENE	1,725 ppm	48.88 ppm	27.84 ppm	18.94 ppm	
ANTHRACENE	10,261 ppm	2,346 ppm	196,894 ppm		
DIBENZOFURAN	1,315 ppm			165 ppm	
FLUORANTHENE	6,326 ppm	311 ppm	368 ppm	28.2 ppm	
FLUORENE	2,494 ppm	62.21 ppm	47.49 ppm	17.8 ppm	
NAPHTHALENE	4,615 ppm	2,675 ppm		66.66 ppm	
PHENANTHRENE					
PYRENE	4,466 ppm	71.10 ppm			
DIMETHYLPHENOL	46.62 ppm				
METHYLPHENOL	6,042 ppm				
BENZO (a) ANTHRACENE	41.96 ppm				
CHRYSENE	37.30 ppm				
PHENOL	119 ppm	124 ppm			
TOTAL PAHs	37,488.88 ppm	5,638.19 ppm	197,337.33 ppm	317.05 ppm	

NOTE: TABLE INCLUDES ONLY THOSE PARAMETERS DETECTED IN ONE OR MORE SAMPLES.
 METHOD DETECTION LIMIT (MDL) = 0.01 ppm

TABLE 3

SOIL ANALYSIS RESULTS
 EPA METHOD 8270 GC/MS, POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
 GULF STATES CREOSOTE, PHASE II
 HATTIESBURG, MISSISSIPPI
 PROJECT NO. 1.V7101.002

BOREHOLE	SB7	SB8	SB9	SB10
DATE SAMPLED	MAY 25, 1994	MAY 25, 1994	MAY 25, 1994	MAY 25, 1994
SAMPLE NO.	001	001	001	001
SAMPLE DEPTH	3-5 FEET	2 FEET	1.5 FEET	3-5 FEET
STRATUM	FILL/CLAY	FILL	FILL	CLAYEY SAND
CHEMICAL CONSTITUENT:				
METHYLNAPHTHALENE				
ACENAPTHENE	18.55 ppm		15,136 ppm	962 ppm
ANTHRACENE			478,712 ppm	10,499 ppm
DIBENZOFURAN				
FLUORANTHENE	13.32 ppm		167,509 ppm	5,034 ppm
FLUORENE			13,420 ppm	772 ppm
NAPHTHALENE	146 ppm			4,607 ppm
PHENANTHRENE	12.84 ppm	17,819 ppm		
PYRENE	47.10 ppm	17,659 ppm	53,986 ppm	2,752 ppm
TOTAL PAHs	237.81 ppm	35,478 ppm	728,763 ppm	24,626 ppm

NOTE: TABLE INCLUDES ONLY THOSE PARAMETERS DETECTED IN ONE OR MORE SAMPLES.
 METHOD DETECTION LIMIT (MDL) = 0.01 ppm

TAB 3

**SOIL ANALYSIS RESULTS
 EPA METHOD 8270 GC/MS, POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
 GULF STATES CREOSOTE, PHASE II
 HATTIESBURG, MISSISSIPPI
 PROJECT NO. 1.V7101.002**

BOREHOLE	SB10	SB10	SB10	SB11	SB12
DATE SAMPLED	MAY 25, 1994	MAY 25, 1994	MAY 25, 1994	MAY 26, 1994	MAY 26, 1994
SAMPLE NO.	002	004	001	001	001
SAMPLE DEPTH	8-10 FEET	18-20 FEET	2 FEET	3 FEET	
STRATUM	CLAY	CLAYEY SAND	FILL	FILL	
CHEMICAL CONSTITUENT:					
METHYLNAPHTHALENE		2,506 ppm		1,055 ppm	
ACENAPHTHENE		857 ppm			
ANTHRACENE		40,722 ppm		47,362 ppm	86,752 ppm
DIBENZOFURAN					
FLUORANTHENE		9,139 ppm		5,331 ppm	2,133 ppm
FLUORENE		674 ppm			
NAPHTHALENE		10,830 ppm			12,573 ppm
PHENANTHRENE		818 ppm			
PYRENE		3,751 ppm		2,261 ppm	
BENZO (g,h,i) PERYLENE		43.48 ppm			
CHRYSENE		76.34 ppm		939 ppm	
TOTAL PAHs	43.48 ppm	69,373.34 ppm	55,893 ppm	102,513 ppm	

NOTE: TABLE INCLUDES ONLY THOSE PARAMETERS DETECTED IN ONE OR MORE SAMPLES.
 METHOD DETECTION LIMIT (MDL) = 0.01 ppm

TABL 3

**SOIL ANALYSIS RESULTS
 EPA METHOD 8270 GC/MS, POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
 GULF STATES CREOSOTE, PHASE II
 HATTIESBURG, MISSISSIPPI
 PROJECT NO. 1.V7101.002**

BOREHOLE	SB13	WPN	WPS
DATE SAMPLED	MAY 26, 1994	MAY 26, 1994	MAY 26, 1994
SAMPLE NO.	001	002	001
SAMPLE DEPTH	3-5 FEET	0-3 FEET	0-3 FEET
STRATUM	CLAYEY SAND	FILL/CLAYEY SAND	FILL/CLAYEY SAND
CHEMICAL CONSTITUENT:			
METHYLNAPHTHALENE			
ACENAPTHENE			
ANTHRACENE	888 ppm		
DIBENZOFURAN			
FLUORANTHENE	197 ppm	233 ppm	3,099 ppm
FLUORENE			
NAPHTHALENE			
PHENANTHRENE			94.29 ppm
PYRENE			932 ppm
TOTAL PAHs	1,085 ppm	233 ppm	4,125.29 ppm

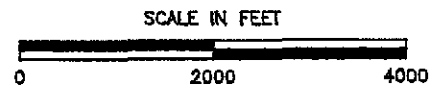
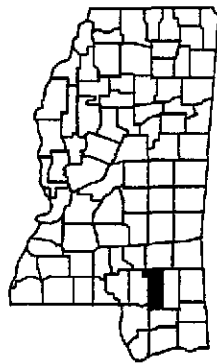
NOTE: TABLE INCLUDES ONLY THOSE PARAMETERS DETECTED IN ONE OR MORE SAMPLES.
 METHOD DETECTION LIMIT (MDL) = 0.01 ppm

TABLE 4

EPA METHOD 625 GC/MS, POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
 GULF STATES CREOSOTE, PHASE II
 HATTIESBURG, MISSISSIPPI
 PROJECT NO. 1.V7101.002


WELL NO.	MW1	MW2	MW3
DATE SAMPLED	MAY 27, 1994	MAY 27, 1994	MAY 27, 1994
SAMPLE NO.	001	001	001
CHEMICAL CONSTITUENT:			
NAPHTHALENE	123 ppm	216 ppm	443 ppm
PHENOL		2.87 ppm	
2,4 DIMETHYLPHENOL			63.36 ppm
TOTAL PAHs	123 ppm	218.87 ppm	506.36 ppm

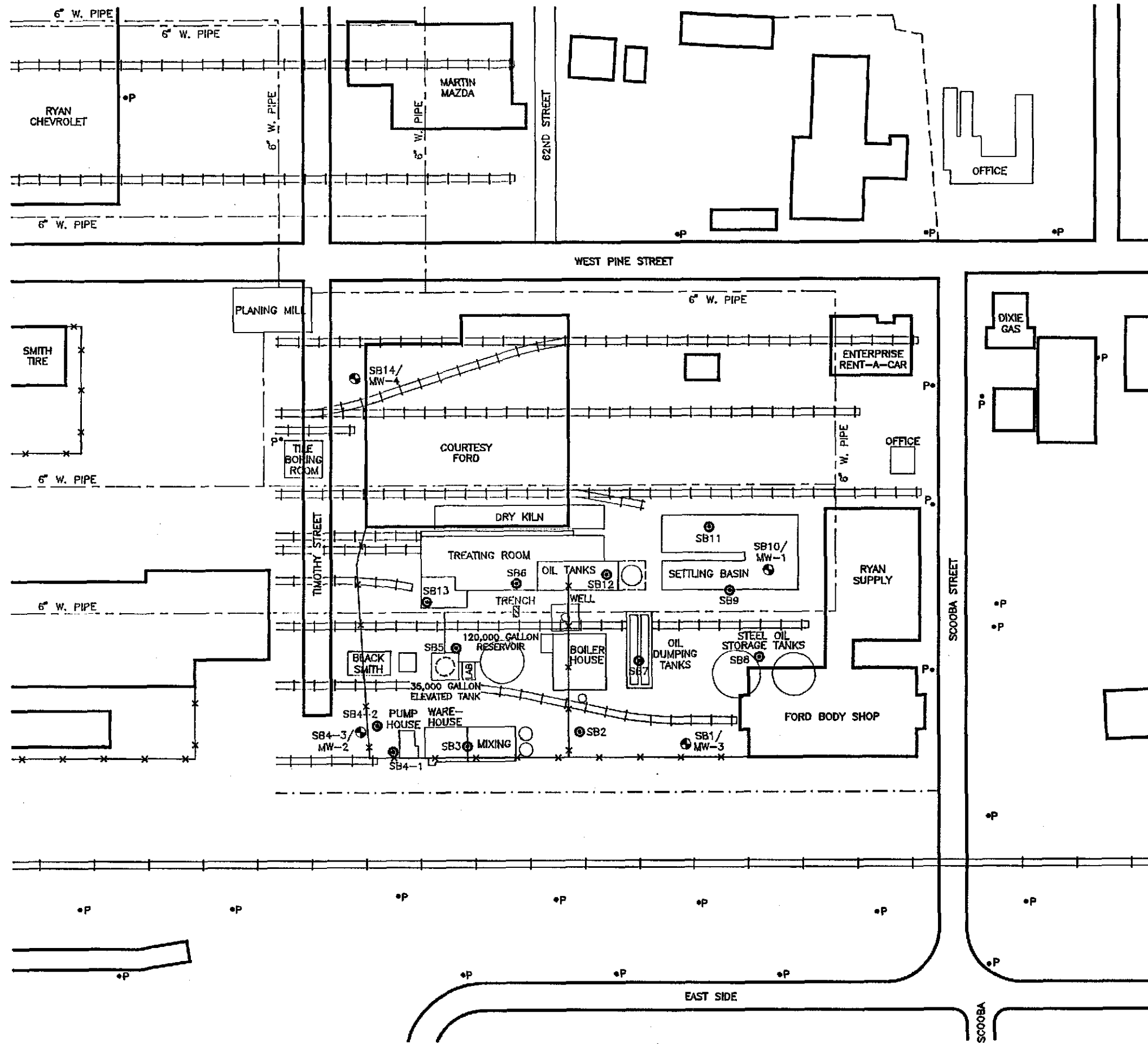
NOTE: TABLE INCLUDES ONLY THOSE PARAMETERS DETECTED IN ONE OR MORE SAMPLES.
 METHOD DETECTION LIMIT (MDL) = 0.01 ppm



**FIGURE 1
SITE LOCATION MAP**

**REFERENCE: 1982, 7.5 MINUTE
TOPOGRAPHIC MAP, HATTIESBURG
QUADRANGLE, MISSISSIPPI - FORREST COUNTY**

	Environmental Protection Systems	5360 I-55 NORTH JACKSON, MISSISSIPPI 39211
	PROJECT TITLE: GULF STATES CREOSOTING COMPANY (1920s - 1960s) HATTIESBURG, MISSISSIPPI	
SCALE: 1:24000	DRAWN BY: R.E.B.	
DATE: 8 JUL 1994	APPROVED BY: S.K.	
PROJECT NUMBER: 1.V7101.002	DRAWING NUMBER: EPS-7223	




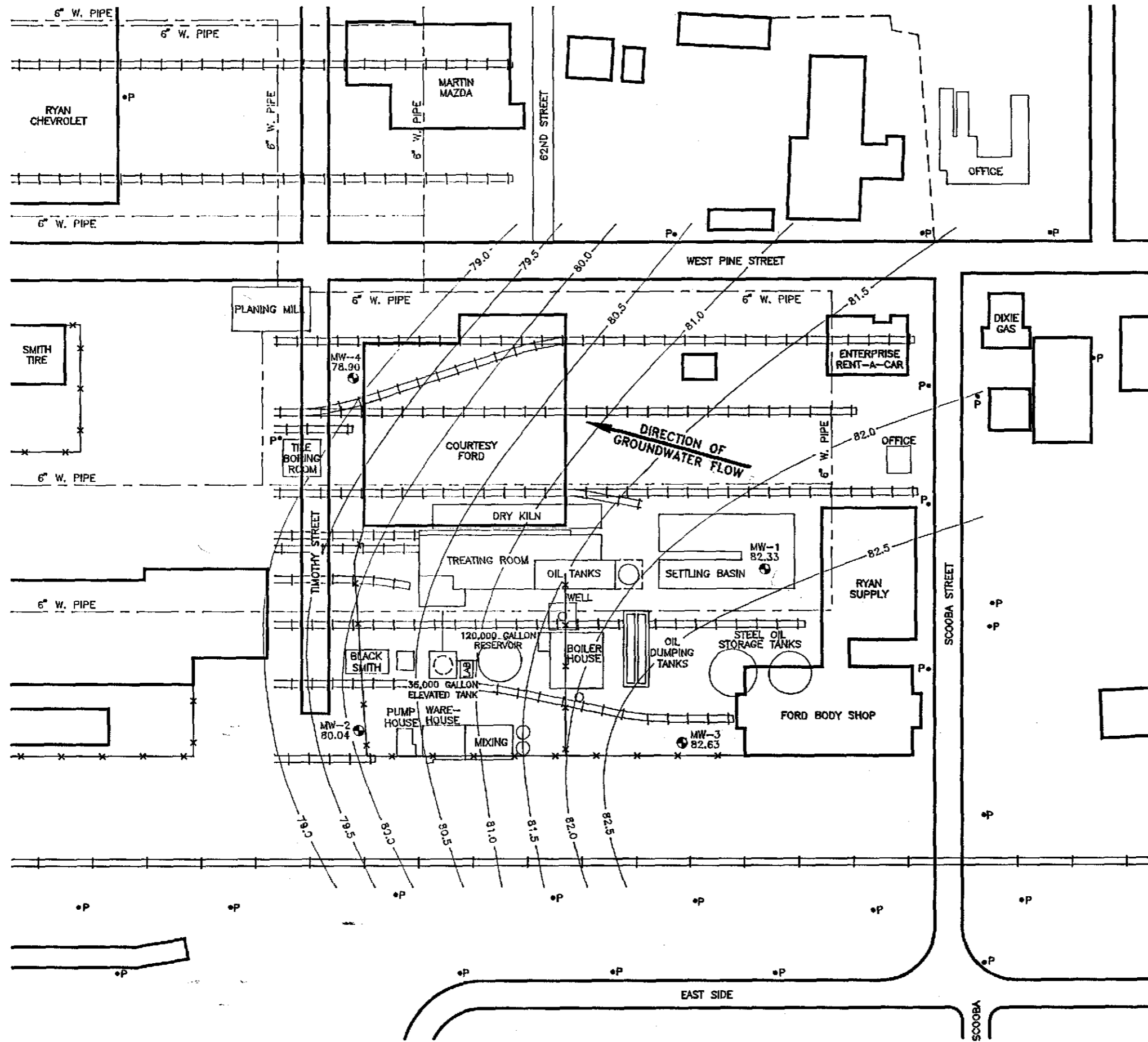
- LEGEND**
- P - POWER POLE
 - ⊙ - APPROXIMATE BORING LOCATIONS (16)
 - ⊙ - MONITORING WELLS (4)
 - - - TRENCH
 - - - DITCH

**FIGURE 2
SAMPLING LOCATIONS**

0 50 100 150 200 250

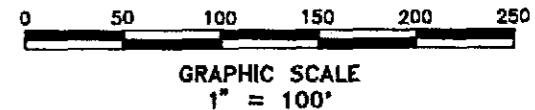
GRAPHIC SCALE
1" = 100'

 Environmental Protection Systems	5360 I-55 NORTH JACKSON, MISSISSIPPI 39211
	PROJECT TITLE: GULF STATES CREOSOTING COMPANY SITE ASSESSMENT FOR PROCESS AREA HATTIESBURG, MISSISSIPPI
SCALE: 1" = 100'	DRAWN BY: R.E.B.
DATE: 8 JUL 1994	APPROVED BY: S.K.
PROJECT NUMBER: 1.V7101.002	DRAWING NUMBER: EPS-7204



- LEGEND**
- P - POWER POLE
 - ⊙ - MONITORING WELLS (4)

**FIGURE 3
GROUNDWATER CONTOUR PLAN**




	Environmental Protection Systems 5360 I-55 NORTH JACKSON, MISSISSIPPI 39211
	PROJECT TITLE: GULF STATES CREOSOTING COMPANY SITE ASSESSMENT FOR PROCESS AREA HATTIESBURG, MISSISSIPPI
SCALE: 1" = 100'	DRAWN BY: R.E.B.
DATE: 8 JUL 1994	APPROVED BY: S.K.
PROJECT NUMBER: 1.77101.002	DRAWING NUMBER: EPS-7209

FIGURE 4

**WELL RECORD
GULF STATES CREOSOTING COMPANY
HATTIESBURG, MISSISSIPPI**

WELL RECORD GULF STATES CREOSOTINE COMPANY HATTIESBURG, MISS.

WELL DRILLED IN 1924 BY
CARLOSS WELL CO., MEMPHIS, TENN.

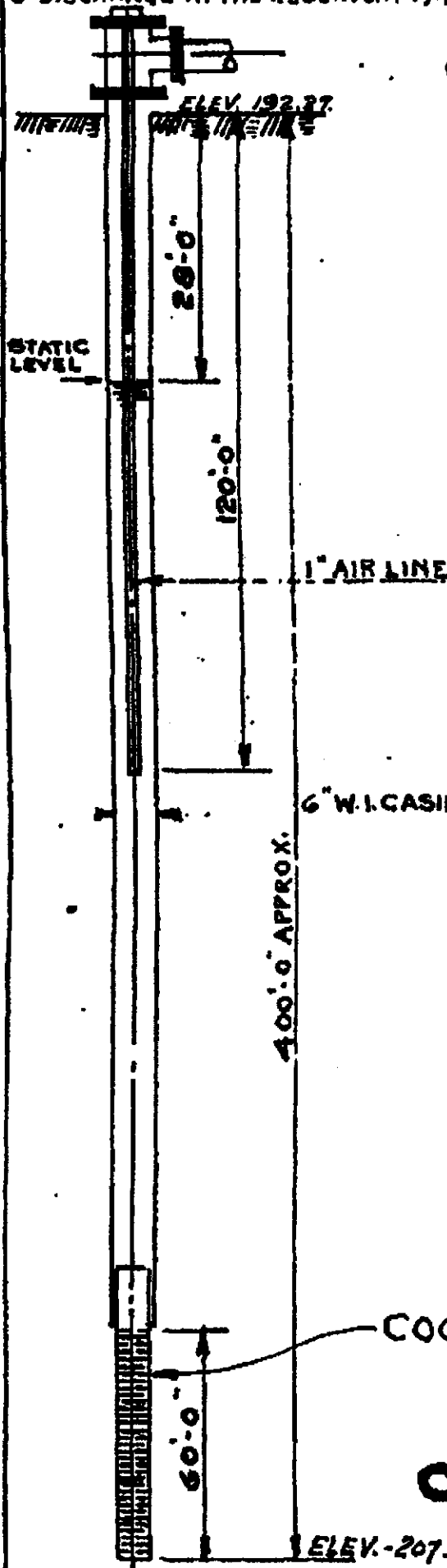
CAPACITY - 250 G.P.M.

AIR PRESSURE - STARTING - 62 LBS.
RUNNING - 62 LBS.

THIS WATER CAUSES A LITTLE SCALE IN THE
BOILERS, BUT IT IS READILY REMOVED.
IT DOES NOT CAUSE FOAMING.

HISTORY.

AN OLD WELL - 6" DIA. 385 FT DEEP DRILLED
BY SUTTER LASTED 4 YEARS. THIS WELL
WAS PROBABLY EQUIPPED WITH McEVROY
STRAINER. THE WELL FILLED WITH SAND.



1" AIR LINE

6" W.I. CASING

400' 0" APPROX.

COOK BRASS STRAINER - No. 8.

60' 0"

ELEV. - 207.73

THOS. H. ALLEN
CONSULTING ENGINEER
MEMPHIS, TENN.

CITY WATER WORKS

FIRM ICE & FUEL CO. INC.
FIRM ICE & FUEL CO. INC.

*
GULF STATES
CREOSOTING CO.
*

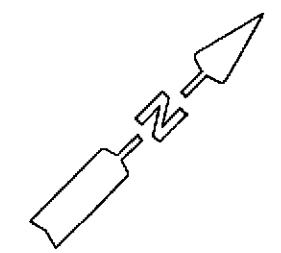
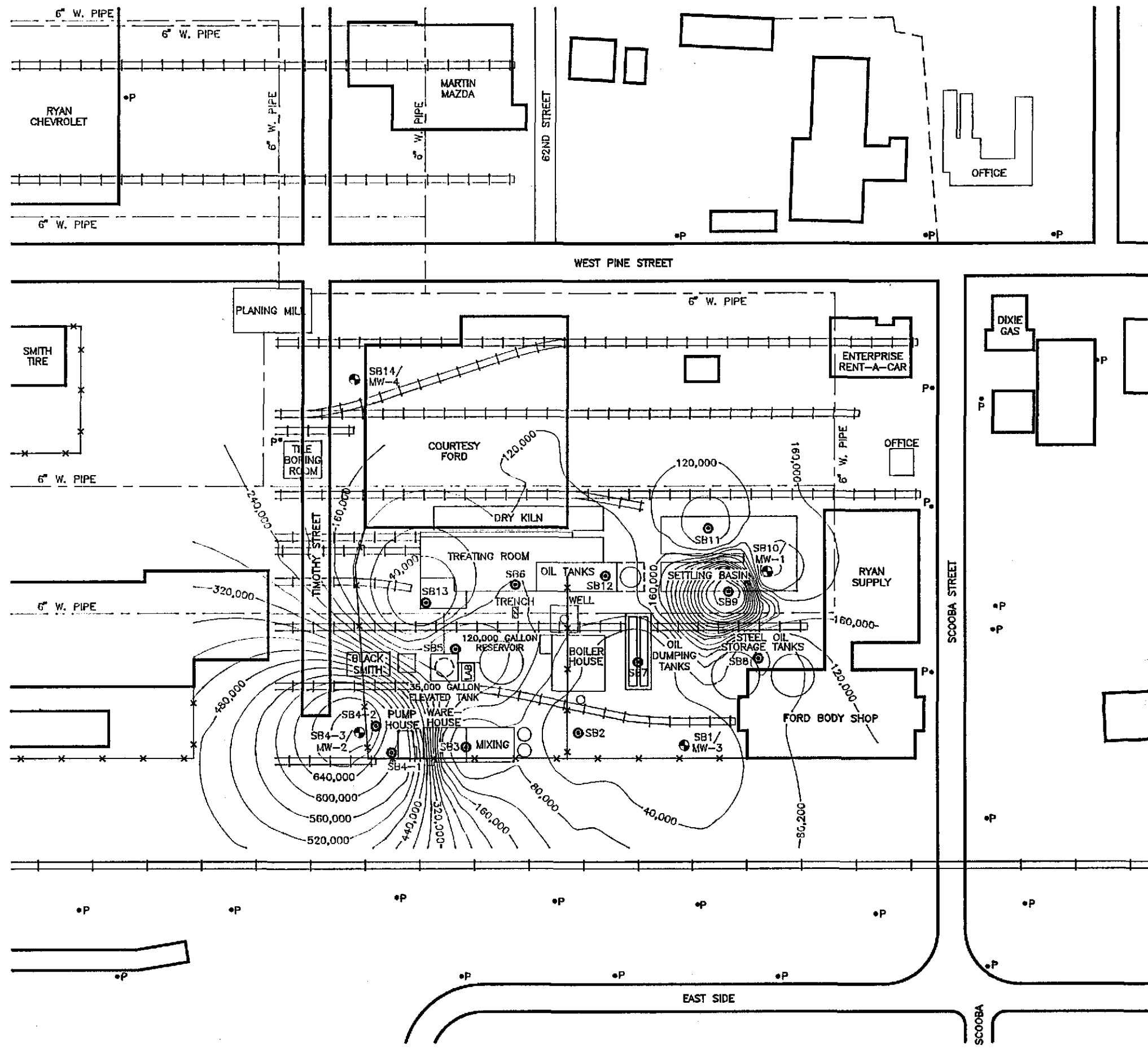
SOUTHERN
CITY LIMITS

DIXIE PINE
PRODUCTS CO.

WATER BEARING SANDS SURFACE STRATUM				200 80 60 40 20 100 80 60 40 20 + 0 - 20 40 60 80 100
WATER BEARING SANDS				20 40 60 80 100
WATER BEARING SANDS				200 20 40 60 80 100 20 40 60 80 100
WATER BEARING SANDS	TOTAL SOLIDS - AV - 108.6 P.P.M.			80
	HARDNESS - AV - 33.0 P.P.M.			300
	ALKALINITY - AV - 46.1 P.P.M.			20
	CO ₂ - AV - 32.0 P.P.M.			40 60 70 80 20 40 60
WATER BEARING SANDS	TOTAL SOLIDS - 143.0 P.P.M.			80
	HARDNESS 29.0 P.P.M.			500
	ALKALINITY 100.0 P.P.M.			20
	CO ₂ 6.0 P.P.M.			40
	SODIUM BICARBONATE 63.0 P.P.M.			60 80 600

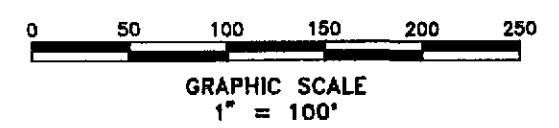
IRG, MISS. FROM BOUIE RIVER, SOUTH.
ATTIESBURG, MISS.


PLATE NO. 8.
THOS. H. ALLEN
CONSULTING ENGINEER.
MEMPHIS, TENN. JULY 1919.



- LEGEND**
- P - POWER POLE
 - ⊙ - APPROXIMATE BORING LOCATIONS (16)
 - ⊕ - MONITORING WELLS (4)
 - - - TRENCH

**FIGURE 5
TOTAL PAHs
0-20'**



	E nvironmental P rotection S ystems	5360 I-55 NORTH JACKSON, MISSISSIPPI 39211
	PROJECT TITLE: GULF STATES CREOSOTING COMPANY SITE ASSESSMENT FOR PROCESS AREA HATTIESBURG, MISSISSIPPI	
SCALE: 1" = 100'	DRAWN BY: R.E.B.	
DATE: 8 JUL 1994	APPROVED BY: S.K.	
PROJECT NUMBER: 1.V7101.002	DRAWING NUMBER: EPS-7224	



PHOTOGRAPH NO. 1

Creosote leachate in the Gordon's Creek ditch area. Note the sheen on the water and the black tar-like ooze in the cutbank.



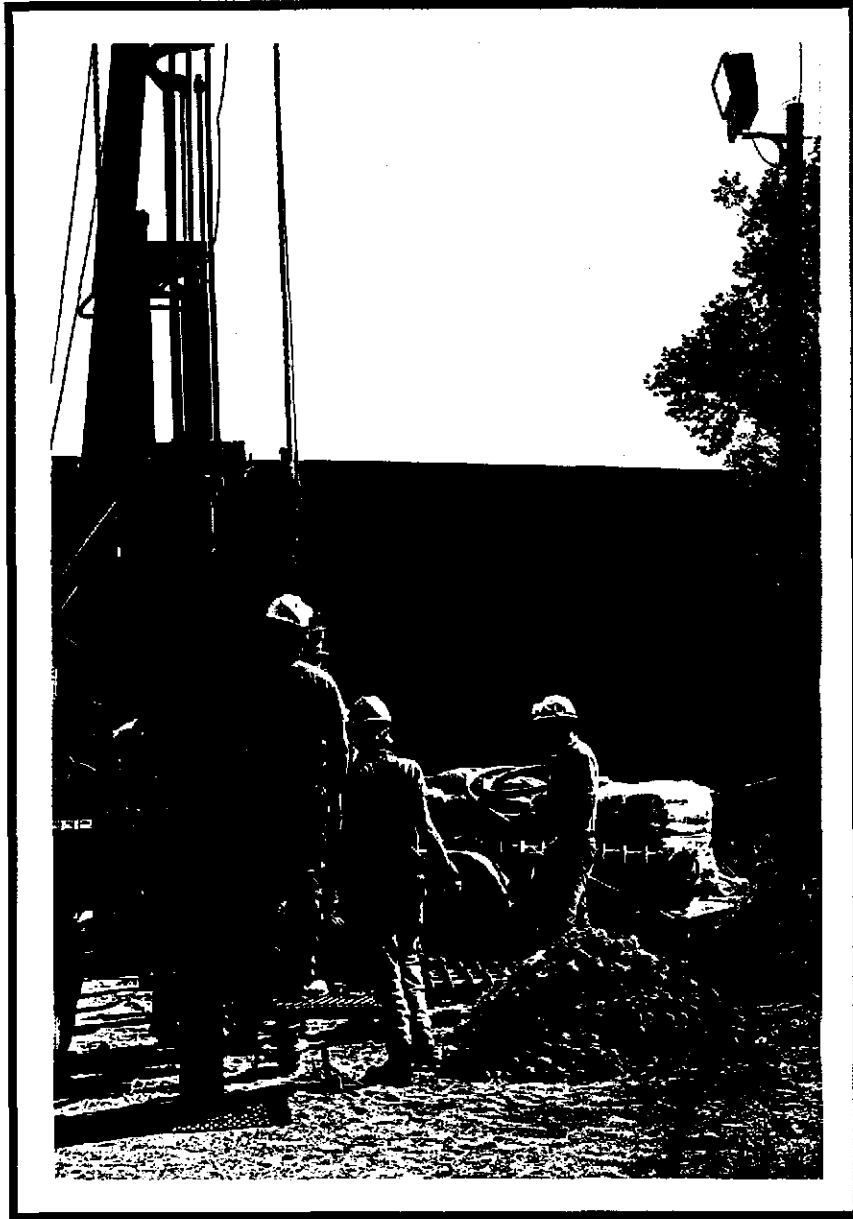
PHOTOGRAPH NO. 2

Creosote ooze in the cutbank of Gordon's Creek. The creek bed is wet, but not entirely covered with water due to the unusually dry weather.



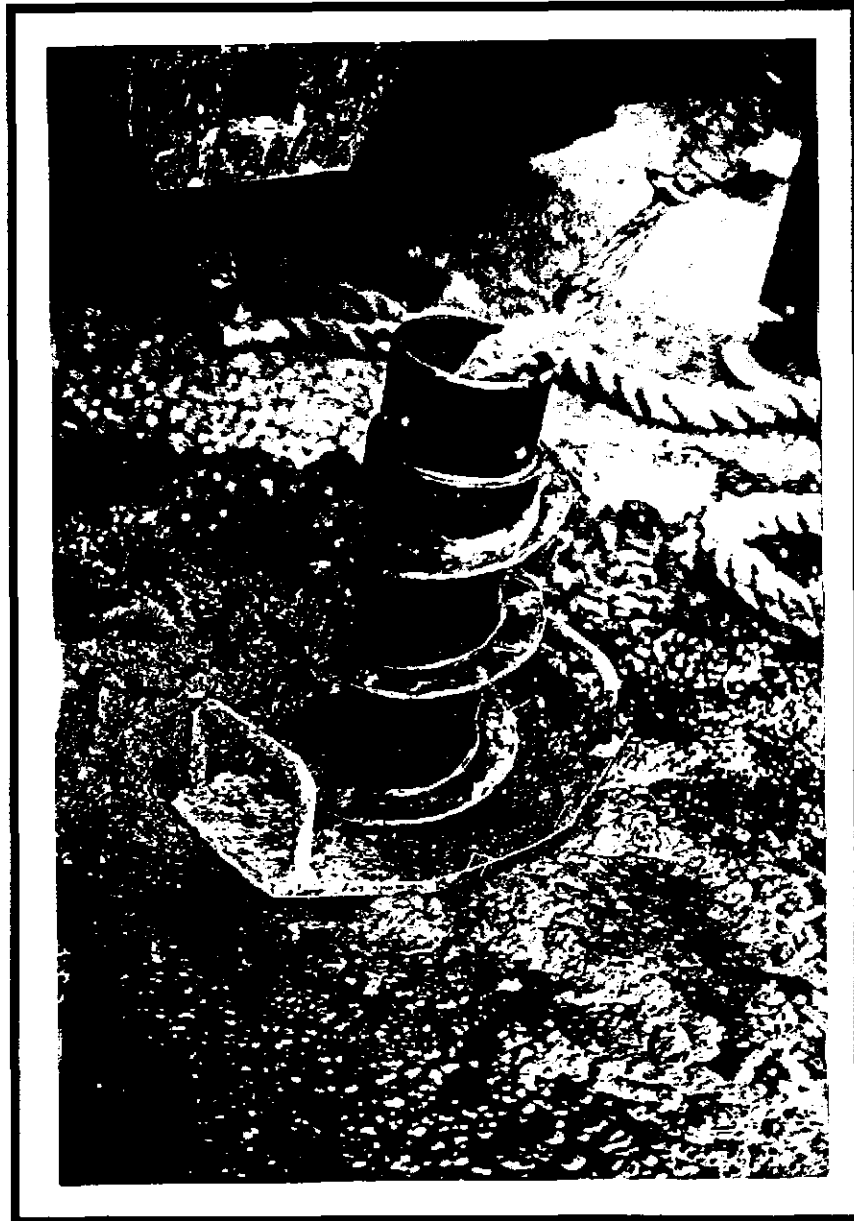
PHOTOGRAPH NO. 3

Creosote ooze in Gordon's Creek. At this location, the creosote is leaching-out between a gray compact clay layer (bottom) and white sands (top).



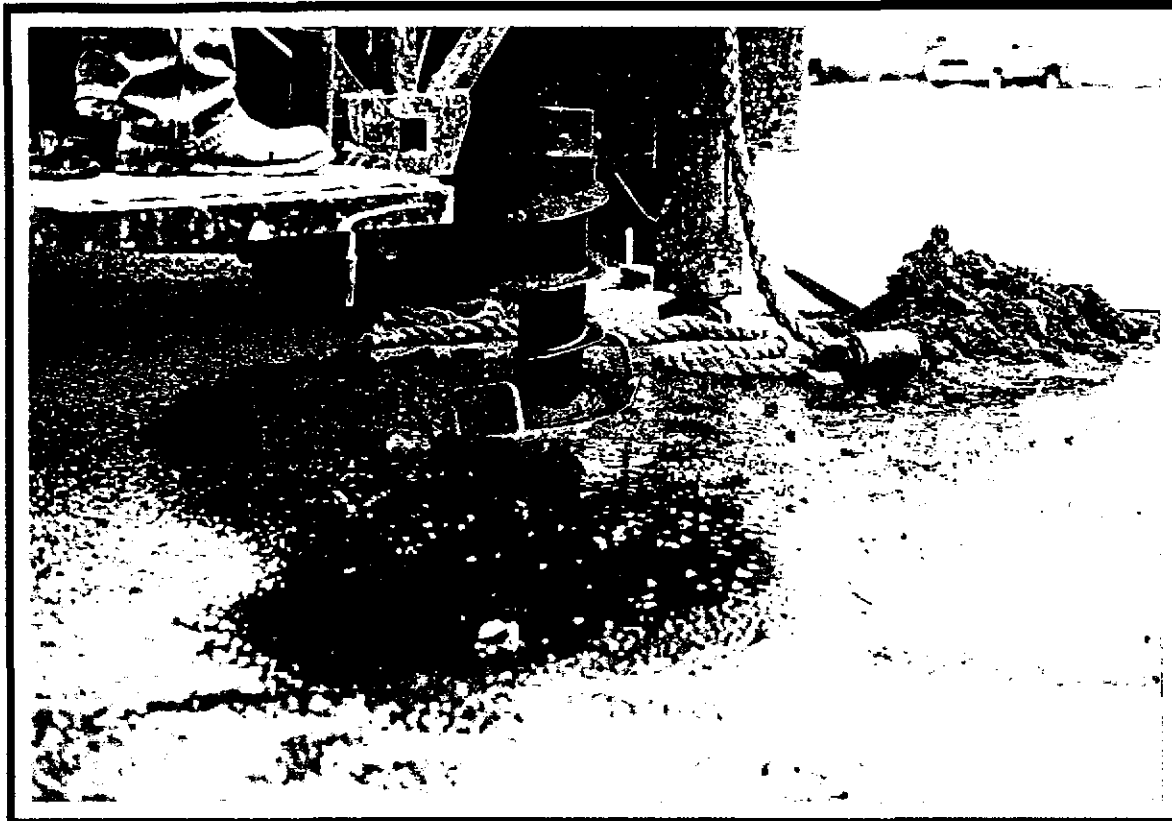
PHOTOGRAPH NO. 4

Griner Drilling Service conducting soil borings at SB1.



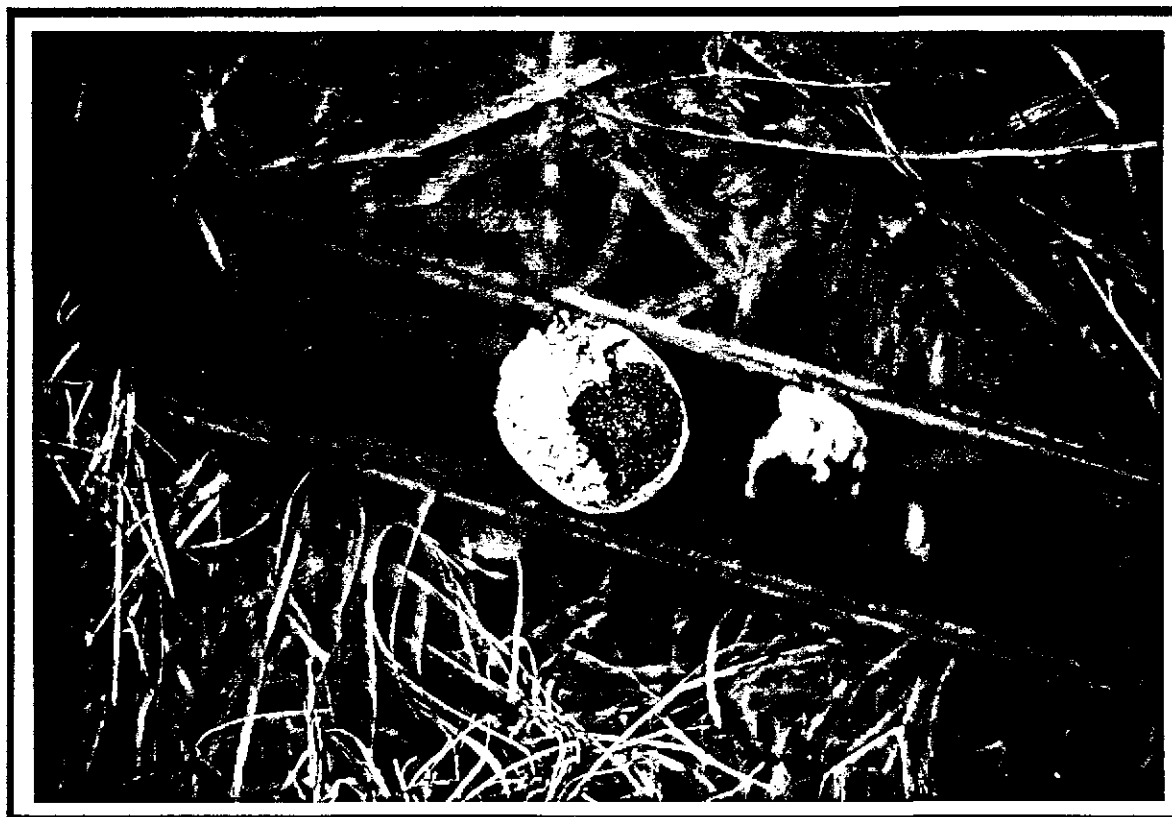
PHOTOGRAPH NO. 5

Creosote liquid at SB7. Refusal was met at 12 feet with concrete. The liquid and borehole were plugged with the soil cuttings and concrete mix.



PHOTOGRAPH NO. 6

Creosote liquid at SB7. Refusal was met at 12 feet with concrete. The liquid and borehole were plugged with the soil cuttings and concrete mix.



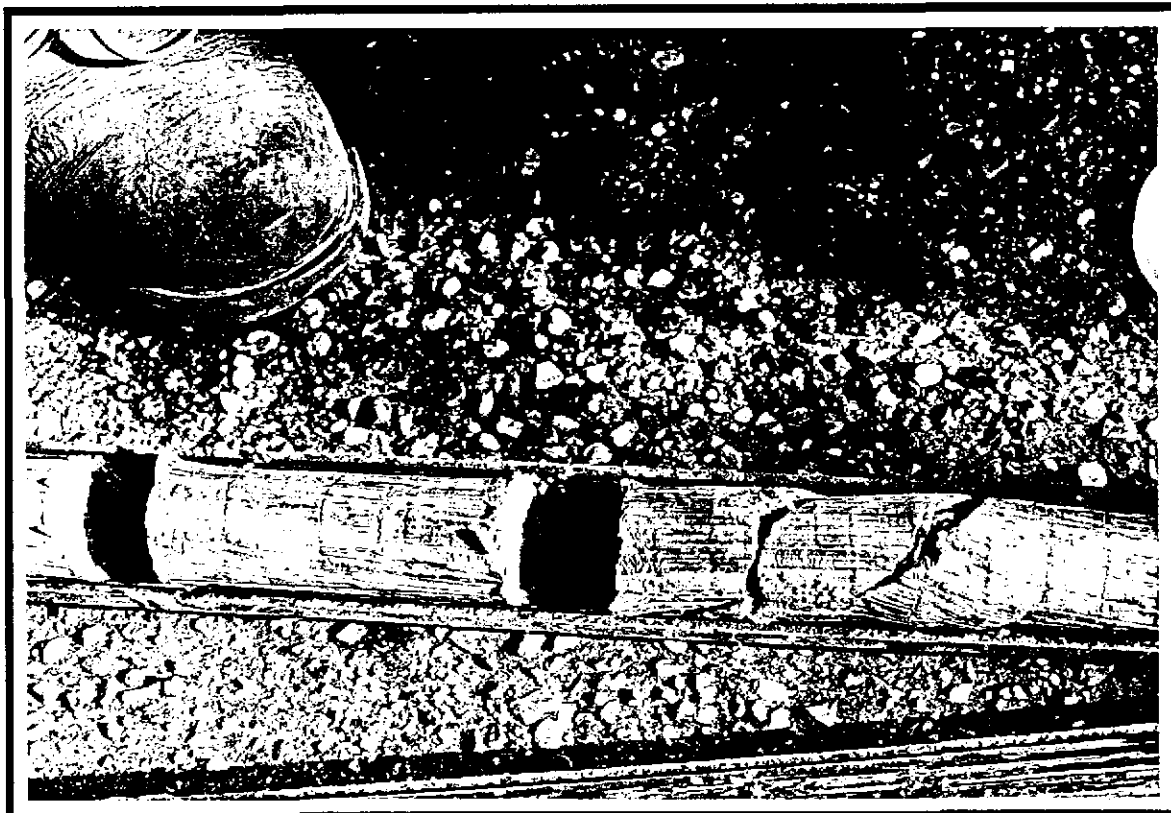
PHOTOGRAPH NO. 7

Soil sample from SB4-3. Note the black tar-like staining and discoloration of the clayey sand.



PHOTOGRAPH NO. 8

Red clay and sand and gravel fill were encountered in all borings where the auger met refusal with concrete. Note the fill here at SB7.



PHOTOGRAPH NO. 9

A gray, compact, plastic clay was found in many borings. This split spoon sample of the gray clay is from SB2.



PHOTOGRAPH NO. 10

Soil cuttings from SB1. Note the gray/yellow clay with the white water-bearing sands on top of the cuttings pile.



PHOTOGRAPH NO. 11

Abandoned Gulf States Creosote water supply well. Note the concrete plug in the well.



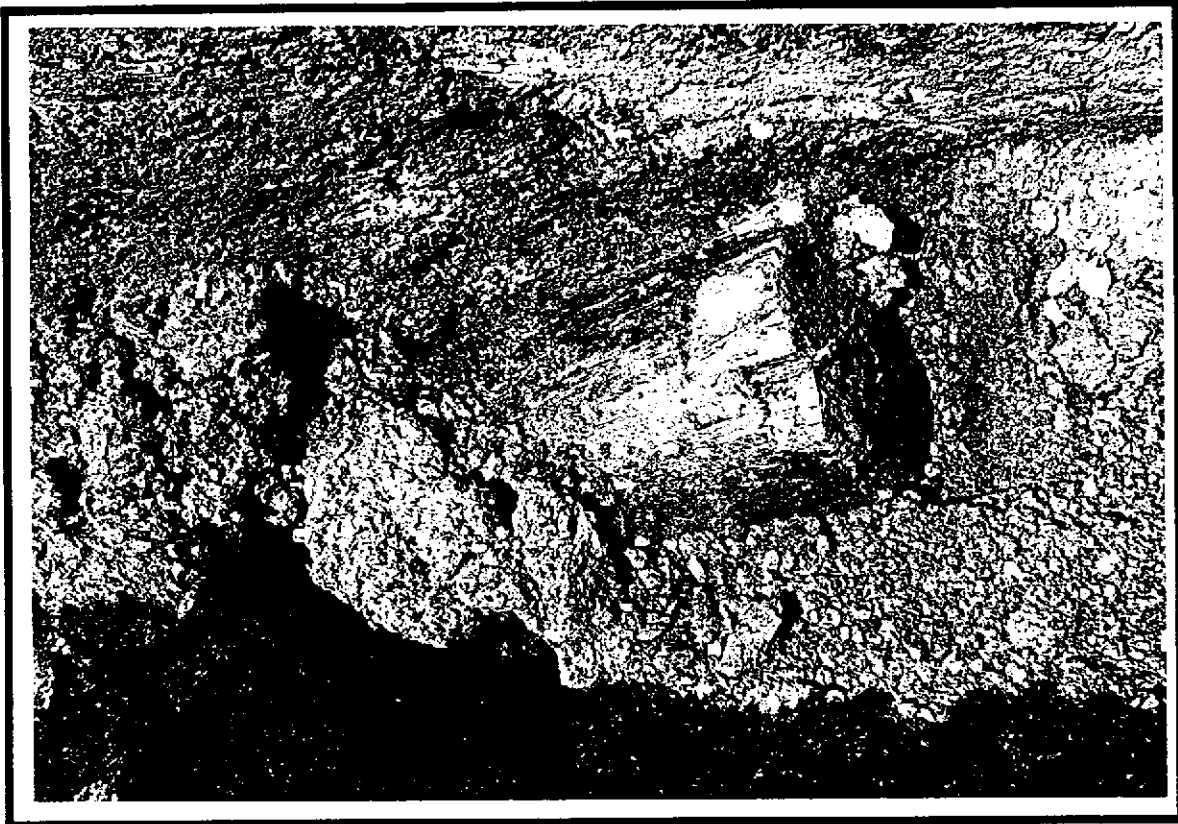
PHOTOGRAPH NO. 12

Abandoned Gulf States Creosote water supply well. Note the concrete plug in the well.



PHOTOGRAPH NO. 13

Creosote saturated soils from the abandoned well excavation. Note the creosote treated railroad tie and tar-like staining of the soils.



PHOTOGRAPH NO. 14

Abandoned creosote treated timber found in the abandoned well excavation. Note the clayey sand and clay soils and upper fill.



PHOTOGRAPH NO. 15

Abandoned 6 inch water line. Note the creosote stained soils extend across the pipe. The pipe is not providing a preferential pathway for contaminant migration.



PHOTOGRAPH NO. 16

6 inch water line trench. Note the extensive creosote stained fill in the excavation and the treated timbers in the wall of the excavation.



PHOTOGRAPH NO. 17

Soil boring at SB4-3. Note the dark colored creosote and golden colored oil, possibly decane, at this location in the "mixing" area.

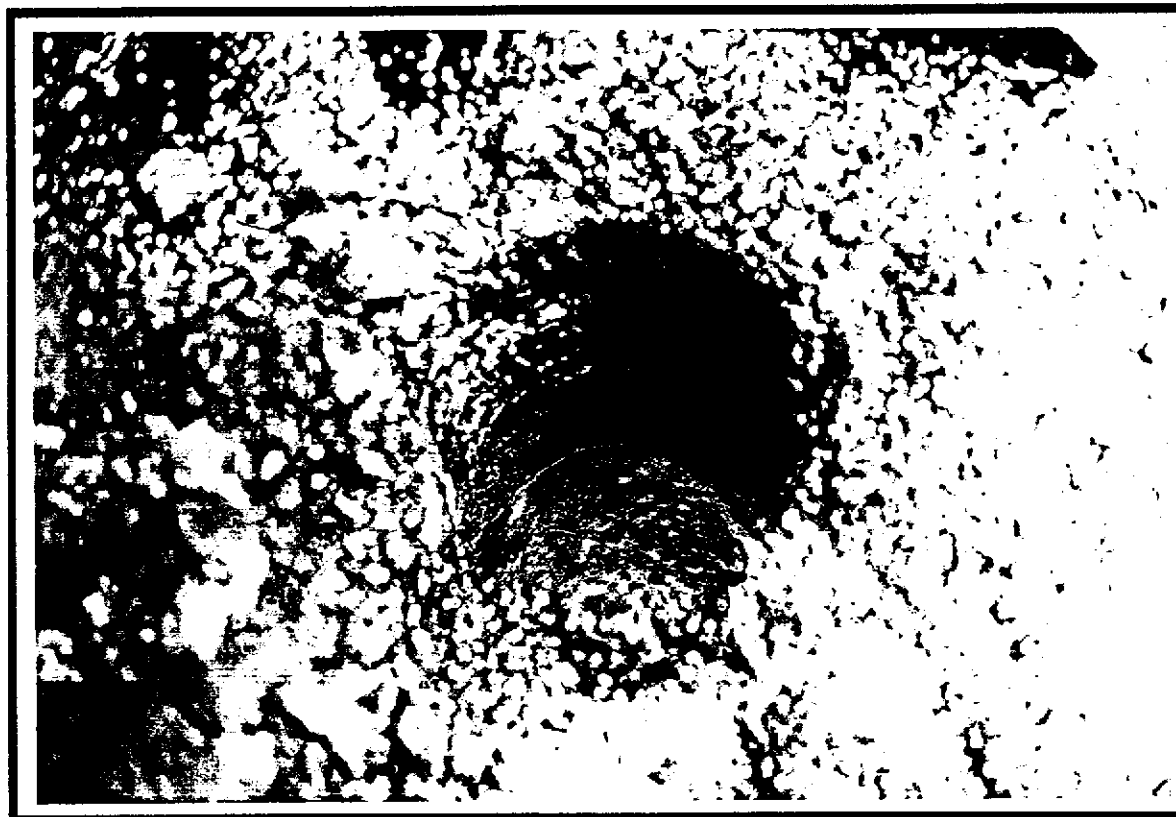


PHOTOGRAPH NO. 18

Split spoon at SB4-3. Note the golden sheen and black creosote color on this sample taken from 23 feet from the surface in the white water-bearing sands.



PHOTOGRAPH NO. 19
Drilling at SB7.



PHOTOGRAPH NO. 20
Borehole at SB7. Note the black creosote
liquid floating on water in the borehole.



PHOTOGRAPH NO. 21

Split spoon sample taken at the 8-10 foot interval at SB7.
Note that the recovery of black saturated fill/clay is poor.



PHOTOGRAPH NO. 22

Borehole at SB8. Note the black creosote liquid floating on water in the borehole.

APPENDIX A

**PRELIMINARY SITE INVESTIGATION OF
THE GULF STATES CREOSOTE COMPANY PLANT
HATTIESBURG, MISSISSIPPI
AUGUST 1993, EPS**

**ENGINEERING REPORT ON
PRELIMINARY SITE INVESTIGATION**

OF

**THE GULF STATES CREOSOTE COMPANY PLANT
HATTIESBURG, MISSISSIPPI**

PREPARED FOR

**J.B. VAN SLYKE, ATTORNEY
THE HATTIESBURG SCHOOL DISTRICT
HATTIESBURG, MISSISSIPPI**

Prepared by

**Environmental Protection Systems, Inc.
Jackson, Mississippi**

**EPS Report No. 1.V7101.001
August, 1993**

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 BACKGROUND AND HISTORY OF CREOSOTE OPERATIONS	3
3.0 PREVIOUS INVESTIGATIONS	5
3.1 U.S. Environmental Protection Agency Field Investigation	5
3.2 Mississippi Department of Environmental Quality Field Investigation	6
4.0 RESULTS OF INVESTIGATION	11
4.1 Aerial Photograph	11
4.2 Sanford Maps (1925-1966)	12
4.3 Site Walkover	13
4.4 Estimated Waste Cleanup Volumes	14
4.5 Interviews and Persons Involved During The 1960's	15
5.0 RECOMMENDATIONS AND CONCLUSIONS	21
5.1 Development of Sampling Plan	21
5.2 Continued Investigation Probe	22
5.3 Closure Plan	22
5.4 Groundwater Monitoring Well Installation	23

APPENDICES:

Appendix A:	Sanborn Maps
Appendix B:	Site Map with Previous Testholes (See Master Site Plan Exhibit)
Appendix C:	Photographic Log (Businesses on Site)
Appendix D:	Survey Plat of Site (73.09 Acres)

TABLE OF CONTENTS, Continued

Appendix E:	Aerial Photograph List of Section 16 Land (Hattiesburg, Mississippi)
Appendix F:	Municipal Records Guide, City of Hattiesburg, Mississippi

EXHIBITS:

Exhibit A:	Master Site Plan (1" = 100')
Exhibit B:	Aerial Photograph (3/6/42)
Exhibit C:	Aerial Photograph (3/2/58)
Exhibit D:	Aerial Photograph (4/11/60)
Exhibit E:	Aerial Photograph (10/17/64)

TABLES:

Table 1:	Summary of Soils Analysis - March, 1990 (EPA)
Table 1A:	Summary of Soils Analysis - January, 1990 (EPA)
Table 2:	Boring Log Summary Data
Table 3:	Summary of Soils/Water Analysis (MDEQ)

FIGURES:

Figure 1:	Site Plan/Location Map (1" = 2000')
-----------	-------------------------------------

1.0 INTRODUCTION

Environmental Protection Systems, Inc. (EPS), was contracted by J.B. Van Slyke, Attorney on behalf of the Hattiesburg Public School District, in June, 1993, to conduct a preliminary detailed investigation of the Gulf States Creosote Plant which operated on Section 16 Land (held in public trust by the Hattiesburg Public School District for the purpose of financially supporting public schools of the State of Mississippi).

This investigation conducted by EPS included the following tasks:

1. Locate and review aerial photographs of the area - 1930 (or earlier, if available) to 1970.
 - United States Geological Survey (USGS)
 - United States Department of Agriculture (USDA)
 - Mississippi Department of Transportation
 - Hattiesburg Public Works
 - Other Private Sources
2. Review of all USGS topographical maps from the archives in an attempt to identify the previous location of ponds, cylinders, watersheds, etc.
3. Review of all city directories, historical society data, and interview older city residents who may have knowledge of the past creosote operations.
4. Interview any former Gulf States employees or former employees at the creosote plant.
5. Conduct a walkover site visit to locate and map old depressions, foundations, or landmarks which may have been part of any creosote operations.
6. Review all available State files located at the Mississippi Department of Environmental Quality (MDEQ) offices in Jackson, Mississippi, and Environmental Protection Agency (EPA) files obtained under the Freedom of Information Act.

7. Review old newspapers at the time of plant startups to attempt to locate plant photos or site maps.
8. Research Secretary of State files and archives for incorporation documents which may describe the equipment and size of any of the creosote operations.

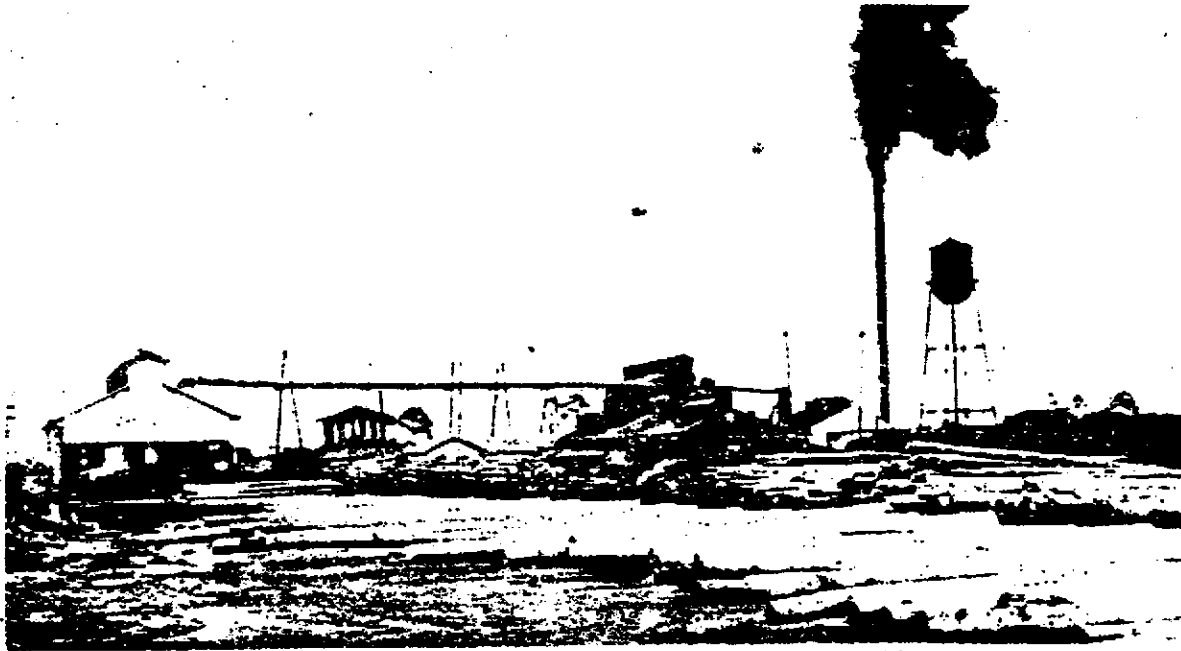
This report is a result of the completion of all or part of these tasks in order to draw conclusions and develop recommendations concerning the Gulf States Creosote site for the Hattiesburg School Board. This report should be considered preliminary and limited in scope. Location of any new information sources or an individual with personal knowledge could alter the conclusions and recommendations of this study. Mr. J.R. Estes, City Engineer during the time of the closing of the Gulf States Creosote Plant, died during the course of this investigation before he could be interviewed. Other parties which may have had personal knowledge concerning Gulf State Creosote are also deceased. A list of names of those who may have known about the demolition of the plant is provided in this report.

2.0 BACKGROUND AND HISTORY OF CREOSOTE OPERATIONS

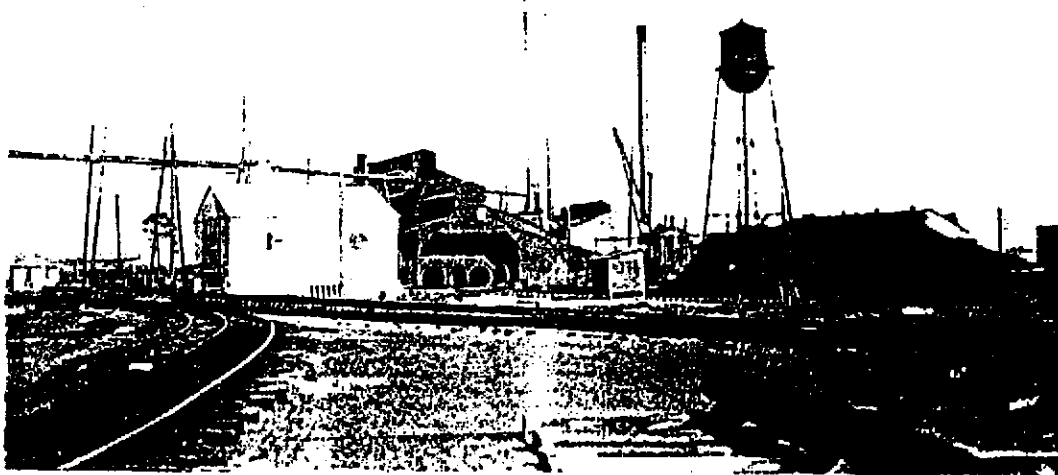
Creosote operations along Gordon's Creek began near Highway 49 at Pine Street and Scooba Street in Hattiesburg around 1920. In 1925, the plant occupied an area between the Southern Railroad and West Pine Street (see Sanborn Map, 1925, in Appendix A). The plant was originally known as the Hattiesburg Creosote Company. The company was incorporated on March 4, 1933, as Gulf States Creosoting Company (Grier D. Patterson was President of the company). The nature of the business was the treatment for preservation of cross ties and all other timbers, the purchasing and selling of the same; the handling and preservation of any and all forest products; and the buying, owning, and selling of the necessary preservatives and manufacturing of all articles used in and about the preservation of forest products. The company also could manufacture, produce, buy, sell, trade, and deal in tar product, chemicals, spirits, acid and alkalies and their respective derivatives, compounds, products, by-products, and residuals.

By 1931, the plant had expanded to 32nd Avenue (see Sanborn Map, Appendix A). The offices were located on the northeast corner of Scooba and West Pine Street. In 1949, a large settling basin was added (see Sanborn Map, Appendix A). In 1960 or 1961, the plant was permanently closed and demolished. In 1966, the area had begun to develop into a commercial area (see 1966 Sanborn Map, Appendix A). Today the original plant area (73.09 acres) is occupied by automobile dealerships, car parts stores, a beverage distributorship, a food store, et al. (see photographs in Appendix C).

The Gulf States Creosote Company site located in the southern commercial area of Hattiesburg, Mississippi (see Master Site Plan; 1" = 100'). The site is located on 16th Section Land belonging to the Hattiesburg School District as trustee. The last operator of record was American Creosoting Corporation.



PLANT OF GULF STATES CREOSOTING CO.



3.0 PREVIOUS INVESTIGATIONS

3.1 United States Environmental Protection Agency Investigation

The Corps of Engineers first found evidence of creosote contamination while conducting borings along Gordon's Creek. The Mississippi Office of Pollution Control (OPC), first investigated the site in August of 1989. From January 20 to 25, 1990, the Environmental Protection Agency (EPA), conducted a field investigation (by Roy F. Weston, Contract Consultant) to determine the extent of the contamination along Gordon's Creek from the Gulf States Creosote Plant.

Approximately 65 soil gas sampling stations were monitored and sampled. Fifteen soil borings were installed from which 10 soil samples were collected and analyzed for Polynuclear Aromatic Hydrocarbons (PNA) using an on-site mobile tandem mass spectrometer. During this winter sampling event, an unusual amount of rain occurred and the water table rose. Some inconsistency and variation in screening results were contributed to a combination of equipment failure and weather conditions (high humidity and soil moisture) by the EPA.

On March 19 and 20, 1990, EPA representatives also returned to Hattiesburg to complete soil borings and subsurface soil sampling investigation. A total of fifteen soil borings were installed from which 9 samples were collected and analyzed for PNAs. The sample collection varied between 5 and 15 feet below surface (see Table 2).

The soil samples identified by the EPA as contaminated came from an area between West Pine and Gordon's Creek (see Master Site Plan). The samples most contaminated were D-00, D-01, E-24, E-25, and E-27, which contained 1,440 to 5,324 ppm of PNA compounds. The creosote

outcroppings, approximately 5 feet in thickness, were visible along the banks of Gordon's Creek. The water table fluctuated between surface and twenty feet.

The EPA estimated this volume of waste-contaminated soil to be between 7,200 yd.³ and 12,000 yd.³ (see Master Site Plan). The EPA did not take any samples east of Timothy Street where the creosote plant tanks and settling basin were located. A pathway of migration for the waste was also not found during the EPA study. The persons involved in the EPA study in 1990 were:

- Dave Mickunas
- Mark Bernick
- Joe Gorski
- Gmae Loy
- Harry Compton
- Mark Sprenger
- Greg Powell
- Martin O'Neill
- Akos Fekete
- Mark Ellis
- George Prince
- Richard Ball (MDEQ)
- W. Batz
- Don Rigger (on-scene coordinator, EPA) Region IV

The EPA did decide also not to drill or sample west of Gordon's Creek to determine the extent of contamination in that direction (towards K-Mart).

3.2 Mississippi Department of Environmental Quality Field Investigation

On October 15-17, 1991, the Mississippi Office of Pollution Control (OPC), conducted an additional Phase II site investigation to "determine the nature of contaminants present at the site and to determine if a release of hazardous substances has occurred or may occur.

The investigation sought to determine the possible pathways by which contaminants could migrate from the site and the populations and environments affected."

The creosote was first observed leaching in Gordon's Creek in 1989. To date, the estimated area of contamination by the State of Mississippi is 75,000 ft.², with an average depth of 10 ft. According to the Mississippi Bureau of Pollution Control, the stratigraphic units below the Gulf States Creosote site in descending order are as follows: Hattiesburg Formation and the Catahoula Sandstone, Vicksburg Group (Undifferentiated) and the Yazoo Clay.

Fresh-water aquifers in the study area are mostly beds of sand or zones of sandy beds. The beds dip gently to the southwest and contain fresh water as much as 40 miles from the outcrops.

Prediction of aquifer thickness and lithology is difficult because of the lenticular bedding of most units. Lithologic changes occur in short distances and individual sands, which are regular and thicken or thin in short distances. These changes are difficult to trace, especially along the dip of the beds.

At Hattiesburg, the Hattiesburg Formation consists of thick beds of massive clays (150 to 200 feet thick), which contain some lime, but very little sand. Geophysical logs of nearby wells to the east of the site indicate a clay layer that occurs approximately 30 feet above sea level. The clay layer ranges from 110 to 180 feet in thickness and is overlain by and grades upward into alternating fine-grained silty sands and clays. The clay layer is underlain by interbedded sands and clays. The sands increase in prominence and become gravelly toward the base. A geohydrologic section to the west of the site (within the two-mile radius) indicates numerous silty sands and clay lenses underlying the land surface with sands increasing in prominence approximately 100 feet below sea level. These sources indicate that there is no uniform clay

present, i.e., the clay layer mentioned above is not continuous over the two-mile radius. Four Forrest County aquifer tests of the Hattiesburg Formation show hydraulic conductivities ranging from 96 to 180 ft/day (3.38×10^{-2} to 6.34×10^{-2} cm/sec.).

Separating the Hattiesburg from the underlying Catahoula is extremely difficult. To avoid confusion, both units are referred to as the Miocene Aquifer System. The aquifer system is composed of numerous interbedded layers of sand and clay (sand beds in the Miocene are characteristically lens-shaped or wedge-shaped). Because of the interbedded nature, formations cannot be reliably separated and correlated either on the surface or in the subsurface.

Recharge to the Miocene Aquifer is from rainfall directly on the outcrop and leakage between aquifer units of the Miocene Aquifer System. The Forrest County aquifer tests of the Catahoula Sandstone, which is the lower unit of the Miocene Aquifer System, show hydraulic conductivities ranging from 18 to 170 ft/day. Hydraulic conductivities average 95 ft/day for the Miocene Aquifer System. Lithologic data indicates that the Miocene Aquifer system extends to a depth in excess of 1,000 feet below sea level with the base of fresh water occurring approximately 800 feet below sea level.

Underlying the Miocene Aquifer is the Vicksburg Group (undifferentiated), which is generally composed of limestone beds alternating with thin beds of limy sand and clay. The clay formations effectively isolate the overlying Miocene Aquifer System.

The Hattiesburg Formation and the Catahoula Sandstone are considered as a single hydraulic unit, referred to as the Miocene Aquifer System. The first water-bearing unit occurs in the

surficial aquifer (Hattiesburg Formation) at a depth ranging from approximately 25 to 30 feet below the land surface. The depth to the aquifer, from the lowest known point of hazardous substances at the site to the top of the aquifer, is approximately 14 to 19 feet.

The unsaturated zone (i.e., the zone between the lowest known point of hazardous substances and the top of the aquifer) consists primarily of sandy silts, silts, and silty clays. The lowest hydraulic conductivity layer (i.e., silty clays) is approximately 1×10^{-6} cm/s, and has an approximate thickness of 3 to 5 feet.

The United States Geological Survey (USGS) identifies the following public water supply wells within the four-mile radius:

Eleven (11) wells for the City of Hattiesburg which serve a population of approximately 38,570 persons (14,500 connection x 2.66 people per household - 1980 census). The water from the City of Hattiesburg wells is mixed/blended into one distribution system.

Two (2) Central Water Association wells which serve a population of approximately 865 persons (325 connections x 2.66 people per household). The water from the wells is mixed/blended into one distribution system.

Two (2) Palmers Water Association wells which serve a population of approximately 1,250 persons (470 connection x 2.66 people per household). The water from the wells is mixed/blended into one distribution system.

Three (3) Lamar Park Water Association wells which serve a population of approximately 2,926 persons (1,100 connections x 2.66 people per household). The water from the wells is mixed/blended into one distribution system.

The City of Hattiesburg wells, the Central Water Association wells, the Palmers Water Association wells, and the Lamar Park Association wells supply a total population of approximately 43,611 persons. These wells are screened from approximately 330 feet below the land surface to a maximum depth of approximately 665 feet.

The USGS identifies approximately 62 domestic/private wells occurring within the four-mile radius that serve a total population of approximately 165 persons (62 wells x 2.66 people per household).

The nearest drinking water wells occurring are located within the 1 to 2 mile radius. One of the wells is a City of Hattiesburg well located approximately 1.5 miles east of the site. The well extends to approximately 485 feet below the land surface, with the top of the screened interval occurring approximately 435 feet below the land surface.

The USGS identifies three (3) domestic/private wells within the ½ to 1 mile radius. These wells were no longer in use.

The USGS also identifies a number of irrigation wells within the 4-mile radius that supply water to commercial food crops and/or commercial forage crops.

During the State of Mississippi investigation of the same area, the Mississippi Department of Environmental Quality (MDEQ) installed two temporary wells to test the groundwater. Seven soil/sediment samples and three groundwater samples were collected. The results are shown in Table 3 and the sample and well locations are shown on the Master Site Plan (see Exhibit A). The samples in the downstream sediment and the soil-source area again showed elevated levels of creosote constituents.

4.0 RESULTS OF INVESTIGATION

4.1 Aerial Photographs

One of the primary objectives of this investigation was to define the shape and constituents of the Gulf States Creosote Company treatment plant. EPS obtained aerial photographs from the years 1942, 1958, 1961, and 1964 which explicitly show the components of the plants and creosote ties storage areas.

The plant consisted of the following components:

1. Treatment Rooms with Oil Tanks
2. Oil Dumping Tank
3. Steel Oil Storage Tanks
4. Planning Mill
5. Boring Room
6. 120,000-Gallon Reservoir
7. Shavings Room
8. Mixing Rooms
9. Warehouse
10. Rail Lines and Storage Yards (Drip Areas)
11. Settling Basin

The plant process area was between Scooba Street and Timothy Avenue (installed in the 1960's). In the 1920's the plant production area was between Pine Street and the Southern Railroad. However, during the 1930's, 1940's, and 1950's the plant occupied an area to Corinne Avenue. The 1942 photograph indicates that during the war years the storage area was expanded to the southeast. Of the 70± acres leased by Gulf States, approximately 50 acres is known area for drippings from ties, plant process areas or known contamination areas discovered by government agencies.

The 1958 photo shows the settling basin (potentially the area for high levels of contamination) to be 70' x 110' x unknown depth. In the later photo (1964) this area had been altered and the tracks removed. Exactly where all waste material was disposed is uncertain at this time.

4.2 Sanborn Maps

Included in the Appendix A are Sanborn Maps for the years 1925, 1931, 1949, and 1966, which correlate directly with the aerial photographs obtained. Sanborn Maps were originally used for fire insurance determinations. The settling basin is shown on the 1949 Sanborn Map and the 1958 Sanborn Map and the 1958 aerial photograph. A network of 6-inch water lines crisscrosses the site. The site also had oil dumping tanks and a flare or stack (see older plant photographs in Appendix A). As indicated by the 1949 Sanborn Map, the tie yard extended to 32nd Avenue (now Corinne Avenue).

The 1966 Sanborn Map shows an office building and an automobile sales and service building constructed on the east side of Pine Street between Scooba and Timothy Streets. South of Timothy Street, an automobile sales and service, a used automobile sales, a tire sales and service center, and a wholesale glass warehouse were built (between 1960 and 1966). This information agrees with the data from the aerial photograph of 1964.

A check of the city directories for Hattiesburg from 1962 to 1964 indicated the following motor companies located along Pine Street.

Ryan-McArthur Motors

- 1962; 401-403 West Pine Street
- 1963; 1501 West Pine Street
- 1964; 1501 West Pine Street

Hensen Ford

- 1962; 111-115 Hardy Street
- 1963; 1400 West Pine

Woodruff Ford

- 1964; 1400 West Pine

Steadman Volkswagen

- 1964; 1421 West Pine

4.3 Site Walkover

On June 24, 1993, and later in early August, 1993, a site review and walkover of vacant areas of the original Gulf States Creosote site was conducted by Robert W. Pappenfort, P.E., Engineering Manager, Environmental Protection Systems, Inc., Jackson, Mississippi. Most of the area is covered with asphalt and commercial properties. Some of the area is vacant and overgrown with trees and brush. The waste disposal area along the creek is adjacent to the wooded area east of Corinne Avenue. A creosote odor was noticed along the creek, but no other evidence of creosote was noticeable in the woods or in the area of the mortar patch along the creek (see photographic log). Some remnants of the rail tracks were evident in the woods (concrete pillars).

It should be noted that in the 1958 aerial photograph the area where the waste is located now is wooded along the creek. In order for a party to dump the waste in that location, all trees would have to be removed in 1960-1961. This does not seem likely. It seems more likely that the waste migrated to the present location from another source. Thirty-two years would allow ample time to migrate from the plant process area, approximately 2,200 to 2,400 feet, or much less if the source is closer.

Rate of Migration = $2,400 \text{ ft}/32 \text{ yrs.} = 75 \text{ ft./yr.} = 0.205 \text{ ft./day} = .205 \text{ ft./day} \times 30.48 \text{ cm/ft.} \times 24 \text{ hrs/day} \times 1 \text{ hr}/60 \text{ min.} \times 1 \text{ min}/60 \text{ sec.} = .0416 \text{ cm/sec.} = 4.16 \times 10^{-2} \text{ cm/sec.}$ (Required Permeability of Conduit)

4.4 Estimated Waste Cleanup Volumes

According to the EPA study dated May 9, 1990, the volume of waste creosote in place along Gordon's Creek is somewhere between 7,200 cubic yards and 12,000 cubic yards. If soil is estimated to weigh 130 lb./ft.^3 , the total weight for disposal is 12,636 tons to 21,060 tons of waste creosote.

The aerial extent of the known contamination is approximately 450 feet long by 200 feet wide and if an average depth of 10 feet is assumed, this makes the possible maximum waste volume much greater at 33,333 cubic yards.

The State of Mississippi report indicated the area of contamination to be $75,000 \text{ ft.}^2$ with an average depth of 10 feet or 27,777 cubic yards of waste ($\sim 48,749$ tons).

4.5 Interview and Other Persons Involved in the 1960's

During the course of this investigation a number of names of persons involved in city affairs during the early 1960's was compiled. In the January 7, 1960 Hattiesburg American, the names of the Industrial Committee of the Chamber of Commerce was published as follows:

	<u>Name</u>	<u>Phone Number</u>
1.	J. Ed Turner	268-7900
2.	Austin N. Ferrell	584-9379
* 3.	J. D. Barron	
4.	W. H. Clinton	
* 5.	George B. Denham	
* 6.	L. Y. Foote (Wife Living)	582-1370
7.	J. D. Lewis	
8.	Frank D. Montague, Jr.	544-1234
9.	C. C. Smith	
* 10.	Harvey West	268-6961
* 11.	Shelby Boling	583-2084
* 12.	M. D. Brett	
* 13.	J. Frank Brown	
* 14.	R. T. Carlisle	
* 15.	Dillard McMullan	
* 16.	L. E. Rhian, Sr.	584-7711
* 17.	Jerome B. Ryan	264-4535
* 18.	Marshall C. Smith, Jr.	264-7757
* 19.	John M. Tatum	268-3187
20.	W. A. Thompson	582-3119
* 21.	H. W. Watson	
22.	H. L. Welch	264-5767

* Indicates Deceased

Of this group, J. Ed Turner, Austin Ferrell, and Mrs. L. Y. Foote were interviewed; however no information about the Gulf States Creosote plant demolition was obtained.

The City Planning Commission on January 20, 1962, was composed of:

- John M. Tatum
- Mrs. Grady Cook
- Bobby Chain
- Robert Delmas

- Reed Green
- Mike Stetelman
- Mrs. Howard Williams

Other city officials and staff are shown on the following two pages. These persons, if living, may have knowledge of the Gulf States plant demolition.

Other parties who may have information are:

1. **Richard Simmons** - Engineer who purchased records of R. L. Morrison (former school board chairman and engineer who put in sewer lines in the Gulf States Creosote Plant area and along Pine Street.
2. **Wiley Fairchild**
3. **Plant Superintendents of Gulf States**
 - 1950 - Max E. Warren
 - 1953 - Walter K. Langley
 - 1954-55 - Jay T. Liddle
 - 1956 - W. W. McLelland
 - 1958 - Robert J. Rayburn
 - 1959 - Walter K. Langley
 - 1961 - Robert L. Sellars
 - 1962 - Plant Closed
4. **City Engineers**
 - John Ward
 - Joe Meador
 - George James
5. **City Clerk (Hattiesburg)**
 - Betty Mott 545-4554
6. **McClain Library (Municipal Records Archives)**
 - Terry LaTour
 - Yvone Arnold



CITY DEPARTMENT HEADS AND STAFF



Department Heads and Staff. Seated, front row: Mrs. Martin, Mrs. Carolyn Robinson, Miss Lena Waites, Frank Rasberry, J. R. Estes, John R. Jackson. Back row standing: Mrs. Frances Meador, Mrs. Mary Hanna, Felder M. Kirkpatrick, Nyles K. Russell, Floyd Pace, Frank Blakely, Charles Haralson, Conrad Nordholm, L. A. Wood, Jimmy Brown, Glover Anderson and Mrs. Georgia Tracey. Francis Zachary, Mrs. Mildred Norris, J. K. Travis, Jr., Hugh Herring and Douglas Holcomb were not present for the photograph.

Attorney, City	Francis T. Zachary	Kamper Park	Douglas Holcomb
Attorney, Prosecuting	J. K. Travis, Jr.	Library	Mrs. Georgia Tracy
Auditor	Walter P. Jones, Jr.	Mayor's Secretary	Mrs. Kathi Martin
Bookkeeping Department	Nyles K. Russell	Plumbing Inspector	Edward Massengale
Building Inspector	David C. Bass	Police Department	Hugh Herring
Cemeteries	Floyd Pace	Public Works Department	Frank Rasberry
Civil Defense	Conrad F. Nordham	Purchasing	Charles Haralson
Deputy City Clerks	Mrs. Frances Meador and Mrs. Mary Hanna	Recreation Department	Jimmy Brown
Electrical Inspector	Ralph Brehany	Sanitary Department	John G. Anderson
Engineering Department	James Estes	Secretary to Mr. Patterson	Mrs. Carolyn Robinson
Fire Department	John Jackson	Tax Assessing Department	L. A. Wood
Judge, Municipal Court	Mrs. Mildred Norris	Tax Collection Department	Lena Waites
Juvenile Officer	McLvin S. Parker	Water Department Office	Frank Blakely
		Water Department Plant	F. M. Kirkpatrick



CITY BOARDS AND COMMISSIONS

HOUSING AUTHORITY BOARD

G. C. Myrick
Hugh D. Buchanan
W. R. Anderson
W. T. Russell
T. Roscoe Hearon

POLICE AND FIREMEN'S PENSION BOARD

Mayor Claude F. Pittman, Jr.
Commissioner W. P. Harrington
Commissioner C. B. Patterson
Ray Bryant
Charles Nicholas
Burl Pipkins
W. R. Powell

EMPLOYEES GROUP INSURANCE COMMITTEE

Hugh W. Herring
John R. Jackson
Nyles K. Russell

CIVIL SERVICE COMMISSION

Henry Holifield
John Ames
E. H. Ross, Jr.
Mrs. Mary Axford

ZONING BOARD

Ken L. Aikens
Mrs. E. C. Fishel
William M. Fairley
Ben T. Ferguson
R. T. Myers, Jr.

LIBRARY BOARD

Mrs. Annette Wilder
J. B. Waltman
Dr. R. C. Cook
Dave Adler
Mrs. Willeta Ison
James F. McKenzie
Mrs. Nollie Felts
J. W. McArthur
Frank H. Gardner, Jr.

ELECTRICAL CODE INSPECTION BOARD

Joe Sumrall
Malcolm Doleac
Jerry Coston
B. L. Chain
Ralph Brehany

BUILDING CODE INSPECTION BOARD

Emmett Landry
A. K. McInnis, Jr.
B. J. Beard
Bernard Berman
Louis Norman
David C. Bass

PLUMBING CODE INSPECTION BOARD

Carl Autry
Jimmy Cook
Bob Owen
Mike McElhaney
Pat Sellers
Steve Blair, Jr.
Edward Massengale

KAMPER PARK BOARD

Mrs. A. C. Moore
Mrs. W. E. Estes
Mrs. Bertha McInnis
Mrs. J. Gwyn Sartin
Mrs. O. D. Emerson
Mrs. James W. White
J. E. Bethea
M. A. Hale
Mrs. D. O. Segrest
J. C. Taylor
Miss Sarah Gillespie

PARKS & RECREATION BOARD

Dr. Claude Sarphie
Henry Holifield
Jack Gandy
E. W. Henderson
Mrs. R. L. Hooker
J. Warren McClesky
Dr. Lloyd Milam
Bernard Berman
Lawler D. Sharp
Edward Wentworth

SCHOOL BOARD OF TRUSTEES

Ralph Milloy
Frank M. Tatum, Jr.
C. D. Galey
A. J. Jones
C. L. Dews, Jr.

PLANNING BOARD

Mrs. Howard S. Williams
John M. Tatum
Mike Stetelman
Reed Green
Mrs. Grady Cook
B. L. Chain
Robert Delmas
M. D. Brett
Carl Matthes, Jr.
A. B. Cook
Hollis Brown

AIRPORT COMMITTEE

Dr. W. D. McCain
Dilliard McMullen
James R. Estes

A transfer of the Gulf States Creosote property to Industrial Park, Inc., a Mississippi Corporation, took place on June 28, 1960. The incorporators were:

1. Wiley Fairchild
2. Marcus London (Deceased)
3. J. W. Snowden
4. Mike Stetelman (Deceased)

American Creosote Corporation who owned the plant at that time was given eight months from which to remove personal property and equipment from the premises. The equipment was described in the deed conveyance as wood preserving supplies, inventory, and other such related property and specifically identified items in the contract for purchase. The waste disposition was not determined.

A newspaper article dated May 31, 1962, contains information in which the Mayor Claude F. Pittman, Jr. and Commissioners accepted 50-foot Right-of-Way Deeds from 62nd Street to N.O. & N.E. Railroad and another from Scooba Street to 62nd Street. The Industrial Park, Inc., pledged to extend Pine Street to Highway 49, which was completed by 1964 as indicated by the aerial photograph.

City affairs

Plan new streets in industrial park

Mayor Claude F. Pittman Jr. and Commissioners Harrington and Patterson Wednesday afternoon accepted deeds from Industrial Park, Inc., giving the city a 50-foot right of way from 62nd St. across to the New Orleans and Northeastern Railroad and another such right-of-way from Scooba to 62nd St.

The corporation plans to situate streets along these rights-of-way and in accepting the deeds the city assumes responsibility for maintenance after the developers have installed water and sewage facilities, gutters and curbs, etc. It is the same sort of setup as in the case of development of housing subdivisions.

Industrial Park, Inc. has pledged itself to extend West Pine St. all the way to the U. S. 49 by-pass. It will come out somewhere near the cloverleaf, but the final decision in this regard will depend on instructions from the State Highway Department, the mayor said.

Other matters handled during the weekly city council meeting included:

A. K. McInnis Jr., Hattiesburg contractor, who submitted low bid of \$61,290 was announced winner of the contract to expand and renovate that portion of City Hall facing on West Front St. The work will begin soon and the contracts

calls for completion in five months. Stuff, City Elevator Co. will install the elevator in the extension of the building. The company's bid was low. The amount was \$12,500.

There was some minor difficulty Wednesday in regard to the nickname of the mayor. He was named to fill the post until a special election is held July 27 and this was his second council meeting. On one occasion, Mrs. Frances Meador, in addressing

(Continued on page 2)

City
Attorney
Francis
T.
Zachary

5.0 RECOMMENDATIONS AND CONCLUSIONS

This investigation revealed the duration, composition, and aerial extent, in detail, of the Gulf States Creosote Company (1920-1960) operations in Hattiesburg, Mississippi. These are depicted in the Sanborn Maps and aerial photographs. The Corps of Engineers, U.S. Environmental Protection Agency (EPA), and State of Mississippi also delineated a creosote waste disposal area along Gordon's Creek estimated by government agencies to be between 12,000 to 28,000 cubic yards. The source of the waste along Gordon's Creek is not totally understood, but it is likely that this material migrated from another source area yet to be discovered. The U.S. EPA and State of Mississippi field work was not conclusive and was incomplete because no samples were taken in the process area (usually the most highly contaminated). Also, the EPA testing was not thorough, done in rainy periods, and conducted in January for compounds which may not be indicated in a soil gas test.

Therefore, based on the review of existing information and the residual evidence, EPS makes the following recommendations.

5.1 Development of Sampling Plan

The process area (between Scooba Street, Timothy Street, Pine Street, and the railroad should be thoroughly tested to determine if any major source of contamination exists where the settling basin and treatment rooms existed. EPS can develop the most efficient methodology for evaluating these process areas.

Other large drip and storage areas shown in red block areas on the Master Site Plan should also be evaluated as source areas. The most effective sampling and analysis plan should be developed for these areas.

A cost estimate and the best available remediation plan for the existing contamination should be developed.

A recent aerial photograph of the area should be taken to evaluate sampling and remediation location alternatives.

5.2 Continued Investigation

Continued review of city files and archived correspondence is necessary to help pinpoint possible source locations. Disposal of waste from demolition of the plant may have been accomplished at an off-site landfill. Information in Richard Simmons, Engineering files (files of R. C. Morrison) may have information concerning the excavation of city sewer line trenches through the Gulf States Creosote site. These trenches may be acting as conduits for any residual creosote deposited at the site, particularly if they were gravel-filled.

5.3 Closure Plan

A closure plan for existing contaminated soil should be developed, including removal of the waste from the flood plain and possible temporary waste storage. Creosote recovery techniques should be evaluated as possible alternatives.

5.4 Groundwater Monitoring Well Installation

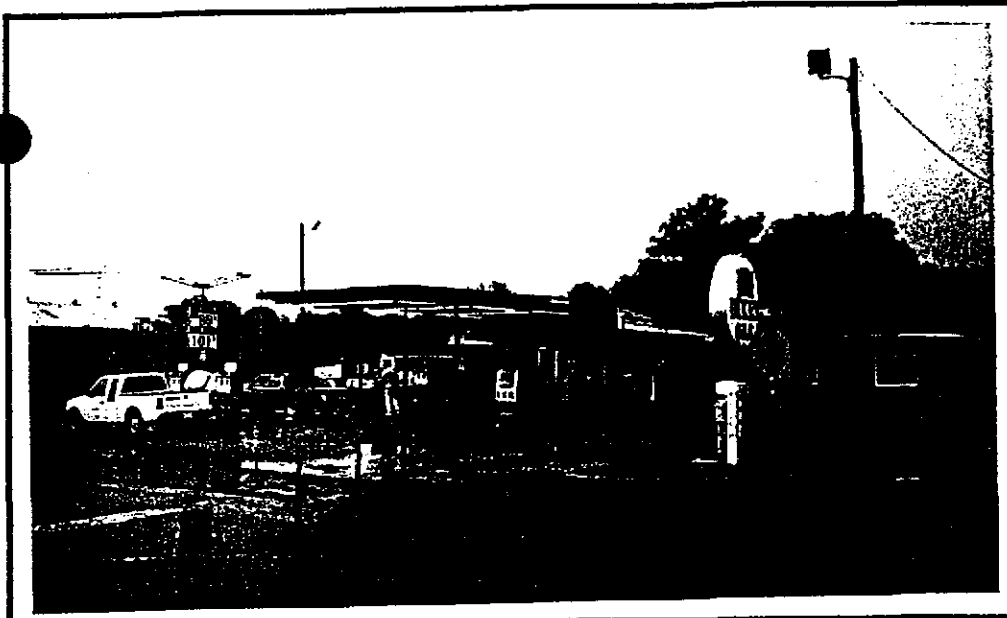
Groundwater in this area should be monitored periodically to determine the impact on the shallow groundwater since there are shallow drinking water wells in the area. A groundwater well plan should be developed after soil sampling and remediation activities are completed. Water supply wells in the area should continue to be tested periodically for creosote constituents.

APPENDIX B

**SITE MAP WITH PREVIOUS TESTHOLES
(SEE MASTER SITE PLAN EXHIBIT)**

APPENDIX C
PHOTOGRAPHIC LOG
(BUSINESSES ON SITE)

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 1

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Dixie Gas (Pearson's Dixie Mini Mart) (1326 West Pine Street, Northeast corner of Scooba and Pine Streets)

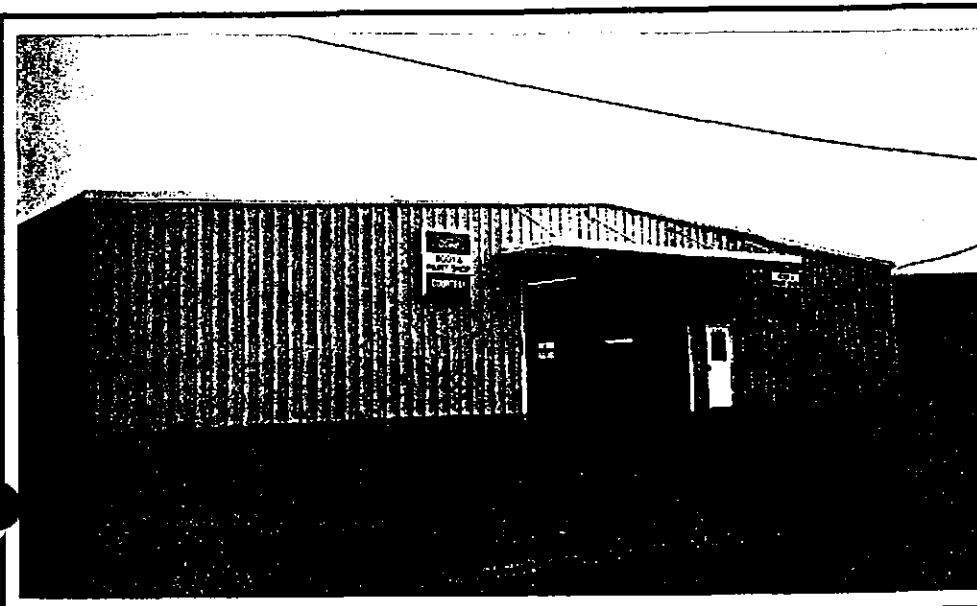


PHOTOGRAPH NO. 2

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Enterprise Rent-A-Car (1400 West Pine, Southeast corner of Scooba and Pine Streets)



PHOTOGRAPH NO. 3

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Courtesy Ford Body & Paint Shop (South side of Scooba Street)

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 4

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Ryan Supply Company
(1009 West Scooba Street)

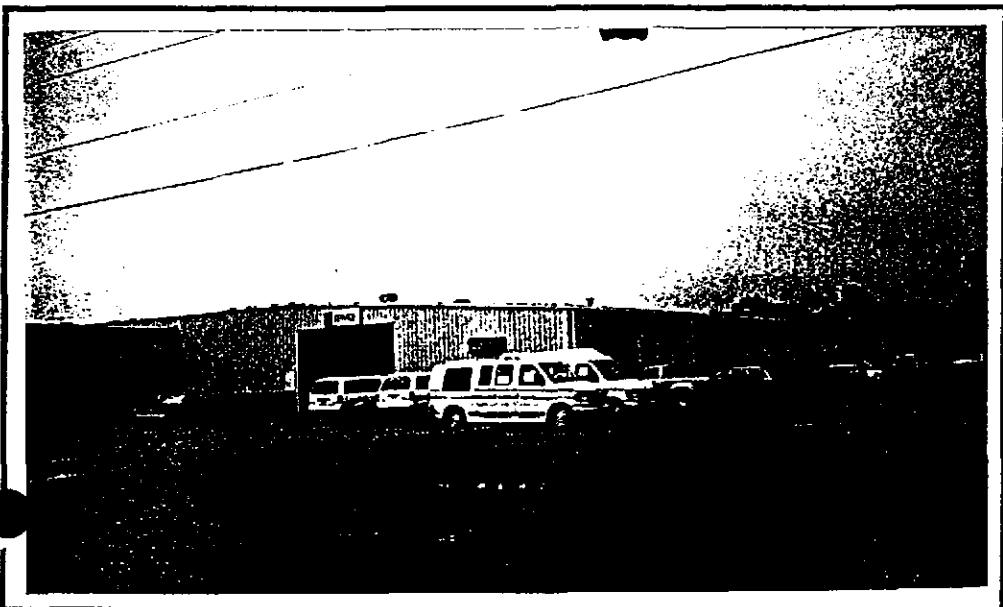


PHOTOGRAPH NO. 5

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Courtesy Ford (1410 West
Pine Street)



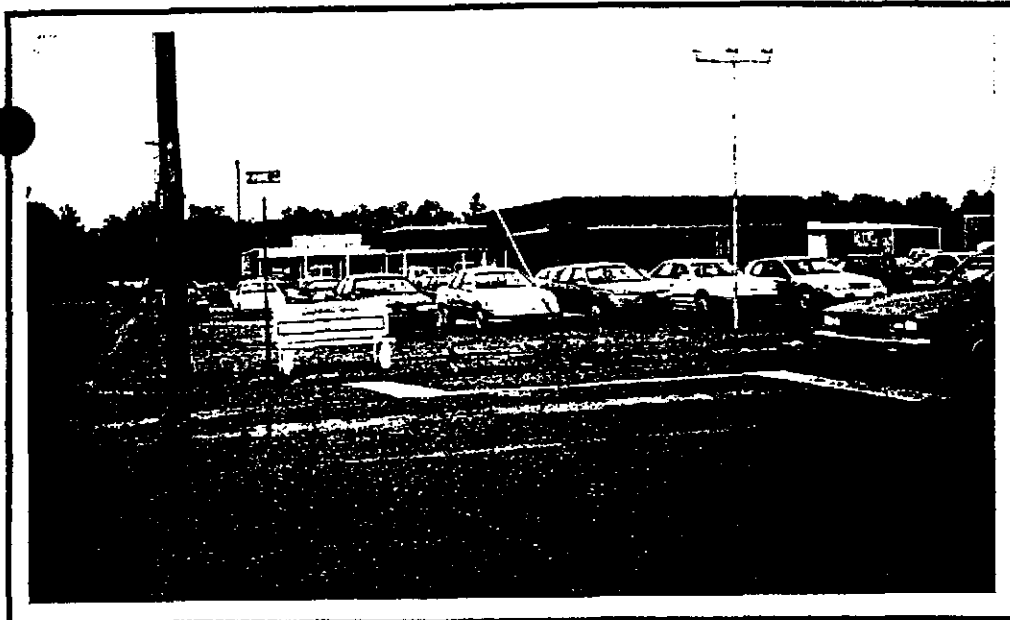
PHOTOGRAPH NO. 6

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Courtesy Ford (Service)
(Pine Street at Timothy
Street)

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 7

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Car Lot (1500 West Pine Street, South side of Timothy Street)

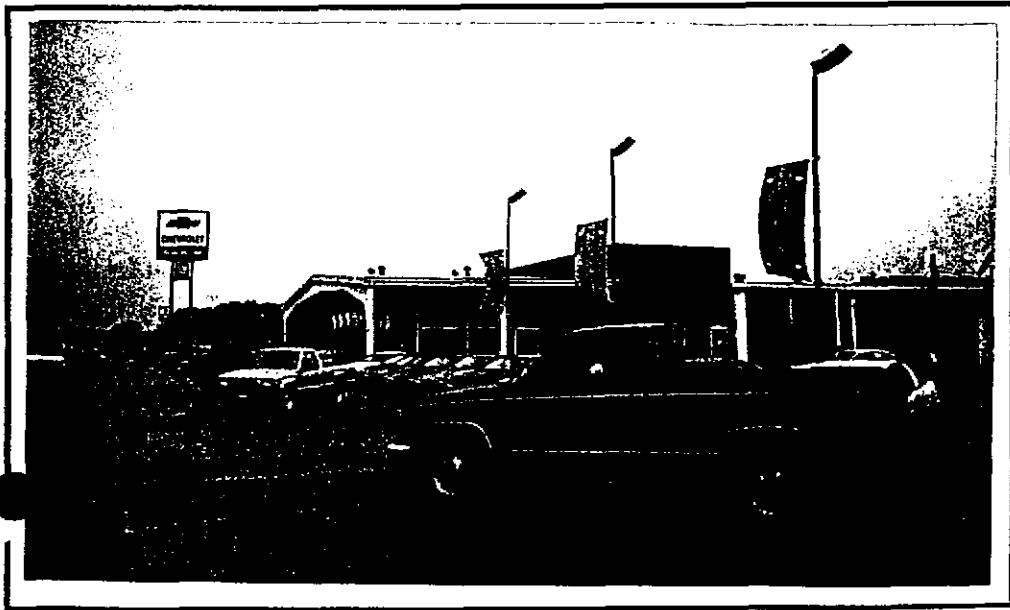


PHOTOGRAPH NO. 8

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Pine Street (looking southwest) ; Ryan Chevrolet (1501 West Pine Street)



PHOTOGRAPH NO. 9

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Ryan Chevrolet (1501 West Pine Street at Timothy Street)

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 10

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Martin J. Mazda-Suzuki-VW
(1421 West Pine Street at
Timothy Street)

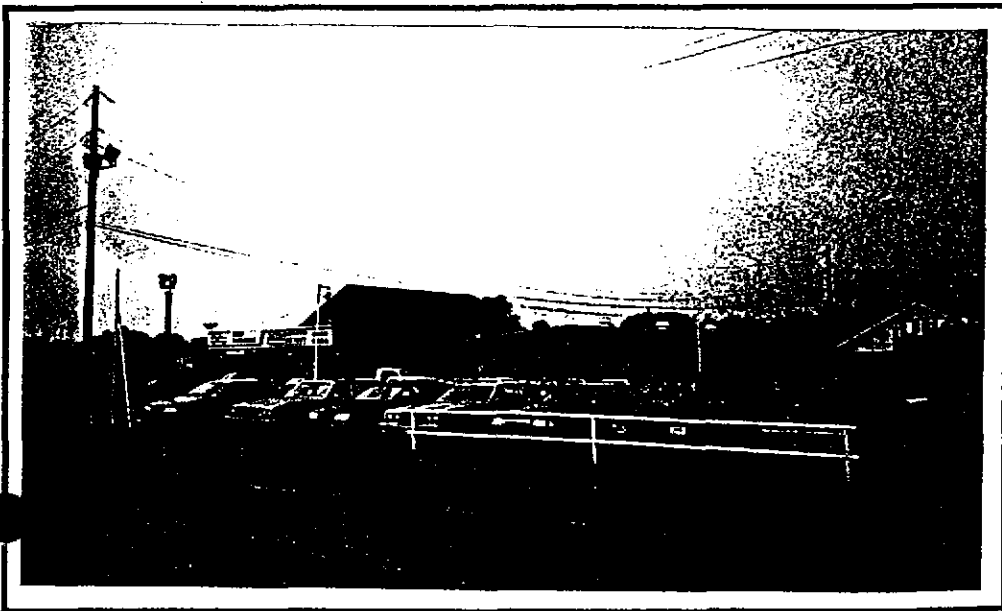


PHOTOGRAPH NO. 11

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Courtesy Ford/Martin Mazda/
Petro Nissan-Olds (1419
West Pine Street)



PHOTOGRAPH NO. 12

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Petro Car Rentals, Used Cars,
Body Shop (Pine Street)

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 13

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Dearman Auto Sales (1512 West Pine Street) / Hattiesburg Beverage Company (1000 63rd Street)



PHOTOGRAPH NO. 14

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Sunflower Grocery / Shopping Mall (West Pine Street across from Dearman Auto Sales)



PHOTOGRAPH NO. 15

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Ryan Used Car Center (1501 West Pine Street)

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 16

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Speak Easy Lounge (Southwest end of Pine Street)



PHOTOGRAPH NO. 17

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Toyota of Hattiesburg (1620 West Pine Street)



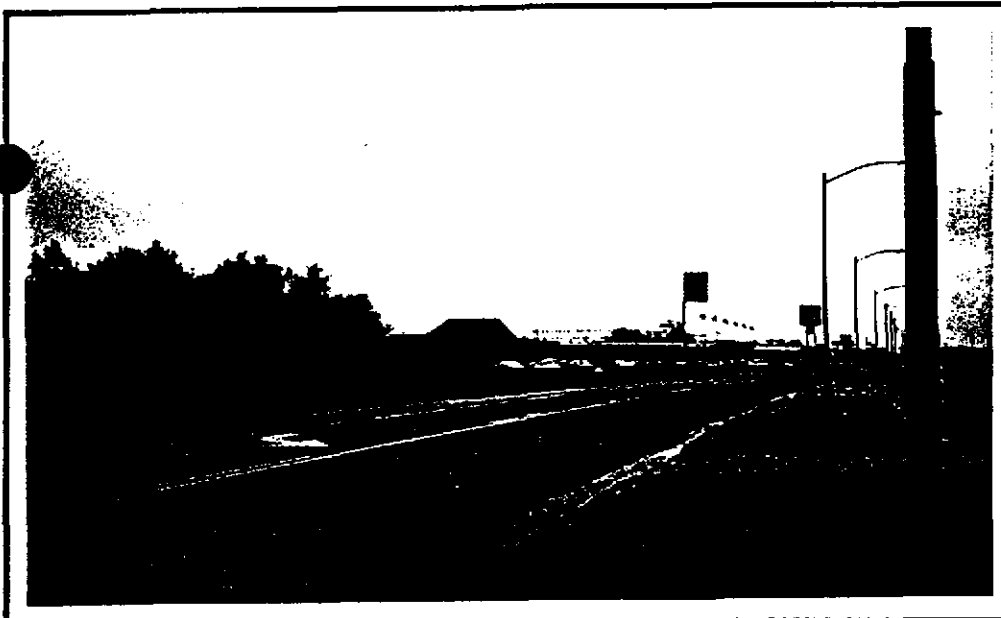
PHOTOGRAPH NO. 18

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Wooded area (Southwest of Toyota dealership)

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 19

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Pine Street looking north-east

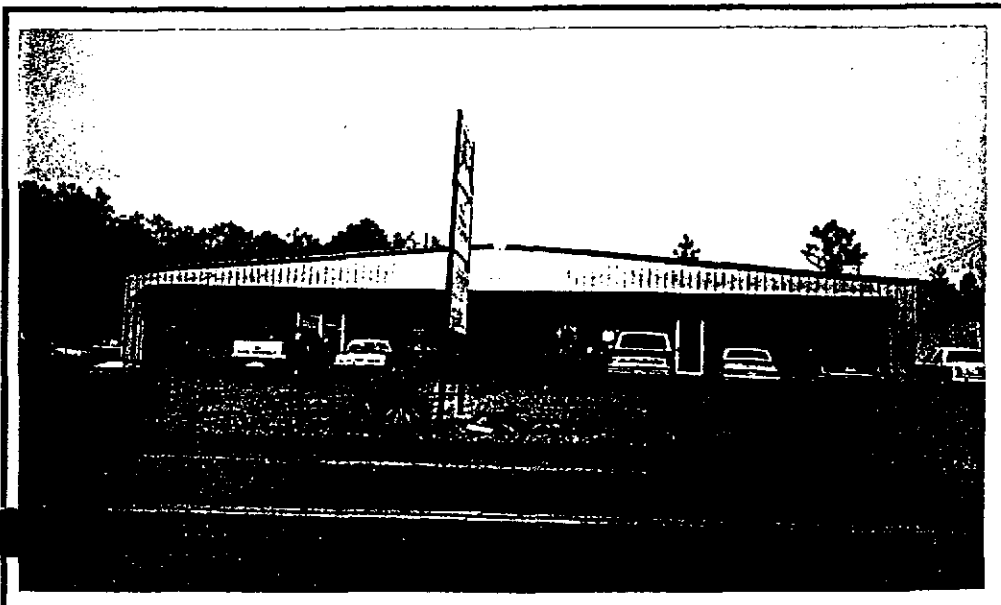


PHOTOGRAPH NO. 20

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Poncho's Car Rentals and Sales (1908 West Pine Street)



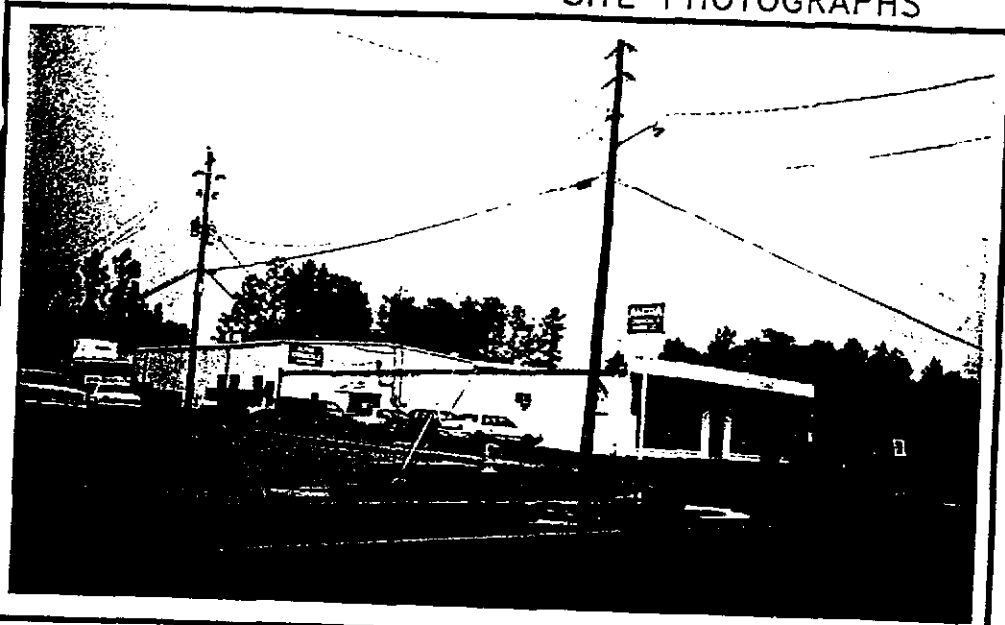
PHOTOGRAPH NO. 21

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Clothing store (West Pine Street)

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 22

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Alpha Chemical and Paper Company (1914 West Pine Street)



PHOTOGRAPH NO. 23

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Ryan Motors and Body Shop (1501 West Pine Street)



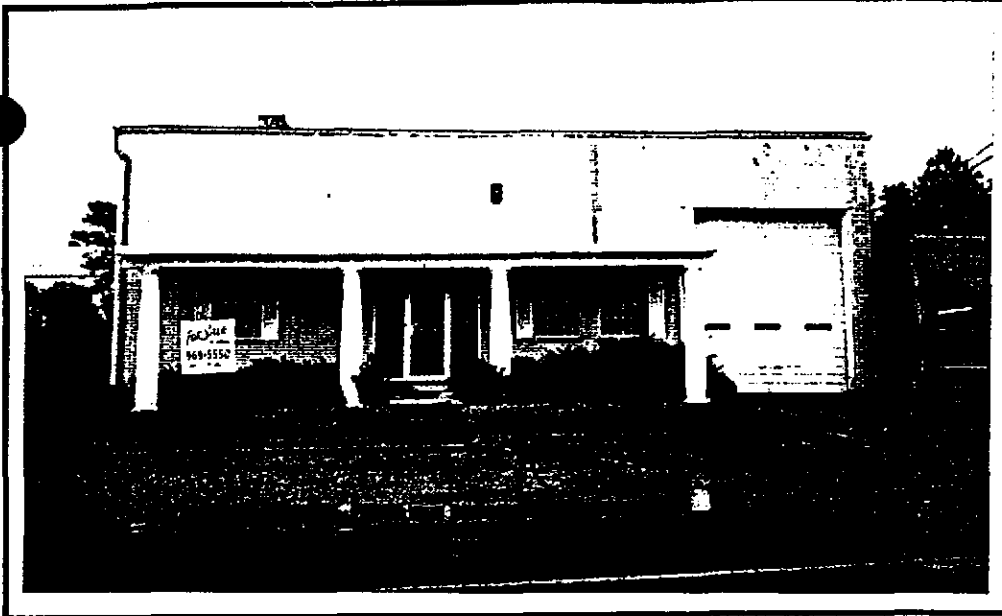
PHOTOGRAPH NO. 24

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Pine Street looking north-east

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 25

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Vacant building (next to Today Rental)

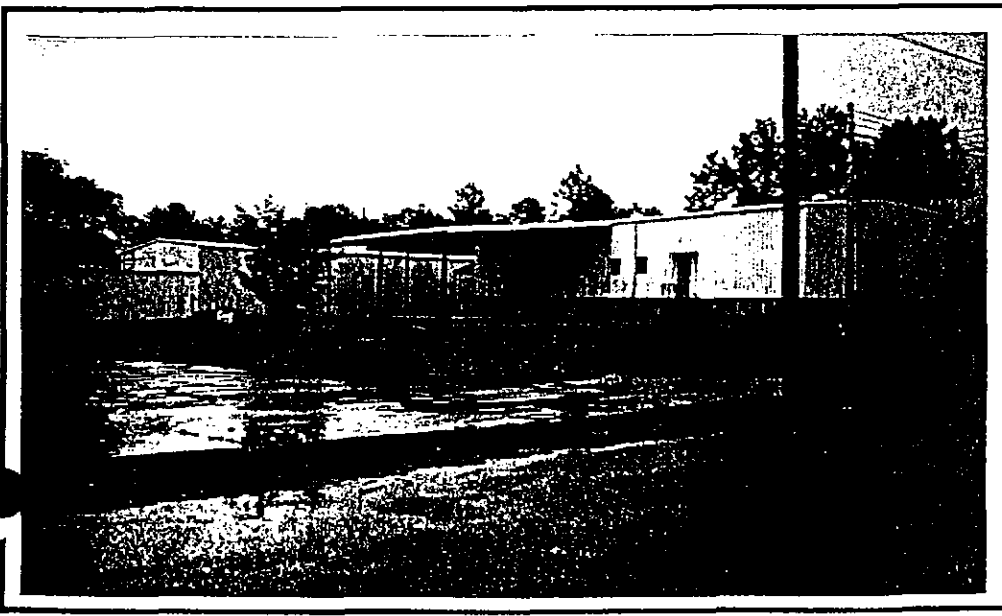


PHOTOGRAPH NO. 26

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Abandoned gas pumps next to vacant building



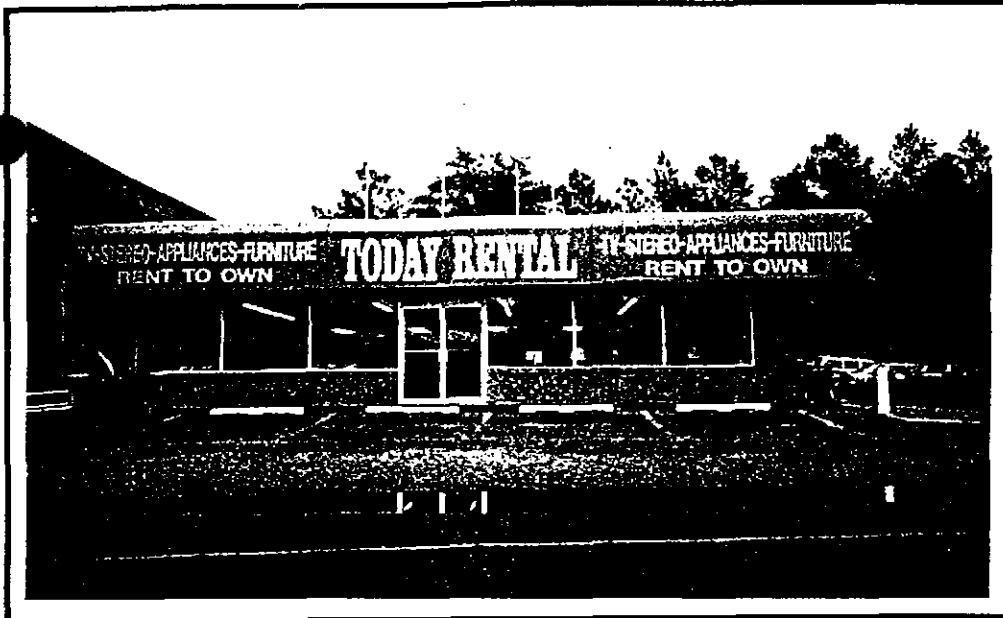
PHOTOGRAPH NO. 27

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Trailer next to abandoned gas pumps

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 28

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Today Rental (2002 West Pine Street)

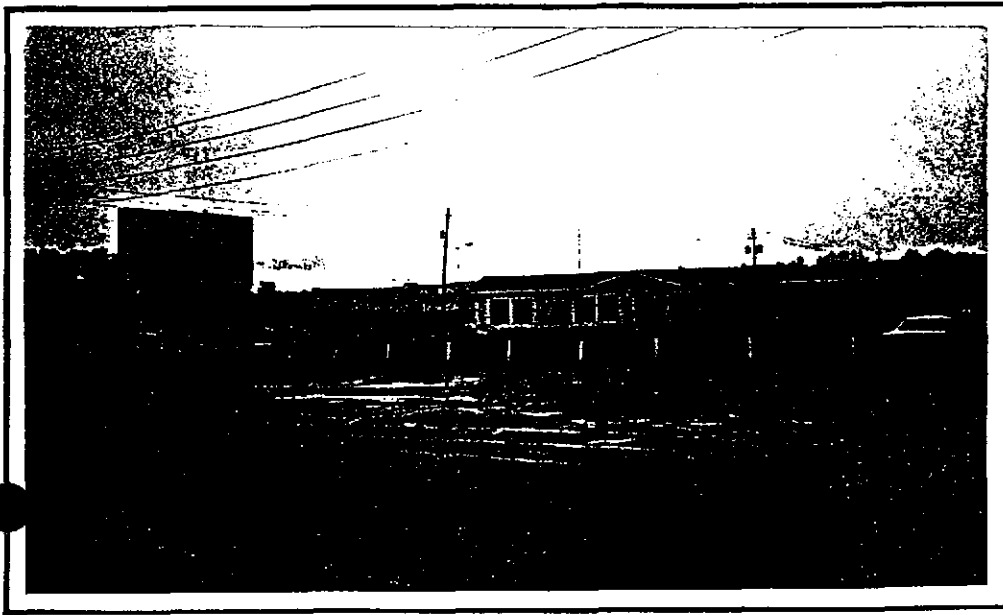


PHOTOGRAPH NO. 29

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Amoco Station (2000 Pine Street at Highway 49)



PHOTOGRAPH NO. 30

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: K Mart and AAA Mobile Home sales across from Amoco (north)

SITE PHOTOGRAPHS

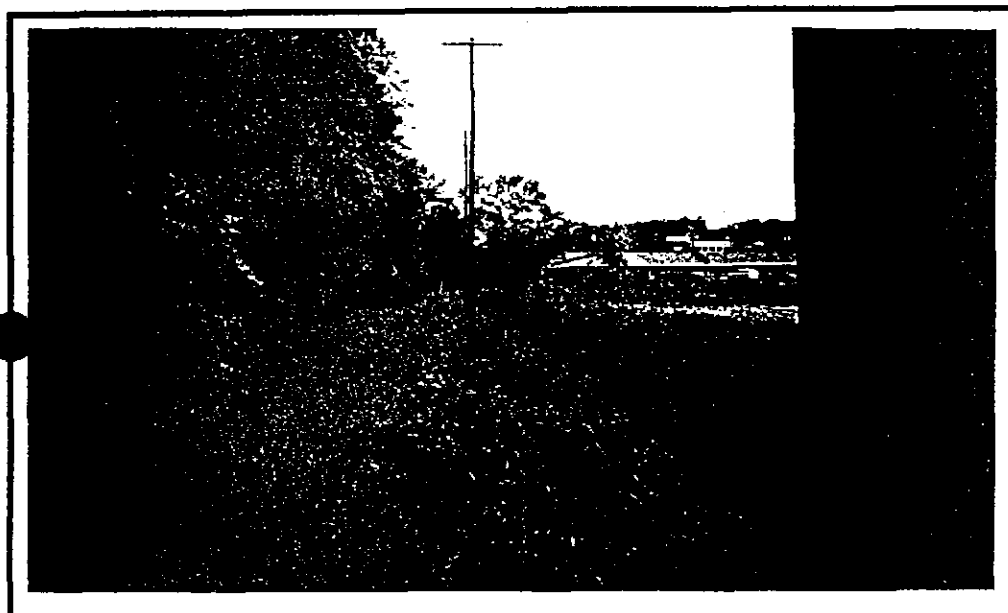


PHOTOGRAPH NO. 31

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Vacant ground between Amoco and Highway 49 (2000 block of West Pine Street)



PHOTOGRAPH NO. 32

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Ditch southwest of Corrine Avenue flowing into Gordon's Creek



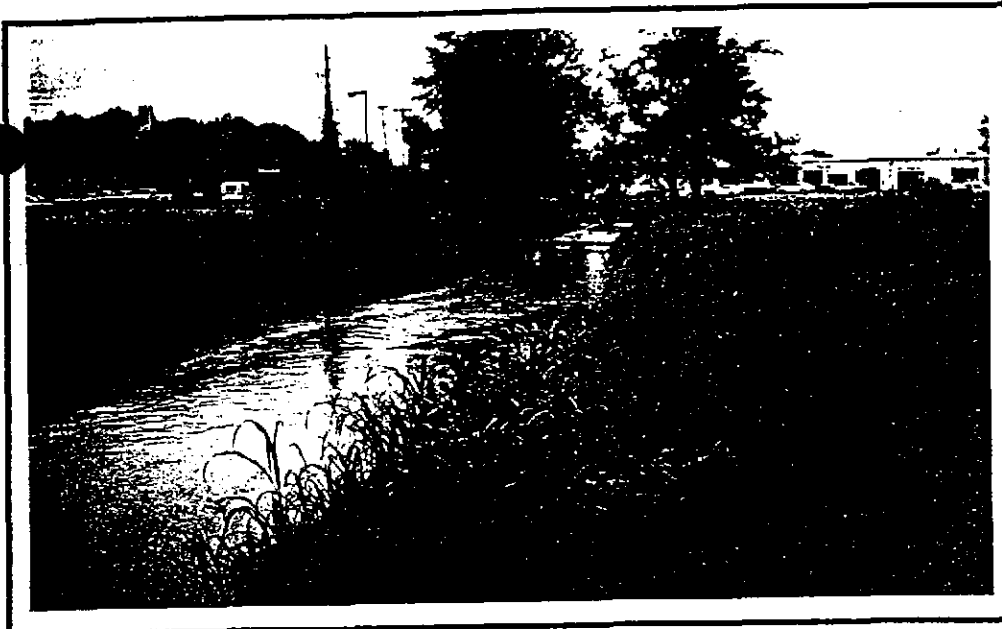
PHOTOGRAPH NO. 33

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Concrete manhole in woods southwest of Corrine Avenue

SITE PHOTOGRAPHS

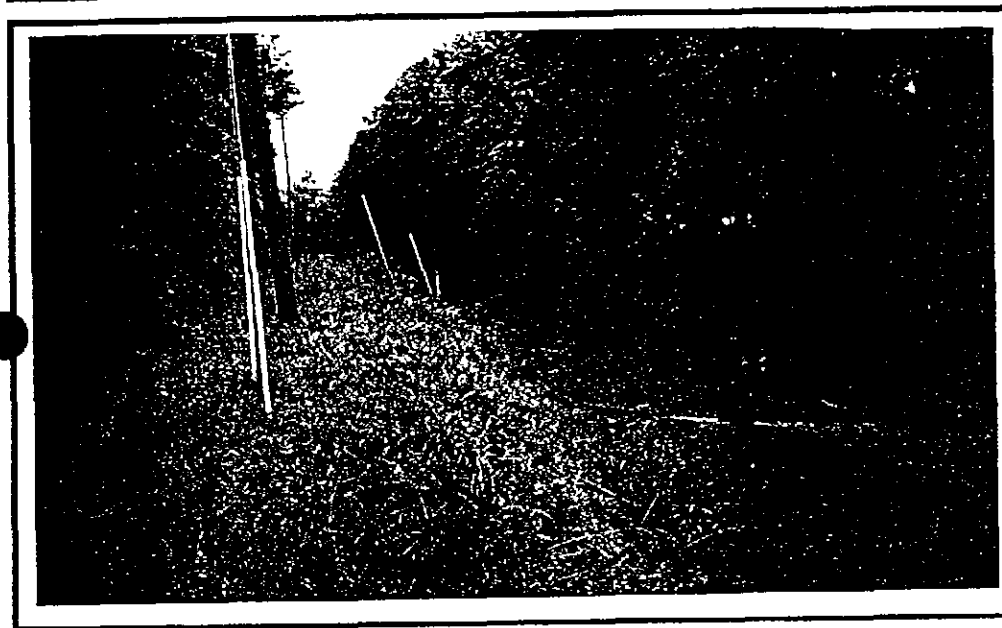


PHOTOGRAPH NO. 34

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Gordon's Creek flowing north

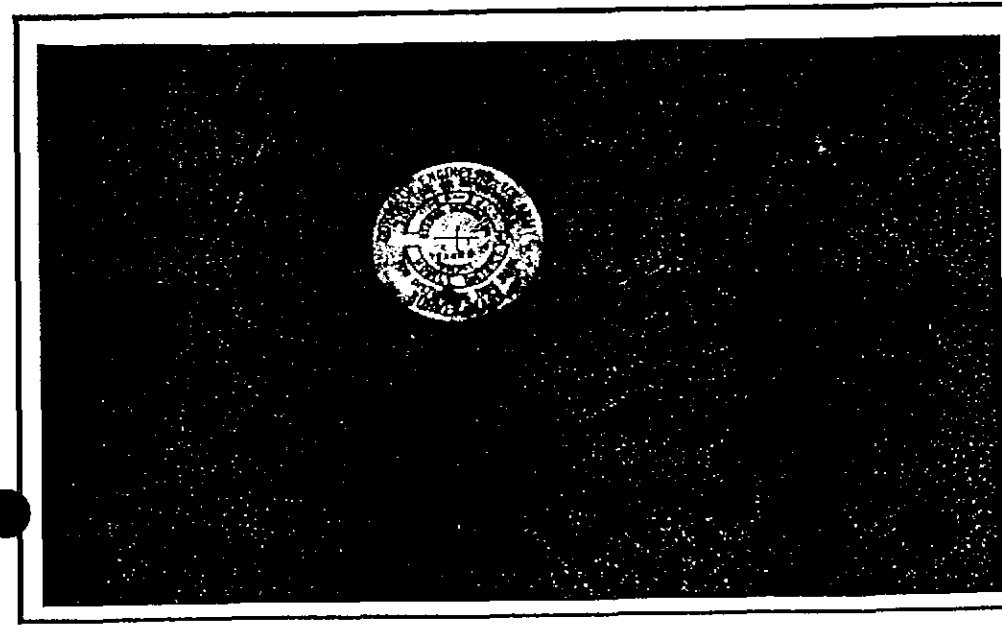


PHOTOGRAPH NO. 35

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Gordon's Creek looking south (sewer on left)



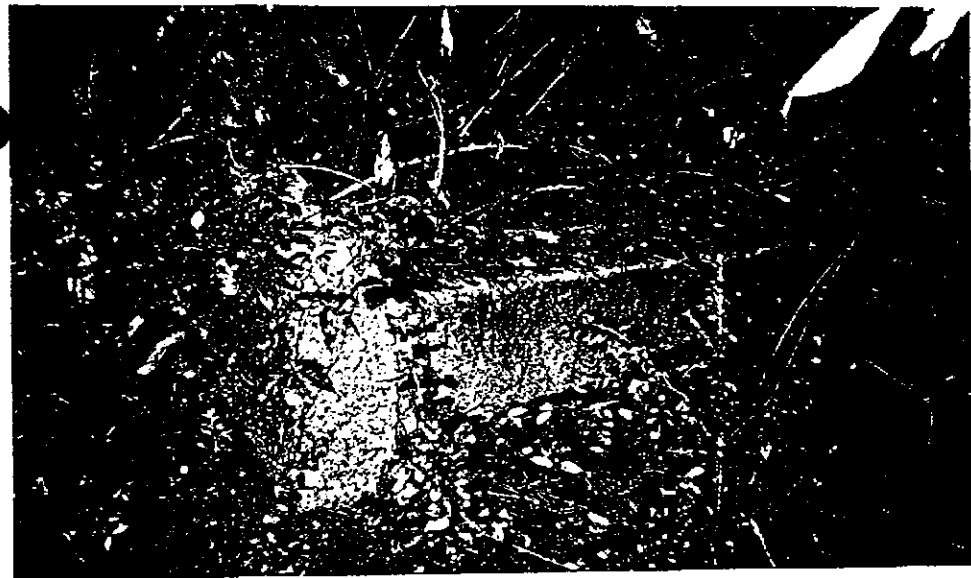
PHOTOGRAPH NO. 36

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Corps of Engineers' survey marker along creek

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 37

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Railroad debris in woods along creek



PHOTOGRAPH NO. 38

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Concrete slabs in woods along creek



PHOTOGRAPH NO. 39

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Patch on Gordon's Creek

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 40

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Patch on Gordon's Creek
(looking north)



PHOTOGRAPH NO. 41

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Drainage ditch to Gordon's
Creek due east of patch



PHOTOGRAPH NO. 42

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Concrete debris in woods
southwest of Corrine Avenue

SITE PHOTOGRAPHS



PHOTOGRAPH NO. 43

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Rear of Ryan Chevrolet /
Toyota of Hattiesburg

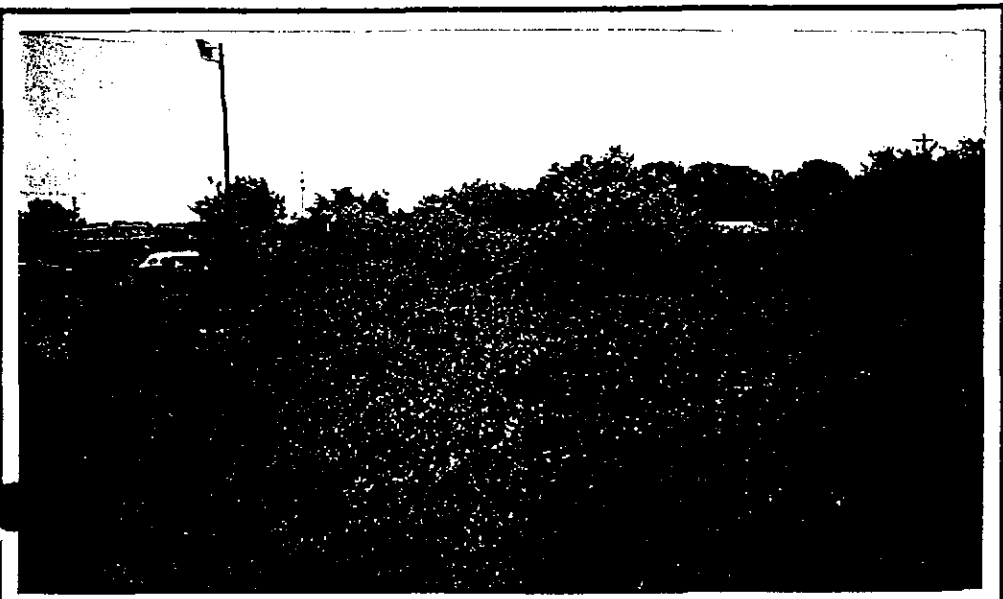


PHOTOGRAPH NO. 44

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Rail spur southwest of
Courtesy Ford



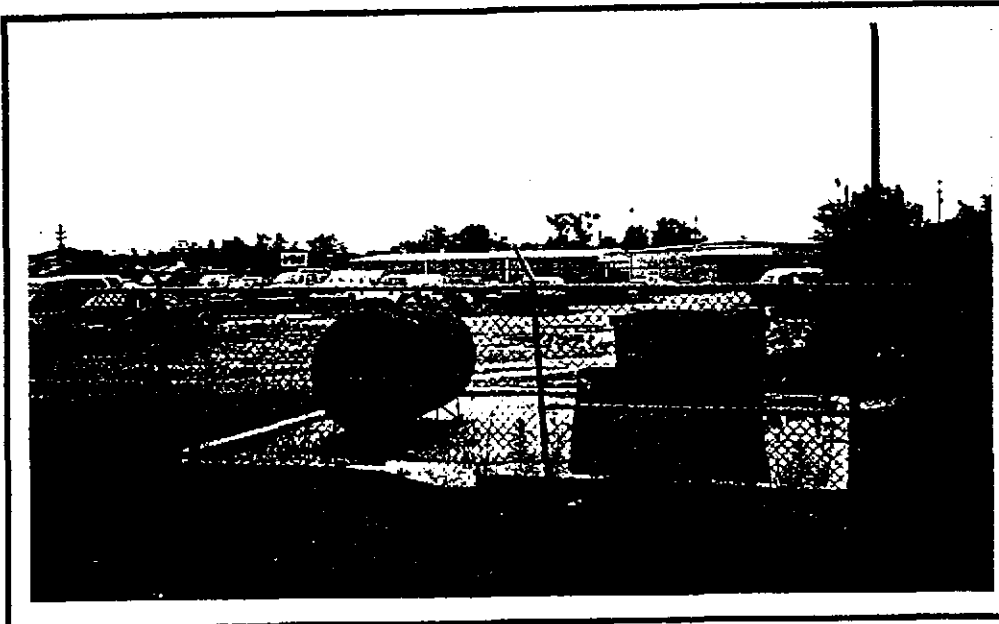
PHOTOGRAPH NO. 45

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Area between Courtesy Ford
and rail line

SITE PHOTOGRAPHS

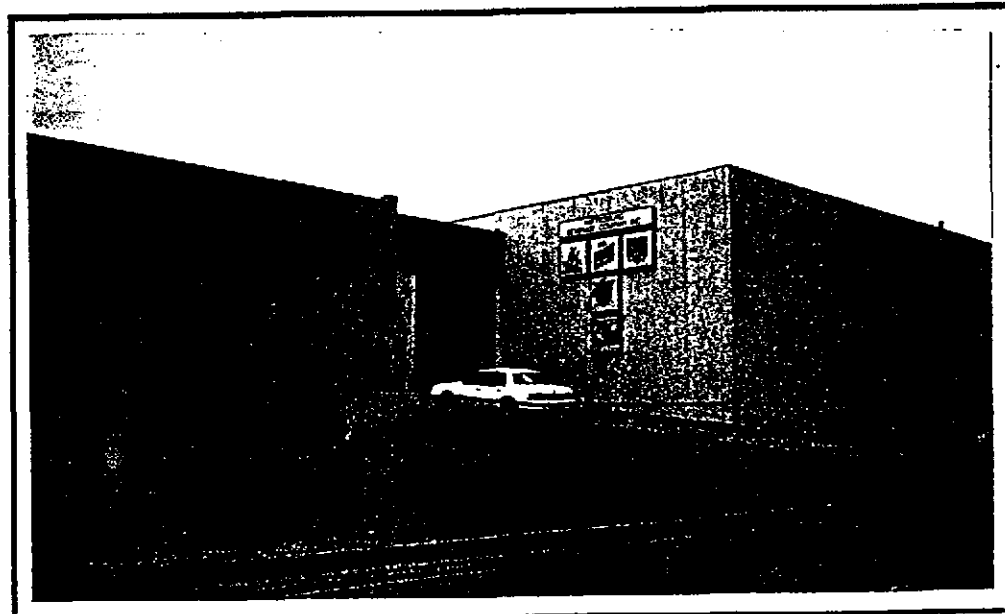


PHOTOGRAPH NO. 46

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Oil tank / Back lot of
Courtesy Ford

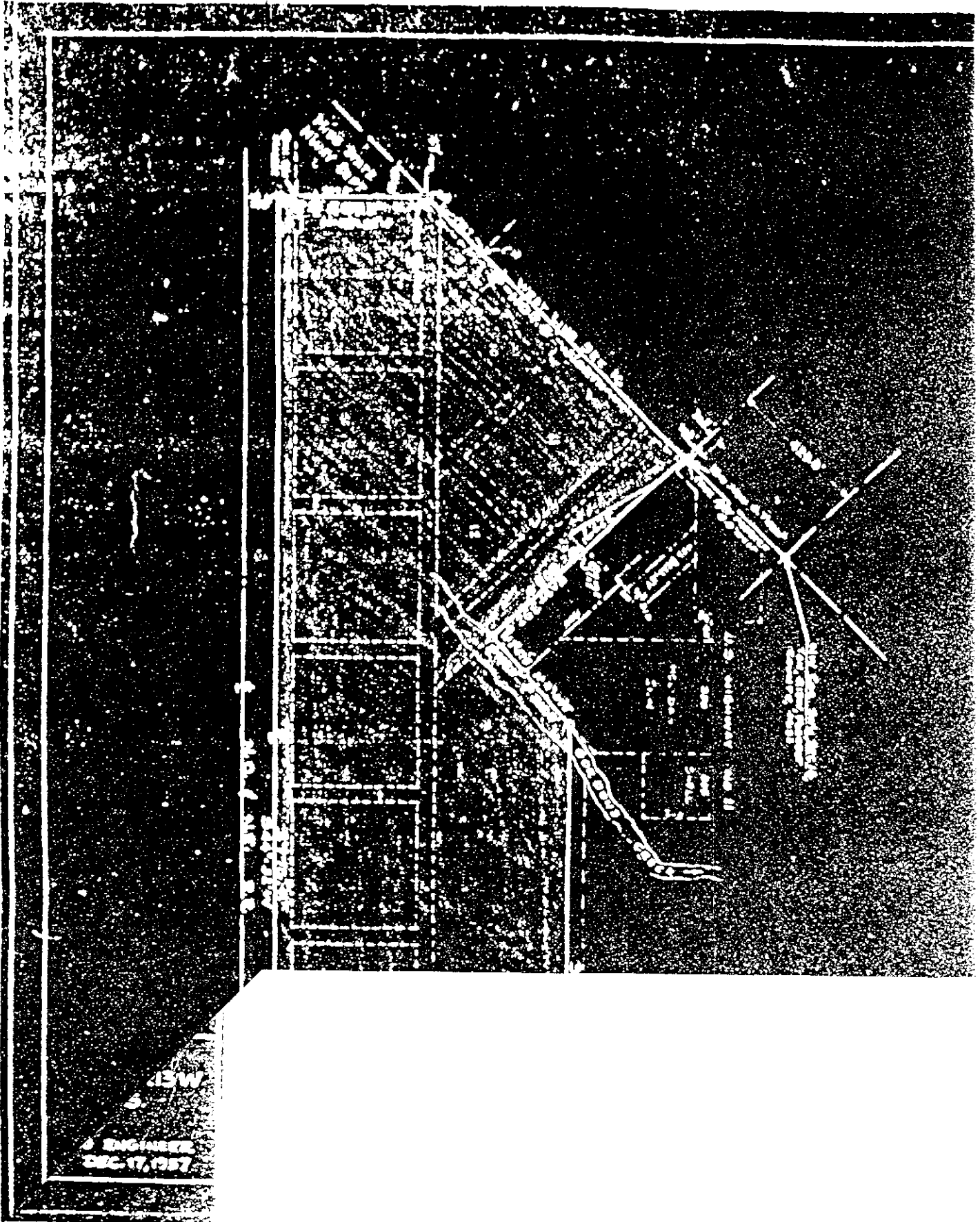


PHOTOGRAPH NO. 47

Date: June 24, 1993

Location: Gulf States Creosoting Co.

Description: Hattiesburg Beverage
Company (63rd Street)



15W
ENGINEER
DEC. 17, 1957

APPENDIX E

**AERIAL PHOTOGRAPH LIST OF SECTION 16 LAND
(HATTIESBURG, MISSISSIPPI)**

APPENDIX E

LIST OF AERIAL PHOTOGRAPHS OF SECTION 16 LAND
HATTIESBURG, MISSISSIPPI

EPS Project No. 1.V7101.001

SOURCES OF AERIAL PHOTOGRAPHS

1. Department of the Interior
U.S. Geological Survey
Reston-ESIC
507 National Center
Reston, VA 22092

Attn: Rea Mueller
Phone: 703-648-5954
703 860-6045
2. Agricultural Stabilization and Conservation Service
Aerial Photography Field Office
P.O. Box 30010
Salt Lake City, UT 84130-0010

Phone: 801-975-3503
3. National Archives and Records Administration
Cartographic and Architectural Branch
NNSC
Washington, DC 20408

Phone: 703-756-6700
4. Tobin Research
114 Camp Street
San Antonio, TX 78297

Phone: 210-223-6203
5. U.S. Army
Department of the Army, EDC
Contact U.S. Geological Survey ESIC Offices

Phone: 800-USA-MAPS

AERIAL PHOTOGRAPHS AVAILABLE, CONTINUED

Agency: Agricultural Stabilization & Conservation Service
Date of Coverage: November 9, 1964
Project Code: CLQ
Scale: 00020000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 20%

Agency: Agricultural Stabilization & Conservation Service
Date of Coverage: October 17, 1964
Project Code: CZH
Scale: 00020000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 80%

Agency: U.S. Geological Survey
Date of Coverage: November 8, 1963
Project Code: VAWJ
Scale: 00024000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 100%

Agency: National Ocean Service
Date of Coverage: August 8, 1962
Project Code: 62S-1
Scale: 00040000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 40%

Agency: U.S. Geological Survey (This Photograph Appears in Report)
Date of Coverage: April 11, 1960
Project Code: VACG
Scale: 00018000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 100%

Agency: Agricultural Stabilization & Conservation Service
Date of Coverage: March 2, 1958
Project Code: CLQ
Scale: 00020000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 20%

Agency: Agricultural Stabilization & Conservation Serve
Date of Coverage: March 2, 1958
Project Code: CZH
Scale: 00020000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 80%

Agency: National Ocean Service
Date of Coverage: September 28, 1952
Project Code: 520-1
Scale: 00024000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 40%

Agency: U.S. Army
Date of Coverage: May 14, 1952
Project Code: 000
Scale: 00069000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 100%

Agency: Agricultural Stabilization & Conservation Service
Date of Coverage: April 28, 1952
Project Code: CLQ
Scale: 00020000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 20%

Agency: Agricultural Stabilization & Conservation Service
Date of Coverage: April 27, 1952
Project Code: CZH
Scale: 00020000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 80%

Agency: Tobin Research
Date of Coverage: 1940
Scale: 00018000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 20%

Agency: National Archives and Records Administration
Date: 1940
Project Code: CLQ
Scale: 00020000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 20%

Agency: Tobin Research
Date of Coverage: 1937
Scale: 00018000
Film Type: Black and White
Cloud Cover: 0%
Quadrangle Coverage: 100%

APPENDIX F

**MUNICIPAL RECORDS GUIDE
CITY OF HATTIESBURG, MISSISSIPPI**

MS
352.16

MUNICIPAL RECORDS GUIDE
CITY OF HATTIESBURG, MISSISSIPPI.

841762

Produced in connection with the
Hattiesburg Municipal Records Project
1983

HATTIESBURG PUBLIC LIBRARY SYSTEM
The Hattiesburg Forrest County Library
HATTIESBURG, MS

NOTE: On April 6, 1983, a flood struck downtown Hattiesburg, causing waterdamage to some of the municipal archives items listed herein. However, these items are being dried, re-folded, and re-boxed, and will be made available to the public once again, probably sometime in autumn 1983.

MUNICIPAL RECORDS GUIDE
CITY OF HATTIESBURG, MISSISSIPPI

Produced in connection with the
Hattiesburg Municipal Records Project
1983

CONTENTS

Introduction 1

Municipal Archives Records Series 2

Historical Records Series (1888-1922)
 Box Inventories 8

Municipal Records Retention Schedules 13

Accession and Conservation Procedures 17

Certificate of Records Disposal (example) 22

Sources of Advice and Assistance 23

Bibliography: Sources of Information on
 Municipal Records Management and Archival
 Processing 24

Acknowledgements 26

INTRODUCTION

The City of Hattiesburg is particularly fortunate to have official records dating almost from its inception in the early 1880's. (Hattiesburg was chartered in 1884.) Thanks to timely action by the City and financial assistance by the National Historical Publications and Records Commission, these records have been rescued from imminent damage, processed, stored in a climatically-controlled environment, and made available, under certain restrictions, to the public in 1983. Simultaneous with the processing of the City's historical records, retention schedules for current records have been formulated.

Municipal records are created at public expense. Failure to properly maintain them only adds to the cost to taxpayers of municipal operations. Conversely, an effective records management program facilitates information retrieval while reducing cost of storage and maintenance. It also results in preservation of a municipality's most important historical records. Finally, it should be noted that maintenance of certain municipal records is required by law in Mississippi, although procedures are not specified and vary widely across the state.

It is hoped that this manual will serve as an introduction to the historical records housed in the Municipal Archives and as a procedural guide for future disposition of the official records of the City.

Franklin N. Walker, Jr.

266-5665
Newly Referred
(Old Case TRANS) Law Envtl Complex

MUNICIPAL ARCHIVES RECORDS SERIES

This list of record series in the Hattiesburg Municipal Archives was compiled during the 1982-83 records project. For locations and more recent acquisitions see archives finding aids, especially Rolodex card file.

Administrative records

Mayors' papers

- ✓ Carlisle, Richard T. (1957-61)
Alphabetical office files
4.5 linear feet

- Currie, Edward J., Sr. (1951-53)
Alphabetical office files
12 folders

- Gerrard, Albert L. (1973-76)
"While you were out" forms, desk calendars, police and
fire daily reports
2 linear feet

- ✓ Grady, Paul E. (1965-73)
Alphabetical office files, police and fire reports,
telephone records
31 linear feet

- Holmes, David W. (1949-50)
Land sale ordinance, 1950
1 folder

- ✓ Pittman, Claude F., Jr. (1962-65)
Alphabetical office files
1 linear foot

- Pope, Moran M., Jr. (1953-57)
Alphabetical office files
3 linear feet

- Sutherland, D. Gary (1957)
Alphabetical office files
22 folders

Commissioners' papers

Batson, Hugh M. (1954-62)
 Alphabetical office files
 .2 linear feet

Parker, Walter A. (1966-73)
 Alphabetical office files
 4 linear feet

City Council minutes (from 1885)
 See City Clerk

City ordinances (from 1892)
 See City Clerk

Historical records series (1893-1922)

Alphabetical by subject
 (see following section of this guide for file designations)
 9.5 linear feet

Finance and revenue records

Account books, "City" (1903-05, 1954-55)
 Accounts listed alphabetically
 2 volumes

Account book, "Town" (1891-99)
 Accounts listed alphabetically
 1 volume

Audit reports (1937-78)
 Audit reports for 1937, 1941, 1947, 1954-78
 Code of accounts, 1958
 School activity fund reports, 1941-45

Bank Books, City of Hattiesburg
 W. E. Estes, Cashier, 1911-20
 7 books
 T. E. Batson, 1903-14
 2 books

Bond registers (1897-1944, 1971-73)
 2 volumes

Bookkeeping department (1957-79)
 Alphabetical files
 6 linear feet

Building permits (1925-28)
Copies of permits
6 volumes

Cash receipt books (1908-13, 1948-50)
4 volumes

Check stubs, City of Hattiesburg (1899-1901)
Checks issued against various municipal funds
1 volume

City Clerk, land tax receipts (from 1930's)
3 linear feet

Comparative statement, 5-year (1949-50, 1953-54)
1 folder

Inventory, city property (1952, 1967-68)
2 volumes

Land sold for taxes, statements of taxes and officers' fees
(from 1918)
1 linear foot

Paving (street) cash books (1905-12, 1926-36)
2 volumes

Paving (street) note register (1923-27)
1 volume

Payroll certificates (1900, 1906-08, 1917-29)
Check stubs, carbon receipts
1 linear foot

Personnel, City labor payroll (1943-50)
4 linear feet

Privilege tax record (1924-33)
1 volume

Property matured to City (1911-35)
1 volume

Property survey (1916-27, 1934-39)
Property owners' names, by block and lot
3 volumes

Public service cash books (1907-10, 1913-14, 1930-37)
2 volumes

Quit claim deed, copies (1948-49)
Cover mislabeled "Tax Roll Index"

Receipts for land sold for taxes (1916-18)
1 volume

Receipts and bills to City (1916)
Miscellaneous receipts and bills, arranged alphabetically
2.5 linear feet

Tax assessment rolls, personal (1908-72)
ca. 35 linear feet

Tax assessment rolls, realty (1922-74)
ca. 35 linear feet

Tax book, general property (1951-57)
5 volumes

Tax collector's cash book (1931-33, 1970-71)
3 volumes

Tax, land sold for taxes (1897-1917)
1.5 linear feet

Tax, land sold for taxes, receipts for (1912, 1914, 1921, 1924-
26, 1931-34)
26 receipt books

Tax, property tax evaluations (1906-13)
7 linear feet

Tax receipts (from 1905)
"Tax receipts" prior to 1938, after which divided into
"realty" and "personal" tax receipts.
ca. 120 linear feet

Time books (1903, 1908-10)
Water Department, 1903
City, 1908-10
2 volumes

Treasurers' reports, City of Hattiesburg (1900-14)
2 linear feet

Warrants, City of Hattiesburg (1896, 1899, 1900, 1903)
ca. 55 warrants

Judicial

Circuit Court cost allocation (1896-1919)
2 linear feet

Mayor's Court dockets (1889-1906)
9 volumes

Mayor's Court journals (1904-10)
4 volumes

Municipal dockets (1950-79)
10 volumes

Police Justice dockets (1907-77)
Volumes 1 - 50

Police Justice minutes (1907-78)
Volumes 1 - 57

Public Safety

Marshal 's ledger (1902-06)
Record of liquor siezed, City Hall rents, payments to
yellow fever guards, market stall rents
1 volume

Police docket, daily arrest (1903-77)
Volumes 1 - 61

Police ledger (1906-08, 1911-76)
First two volumes dated 1906 and 1907. Subsequent volumes
numbered 2 - 50

Police register of prisoners (1897-1904)
1 volume

Police register (1907-38)
6 volumes

Police record (1919-23)
1 volume

Other

Auto license numbers (1914)
1 volume

Building permits, copies of (1925-28)
6 volumes

Dray numbers (1913-25)
Volume incorrectly labeled "Trial balance"
1 volume

Knights of Honor (1893-1908)
Financial Reporter's cash book, 1893-1908
Correspondence, 1907-08

Knights of the Maccabees
Financial report, Tent #30, 1915
Laws of the Maccabees, 1907
Ledger, 1919-21
Receipts for dues paid, 1920-22
Receipts for loans, 1914-15

✓ Scrapbooks (1961-67)
Newspaper clippings pertaining to municipal activities
4 volumes

Historical Records Series
Box Inventories
(1888-1922)

Box

1	Acts & Resolutions	(1910)
	Acts & Resolutions	(1914, n.d.)
	Affidavits (4 folders)	(1898)
	Affidavits (2 folders)	(1898-99)
	Affidavits	(1899)
	Affidavits	(1899-02)
	Audit of City Accounts	(1909)
	Appearance Bonds	(1907)
	Bids and specifications	(1897-98)
	Bids & specifications	(1902)
	Bids & specifications (2 folders)	(1897)
	Bids & specifications	(1898)
	Bids & specifications (13 folders)	(1900-11, n.d.)
	Bids for Bonds	(1904)
	Bills & statements	(1891-95)
	Bills & statements	(1897)
	Bills & statements (8 folders)	(1898-1900)
2	Bills & statements (24 folders)	(1901-21, n.d.)
	Board of Supervisors	(1909)
	Bd. of Supervisors, Perry Co.	(1894)
	Bonds & Oaths of Office (5 folders)	(1897-1910)

Box

	Bonds - Security (4 folders)	(1896-1910)
3	Circuit Court	(1897)
	Census	(1898)
	Circuit Court	(1901-03;1920)
	City Clerk	(1898-1916)
	City Engineer (2 folders)	(1906-09,n.d.)
	Coal Committee	(1919)
	Contracts (2 folders)	(1896-1915)
	Elections (2 folders)	(1908-19)
	Finance Committee	(1909-10)
	Jailor	(1909)
	Job Applications (3 folders)	(1896-1903,n.d.)
	Land Deeded to City (3 folders)	(1888-1898)
	Library	(1929-37)
	Marshal (9 folders)	(1895-1902)
4	Land Sold for Taxes	(1897-1908)
5	Land Sold for Taxes	(1908-11)
6	Land Sold for Taxes	(1911-15)
7	Land Sold for Taxes	(1915)
8	Marshal	(1903-10)
9	Marshal	(1911-13,n.d.)
10	Mayor & Bd. of Aldermen (2 folders)	(1898-1900)
	Mayor & Bd. of Aldermen (2 folders)	(Jan.-Dec. 1901)
	Mayor & Bd. of Aldermen (9 folders)	(1902-21,n.d.)
	Mayor & Bd. of Aldermen	(n.d.)
11	Mayor & Bd of Aldermen	(n.d.)

Box

Mayor's Report	(1899)
Miss. Woman's College	(1921)
Oath of Office, Police Chief	(1894-99)
Oath of Office	(1900-03)
Odd Fellows	(July-Aug. 1901)
Odd Fellows	(Dec. 1895-June 1901)
Odd Fellows	(Sept.-Dec. 1901)
Odd Fellows	(Jan. 1902-Dec. 1903)
Odd Fellows Treasurer's Receipts	(1902-03)
Odd Fellows	(n.d.)
Payroll, Office of City Engineer	(1909)
Petitions (10 folders)	(1898-1921, n.d.)
Police, Chief of	(1900)
Pound Keeper	(1906-07)
Pound Keeper	(1908)
Pound Keeper	(1909-10)
Pound Keeper	(1910-12)
Pound Keeper	(1913)
12 Pound Keeper	(1913-15)
Privilege Tax License	(1907-May 1911)
Privilege Tax License	(1904-22)
Receipts-Cash Rec'd by City (4 Folders)	(1896-1913)
Receipts for City (7 folders)	(1895-1920)
Registration of Aliens	(1918)

Box

	Release of Wages	(1896-1910)
	Sales Proposal (Flier) Metz Motor Cars	(1913)
	Sanitary Reports (5 folders)	(1894-1911)
13	Sanitary Reports (16 folders)	(1911-14)
14	Sanitary Reports (10 folders)	(1914-15, n.d.)
	Sanitary Officer	(1899-1911)
	School (3 folders)	(1894-1911)
	School House Construction	(1898-1902)
	School House Construction (5 folders)	(1902)
15	School House Construction (13 folders)	(1903-08, n.d.)
	Schools--Financial Statements	(1904-06)
	Schools--Pay Certificates (3 folders)	(c. 1896-1902)
	Schools--Reports on City Schools	(1909)
	Schools--Superintendent	(1898-99, 1917)
	Schools--Teacher Contracts	(1898-99, 1912-13)
	Sheriffs Dept.	(1898)
	Sheriffs Bill for Prisoners	(1902, n.d.)
	Small Pox	(1898-1901)
	Small Pox	(1901-03, n.d.)
	Street Foreman (commissioner)	(1900-01)
	Street Foreman (commissioner)	(1902)
	Street Foreman (commissioner)	(1903)
	Street & Street Commissioner	(1903)
	Street & Street Commissioner (9 folders)	(1904-11, n.d.)
16	Supt. of Education (6 folders)	(1893-1912-13)

Box

	Surplus, Food, War Dept. (4 folders)	(1919-20)
	Tax Collector, Misc. Papers (2 folders)	(1895-1913)
	Tax List--J. J. Newman Lumber Co.	(1918)
	Tax Reports (12 folders)	(1893-1905)
17	Tax Reports (22 folders)	(1905-15)
18	Tax Reports	(1915-16, n.d.)
	Teacher Contracts	(1911-1916)
	Treasurer's Reports	(1893-1910, n.d.)
	Utilities	(1901-10, n.d.)
	Voter Registration	(c. 1905)
	Water Works	(1896-1907)
19	Water Works	(1908-14)

RECORDS RETENTION SCHEDULES

A records management program is the logical answer to the problem of conflicting interests between the need to discard and the desire to retain municipal records. In such a program, schedules are established for the retention of the various types of records generated by a municipality.

Obviously, any item deemed to be of historic value or of future use in municipal operations should be retained. However, most records generated by a municipal government can and should be discarded after a specified time period. To retain records unnecessarily is a waste of taxpayers' money.

Records are retained so long as they have fiscal, legal, historical, or administrative value to the city. Minutes of the City Council and annual reports of various municipal boards, court records, and realty and personal tax records are examples of permanent records. As a general rule, daily operational records of individual departments need be retained for a relatively short period of time.

The following schedules have been established after consultation with many persons involved with municipal records management, and after reference to procedures followed by municipalities in states with well-established programs.

Note: Because of the relative scarcity of early Hattiesburg municipal records, a strong argument can be made for retention of most items dating from prior to 1930.

RECORDS RETENTION SCHEDULES

<u>ITEM</u>	<u>PERIOD OF RETENTION</u>	<u>REMARKS</u>
1. Office of Mayor, office files	Permanent, after weeding	Remove personal items that do not relate to official duties. Remove unsolicited advertisements and duplicate items.
2. Commissioners, office files	Permanent, after weeding	Same as above.
3. Adm. Asst. to the Mayor, office files	Permanent, after weeding	Same as above.
4. City Council minutes	Permanent	
5. City Council ordinance books	Permanent	
6. Court Records Mayor's Court, Municipal Court, police Dockets, etc.	Permanent	
7. Board records Minutes Reports Files	Permanent Permanent 7 years	
8. Department Administrative Records	Permanent, after weeding	Retain correspondence and administrative records. Lowest priority is given daily operational records, which generally can be discarded. Retain all budgets, annual reports.

Retain blueprints, architectural drawings, administrative records.

Non-current administrative records incorporated into archives. Police investigation records and daily operation records retained by police records office.

Permanent

Permanent, after weeding

9. Engineering and Street Records

10. Police, Fire, Civil Defense

11. Financial

- Purchase orders
- Bonds and bond registers
- Alphabetical fund files
- Tax records
 - realty assessment
 - realty receipts
 - personal assessment
 - personal receipts
- Municipal dockets
- General ledgers
- Revenue journals
- Expense journals
- Copy warrants
- Budgets
- Audit Reports

7 years
7 years after cancellation
7 years

Permanent
Permanent
Permanent
Permanent
15 years
15 years
15 years
7 years
Permanent
Permanent

12. Real Property Records

- Deeds
- Easements
- Opinions of titles
- Plats
- Titles, abstracts and cert.

Permanent
Permanent
Permanent
Permanent
Permanent

- 13. Personnel
 - Office files, Personnel Dept.
 - Retirement records
 - C.E.T.A. records
 - Civil Service Exams
 - Payroll summaries
 - Payroll ledgers
 - Payroll time sheets

 - 14. Planning and Zoning
 - Office files
 - Maps, blueprints, photographs
 - Case files
- Permanent, after weeding
Permanent
Permanent
Permanent
15 years
15 years
6 years
- Permanent, after weeding
permanent
permanent

ACCESSION AND CONSERVATION PROCEDURES

Accession and conservation procedures for the many forms of municipal records cannot adequately be explained in a few pages of typescript. Only a lengthy course of study with wide reading and "hands-on" experience can provide a proper background for anyone concerned with effective long-term preservation of a municipality's archival holdings. Nevertheless, persons undertaking the future preservation of municipal records in Hattiesburg may note the essentials offered below.

For additional information consult works cited in the bibliography at the back of this manual. Note also that personnel at the Mississippi Department of Archives and History, Jackson, are always pleased to respond to questions about archival conservation. They are the local government records manager's best source of information within the state on such matters.

Environment

Temperature and humidity control are of paramount importance in the longterm preservation of paper products. Excessive heat and/or humidity are damaging, as are severe fluxuations of these factors. Ideal storage conditions are temperatures of sixty to seventy degrees farenheit and humidity of between forty-five and fifty-five per cent. Such conditions will likely be achieved when a new library facility is constructed in Hattiesburg, complete, one hopes, with an archives area. Meanwhile, areas such as the basement of City Hall will likely be utilized, and a reasonable approximation of the above conditions should be maintained there. Florescent lighting should be used sparingly. Access to the records storage area should be limited to those with proper authorization, and the area secured by an adequate lock. Strict control must be maintained over records being used by legitimate researchers and city officials, so that none are lost or damaged.

Acquisition

Records processed during the course of the Hattiesburg Municipal Records Project provide only a scant record of the municipality's colorful past. Every effort should be made to acquire additional records from previous administrations while at the same time providing for acquisition of contemporary records according to the records management program.

Particularly obvious as this guide is written is the relative lack of files from the Mayor's office prior to the administration of Mayor Paul Grady, and almost complete absence of files from past city commissioners. Obviously, persons who have held such high office in Hattiesburg usually have taken their files with them upon departure from office. This also is a frequent occurrence elsewhere in Mississippi. However, by contacting Hattiesburg's former mayors and commissioners, or their families, it is possible that valuable donations be obtained for the municipal archives. Similarly, other historical documents pertaining to Hattiesburg's municipal government should be sought, while the acquisition of more recent records from various departments is ongoing.

Weeding

When large record groups are brought into the archives areas, they will likely require weeding. This should be done by an experienced municipal records manager, if such a person is available. At any rate, the following should be noted:

1. Permanent retention of certain types of records is required by law. The City attorney has been consulted as to the retention schedules in this guide, and can offer advice on other records when questions arise.
2. When weeding files, cumulative records usually have precedence. In other words, monthly and yearly records may contain all the important information contained on daily records, in which instances the daily records can be discarded.
3. Precedence should be given to items directly reflecting the governmental activity of the person or group entity who have generated the records. Items of a personal nature not directly related to municipal government activities should be returned to the donor or creator if possible. Duplicate items usually can be discarded. Also, unsolicited advertisements generally need not be retained.
4. In those instances when entire record series are scheduled for destruction, examples can be retained for historical purposes. In the absence of a permanent Hattiesburg municipal records manager it is difficult to establish guidelines for selection of such examples. However, it can be stated that unique items usually should be retained, as well as a very small percentage of the remainder, selected according to the selector's

best judgment. Random selection, say every twentieth item or every fiftieth item, has been suggested as a way to preserve examples from the very largest record groups, but it is far better to examine the records as carefully as time permits and select a predetermined percentage of those scheduled for destruction.

Foldering, boxing, etc.

Items to be permanently retained should be placed in acid-free archival folders (minimum ph 7.5) and archival-quality storage boxes. Metal such as staples and clips should be removed, as they will rust and damage the documents. Rubber bands should also be removed. Needless to say, fumigation is required for most older documents in order to kill insects and mold spores.

Arrangement should be according to the archival rule of "provenance" by which records are grouped according to the entity that created them. The creation of artificial record groups by combining items generated by several entities is something that should be done only when absolutely unavoidable. Arrangement should be as close as possible to that imposed by the originating entity, for this original arrangement is, in itself, sometimes of considerable importance.

Finding Aids

During the Hattiesburg Municipal Records Project, two kinds of finding aids have been devised for the city's records. One is a Rolodex card file, which is an alphabetic card system arranged according to title or record group or series, and containing dates of records, number of items or cubic foot measurement, additional descriptive material, and a location key. (See example below.) Second, a typewritten inventory of box contents according to folder labels has been compiled for the more important records series. Both of these should be maintained on a permanent basis. Also an acquisition log should be maintained. This can be a single volume in which a record is kept of each acquisition by date, with donor or origin of the acquisition.

The Rolodex file, box inventories, and acquisition log should be CAREFULLY MAINTAINED and be readily available, probably in City Hall.

Mayors' papers

Carlisle, Richard T. (1957-61)
Alphabetical office files
4.5 linear feet

A - 4

Destruction of Records

Items which are destroyed should be handled in such a manner as to avoid accidental survival of documentation. A complete record of destroyed records should be maintained, with signatures of authorizing officials, date, description (both content and quantity), and method of destruction. Authorizing officials must be cognizant of legal requirements in effect on the retention of certain municipal records. One excellent manner in which to handle this is to establish a records board, consisting of the city attorney, city clerk, auditor, a representative of the mayor, and perhaps one or two other interested persons with backgrounds in local history, records management, or municipal government.

Newspapers, Photographs, Maps, etc.

Newspaper clippings can best be maintained in a clippings file in the public library. However, if clippings are to be retained in the archives, they should be photocopied on good quality paper, preferably acid-free, as newsprint has a very short life span.

Photographs require special care too involved for description in this guide, other than to suggest that: (1) nitrate negatives should be copied and the originals destroyed, and (2) prints can best be stored in acid-free envelopes. The paper found in most photograph albums is highly acidic, so, if possible, such albums should be disassembled or copied in their entirety.

Maps and blueprints can effectively be photographed with 35mm color slide film, and slides projected on a screen for viewing at a later date. Oversize originals can be stored in large folders made from a heavy grade of acid-free paper.

A microfilm program is only effective if done properly, according to established standards. Haphazard, improper

CERTIFICATE OF RECORDS DISPOSAL
CITY OF HATTIESBURG, MISSISSIPPI

Date _____

Origin of records (agency): _____

Location of records: _____

Record series title: _____

Inclusive dates of records: _____

Volumes or box numbers, if any: _____

Cubic feet or linear feet of records: _____

Date of disposal: _____

Method of disposal: _____

Scope and content of records: _____

Signature of authorized official

Title

SOURCES FOR ADVICE AND ASSISTANCE

American Association for State and Local Historians
708 Berry Road
Nashville, Tennessee 38204

Association of Records Managers and Administrators
Jackson, Mississippi, Chapter
P. O. Box 236
Flora, Mississippi 39071

Mississippi Department of Archives and History
P. O. Box 1151
Jackson, Mississippi 39205

National Historical Publications and Records Commission
National Archives Trust Fund Board
National Archives Building
Washington, D.C. 20408

Society of Mississippi Archivists
P. O. Box 1151
Jackson, Mississippi 39205

Bibliography

Municipal Records Management

- Cox, Richard J. "A Reappraisal of Municipal Records in the United States." Public Historian 3 (Winter 1981):49-63.
- Fox, Michael J. and Kathleen A. McDonough. Wisconsin Municipal Records Manual. Madison, Wisconsin: State Historical Society of Wisconsin and Wisconsin Department of Development, 1980.
- Jones, H. G. Local Government Records: An Introduction to their Management, Preservation, and Use. Nashville, Tennessee: American Association for State and Local History, 1980.
- Levine, David (ed.). Ohio Municipal Records Manual. Columbus, Ohio: The Ohio Historical Society, 1981.

Archival Processing

- Brichford, Maynard J. Archives and Manuscripts: Appraisal and Accessioning (A basic manual series - Society of American Archivists). Chicago: Society of American Archivists, 1977.
- Duckett, Kenneth W. Modern Manuscripts: A Practical Manual for their Management, Care and Use. Nashville: American Association for State and Local History, 1975.
- Fleckner, John A. Archives and Manuscripts: Surveys (A basic manual series - Society of American Archivists). Chicago: Society of American Archivists, 1977.
- Gracy, David B., II. Archives and Manuscripts: Arrangement and Description (A basic manual series - Society of American Archivists). Chicago: Society of American Archivists, 1977.
- Gracy, David B., II, et al. Inventories and Registers: A Handbook of Techniques and Examples; A Report of the Committee on Finding Aids. Chicago: Society of American Archivists, 1976.

Holbert, Sue E. Archives and Manuscripts: Reference and Access (A basic manual series - Society of American Archivists). Chicago: Society of American Archivists, 1977.

Walch, Timothy. Archives and Manuscripts: Security (A basic manual series - Society of American Archivists). Chicago: Society of American Archivists, 1977.

ACKNOWLEDGEMENTS

The author wishes to express appreciation to Hattiesburg Mayor Bobby Chain and to University of Southern Mississippi Archivist and Graduate Library Director Dr. Claude Fike, who together were largely responsible for getting a records preservation and processing project underway in Hattiesburg. The National Historical Publications and Records Commission and the City of Hattiesburg together funded the project by which this work was carried out and this manual produced. Thanks also are due Mr. Jim Borsig, Mr. Bishop Barker, Mrs. Francis Meador, and Police Captain John McDowell, all of whom cheerfully provided answers to the project director's questions. Mr. Richard J. Cox, Municipal Records Manager for the City of Baltimore, traveled to Hattiesburg on two occasions to offer valuable assistance as consultant.

Finally, special thanks are due to Mrs. Donna Gail Chavez, Mr. David Parsons, and Mr. Joseph Michael Watson for many hours of processing work on the records of the City of Hattiesburg.

F. W.

TABLE 1

SUMMARY OF SOILS ANALYSIS

GULF STATES CREOSOTE SITE
 HATTIESBURG, MISSISSIPPI
 MARCH, 1990

BY

U.S. ENVIRONMENTAL PROTECTION AGENCY

Parts per million (ppm)

Compound Name	Sample Location Sample Depth	D03A 10 ft. Top of Auger	D03A Bottom of Auger	E19 11 ft.	E24 8 ft.	E25 8 ft.	E27 8 ft.
Naphthalene		0.5J	7.3	2.5	544	48	753
2-Methylnaphthalene		*	.1J	.9	224	26	293
1-Methylnaphthalene		*	.06J	.6	107	26	193
Biphenyl		*	.02J	.3J	55	3.5J	140
2,6-Dimethylnaphthalene		*	*	.4J	71	13	160
Acenaphthylene		*	*	.04J	7.3J	2.4J	20
Acenaphthene		*	.1J	1.5	264	86	213
Dibenzofuran		*	.05J	.7	159	37	125

TABLE 1, Continued

SUMMARY OF SOILS ANALYSIS
(EPA - MARCH, 1990)

Compound Name	Sample Location Sample Depth	D03A 10ft. Top of Auger	D03A Bottom of Auger	E19 11 ft.	E24 8 ft.	E25 8 ft.	E27 8 ft.
Fluorene		*	.05J	.9	194	66	129
Phenanthrene		*	.04J	2.7	420	136	425
Anthracene		*	*	1.7	87	41	126
Carbazole		*	.07	.3	48	5.5J	59
Fluoranthene		.1J	.03J	2.9	224	144	288
Pyrene		.2J	.04J	3.4	180	126	296
Benzo(a)anthracene		.07J	*	1.1	52	34	100
Chrysene		.08J	*	1.2	42	37	86
Benzo-(b)fluoranthene		*	*	1.0	*	*	86
Benzo(k)fluoranthene		*	*	.4	27J	30	*
Benzo(c)pyrene		*	*	.5	*	9.7J	31
Benzo(a)pyrene		*	*	.6	*	11	42
Indeno(1,2,3-cd)pyrene		*	*	*	*	*	*

TABLE 1, Continued

SUMMARY OF SOILS ANALYSIS
(EPA - MARCH, 1990)

Compound Name	Sample Location Sample Depth	D03A 10 ft. Top of Auger	D03A Bottom of Auger	E19 11 ft.	E24 8 ft.	E25 8 ft.	E27 8 ft.
Dibenzo(a,h)anthracene		*	*	*	*	*	*
Benzo(g,h,i)perylene		*	*	*	*	*	*
Total PNA (ppm)		0.95	7.86	23.6	2705	882	3565

* - Non-detectable levels.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the lowest linear detection limit of 10.0 µg/ml, but greater than zero and the concentration is given as an approximate value.

TABLE 1A

SUMMARY OF SOILS ANALYSIS

GULF STATES CREOSOTE SITE
 HATTIESBURG, MISSISSIPPI
 JANUARY, 1990

BY

U.S. ENVIRONMENTAL PROTECTION AGENCY

Parts per million (ppm)

Compound Name	Sample Location Sample Depth	B0 2.5 0-12 in.	D00 5 ft.	D00 8 ft.	D01 5 ft.	D01 8 ft.	D20 4 ft.
Naphthalene		*	178	354	280	148	4.1J
2-Methylnaphthalene		*	99	197	460	82	3.6J
1-Methylnaphthalene		*	72	104	340	45	*
Biphenyl		*	22J	55	9J	24	*
2,6-Dimethylnaphthalene		*	72	66	53	28	*
Acenaphthylene		*	4.4J	4.2J	2.3J	*	*
Acenaphthene		*	259	156	225	81	14J
Dibenzofuran		*	158	125	114	78	4.7J

TABLE 1A, Continued

SUMMARY OF SOILS ANALYSIS
(EPA - JANUARY, 1990)

Compound Name	Sample Location Sample Depth	B0 2.5 0-12 in.	D00 5 ft.	D00 8 ft.	D01 5 ft.	D01 8 ft.	D01 5 ft.	D01 8 ft.	E20 4 ft.
Fluorene		*	245	140	219	90	219	90	9.4J
Phenanthrene		6.5J	718	325	715	229	715	229	26
Anthracene		*	465	210	521	114	521	114	69
Carbazole		*	173	96	157	38	157	38	15J
Fluoranthene		3J	844	215	763	188	763	188	138
Pyrene		1.1J	181	64	266	65	266	65	98
Benzo(a)anthracene		1.6J	181	54	259	62	259	62	104
Chrysene		2.9J	230	61	318	73	318	73	160
Benzo(b)fluoranthene		3.8J	*	78	143	127	143	127	248
Benzo(k)fluoranthene		*	231	74	135	121	135	121	236
Benzo(c)pyrene		2.5J	83	25	97	52	97	52	83
Benzo(a)pyrene		2.5J	125	35	133	55	133	55	116
Indeno(1,2,3-cd)pyrene		1.8J	51	15J	54	26	54	26	53

TABLE 1A, Continued

SUMMARY OF SOILS ANALYSIS
(EPA - JANUARY, 1990)

Compound Name	Sample Location Sample Depth	B0 2.5 0-12 in.	D00 5 ft.	D00 8 ft.	D01 5 ft.	D01 8 ft.	E20 4 ft.
Dibenzo(a,h)anthracene		.5J	23	5J	19J	12J	17J
Benzo(g,h,i)perylene		1.5J	41	11J	42	22	42
Total PNA (ppm)		27.7	4455	2469	5324	1760	1440.8

TABLE 2
BORING LOGS
(BY EPA, JANUARY - MARCH, 1990)

Boring No.	Depth (feet)	Sand	Sample Results
B-01	13.0		
B-02.5	8.83		Yes
B-3	8.17		
C-19	12.0		
C-20	14.0	8-14 Feet	
D-01	14.0	0-14 Feet	Yes (2)
D-02	6	Brick Fill	
D-03	3	Sand and Gravel (Refusal)	
D-03A	10	Water @ 10 Feet	Yes (2)
D-04	10		
D-06	14		
E-19	11	Black Wet Sand	Yes
E-20	4		Yes
E-24	9	Creosote Odor	Yes
E-25	9	Sand	Yes
E-26	13	Sand	
E-27	8	Water, Creosote Odor at 7 Feet	
B-00	No Log		Yes (2)

TABLE 3

**SUMMARY OF ORGANIC (SEMI-VOC) ANALYTICAL RESULTS
BY THE STATE OF MISSISSIPPI
OCTOBER 15-17, 1991**

TABLE 3

SUMMARY OF ORGANIC (SEMI-VOC) ANALYTICAL RESULTS
 GULF STATE CREOSOTE SITE - SITE INVESTIGATION - PHASE II
 BY THE STATE OF MISSISSIPPI
 OCTOBER 15-17, 1991

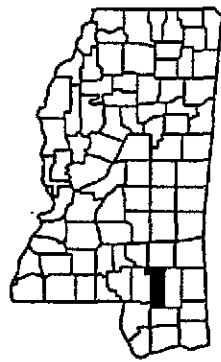
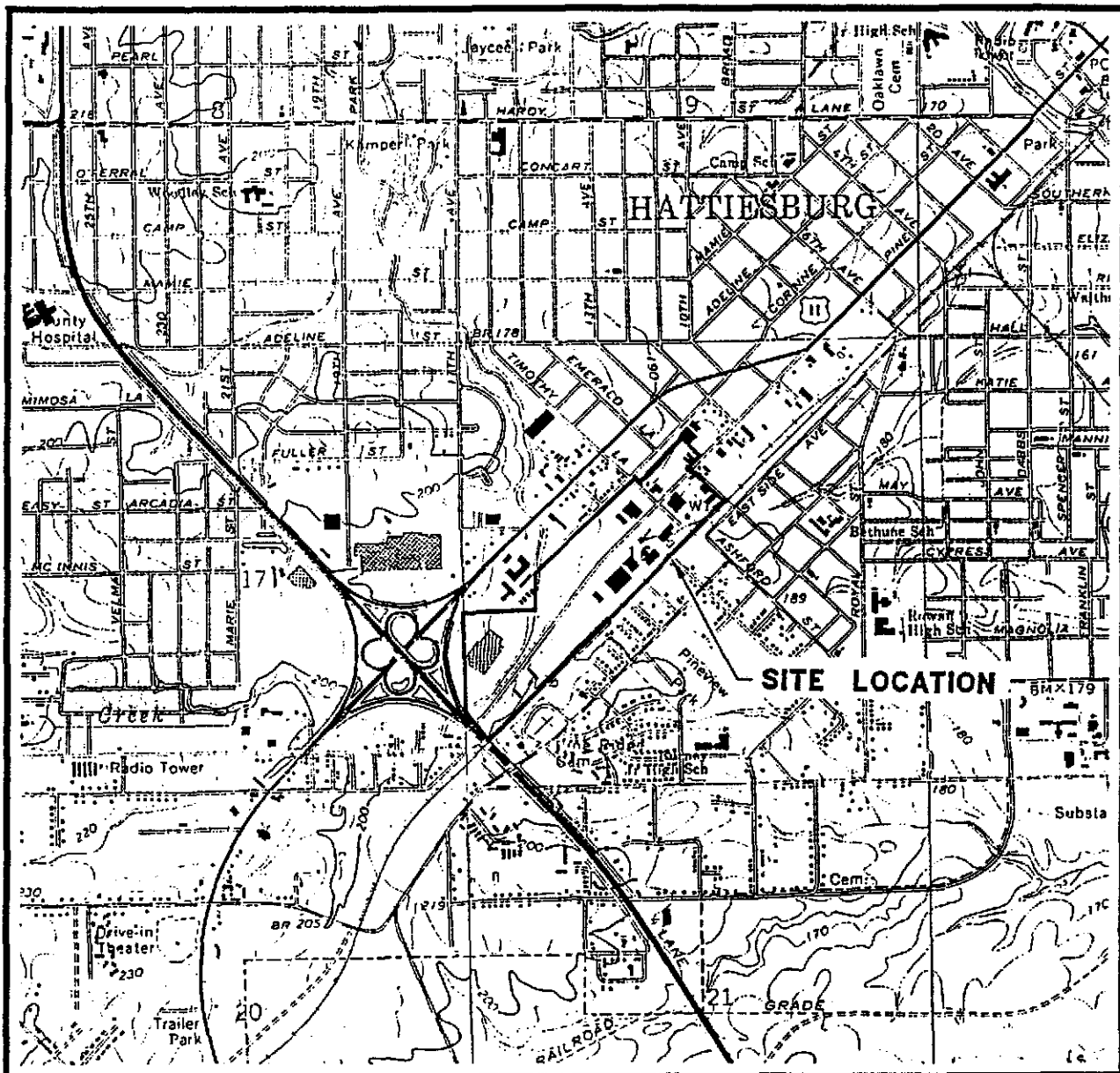
Parameters mg/kg (ppm)	Upgradient Well GS-TW-01	Downgradient Well GS-TW-02	Upstream Sediment GS-SD-01	Downstream Sediment GS-SD-02	Background Soil GS-SB-01	Soil- Source Area GB-SB-02
Naphthalene	---	---	---	240	---	1,900
2-Methylnaphthalene	---	---	---	240	---	1,400
Acenaphthylene	---	---	---	Trace	---	Trace
Acenaphthene	---	---	---	370	---	970
Dibenzofuran	---	---	---	400	---	1,000
Fluorene	---	---	---	550	---	1,500
Phenanthrene	---	---	0.470	18,000	---	3,500
Anthracene	---	---	---	220	---	4,200
Fluoranthene	---	---	0.700	770	---	1,600
Pyrene	---	---	0.470	490	---	770
Benzo(a)anthracene	---	---	Trace	170	---	270
Chrysene	---	---	Trace	160	---	280
Benzo(b)fluoranthene	---	---	---	58	---	113
Benzo(k)fluoranthene	---	---	---	72	---	100
Benzo(a)pyrene	---	---	---	60	---	85
Indeno(1,2,3-cd)	---	---	---	Trace	---	---

TABLE 3, Continued

SUMMARY OF ORGANIC (SEMI-VOC) ANALYTICAL RESULTS

Parameters mg/kg (ppm)	Upgradient Well GS-TW-01	Downgradient Well GS-TW-02	Upstream Sediment GS-SD-01	Downstream Sediment GS-SD-02	Background Soil GS-SB-01	Soil - Source Area GB-SB-02
Pyrene						
Benzo(g,h,i)perylene	---	---	----	Trace	----	----
Total Semi-Volatiles (ppm)			1.64	21,800		17,686

--- Constituent analyzed for but not detected above the minimum quantifiable level (MQL)




SCALE IN FEET



FIGURE 1
SITE LOCATION MAP

REFERENCE: 1982, 7.5 MINUTE
TOPOGRAPHIC MAP, HATTIESBURG
QUADRANGLE, MISSISSIPPI - FORREST COUNTY

	5380 I-55 NORTH JACKSON, MISSISSIPPI 39211
	PROJECT TITLE: GULF STATES CREOSOTING COMPANY (1920's - 1980's) HATTIESBURG, MISSISSIPPI
SCALE: 1:24000	DRAWN BY: R.E.B.
DATE: 28 JUL 1993	APPROVED BY: R.W.P.
PROJECT NUMBER: 1.V7101.001	DRAWING NUMBER: EPS-6274

APPENDIX B

**SITE INSPECTION, PHASE II REPORT
GULF STATES CREOSOTE SITE
HATTIESBURG, MISSISSIPPI
JANUARY 1992, DEQ**

FILE COPY

**SITE INSPECTION, PHASE II
REPORT
GULF STATE CREOSOTE SITE
HATTIESBURG, MISSISSIPPI
MSD985967199**

PREPARED FOR:

**Brian Farrier
Site Investigation and Support Branch
Waste Management Division - Region IV
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, GA 30365**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
Office of Pollution Control (MS OPC)
P.O. Box 10385
Jackson, Mississippi 39289**

77
JANUARY 7, 1992

**FINAL REVISIONS
JANUARY 15, 1991**

PREPARED BY:

Michael T. Slack
Michael T. Slack

REVIEWED & EDITED BY:

Jim Hardage
Jim Hardage

APPROVED:

JH

TABLE OF CONTENTS

- 1.0 INTRODUCTION
 - 1.1 Objectives
 - 1.2 Scope of Work
- 2.0 SITE CHARACTERIZATION
 - 2.1 Background
 - 2.2 Site Description
 - 2.3 Waste Characteristics
- 3.0 GEOLOGY/HYDROLOGY
 - 3.1 Stratigraphic Units
 - 3.2 The Aquifer of Concern
 - 3.3 Precipitation
 - 3.4 Surface Water
- 4.0 ENVIRONMENTAL THREATS
- 5.0 FIELD INVESTIGATION
 - 5.1 Sampling History
 - 5.2 Sample Collection Methodology
 - 5.3 Description of Samples and Sample Locations
 - 5.4 Analytical Support and Methodology
 - 5.5 Mississippi State Chemical Laboratory QA/QC Procedures
 - 5.6 Soil Samples
 - 5.7 Sediment Samples
 - 5.8 Groundwater Samples

TABLES

- Table 1 - Summary of Organic Analytical Results from SI-Phase II

APPENDICES

- APPENDIX A - Analytical Results from the EPA & MS OPC Emergency Response Section Investigations
- APPENDIX B - Analytical Results, Sample Codes, and Sample Locations from the SI-Phase II

REFERENCES

1.0 INTRODUCTION

The Mississippi Department of Environmental Quality, Office of Pollution Control (MS OPC), has conducted a Site Inspection (SI), Phase II of the Gulf State Creosote site in Hattiesburg, Mississippi. The SI Phase II was performed under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). Sampling was conducted on October 15-17, 1991. A Preliminary Assessment (PA) was performed by the MS OPC in March of 1990.

County Code: 035

Congressional District: 05

Coordinates: Latitude 31° 18' 33"
Longitude 89° 18' 39"

Location: NW 1/4 SW 1/4 S16 T4N R13W

Directions to Site: The Gulf State Creosote site may be reached by traveling south on Highway 49 through the City of Hattiesburg. Take the Highway 11 exit and travel east to northeast for approximately 0.6 to one mile. Turn right onto Timothy Lane and continue for two blocks. Turn right onto Pine Street. The Gulf State Creosote site is adjacent to the road on the right and left sides.

1.1 Objectives

The objectives of the investigation were to determine the nature of contaminants present at the site and to determine if a release of hazardous substances has occurred or may occur. Further, the investigation sought to determine the possible pathways by which contaminants could migrate from the site and the populations and environments potentially affected. Through these objectives, a recommendation has been made regarding further investigation under the CERCLA program.

1.2 Scope of Work

The objectives were achieved through the completion of a number of specific tasks as described below:

- Obtain and review relevant background materials;
- Evaluate the groundwater and surface water use in the area;
- Evaluate target populations associated with the groundwater, surface water, and soil exposure pathways;
- Inspect, sketch, and photograph the site;
- Investigate the location and distances to the nearest potable wells;
- Collect environmental samples;
- Complete an SI Phase II report.

2.0 SITE CHARACTERIZATION

2.1 Background

(Reference 1)

In August of 1989, Richard Ball of the MS OPC investigated the site due to reports from the Corps of Engineers, Mobile District, indicating creosote in borings along Gordons Creek. A title search of county records revealed a creosote plant was in operation along Gordons Creek from around 1900 to 1960. The Gulf States Creosoting Company operated on the site from the mid 1930's to the late 1950's. The last operator of record was the American Creosoting Corporation.

1920 1920's

Additional information on previous operators, owners, etc., may be obtained from the EPA Region IV Emergency Response section.

2.2 Site Description

(Reference 1)

The Gulf State Creosote site is approximately 8 acres in size, about 1/2 of a mile long and 1/4 of a mile wide. The site is located along Gordons Creek which flows through the site in a north northeasterly direction. A railroad borders the site to the southeast.

The site at one time, during the creosote operating years, consisted of buildings, structures, tanks, boilers, machinery, and equipment. Today the site consists of vacant lots, automobile dealers, and other small businesses.

The site is located on the south side of the City of Hattiesburg and is surrounded by residential areas, schools, and small businesses. The site is located on 16th section land with the Hattiesburg School District as trustee. 1

2.3 Waste Characteristics

(References 1, 2, 5, and Appendix A)

According to site visits in 1989 by the OPC and EPA emergency response personnel, creosote was discovered leaching into Gordons Creek. This was verified during the SI-Phase II investigation. The waste was observed to be unconsolidated with no diversion or containment system present.

The hazardous substance of concern is creosote which consists of a number of constituents (see Section 5.0). The areal extent of contamination is estimated to be 75,000 ft² with an estimated average depth of 10 feet. These estimates are based on the site's sampling history.

Based on the SI-Phase II investigation along with the previous investigations conducted at the site, the waste was in all probability disposed of in a low relief area. The physical state of the waste at the time of disposal was a solid and/or sludge.

3.0 GEOLOGY/HYDROLOGY

3.1 Stratigraphic Units

(Reference 1)

The stratigraphic units below the site in descending order are as follows: Hattiesburg Formation and the Catahoula Sandstone, Vicksburg Group (Undifferentiated) and the Yazoo Clay.

Fresh-water aquifers in the study area are mostly beds of sand or zones of sandy beds. The beds dip gently to the southwest and contain fresh water as much as 40 miles from the outcrops.

Prediction of aquifer thickness and lithology is difficult because of the lenticular bedding of most units. Lithologic changes occur in short distances and individual sands, which are regular and thicken or thin in short distances, are difficult to trace, especially along the dip of the beds.

At Hattiesburg, the Hattiesburg Formation consists of thick beds of massive clays - 150 or 200 feet thick - which contain some lime but very little sand. Geophysical logs of nearby wells to the east of the site indicate a clay layer that occurs approximately 30 feet above sea level. The clay layer ranges from 110 to 180 feet in thickness and is overlain by and grades upward into alternating fine-grained silty sands and clays. The clay layer is underlain by interbedded sands and clays. The sands increase in prominence and become gravelly toward the base. A geohydrologic section to the west of the site (within the two-mile radius) indicates numerous silty sands and clay lenses underlying the land surface with sands increasing in prominence approximately 100 feet below sea level. These sources indicate that there is no uniform clay present, i.e., the clay layer mentioned above is not continuous over the two-mile radius. Four Forrest County aquifer tests of the Hattiesburg Formation show hydraulic conductivities ranging from 96 to 180 ft/day.

Separating the Hattiesburg from the underlying Catahoula is extremely difficult. To avoid confusion both these units are referred as the Miocene Aquifer System. The aquifer system is composed of numerous interbedded layers of sand and clay (sand beds in the Miocene are characteristically lens-shaped or wedge-shaped). Because of the interbedded nature, formations cannot be reliably separated and correlated either on the surface or in the subsurface.

Recharge to the Miocene Aquifer is from rainfall directly on the outcrop and leakage between aquifer units of the Miocene Aquifer System. Ten Forrest County aquifer tests of the Catahoula Sandstone, which is the lower unit of the Miocene Aquifer System, show hydraulic conductivities ranging from 18 to 170 ft/day. Hydraulic conductivities average 95 ft/day for the Miocene Aquifer System. Lithologic data indicates that the Miocene Aquifer System extends to a depth in excess of 1000 feet below sea level with the base of fresh water occurring approximately 800 feet below sea level.

Underlying the Miocene Aquifer is the Vicksburg Group (Undifferentiated) which is generally composed of limestone beds alternating with thin beds of limy sand and clay. The clay formations effectively isolate the overlying Miocene Aquifer System.

3.2 The Aquifer of Concern

(References 1 and 2)

The Hattiesburg Formation and the Catahoula Sandstone are considered as a single hydraulic unit, referred to as the Miocene Aquifer System. These aquifers constitute the aquifer of concern (AOC).

The first water-bearing unit of the AOC occurs in the surficial aquifer (Hattiesburg Formation) at a depth ranging from approximately 25 to 30 feet below the land surface. The depth to the aquifer, from the lowest known point of hazardous substances at the site to the top of the aquifer, is approximately 14 to 19 feet. ①

The unsaturated zone (i.e., the zone between the lowest known point of hazardous substances and the top of the aquifer) consists primarily of sandy silts, silts, and silty clays. The lowest hydraulic conductivity layer (i.e., silty clays) is approximately 1×10^{-8} cm/s, and has an approximate thickness of 3 to 5 feet. *

U.S.G.S. identifies the following public water supply wells in the AOC within the four-mile radius:

Eleven (11) wells for the City of Hattiesburg which serve a population of approximately 38,570 persons (14,500 connections x 2.66 people per household - 1980 census). The water from the City of Hattiesburg wells is mixed/blended into one distribution system.

Two (2) Central Water Association wells which serve a population of approximately 865 persons (325 connections x 2.66 people per household). The water from the wells is mixed/blended into one distribution system.

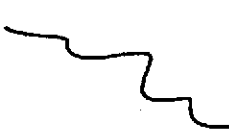
Two (2) Palmers Water Association wells which serve a population of approximately 1,250 persons (470 connections x 2.66 people per household). The water from the wells is mixed/blended into one distribution system.

Three (3) Lamar Park Water Association wells which serve a population of approximately 2,926 persons (1,100 connections x 2.66 people per household). The water from the wells is mixed/blended into one distribution system.

The City of Hattiesburg wells, the Central Water Association wells, the Palmers Water Association wells, and the Lamar Park Association wells supply a total population of approximately 43,611 persons. These wells are screened from approximately 330 feet below the land surface to a maximum depth of approximately 665 feet.

U.S.G.S. identifies approximately 62 domestic/private wells occurring in the AOC within the four-mile radius that serve a total population of approximately 165 persons (62 wells x 2.66 people per household).

The nearest drinking water wells occurring in the AOC are located within the 1 to 2 mile radius. One of the wells is a City of Hattiesburg well located approximately 1.5 miles east of the site. This well was sampled during the SI-Phase II investigation. The well extends to approximately 485 feet below the land surface, with the top of the screened interval occurring approximately 435 feet below the land surface.



U.S.G.S. identifies three (3) domestic/private wells occurring in the AOC within the 1/2 to 1 mile radius. However, information collected during the SI-Phase II investigation indicated that the wells were no longer in use.

U.S.G.S. also identifies a number of irrigation wells occurring in the AOC within the 4-mile radius that supply water to commercial food crops and/or commercial forage crops.

3.3 Precipitation

(Reference 1)

The climate of southeastern Mississippi is humid and semitropical. Average annual rainfall is approximately 61 inches. Average annual runoff from the numerous streams in the area is approximately 20 inches. The remainder of the precipitation seeps into the ground or is dissipated by evapotranspiration. The net annual precipitation of the study area is about 15 inches.

3.4 Surface Water

(Reference 1)

The Gulf State Creosote site is located adjacent to Gordons Creek which is the nearest perennial downslope surface water. Gordons Creek flows in a north northeasterly direction before entering the Leaf River approximately 4.5 stream miles from the site. The 15-mile surface water migration pathway ends in the Leaf River.

According to the Mississippi Office of Land and Water Resources, there are no drinking water intakes located along the 15-mile surface water migration pathway. The Leaf River is used for recreational purposes such as fishing and swimming.

The site and surrounding area is relatively flat with a slight gradient to the west southwest. The surface elevation of the sight is approximately 180 feet above mean sea level.

4.0 ENVIRONMENTAL THREATS

(References 1 and 4)

There are no national wildlife refuges or critical habitats for federally designated endangered or threatened species along the 15-mile migration pathway. Additionally, no other sensitive environments listed in the HRS Table 4-23 of EPA's Hazard Ranking System; Final Rule, 40 CFR Part 300 were identified according to information sources from the U.S. Fish and Wildlife Service. Also, topographic maps of the site and the surrounding area indicate no wetlands along the surface water migration pathway.

5.0 FIELD INVESTIGATION

5.1 Sampling History

In 1989 and 1990, EPA Emergency Response personnel and the MS OPC conducted a sampling investigation of the site. The analytical results and other information from the investigation are located in Appendix A.

5.2 Sample Collection Methodology

All sample collection, preservation, and chain-of-custody procedures used during the SI-Phase II investigation were in accordance with the standard operating procedures specified in Sections 3 and 4 of the Engineering Support Branch Standard Operating procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

5.3 Description of Samples and Sample Locations

The purpose of the sampling investigation was to characterize the chemical composition of sediment, soil, and groundwater samples collected from potentially contaminated areas. The selection of sample locations was based on visual observations, previous sampling investigations and other historical site information. Background as well as site-related samples were collected.

Two temporary wells (i.e., one upgradient and one downgradient) were installed on-site. Groundwater samples were collected from each of the temporary wells. A groundwater sample was also collected to determine if site-related contaminants have impacted one of the nearest potable wells, which is a City of Hattiesburg public water supply well screened in the Miocene Aquifer System.

A total of seven (7) samples were collected: Two (2) sediment samples, two (2) subsurface soil samples, and three (3) groundwater samples. Sample codes, locations, and rationale are shown in Table B-1 of Appendix B. Sample locations are also shown in Figure B-1 of Appendix B.

The temporary wells were installed using a Failing 1500 drill rig with solid stem augers.

MS OPC representatives--Jim Hardage, Michael Slack, Ken Whitten, and Mark Walters--collected, bottled, and labeled the samples.

5.4 Analytical Support and Methodology

All samples were analyzed for semivolatile organic compounds listed in the EPA Target Compounds List (TCL). Analyses were limited to these compounds because the site was a wood-treating facility that used creosote, creosote compounds are typically picked up in a semivolatile organics analysis, and also because previous sampling by Emergency Response personnel had identified the compounds of concern as creosote constituents. Analyses of soil, sediment and groundwater samples were performed by Mississippi State Chemical Laboratory (MSCL), Starkville, Mississippi.

The analyses were performed in accordance with the standard procedures and protocols specified in the USEPA manual SW-846, "Test Methods for Evaluating Solid Waste," second edition, or equivalent procedures.

5.5 Mississippi State Chemical Laboratory QA/QC Procedures

Internal QC for analytes consists of the analysis of surrogate spikes, matrix spikes, matrix blanks, and internal standards with each set of environmental samples of a specific matrix type. Samples are submitted for analysis in small groups typically containing less than 12 samples of any one type, so only one of each of the above QC samples is normally analyzed with each set of samples of a specific matrix. All analytical data are subjected to a QA review to determine their acceptability. Percent recoveries are calculated from matrix spikes for each class of analytes and matrix types. Those data are accepted as valid for which recoveries of 70-130% are obtained. Reported analytical results are flagged for which applicable surrogate recoveries are outside acceptable limits, as suggested in SW-846. Data for sample sets where matrix spike recoveries are not acceptable are deemed invalid, in which case the sample set, including surrogates, blanks, and spikes, are reanalyzed. Standard deviations and coefficients of variation are calculated from recovery data for sets of matrix spikes for specific analytes accumulated over a period of months or even years, illustrating the continuous performance of a particular analytical method for a matrix-analyte pair.

5.6 Soil Samples

Two (2) subsurface soil samples (one background and one on-site), were collected. Sample GS-SB-01, the background sample, was collected from an area thought to be free of contaminants associated with the past creosote operation. This area was located on the north northeastern side of the site near the Ryan Motors automobile dealership. Sample GS-SB-02 was collected from a known contaminated source area located between two drainage ditches on the west to southwest side of the site that drain into Gordons Creek.

No semi-volatile organic compounds were detected at or above the minimum quantifiable level (MQL) in background sample GS-SB-01. Sample GS-SB-02, however, contained the following compounds: naphthalene (1,900 mg/kg or ppm), 2-methylnaphthalene (1,400 mg/kg), acenaphthene (970 mg/kg), dibenzofuran (1,000 mg/kg), fluorene (1,500 mg/kg), phenanthrene (3,500 mg/kg), anthracene (4,200 mg/kg), fluoranthene (1,600 mg/kg), pyrene (770 mg/kg), benzo(a)anthracene (270 mg/kg), chrysene (280 mg/kg), benzo(b)fluoranthene (113 mg/kg), benzo(k)fluoranthene (100 mg/kg), and benzo(a)pyrene (85 mg/kg). This sample also contained nineteen (19) additional polynuclear aromatic hydrocarbons (PAHs) not on EPA's TCL or RCRA Appendix IX list.

Naphthalene, acenaphthene, fluoranthene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, and benzo(a)pyrene are common constituents from wood preserving processes that use creosote.

5.7 Sediment Samples

Two (2) sediment samples, one upstream and one adjacent to the site, were collected from Gordons Creek. Sample GS-SD-01, the upstream sample, was collected adjacent to a trailer park located to the southwest of the site. Sample GS-SD-02, the downstream sample, was collected adjacent to the site, where visual evidence of creosote material along the creek bank was observed.

Upstream sample, GS-SD-01, contained three (3) of the following compounds: phenanthrene (0.470 mg/kg), fluoranthene (0.700 mg/kg), and pyrene (0.470 mg/kg).

Sample GS-SD-02 contained the following compounds: naphthalene (240 mg/kg), 2-methylnaphthalene (240 mg/kg), acenaphthene (370 mg/kg), dibenzofuran (400 mg/kg), fluorene (550 mg/kg), phenanthrene (18,000 mg/kg)--thousands of times greater than the upstream sample; anthracene (220 mg/kg), fluoranthene (770 mg/kg)--1,100 times greater than the upstream sample; pyrene (490 mg/kg)--approximately 1,040 times greater than the upstream sample; benzo(a)anthracene (170 mg/kg), chrysene (160 mg/kg), benzo(b)fluoranthene (58 mg/kg), benzo(k)fluoranthene (72 mg/kg), and benzo(a)pyrene (60 mg/kg). This sample also contained nineteen (19) additional PAHs not on EPA's TCL or RCRA Appendix IX list.

All of the compounds detected in sediment sample GS-SD-02 were also present in soil sample GS-SB-02. The data and visual evidence suggests migration of creosote material from the source area to the nearby sediments of Gordons Creek.

5.8 Groundwater Samples

Two (2) groundwater samples were collected from the two temporary wells (one upgradient and one downgradient). Sample GS-TW-01, which was collected from the upgradient temporary well, was located approximately in the same area as subsurface soil sample GS-SB-01 (i.e., near Ryan Motors). Sample GS-TW-02, was collected from the downgradient temporary well located south of the source area and sample GS-SB-02. Also, a groundwater sample, GS-PW-01, was collected from a City of Hattiesburg public well located approximately 1.5 miles to the east of the site.

No semi-volatile organic compounds on the TCL were detected at or above the MQL in any of the groundwater samples. However, nineteen (19) peaks not on the TCL or the RCRA Appendix IX list were detected in downgradient sample GS-TW-02. Seventeen (17) of the peaks were not identified. Two of the peaks appear to be fatty acids at a total estimated concentration of 125 ug/l. Four (4) peaks not on the TCL or the RCRA Appendix IX were also detected in upgradient sample GS-TW-02. Three of the peaks appear to be fatty acids at a total estimated concentration of 50 ug/l. The other peak was not identified.

Four (4) peaks not on the TCL or the RCRA Appendix IX list were detected in the public well sample. Two of the peaks appear to be substituted chlorinated benzenes at an estimated total concentration of 10 ug/l. The other two peaks were not identified. The substituted chlorinated benzenes detected in the public well sample are not thought to be site-related.

TABLE 1
SUMMARY OF ORGANIC (SEMI-VOC) ANALYTICAL RESULTS
GULF STATE CREOSOTE SITE - SI-PHASE II

Parameters milligrams/kg (ppm)	Upgradient Well GS-TW-01	Downgradient Well GS-TW-02	Upstream Sediment GS-SD-01	Downstream Sediment GS-SD-02	Background Soil GS-SB-01	Soil - Source Area GS-SB-02
Naphthalene	--	--	--	240	--	1,900
2-Methylnaphthalene	--	--	--	240	--	1,400
Acenaphthylene	--	--	--	Trace	--	Trace
Acenaphthene	--	--	--	370	--	970
Dibenzofuran	--	--	--	400	--	1,000
Fluorene	--	--	--	550	--	1,500
Phenanthrene	--	--	0.470	18,000	--	3,500
Anthracene	--	--	--	220	--	4,200
Fluoranthene	--	--	0.700	770	--	1,600
Pyrene	--	--	0.470	490	--	770
Benzo(a)anthracene	--	--	Trace	170	--	270
Chrysene	--	--	Trace	160	--	280
Benzo(b)fluoranthene	--	--	--	59	--	113
Benzo(k)fluoranthene	--	--	--	72	--	100
Benzo(e)pyrene	--	--	--	60	--	85
Indene(1,2,3-cd)	--	--	--	Trace	--	--
Pyrene	--	--	--	Trace	--	--
Benzo(g,h,i)perylene	--	--	--	Trace	--	--

-- Constituent analyzed for but not detected above the minimum quantifiable level (MQL)

REFERENCES

1. A Preliminary Assessment (PA) Report for the Gulf State Creosote Site, Hattiesburg, Mississippi, prepared by the Mississippi Office of Pollution Control (MS OPC), Hazardous Waste Division (HWD), March 6, 1991.
2. Field Notes of the SI-Phase II Investigation conducted at the Gulf State Creosote Site, Hattiesburg, MS, by the MS OPC, October 15-17, 1991.
3. Estimates of Households, for Counties: July 1, 1985, Average Population per Household.
4. Environmental Protection Agency, 40 CFR Part 300, Hazard Ranking System; Final Rule, Friday, December 14, 1990.
5. Photographs of the SI-Phase II Investigation conducted at the Gulf State Creosote Site, Hattiesburg, MS, by the MS OPC, October 16-17, 1991.

APPENDICES

APPENDIX A

US-EPA
Waste Management Division
Emergency Response & Removal Branch
345 Courtland Street, N.E.
Atlanta, Georgia 30365



404/347-3931 commercial
404/347-4464 FAX
257-3931 FTS
404/347-4062 24-hr. emergency No.

FACSIMILE TRANSMISSION SHEET

Date: 10/14/91 Number of Pages: 8 (including cover sheet)

TO: Jim Hurdage / Mike Slack Telephone No. _____

Address: _____ FAX No. 601/354-6612

FROM: Don Rigger

SPECIAL INSTRUCTIONS: Call 404/489-7319 w/ any problems or questions

Note: If message is received poorly or other errors are detected, please contact _____ in our office at the above listed telephone numbers (except the 24-hr. No.)... Thank you.

(404)
547-3931

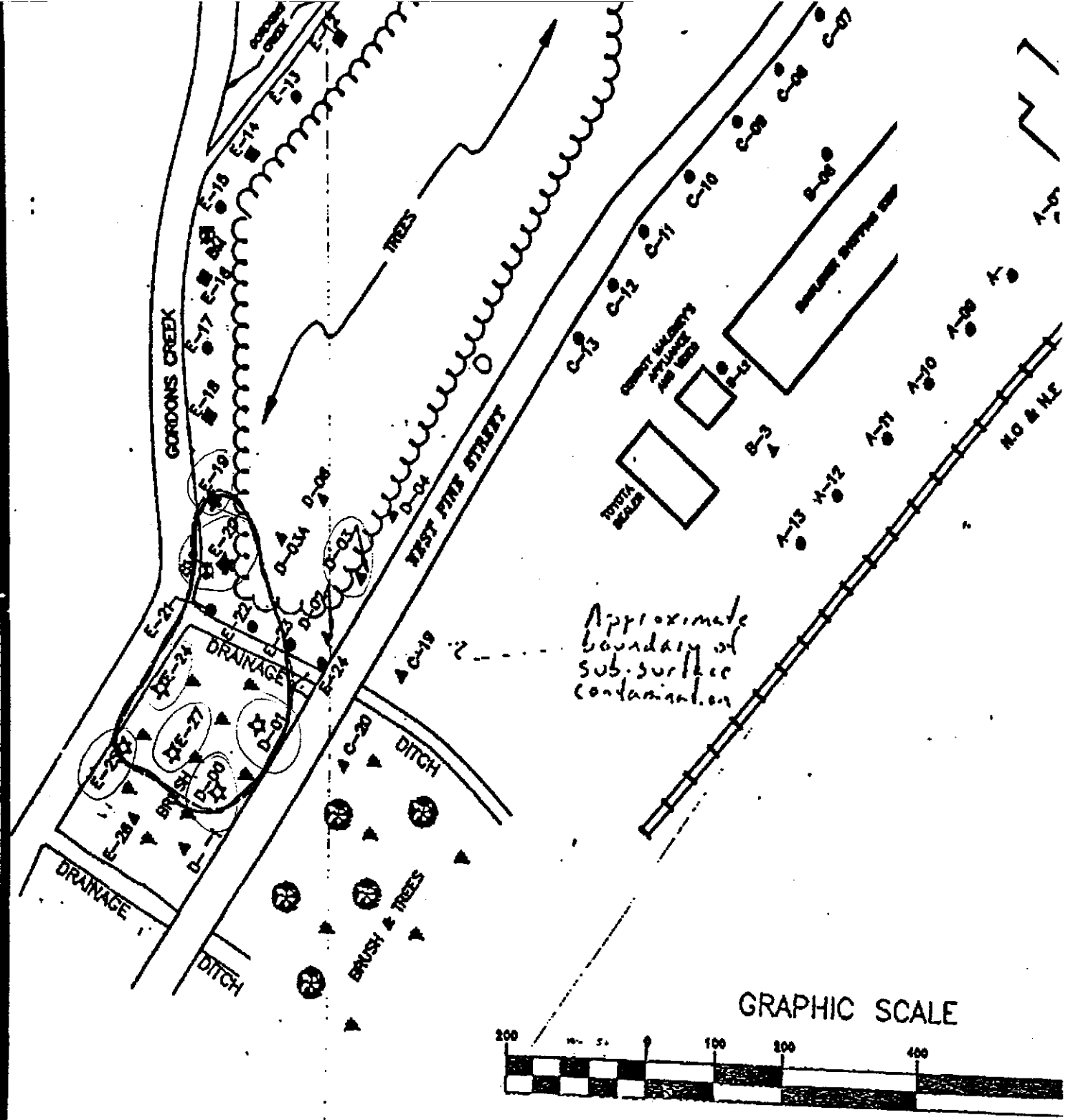


FIGURE 2
 SAMPLE LOCATION MAP
 GILF STATE CREOSOTE

(IN FEET)
 1 Inch = 200 ft.

LEG.	
☆	- HOT B
●	- SOIL C
▲	- SOIL E
■	- SOIL G
⊠	- BENCH
---	- APPROX ZONE B



100 Atlanta Technology Center, Suite 120, 1575 Northside Drive, NW,
Atlanta, GA 30318 • (404) 352-4147 • FAX (404) 352-0659

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

MEMORANDUM

TO: File *ADD*

FROM: Donnissa L. Duvic
TAT, Region IV

THRU: Conley B. Phifer *CBP*
TATL, Region IV

SUBJECT: Gulf State Creosote Analytical Data
TDD# 04-8908-L15-0816
TAT# 04-8-03477

DATE: 7 September 1989

Bonner Analytical Testing Company conducting the requested analysis of base neutrals/acid extractables on two samples from the Gulf State Creosote site. The data was received prior to the requested due date.

A summary of the analytical data may be found on the following page. All results are in ppb.

Roy F. Weston, Inc.
MAJOR PROGRAMS DIVISION

In Association with ICI Technology, Inc., C.C. Johnson & Malhotra, P.C., Resource Applications, Inc.

GULF STATE CREOSOTE ANALYTICAL DATA

Stagnant creek water
w/ creosote liquid
layer on top
"Hot" spots
in creek

	<u>Water</u>	<u>Soil</u>
Naphthalene	57,420	2,830,000
Acenaphthylene	1,570	43,750
Acenaphthene	23,910	783,600
Fluorene	26,740	919,300
Phenanthrene	43,270	2,021,000
Anthracene	11,640	355,300
Fluoranthene	40,620	1,037,000
Pyrene	31,530	861,000
Benzo (a) anthracene	9,800	215,000
Chrysene	8,360	217,400
Benzo (b) fluoranthene	3,880	73,460
Benzo (k) fluoranthene	5,580	142,900
Benzo (a) pyrene	4,660	109,100
Indeno (1,2,3-c,d) pyrene	1,200	9,040
Dibenzo (a,h) anthracene	2013	-
Benzo (g,h,i) perylene	706J	3,370J
Total Polynuclear Aromatics	271,000	9,620,000

ppb

J indicates compound was detected below the detection limit, the value given is an estimate

(The above results are in ppb. To convert in ppm, divide by 1000).

cc: Don Rigger
Greg Shaia

GULF STATES CREOSOTE SITE
HATTIESBURG, MISSISSIPPI
JANUARY, 1990

Parts per million (ppm)

Compound Name	Sample Location Sample Depth	B0 2.5 0-12 in.	D00 5 ft.	D00 8 ft.	D01 5 ft.	D01 8 ft.	E20 4 ft.
Naphthalene	•		178	354	280	148	4.1J
2-Methylnaphthalene	•		99	197	460	82	3.6J
1-Methylnaphthalene	•		72	104	340	45	•
Biphenyl	•		22J	55	9J	24	•
2,6-Dimethylnaphthalene	•		72	66	53	28	•
Acenaphthylene	•		4.4J	4.2J	2.3J	•	•
Acenaphthene	•		259	156	225	81	14J
Dibenzofuran	•		158	125	114	78	4.7J
Fluorene	•		245	140	219	90	9.4J
Phenanthrene	6.5J		718	325	715	229	26
Anthracene	•		465	210	521	114	69
Carbazole	•		173	96	157	38	15J
Fluoranthene	3J		844	215	763	188	138
Pyrene	1.1J		181	64	266	65	98
Benzo(a)anthracene	1.6J		181	54	259	62	104
Chrysene	2.9J		230	61	318	73	160
Benzo(b)fluoranthene	3.8J		•	78	143	127	248
Benzo(k)fluoranthene	•		231	74	135	121	236
Benzo(c)pyrene	2.5J		83	25	97	52	83
Benzo(a)pyrene	2.5J		125	35	133	55	116
Indeno(1,2,3-cd)pyrene	1.8J		51	15J	54	26	53
Dibenzo(a,h)anthracene	.5J		23	5J	19J	12J	17J
Benzo(g,h,i)perylene	1.5J		41	11J	42	22	42

Total

9,435

5,322

• - Non-detectable levels.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the lowest linear detection limit of 10.0 ug/ml, but greater than zero and the concentration is given as an approximate value.

TABLE 3. SUMMARY OF SOILS ANALYSIS

GULF STATES CREOSOTE SITE
 HATTIESBURG, MISSISSIPPI
 MARCH, 1990

Parts per million (ppm)

Compound Name	Sample Location Sample Depth	D03A 10 ft. Top of Auger	D03A Bottom of Auger	E19 31 ft.	E24 8 ft.	E25 8 ft.	E27 8 ft.
Naphthalene		0.5J	7.3	2.5	544	48	753
2-Methylnaphthalene		•	.1J	.9	224	26	293
1-Methylnaphthalene		•	.06J	.6	107	26	193
Biphenyl		•	.02J	.3J	55	3.5J	140
2,6-Dimethylnaphthalene		•	•	.4J	71	13	160
Acenaphthylene		•	•	.04J	7.3J	2.4J	20
Acenaphthene		•	.1J	1.5	264	86	213
Dibenzofuran		•	.05J	.7	159	37	125
Fluorene		•	.05J	.9	194	66	129
Phenanthrene		•	.04J	2.7	420	136	425
Anthracene		•	•	1.7	87	41	126
Carbazole		•	.07	.3	48	5.5J	59
Fluoranthene		.1J	.03J	2.9	224	144	288
Pyrene		.2J	.04J	3.4	180	126	296
Benzo(a)anthracene		.07J	•	1.1	52	34	100
Chrysene		.08J	•	1.2	42	37	86
Benzo(b)fluoranthene		•	•	1.0	•	•	86
Benzo(k)fluoranthene		•	•	.4	273	30	•
Benzo(e)pyrene		•	•	.5	•	9.7J	31
Benzo(a)pyrene		•	•	.6	•	11	42
Indeno(1,2,3-cd)pyrene		•	•	•	•	•	•
Dibenzo(a,h)anthracene		•	•	•	•	•	•
Benzo(g,h,i)perylene		•	•	•	•	•	•

• - Non-detectable levels.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the lowest line detection limit of 10.0 ug/ml, but greater than zero and the concentration is given as an approximate value.



MISSISSIPPI
STATE CHEMICAL LABORATORY
 BOX CR · MISSISSIPPI STATE, MISSISSIPPI 39762
 TELEPHONE (601) 325-3324



DR EARL G ALLEY
 State Chemist
 DR LARRY G LANE
 Director IAS Division

November 13, 1991

Analysis No. 826,336-338

Analysis of Water

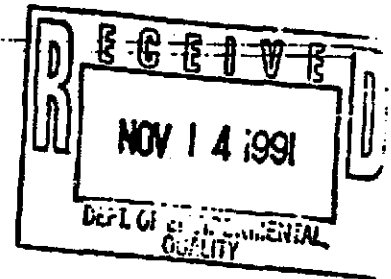
Marked: Gulf State Creosote, Hattiesburg

Received on 10-21-91

from MS Office of Pollution Control
 ATTN: Jim Hardage

Address P.O. Box 10385 Jackson, MS 39209

RESULTS:



MSCL NO.

MS DEQ-OPC Identification

826,336

GS-PW-01, Public Well-Hall Street (Water Dept.)

826,337

GS-TW-01, Background Temporary Well, Pine Street &
 Ryan Motors

826,338

GS-TW-02, Downgradient Temporary Well, Near Trailer Park

Results from our gc/mass spec analyses of the above water samples for semivolatile organic compounds on the Target Compound List are presented in attached reports.

Analytical Costs

3 ABNs By gc/ms @ \$400 = \$1200

Earl G. Alley

State Chemist

PLEASE GIVE NUMBER WHEN REFERRING TO THIS ANALYSIS

SEMIVOLATILES DATA SHEET FOR WATERS

MSCL ANALYSIS NO. 826,137

MARKED Gulf State Creosote

ANALYSIS OF Water

GS-TW-01

COMPOUNDS	MQL*	Micro g/L	COMPOUNDS	MQL*	Micro g/L
Phenol	10	ND	2,4-Dinitrophenol	50	ND
bis(2-Chloroethyl)ether	10	ND	4-Nitrophenol	50	ND
2-Chlorophenol	10	ND	Dibenzofuran	10	ND
1,3-Dichlorobenzene	10	ND	2,4-Dinitrotoluene	10	ND
1,4-Dichlorobenzene	10	ND	Diethylphthalate	10	ND
Benzyl alcohol	20	ND	4-Chlorophenyl-phenyl ether	10	ND
1,2-Dichlorobenzene	10	ND	Fluorene	10	ND
2-Methylphenol	10	ND	4-Nitroaniline	50	ND
bis(2-Chloroisopropyl)ether	10	ND	4,6-Dinitro-2-methylphenol	50	ND
4-Methylphenol	10	ND	N-nitrosodiphenylamine	10	ND
N-Nitroso-di-n-dipropylamine	10	ND	4-Bromophenyl-phenylether	10	ND
Hexachloroethane	10	ND	Hexachlorobenzene	10	ND
Nitrobenzene	10	ND	Pentachlorophenol	50	ND
Isophorone	10	ND	Phenanthrene	10	ND
2-Nitrophenol	10	ND	Anthracene	10	ND
2,4-Dimethylphenol	10	ND	Di-n-butylphthalate	10	ND
Benzoic acid	20	ND	Fluoranthene	10	ND
bis(2-Chloroethoxy)methane	10	ND	Pyrene	10	ND
2,4-Dichlorophenol	10	ND	Butylbenzylphthalate	10	ND
1,2,4-Trichlorobenzene	10	ND	3,3'-Dichlorobenzidine	20	ND
Naphthalene	10	ND	Benzo(a)anthracene	10	ND
4-Chloroaniline	20	ND	Chrysene	15	ND
Hexachlorobutadiene	10	ND	bis(2-Ethylhexyl)phthalate	10	ND
4-Chloro-3-methylphenol	20	ND	Di-n-octylphthalate	10	ND
2-Methylnaphthalene	10	ND	Benzo(b)fluoranthene	10	ND
Hexachlorocyclopentadiene	10	ND	Benzo(k)fluoranthene	10	ND
2,4,6-Trichlorophenol	10	ND	Benzo(a)pyrene	10	ND
2,4,5-Trichlorophenol	10	ND	Indeno(1,2,3-cd)pyrene	10	ND
2-Chloronaphthalene	10	ND	Dibenz(a,b)anthracene	10	ND
2-Nitroaniline	50	ND	Benzo(g,h,i)perylene	10	ND
Dimethylphthalate	10	ND			
Acenaphthylene	10	ND			
2,6-Dinitrotoluene	10	ND			
3-Nitroaniline	50	ND			
Acenaphthene	10	ND			

*ND = None Detected

MQL = Minimum Quantifiable Level

SURROGATES	RECOVERY (%)
2-Fluorophenol	38
Phenol-d5	22
Nitrobenzene-d5	78
2-Fluorobiphenyl	78
2,4,6-Tribromophenol	114
p-Terphenyl-d14	116

Multiply MQL's by _____

- _____ No peaks above 40% of internal standard were observed.
- 1 Peaks above 40% of internal standard were not identified.
- 3 Peaks above 40% internal standard not on EPA Appendix IX. Appear to be fatty acids at a total estimated concentration of 50 µg/L.

Paul H. Callan
State Chemist

ANALYSIS OF Water

GS-TW-02

COMPOUNDS	MQL*	Micro g/L	COMPOUNDS	MQL*	Micro g/L
Phenol	10	ND	2,4-Dinitrophenol	50	ND
bis(2-Chloroethyl)ether	10	ND	4-Nitrophenol	50	ND
2-Chlorophenol	10	ND	Dibenzofuran	10	ND
1,3-Dichlorobenzene	10	ND	2,4-Dinitrotoluene	10	ND
1,4-Dichlorobenzene	10	ND	Diethylphthalate	10	ND
Benzyl alcohol	20	ND	4-Chlorophenyl-phenyl ether	10	ND
1,2-Dichlorobenzene	10	ND	Fluorene	10	ND
2-Methylphenol	10	ND	4-Nitroaniline	50	ND
bis(2-Chloroisopropyl)ether	10	ND	4,6-Dinitro-2-methylphenol	50	ND
4-Methylphenol	10	ND	N-nitrosodiphenylamine	10	ND
N-Nitroso-di-n-dipropylamine	10	ND	4-Bromophenyl-phenylether	10	ND
Hexachloroethane	10	ND	Hexachlorobenzene	10	ND
Nitrobenzene	10	ND	Pentachlorophenol	50	ND
Isophorone	10	ND	Phenanthrene	10	ND
2-Nitrophenol	10	ND	Anthracene	10	ND
2,4-Dimethylphenol	10	ND	Di-n-butyl phthalate	10	ND
Benzoic acid	20	ND	Fluoranthene	10	ND
bis(2-Chloroethoxy)methane	10	ND	Pyrene	10	ND
2,4-Dichlorophenol	10	ND	Butylbenzylphthalate	10	ND
1,2,4-Trichlorobenzene	10	ND	3,3'-Dichlorobenzidine	20	ND
Naphthalene	10	ND	Benzo(a)anthracene	10	ND
4-Chloroaniline	20	ND	Chrysene	10	ND
Hexachlorobutadiene	10	ND	bis(2-Ethylhexyl) phthalate	10	ND
4-Chloro-3-methylphenol	20	ND	Di-n-octylphthalate	10	ND
2-Methylnaphthalene	10	ND	Benzo(b)fluoranthene	10	ND
Hexachlorocyclopentadiene	10	ND	Benzo(k)fluoranthene	10	ND
2,4,6-Trichlorophenol	10	ND	Benzo(a)pyrene	10	ND
2,4,5-Trichlorophenol	10	ND	Indeno(1,2,3-cd)pyrene	10	ND
2-Chloronaphthalene	10	ND	Dibenz(a,h)anthracene	10	ND
2-Nitroaniline	50	ND	Benzo(g,h,i)perylene	10	ND
Dimethylphthalate	10	ND			
Acenaphthylene	10	ND			
2,6-Dinitrotoluene	10	ND			
3-Nitroaniline	50	ND			
Acenaphthene	10	ND			

*ND - None Detected

MQL - Minimum Quantifiable Level

SURROGATES	RECOVERY (%)
2-Fluorophenol	43
Phenol-d5	28
Nitrobenzene-d5	85
2-Fluorobiphenyl	82
2,4,6-Tribromophenol	126
p-Terphenyl-d14	100

Multiply MQL's by _____

____ No peaks above 40% of internal standard were observed.

____ 17 Peaks above 40% of internal standard were not identified.

____ 2 Peaks above 40% internal standard not on EPA Appendix IX. Appear to be fatty acids at a total estimated concentration of 123 µg/L.

Carl D. Colley
State Chemist

APPENDIX B

TABLE B - 1
 SAMPLE LOCATIONS AND RATIONALES
 GULF STATE CREOSOTE SITE
 SI - PHASE II

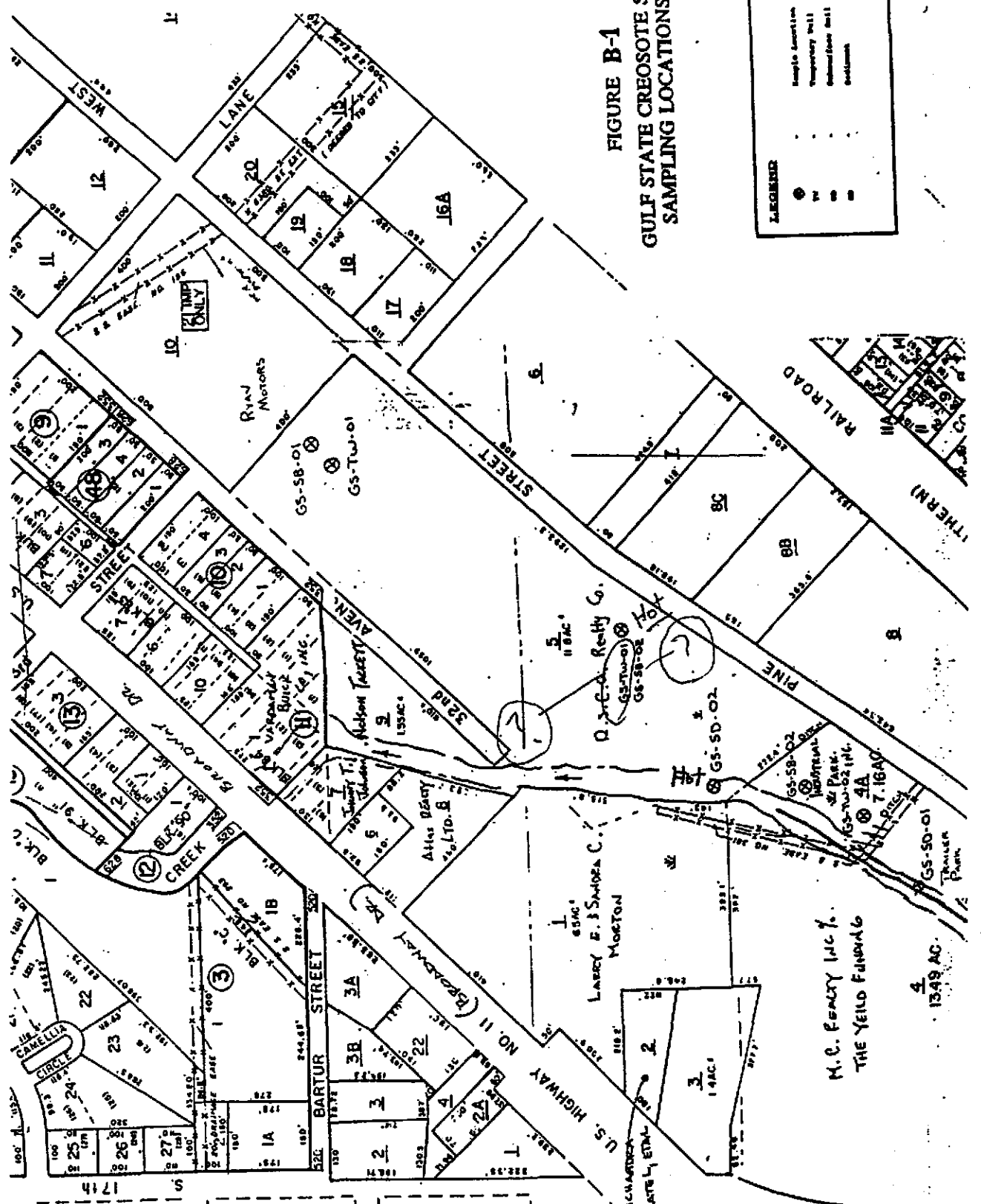
Collection Date	Sample Code	Sample Type	Locations	Rationale	Depth (ft ble)
10/15/91	GS-PW-01	Potable well	Public Well - 1.5 miles east of site - Hattiesburg Water Department	Determine presence or absence of contamination	400 feet
10/16/91	GS-TW-01	Groundwater	Upgradient Temporary Well - Adjacent to Pine Street and Ryan Motors	Background	30 feet
10/16/91	GS-SB-01	Subsurface Soil	Adjacent to Pine Street and Ryan Motors	Background	8 feet
10/16/91	GS-SD-01	Sediment	Collected from Gordons Creek adjacent to Trailer Park	Upstream/Background	NA
10/16/91	GS-SD-02	Sediment	Collected from Gordons Creek approximately 60 feet north/northeast of eastern drainage ditch	Determine presence or absence of contamination	NA
10/17/91	GS-TW-02	Groundwater	Downgradient temporary well located between the two drainage ditches near the Trailer Park	Determine presence or absence of contamination	25 feet
10/17/91	GS-SB-02	Subsurface	Located between the two drainage ditches near the Trailer Park	Determine presence or absence of contamination.	7 feet
	GS-TS-01	Trip Blank	Collected Prior to entry of site	QA/QC	NA

NA - Not Applicable

FIGURE B-1
GULF STATE CREOSOTE SITE
SAMPLING LOCATIONS

LEGEND

- Sample location
- Temporary well
- ⊙ Subsurface well
- ⊖ Wellhead



SD = SEDIMENT
 SB = SUBSURFACE



MISSISSIPPI
STATE CHEMICAL LABORATORY

BOX CR - MISSISSIPPI STATE, MISSISSIPPI 39209

TELEPHONE (601) 325-3324

RECEIVED
NOV 20 1991
Dept. of Environmental Quality
Bureau of Pollution Control

DR EARL G ALLEY
State Chemist
DR LARRY G LANE
Director IAS Division

November 18, 1991

Analysis No. 826,332-335

Analysis of Soil/Sediment

Received on 10-21-91

Address P.O. Box 10385 Jackson, MS 39209

Marked: Gulf State Creosote,
Hattiesburg
from MS Office of Pollution Control
ATTN: Jim Hardage

RESULTS:

MSCL No.

MS DEQ-OPC Identification

826,332
826,333
826,334
826,335

GS-SB-01, Background Subsurface Soil, Pine St. & Ryan Motors
GS-SD-01, Background Sediment, Gordons Creek Trailer Park
GS-SD-02, Downgradient Sediment, Gordons Creek East of Ditch
GS-SB-02, Subsurface Soil, Between two ditches

Results from our gc/mass spec analyses of the above sediment samples for Semivolatile Organic Compounds on the Target Compound List are presented in attached reports.

Analytical Costs

4 ABNs By gc/ms @ \$400 = \$1600

Earl G. Alley

State Chemist

PLEASE GIVE NUMBER WHEN REFERRING TO THIS ANALYSIS

ANALYSIS OF Soil

CS-SA-01

COMPOUNDS

	SQL*	Micro g/Kg
Phenol	330	ND
bis(2-Chloroethyl)ether	330	ND
2-Chlorophenol	330	ND
1,3-Dichlorobenzene	330	ND
1,4-Dichlorobenzene	330	ND
Benzyl alcohol	330	ND
1,2-Dichlorobenzene	330	ND
2-Methylphenol	330	ND
bis(2-Chloroisopropyl)ether	330	ND
4-Methylphenol	330	ND
N-Nitroso-di-n-dipropylamine	330	ND
Hexachloroethane	330	ND
Nitrobenzene	330	ND
Isophorone	330	ND
2-Nitrophenol	330	ND
2,4-Dimethylphenol	330	ND
Benzoic acid	1600	ND
bis(2-Chloroethoxy)methane	330	ND
2,4-Dichlorophenol	330	ND
1,2,4-Trichlorobenzene	330	ND
Naphthalene	330	ND
4-Chloroaniline	330	ND
Hexachlorobutadiene	330	ND
4-Chloro-3-methylphenol	330	ND
2-Methylnaphthalene	330	ND
Hexachlorocyclohexadiene	330	ND
2,4,6-Trichlorophenol	330	ND
2,4,5-Trichlorophenol	1600	ND
2-Chloronaphthalene	330	ND
4-Nitroaniline	1600	ND
Dimethylphthalate	330	ND
Acenaphthylene	330	ND
2,6-Dinitrotoluene	330	ND
3-Nitroaniline	1600	ND
Acenaphthene	330	ND

*ND = None Detected

SURROGATES	RECOVERY (%)
2-Fluorophenol	100
Phenol-d5	110
Nitrobenzene-d5	88
2-Fluorobiphenyl	104
2,4,6-Tribromophenol	107
p-Terphenyl-d14	119

- No peaks above 40% of internal standard were observed.
- Peaks above 40% of internal standard were not identified.
- Peaks above 40% internal standard not on EPA Appendix IX.
- Additional peaks were observed but not examined.

COMPOUNDS

	SQL*	Micro g/Kg
2,4-Dinitrophenol	1600	ND
4-Nitrophenol	1600	ND
Dibenzofuran	330	ND
2,4-Dinitrotoluene	330	ND
Diethylphthalate	330	ND
4-Chlorophenyl-phenyl ether	330	ND
Fluorene	330	ND
4-Nitroaniline	1600	ND
4,6-Dinitro-2-methylphenol	1600	ND
N-nitrosodiphenylamine	330	ND
4-Bromophenyl-phenylether	330	ND
Hexachlorobenzene	330	ND
Pentachlorophenol	1600	ND
Phenanthrene	330	ND
Anthracene	330	ND
Di-n-butylphthalate	330	ND
Fluoranthene	330	ND
Pyrene	330	ND
Butylbenzylphthalate	330	ND
3,3'-Dichlorobenzidine	660	ND
Benzo(a)anthracene	330	ND
Chrysene	330	ND
bis(2-Ethylhexyl)phthalate	330	NT
Di-n-octylphthalate	330	NT
Benzo(b)fluoranthene	330	NT
Benzo(k)fluoranthene	330	NT
Benzo(a)pyrene	330	NT
Indeno(1,2,3-cd)pyrene	330	NT
Dibenz(a,h)anthracene	330	NT
Benzo(g,h,i)perylene	330	NT

SQL = Minimum Quantifiable Level

Multiply SQL's by _____

Carl L. Colley
State Chemist

ANALYSIS OF Soil

GS-SD-01

COMPOUNDS

COMPOUNDS	MQI*	Micro g/Kg
Phenol	330	ND
bis(2-Chloroethyl)ether	330	ND
2-Chlorophenol	330	ND
1,3-Dichlorobenzene	330	ND
1,4-Dichlorobenzene	330	ND
Benzyl alcohol	330	ND
1,2-Dichlorobenzene	330	ND
2-Methylphenol	330	ND
bis(2-Chloroisopropyl)ether	330	ND
4-Methylphenol	330	ND
N-Nitroso-di-n-dipropylamine	330	ND
Hexachloroethane	330	ND
Nitrobenzene	330	ND
Isophorone	330	ND
2-Nitrophenol	330	ND
2,4-Dimethylphenol	330	ND
Benzoic acid	1600	ND
bis(2-Chloroethoxy)methane	330	ND
2,4-Dichlorophenol	330	ND
1,2,4-Trichlorobenzene	330	ND
Naphthalene	330	ND
4-Chloroaniline	330	ND
Hexachlorobutadiene	330	ND
4-Chloro-3-methylphenol	330	ND
2-Methylnaphthalene	330	ND
Hexachlorocyclopentadiene	330	ND
2,4,6-Trichlorophenol	330	ND
2,4,5-Trichlorophenol	1600	ND
2-Chloronaphthalene	330	ND
2-Nitroaniline	1600	ND
Dimethylphthalate	330	ND
Acenaphthylene	330	ND
2,6-Dinitrotoluene	330	ND
3-Nitroaniline	1600	ND
Acenaphthene	330	ND

*ND = None Detected

SURROGATES	RECOVERY (%)
2-Fluorophenol	72
Phenol-d5	92
Nitrobenzene-d5	43
2-Fluorobiphenyl	78
2,4,6-Tribromophenol	88
p-Terphenyl-d14	92

_____ No peaks above 40% of internal standard were observed.

1 Peaks above 40% of internal standard were not identified.

1 Peaks above 40% internal standard not on EPA Appendix IX.

_____ Additional peaks were observed but not examined.

COMPOUNDS

COMPOUNDS	MQI*	Micro g/Kg
2,4-Dinitrophenol	1600	ND
4-Nitrophenol	1600	ND
Dibenzofuran	330	ND
2,4-Dinitrotoluene	330	ND
Diethylphthalate	330	ND
4-Chlorophenyl-phenyl ether	330	ND
Fluorene	330	ND
4-Nitroaniline	1600	ND
4,6-Dinitro-2-methylphenol	1600	ND
N-nitrosodiphenylamine	330	ND
4-Bromophenyl-phenylether	330	ND
Hexachlorobenzene	330	ND
Pentachlorophenol	1600	ND
Phenanthrene	330	470
Anthracene	330	ND
Di-n-butylphthalate	330	ND
Fluoranthene	330	700
Pyrene	330	470
Butylbenzylphthalate	330	ND
3,3'-Dichlorobenzidine	660	ND
Benzo(a)anthracene	330	Trace
Chrysene	330	Trace
bis(2-Ethylhexyl)phthalate	330	ND
Di-n-octylphthalate	330	ND
Benzo(b)fluoranthene	330	ND
Benzo(k)fluoranthene	330	ND
Benzo(a)pyrene	330	ND
Indeno(1,2,3-cd)pyrene	330	ND
Dibenz(a,h)anthracene	330	ND
Benzo(g,h,i)perylene	330	ND

MQI = Minimum Quantifiable Level

Multiply MQI's by _____

Carl L. Alley

State Chemist

SEMIVOLATILES DATA SHEET FOR SOILS

MSCL ANALYSIS NO. 826,335

MARKED Gulf State Crocote

ANALYSIS OF Soil

GS-SB-02

COMPOUNDS

	SQL*	Micro g/Kg
Phenol	330	ND
bis(2-Chloroethyl)ether	330	ND
2-Chlorophenol	330	ND
1,3-Dichlorobenzene	330	ND
1,4-Dichlorobenzene	330	ND
Benzyl alcohol	330	ND
1,2-Dichlorobenzene	330	ND
2-Methylphenol	330	ND
bis(2-Chloroisopropyl)ether	330	ND
4-Methylphenol	330	ND
N-Nitroso-di-n-dipropylamine	330	ND
Hexachloroethane	330	ND
Nitrobenzene	330	ND
Isophorone	330	ND
2-Nitrophenol	330	ND
2,4-Dimethylphenol	330	ND
Benzoic acid	1600	ND
bis(2-Chloroethoxy)methane	330	ND
2,4-Dichlorophenol	330	ND
1,2,4-Trichlorobenzene	330	ND
Naphthalene	330	1,900,000
4-Chloroaniline	330	ND
Hexachlorobutadiene	330	ND
4-Chloro-3-methylphenol	330	ND
2-Methylnaphthalene	330	1,400,000
Hexachlorocyclopentadiene	330	ND
2,4,6-Trichlorophenol	330	ND
2,4,5-Trichlorophenol	1600	ND
2-Chloronaphthalene	330	ND
2-Nitroaniline	1600	ND
Dimethylphthalate	330	ND
Acenaphthylene	330	Trace
2,6-Dinitrotoluene	330	ND
3-Nitroaniline	1600	ND
Acenaphthene	330	970,000

COMPOUNDS

	SQL*	Micro g/Kg
2,4-Dinitrophenol	1600	ND
4-Nitrophenol	1600	ND
Dibenzofuran	330	1,000,000
2,4-Dinitrotoluene	330	ND
Diethylphthalate	330	ND
4-Chlorophenyl-phenyl ether	330	ND
Fluorene	330	1,500,000
4-Nitroaniline	1600	ND
4,6-Dinitro-2-methylphenol	1600	ND
N-nitrosodiphenylamine	330	ND
4-Bromophenyl-phenylether	330	ND
Hexachlorobenzene	330	ND
Pentachlorophenol	1600	ND
Phenanthrene	330	3,500
Anthracene	330	4,200
Di-n-butylphthalate	330	ND
Fluoranthene	330	1,600
Pyrene	330	770
Butylbenzylphthalate	330	ND
3,3'-Dichlorobenzidine	660	ND
Benzo(a)anthracene	330	270,000
Chrysene	330	280,000
bis(2-Ethylhexyl) phthalate	330	ND
Di-n-octylphthalate	330	ND
Benzo(b)fluoranthene	330	113,000
Benzo(k)fluoranthene	330	100,000
Benzo(a)pyrene	330	85,000
Indeno(1,2,3-cd)pyrene	330	ND
Dibenz(a,h)anthracene	330	ND
Benzo(g,h,i)perylene	330	ND

*ND = None Detected

SQL = Minimum Quantifiable Level
*Estimated Value

Multiply SQL's by 250

SURROGATES	RECOVERY (%)
2-Fluorophenol	
Phenol-d5	
Nitrobenzene-d5	
2-Fluorobiphenyl	
2,4,6-Tribromophenol	
p-Terphenyl-d14	

NA = Had to dilute out of Linear Range

No peaks above 40% of internal standard were observed.

1 Peaks above 40% of internal standard were not identified.

19 Peaks above 40% internal standard, peaks appear to be PAHs not on EPA Appendix IX.

X Additional peaks were observed but not examined.

Carl L. Alley

State Chemist

ANALYSIS OF Soils

GS-SD-02

COMPOUNDS

	MQL*	Micro g/Kg
Phenol	330	ND
bis(2-Chloroethyl)ether	330	ND
2-Chlorophenol	330	ND
1,3-Dichlorobenzene	330	ND
1,4-Dichlorobenzene	330	ND
Benzyl alcohol	330	ND
1,2-Dichlorobenzene	330	ND
2-Methylphenol	330	ND
bis(2-Chloroisopropyl)ether	330	ND
4-Methylphenol	330	ND
N-Nitroso-di-n-dipropylamine	330	ND
Hexachloroethane	330	ND
Nitrobenzene	330	ND
Isophorone	330	ND
2-Nitrophenol	330	ND
2,4-Dimethylphenol	330	ND
Benzoic acid	1600	ND
bis(2-Chloroethoxy)methane	330	ND
2,4-Dichlorophenol	330	ND
1,2,4-Trichlorobenzene	330	ND
Naphthalene	330	240,000
4-Chloroaniline	330	ND
Hexachlorobutadiene	330	ND
4-Chloro-3-methylphenol	330	ND
2-Methylnaphthalene	330	240,000
Hexachlorocyclopentadiene	330	ND
2,4,6-Trichlorophenol	330	ND
2,4,5-Trichlorophenol	1600	ND
2-Chloronaphthalene	330	ND
2-Nitroaniline	1600	ND
Dimethylphthalate	330	ND
Acenaphthylene	330	Trace
2,6-Dinitrotoluene	330	ND
3-Nitroaniline	1600	ND
Acenaphthene	330	370,000

COMPOUNDS

	MQL*	Micro g/Kg
2,4-Dinitrophenol	1600	ND
4-Nitrophenol	1600	ND
Dibenzofuran	330	400,000
2,4-Dinitrotoluene	330	ND
Diethylphthalate	330	ND
4-Chlorophenyl-phenyl ether	330	ND
Fluorene	330	500,000
4-Nitroaniline	1600	ND
4,6-Dinitro-2-methylphenol	1600	ND
N-nitrosodiphenylamine	330	ND
4-Bromophenyl-phenylether	330	ND
Hexachlorobenzene	330	ND
Pentachlorophenol	1600	ND
Phenanthrene	330	15,000,000
Anthracene	330	200,000
Di-n-butylphthalate	330	ND
Fluoranthene	330	200,000
Pyrene	330	400,000
Butylbenzylphthalate	330	ND
3,3'-Dichlorobenzidine	660	ND
Benzo(a)anthracene	330	170,000
Chrysene	330	150,000
bis(2-Ethylhexyl)phthalate	330	ND
Di-n-octylphthalate	330	ND
Benzo(b)fluoranthene	330	50,000
Benzo(k)fluoranthene	330	20,000
Benzo(a)pyrene	330	50,000
Indeno(1,2,3-cd)pyrene	330	Trace
Dibenz(a,h)anthracene	330	ND
Benzo(g,h,i)perylene	330	Trace

*ND = None Detected

MQL = Minimum Quantifiable Level
*Estimated value

Multiply MQL's by 100

SURROGATES	RECOVERY (%)
2-Fluorophenol	
Phenol-d5	
Nitrobenzene-d5	
2-Fluorobiphenyl	
2,4,6-Tribromophenol	
p-Terphenyl-d14	

NA= Had to dilute out of Linear Range

No peaks above 40% of internal standard were observed.

1 Peaks above 40% of internal standard were not identified.

19 Peaks above 40% internal standard. compounds appear to be PAHs not on EPA Appendix IX.

X Additional peaks were observed but not examined.

PAHs = Polynuclear Aromatic Hydrocarbons

Carl S. Alley
State Chemist

APPENDIX C

SOIL GAS AND SOIL SAMPLING
GULF STATES CREOSOTE
HATTIESBURG, MISSISSIPPI

MAY 1990 EPA

COPY

SOIL GAS AND SOIL SAMPLING

GULF STATES CREOSOTE
HATTIESBURG, MISSISSIPPI

May, 1990

✓ EPA Work Assignment No.: 1-335
Weston Work Order No.: 3347-11-01-2335
EPA Contract No.: 68-03-3482

FINAL REPORT

Prepared by:

Roy F. Weston, Inc.

Martin O'Neill

Martin O'Neill
Task Leader

5/7/90
(Date)

Prepared for:

U.S. EPA/ERT

Harry Compton
Work Assignment Manager

W. Scott Butterfield

W. Scott Butterfield
Project Manager

5/7/90
(Date)

rd:eh/ONEILL/FR-2335.R1

TABLE OF CONTENTS

LIST OF TABLES
LIST OF FIGURES

1.0 INTRODUCTION

- 1.1 Background
- 1.2 Purpose of Investigation
- 1.3 Summary of Activities
- 1.4 Methods of Investigation

2.0 FINDINGS AND OBSERVATIONS

- 2.1 Soil Gas Survey
- 2.2 Soil Borings/Soil Sample Collection
- 2.3 Air Sampling/Monitoring

3.0 DISCUSSION OF RESULTS

- 3.1 Soil Gas Results
- 3.2 Soil Sampling Results
- 3.3 Air Sampling/Monitoring Results

4.0 CONCLUSIONS AND VOLUME ESTIMATES

- 4.1 Conclusions
- 4.2 Volume Estimates

APPENDICES

- A. Gulf States Creosote Trip Report
- B. TAGA Soil Gas Analysis
- C. Soil Boring Logs
- D. Field Data Sheets

LIST OF TABLES

- 1 Soil Gas Field Screening Data
- 2 Summary of Soils Analysis (January, 1990)
- 3 Summary of Soils Analysis (March, 1990)

LIST OF FIGURES

- Figure 1 Site Location Map
- Figure 2 Sample Location Map
- Figure 3 Site Map with Former Plant Overlay 1937/42

LIST OF APPENDICES

- A Gulf States Creosote Trip Reports
- B TAGA Soil Gas Analysis
- C Soil Boring Logs
- D Field Data Sheets

1.0 INTRODUCTION

1.1 Background

The former Gulf States Creosote Site is located in a commercial area of Hattiesburg, Mississippi (Figure 1). The site was an active wood preserving facility which operated from approximately 1920 to 1960. The property is currently owned by the city of Hattiesburg and subleased to several automobile dealerships, car-parts stores, a beverage distributor, a food store, and a furniture store. The process areas and wood drying/drip areas have been regraded, covered with asphalt, and are no longer evident. The former site encompasses approximately 20 acres, and is bordered on the east by railroad tracks, on the west by Gordons Creek, on the south by a drainage swale which feeds into Gordons creek, and on the north by Timothy Street.

The increase in surface runoff as a result of development and paving in the immediate area of the former site has significantly effected the flow into Gordons Creek. As a result, the U.S. Army Corps of Engineers (Corps) has been requested to rechannel Gordons Creek. In preparation for the rechannelization project, the Corps requested assistance from the US EPA in characterizing the nature and extent of contamination which may be present in the area as a result of former wood treating operations at the Gulf State Creosote site. Creosote and coal tar seeps are evident along the eastern bank of Gordons Creek.

1.2 Purpose of Investigation

The purpose of the ERT/REAC investigation was to identify the extent of contamination in the area of the former creosote plant. Specifically, areas adjacent to Gordons Creek were to be sampled in order to determine the nature and extent of contamination. If possible, an estimate of the volume of contaminated material/soils in the immediate area surrounding Gordons Creek was to be calculated.

During the soils investigation, ambient air monitoring/sampling was planned in order to identify any local air quality degradation which may have resulted from the presence of creosote residuals or during intrusive activities.

1.3 Summary of Activities

From January 20 to January 25, 1990, ERT/REAC completed a soil gas survey and preliminary soil sampling effort in the area surrounding the former plant site. The activities conducted during that investigation were summarized in a trip report dated February 16, 1990. Approximately 65 soil gas sampling stations were monitored and/or sampled. Analysis of soil gas samples was completed on-site using the ERT TAGA mobile tandem mass spectrometer (MS/MS). Fifteen soil borings were installed, from which ten (10) soil samples were collected and analyzed for Polynuclear Aromatic Hydrocarbons (PNA). Sampling activities had to be suspended due to an unusual amount of rain and subsequent rise in the water table.

On March 19 and 20, 1990, ERT/REAC returned to Hattiesburg to complete the soil borings and subsurface soil sampling investigation. The activities completed during this site visit are summarized in a trip report dated March 30, 1990. A total of fifteen soil borings were installed, from which nine (9) samples were collected and analyzed for PNA's.

Air sampling and monitoring was also conducted on January 23rd. A total of three air samples representing static conditions (i.e. prior to soil disturbance) were collected and analyzed for PNA compounds.

Appendix A includes copies of the two trip reports.

MISSING

1.4 Methods of Investigation

Soil gas sampling activities followed procedures outlined in ERT/REAC Standard Operating Procedure (SOP) #2149. The installation of soil borings was facilitated through the use of a "Little Beaver" power auger and procedures defined in ERT/REAC SOP #2122. Samples were collected using a stainless steel hand auger and followed procedures defined in ERT/REAC SOP #2012 and 2127.

Air sampling procedures were conducted according to ERT/REAC SOP# 2066, and air monitoring procedures followed ERT/REAC SOP# 2060, "RAM-1". Sample collection protocols and analytical techniques for PNA's adhered to NIOSH air sampling procedure #5515.

2.0 RESULTS

2.1 Soil Gas Survey

The soil gas survey produced mixed results. A summary of real-time monitoring data collected with the HNU Photoionization Detector and Foxboro Organic Vapor Analyzer is provided in Table 1. Preliminary soil gas sample results indicated naphthalene, the target compound of interest, in the 10 to 100 parts per billion (ppb) range in numerous samples. Benzene, toluene, and xylene (BTX) were also identified in some samples in the low ppb range. After additional quantification, the TAGA results were finalized and the contaminants were found to be below the detection limit in all soil gas samples. The detection limit for naphthalene was calculated to be 40 ppb. Appendix B contains a copy of the final TAGA data.

2.2 Soil Borings/Soil Sample Collection

? missing (7)

A total of nineteen (19) soil samples were analyzed for PNA compounds by GC/MS. Those samples were collected from fourteen (14) different borings. Depth of sample collection varied between five (5) and fifteen (15) feet below surface. This range corresponds to the contaminated soil horizons. Of the 19 samples analyzed, twelve (12) can be considered contaminated with various PNA compounds. Table 2 presents a summary of soil results for those samples collected in January, 1990. Table 3 presents a summary of soil results for those samples collected in March, 1990.

2.3 Air Sampling/Monitoring

Air sampling consisted of collecting 900 liters of air through an XAD tube/filter using a personal air sampling pump. Three locations were sampled prior to initiating site activities. All samples indicated non-detectable levels of contaminants. Air monitoring consisted of using an MIE RAM-1 with data logger. Total particulate concentrations were integrated over a 2.5 hour period. Average concentration was .008 mg/m³ with a maximum measurement of 1.09 mg/m³.

3.0 DISCUSSION OF RESULTS

3.1 Soil Gas Results

There appears to be no relationship between real-time screening results and TAGA (MS/MS) soil gas analysis. Furthermore, there does not appear to be any spatial relationship between screening results and the former plant site location. Some inconsistency and variation in screening results could be due to a combination of equipment failure, weather conditions (high humidity), and soil moisture.

The soil gas concentrations, which proved to be lower than TAGA detection limits, could in part be due to the time span between site activity and sampling (30 years). Either the creosote compounds have naturally decayed to a point where volatilization is minimal or the material has migrated and collected to downgradient locations.

3.2 Soil Sampling Results

Of the soil samples identified as contaminated, those collected from the area bordered by West Pine Street and Gordons Creek, south of the drainage ditch which runs underneath West Pine Street, appear to contain the highest concentrations (Figure 2). Specifically, samples collected from this area include D-00, D01, E-24, E-25, and E-27. Sample E-20, located on the northeast side of the drainage swale also had significant contamination. The contamination identified in B-25 is significantly less than that identified in other samples and may have been influenced by surface conditions (i.e., adjacent asphalt parking lots). This sample was collected from the 0 to 12 inch depth. Likewise, the minor contamination found in sample D-03A may have also been influenced by surface conditions.

3.3 Air Sampling/Monitoring Results

Because of the extreme precipitation encountered, the air sampling and ambient monitoring effort was abandoned. Static air quality conditions do not appear to reflect any effect from coal tar residuals. The sampling results are not representative of ambient conditions which may result during intrusive soil disturbance activities in contaminated areas.

4.0 CONCLUSIONS AND VOLUME ESTIMATES

4.1 Conclusions

The findings of this investigation indicate that there is no spatial relationship between the former plant site lay-out and the residual contamination (Figure 3). This investigation did not characterize conditions east of Timothy Street where the former process area and storage vessels were located. Due to natural surface drainage conditions and topographical relief, one would expect to find the bulk of contamination west of Timothy Street. The focus of this investigation was west of Timothy, and specifically the area(s) just east of Gordons Creek.

The fact that significant contamination was not found in areas removed from Gordons Creek could indicate that contaminants have migrated to that downgradient location over the years following plant closure. Another explanation may be that during shut down of the plant or construction of West Pine Street, the bulk of surface materials was dumped or bull-dozed into that area. Another explanation may be that contamination is randomly dispersed and so low in concentration that the soil gas sampling was not able to detect the contamination.

4.2 Volume Estimates

An estimated volume of soil that is contaminated with PNA compounds from the presence of creosote was computed based on ERT/REAC field observations. The soil borings and the visual assessment made along Gordons Creek provided enough information to approximate an area of contamination, which is designated on Figures 2 and 3. Based on an estimated thickness of the contamination (three feet), the volume calculation yielded approximately 7,200 yd³ of contaminated soil.

A second calculation was performed using a thickness of five feet as a worst case scenario. Creosote outcroppings approximately five feet in thickness were visible along the banks of Gordons Creek, and due to the thick underlying clay layer, the water table fluctuates quite a bit between the surface and twenty feet. These two observations support using five feet in the calculation which yielded a volume of 12,000 yd³.

These estimates will be used in planning remedial measures based on treatability studies presently being performed by ERT/REAC.

TABLE 1. SOIL GAS FIELD SCREENING DATA

GULF STATES CREOSOTE SITE
 HATTIESBURG, MISSISSIPPI
 JANUARY 22-26, 1990

Sample Location	Sample Number	Instrument Reading	
		OVA	HNU
A01	01521	0.5	0.0
A02	01522	3.5	0.0
A03	01523	1.8	0.0
A04	01524	2.0	0.0
A05	01525	5.0	0.0
A06	01526	1.0	0.0
A07	01527	18.5	NR
A08	01528	0.5	NR
A09	01529	3.5	NR
A10	01530	400.0	NR
A11	00611	0.0	NR
A12	00612	18.0	NR
B01	01538	0.6	0.0
B02	01539	0.4	0.0
B03	01540	0.4	0.0
B04	NS	NR	NR
B05	NS	NR	NR
B06	00621	1000.0	0.0
B07	00622	2.0	NR
B08	00625	1.5	NR
B09	00624	0.6	NR
B10	NS	NR	NR
B11	NS	NR	NR
B12	00623	1.0	NR
C01	01491	NR	0.0
C02	NS	NR	0.0
C03	01492	NR	0.0
C04	NS	NR	0.0
C05	01493	NR	0.0
C06	01494	NR	0.5
C07	NS	NR	0.0
C08	NS	NR	0.0
C09	01497	NR	0.5
C10	NS	NR	NR
C11	01498	NR	2.0
C12	NS	NR	0.0
C13	01500	NR	0.0
C14	NS	NR	0.0
C15	01501	NR	0.0
C16	NS	NR	0.0

A13

NOT ON DRAWING?

NOT ON DRAWING

NS - No sample collected.
 NR - Reading not taken.

TABLE 1 (CONT'D). SOIL GAS FIELD SCREENING DATA

GULF STATES CREOSOTE SITE
 HATTIESBURG, MISSISSIPPI
 JANUARY 22-26, 1990

Sample Location	Sample Number	Instrument Reading	
		OVA	HNU
(C17	NS	NR	NR
E01	01531	80.0	NR
E02	01522	880.0	NR
E03	01533	2.0	NR
E04	01534	3.2	NR
E05	01535	2.4	NR
E06	01536	2.0	NR
E07	01537	NR	NR
E07	01502	0.8	0.0
E08	NS	0.2	NR
E09	01503	0.6	NR
E10	01505	1.0	NR
E11	01506	0.2	NR
E12	NS	NR	NR
E21	NS	NR	NR
E22	01509	NEG	NR
E23	01508	30.0	NR
E24	01507	NR	NR

NS - No sample collected.
 NR - Reading not taken.
 NEG - Negative reading.

E-13
 E-20
 (No TA)

58 GAS VAPOR
 SAMPLES

TABLE 2. SUMMARY OF SOILS ANALYSIS

GULF STATES CREOSOTE SITE
 HATTIESBURG, MISSISSIPPI
 JANUARY, 1990

Parts per million (ppm)

Compound Name	Sample Location Sample Depth	B0 2.5 0-12 in.	D00 5 ft.	D00 8 ft.	D01 5 ft.	D01 8 ft.	E20 4 ft.
Naphthalene		*	178	354	280	148	4.1J
2-Methylnaphthalene		*	99	197	460	82	3.6J
1-Methylnaphthalene		*	72	104	340	45	*
Biphenyl		*	22J	55	9J	24	*
2,6-Dimethylnaphthalene		*	72	66	53	28	*
Acenaphthylene		*	4.4J	4.2J	2.3J	*	*
Acenaphthene		*	259	156	225	81	14J
Dibenzofuran		*	158	125	114	78	4.7J
Fluorene		*	245	140	219	90	9.4J
Phenanthrene		6.5J	718	325	715	229	26
Anthracene		*	465	210	521	114	69
Carbazole		*	173	96	157	38	15J
Fluoranthene		3J	844	215	763	188	138
Fluorene		1.1J	181	64	266	65	98
Benzo(a)anthracene		1.6J	181	54	259	62	104
Chrysene		2.9J	230	61	318	73	160
Benzo(b)fluoranthene		3.8J	*	78	143	127	248
Benzo(k)fluoranthene		*	231	74	135	121	236
Benzo(e)pyrene		2.5J	83	25	97	52	83
Benzo(a)pyrene		2.5J	125	35	133	55	116
Indeno(1,2,3-cd)pyrene		1.8J	51	15J	54	26	53
Dibenzo(a,h)anthracene		.5J	23	5J	19J	12J	17J
Benzo(g,h,i)perylene		1.5J	41	11J	42	22	42
<i>Total</i>				4,455		5,322	

* - Non-detectable levels.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the lowest linear detection limit of 10.0 ug/ml, but greater than zero and the concentration is given as an approximate value.

TABLE 3. SUMMARY OF SOILS ANALYSIS

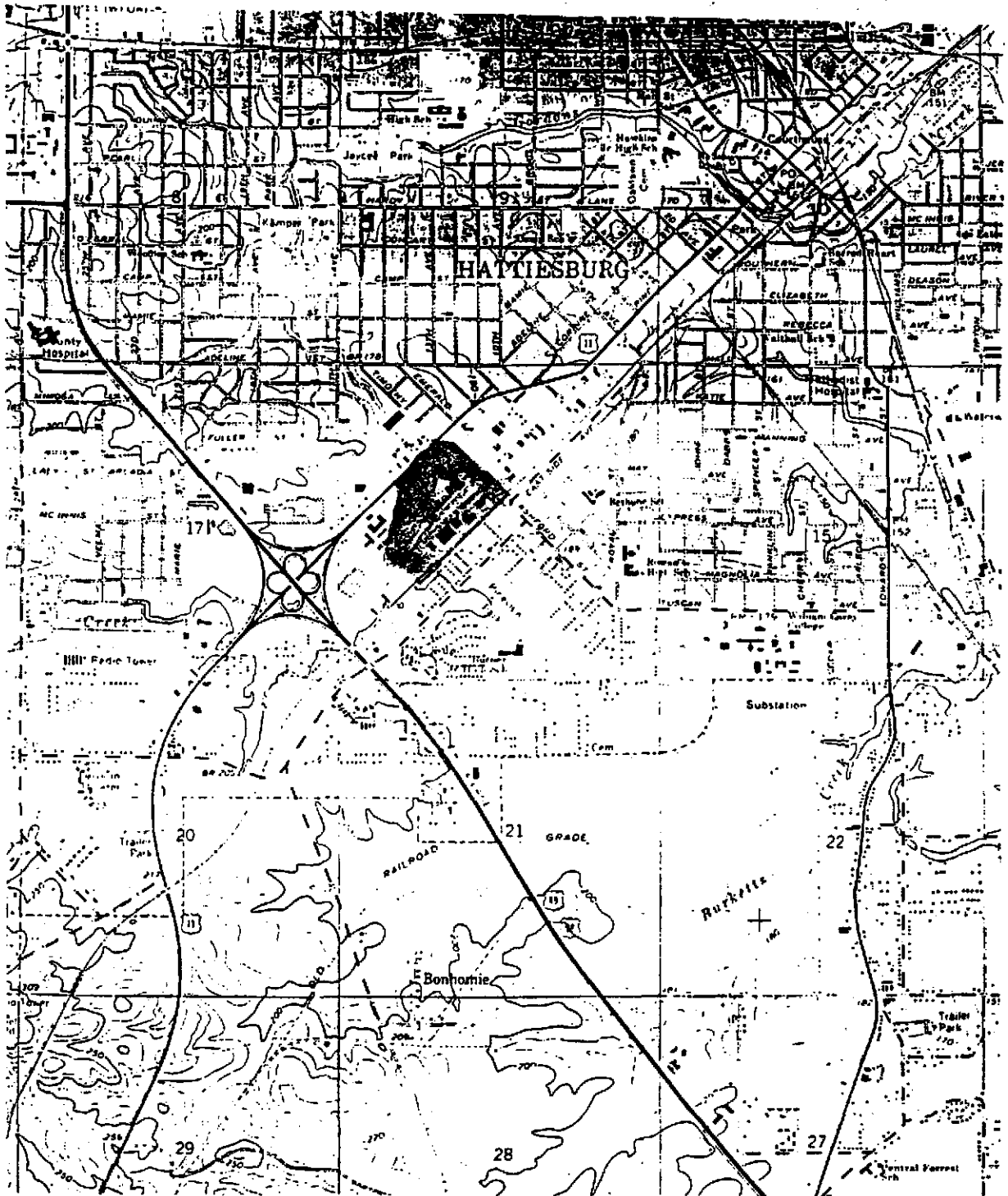
GULF STATES CREOSOTE SITE
 HATTIESBURG, MISSISSIPPI
 MARCH, 1990

Parts per million (ppm)

Compound Name	Sample Location Sample Depth	D03A 10 ft. Top of Auger	D03A Bottom of Auger	E19 11 ft.	E24 8 ft.	E25 8 ft.	E27 8 ft.
Naphthalene		0.5J	7.3	2.5	544	48	753
2-Methylnaphthalene		*	.1J	.9	224	26	293
1-Methylnaphthalene		*	.06J	.6	107	26	193
Diphenyl		*	.02J	.3J	55	3.5J	140
2,6-Dimethylnaphthalene		*	*	.4J	71	13	160
Acenaphthylene		*	*	.04J	7.3J	2.4J	20
Acenaphthene		*	.1J	1.5	264	86	213
Dibenzofuran		*	.05J	.7	159	37	125
Fluorene		*	.05J	.9	194	66	129
Phenanthrene		*	.04J	2.7	420	136	425
Anthracene		*	*	1.7	87	41	126
Carbazole		*	.07	.3	48	5.5J	59
Fluoranthene		.1J	.03J	2.9	224	144	288
Pyrene		.2J	.04J	3.4	180	126	296
Benzo(a)anthracene		.07J	*	1.1	52	34	100
Chrysene		.08J	*	1.2	42	37	86
Benzo(b)fluoranthene		*	*	1.0	*	*	86
Benzo(k)fluoranthene		*	*	.4	27J	30	*
Benzo(e)pyrene		*	*	.5	*	9.7J	31
Benzo(a)pyrene		*	*	.6	*	11	42
Indeno(1,2,3-cd)pyrene		*	*	*	*	*	*
Dibenz(a,h)anthracene		*	*	*	*	*	*
Benzo(g,h,i)perylene		*	*	*	*	*	*

* - Non-detectable levels.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the lowest line detection limit of 10.0 ug/ml, but greater than zero and the concentration is given as an approximate value.



US EPA ENVIRONMENTAL RESPONSE TEAM
 RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
 68-03-3482

GULF STATES CREOSOTE
 Figure 1. Site Location Map

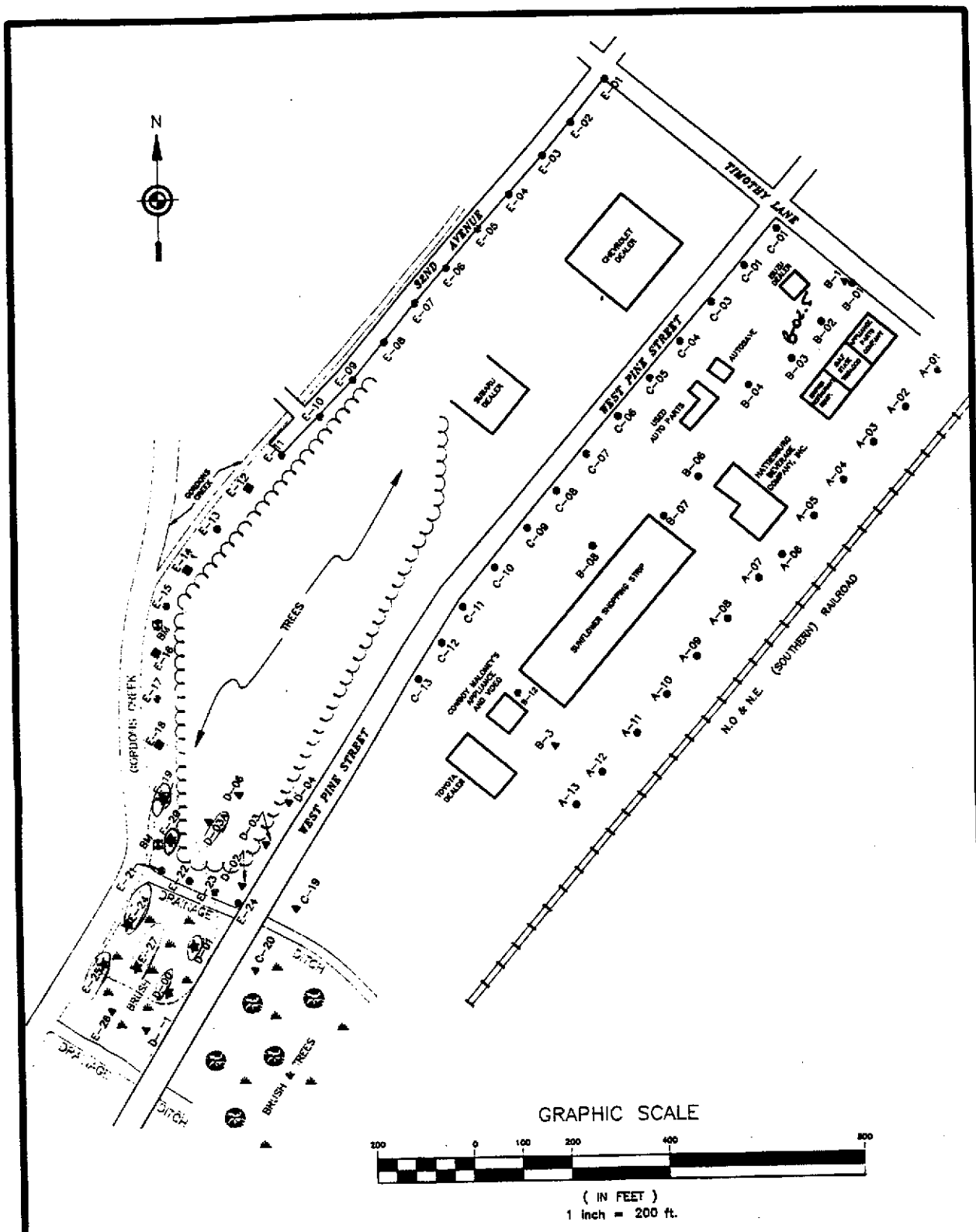


FIGURE 2
SAMPLE LOCATION MAP
GULF STATE CREOSOTE
HATTIESBURG, MISSISSIPPI
JANUARY & MARCH 1990

LEGEND	
☆	- HOT BORING SAMPLES
●	- SOIL GAS SAMPLES
▲	- SOIL BORING SAMPLES
■	- SOIL GAS AND BORING SAMPLES
◻	- BENCHMARK
---	- APPROXIMATE CONTAMINATION ZONE BOUNDARY

US EPA ENVIRONMENTAL RESPONSE TEAM
 RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
 68-03-3482
 V.O.# 3347-11-01-2335

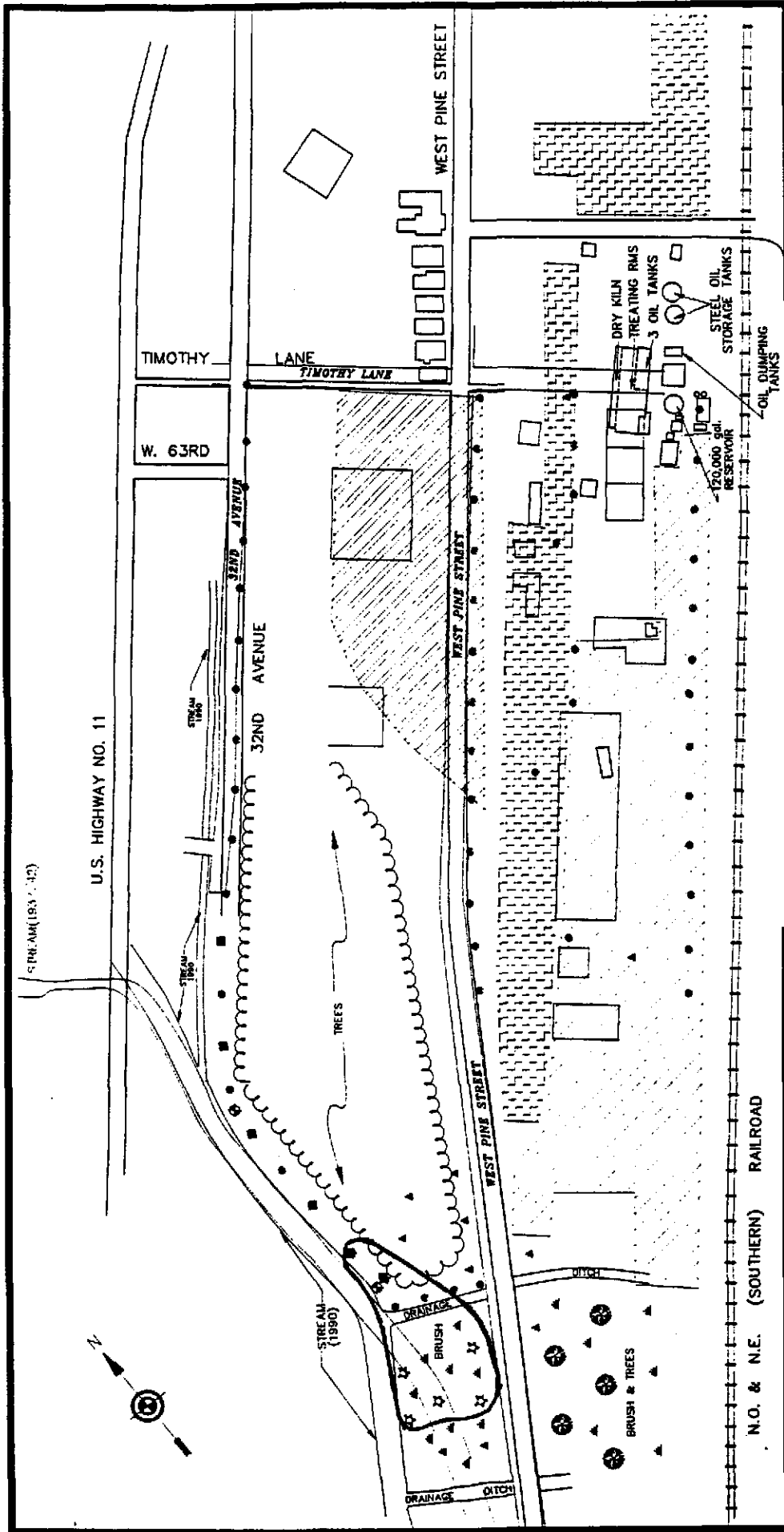
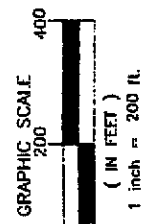


FIGURE 3
SITE MAP WITH FORMER
PLANT OVERLAY 1937/42
GULF STATE CREOSOTE
HATTIESBURG, MISSISSIPPI
JANUARY & MARCH 1990

US EPA ENVIRONMENTAL RESPONSE TEAM
 RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
 68-03-3482
 W.G.P. 3347-11-01-2335

LEGEND

- ✕ - HOT BORING SAMPLES(1990)
- - SOIL GAS SAMPLES(1990)
- ▲ - SOIL BORING SAMPLES(1990)
- - SOIL GAS & BORING SAMPLES(1990)
- ⊙ - BENCHMARK(1990)
- APPROXIMATE CONTAMINATION ZONE BOUNDARY(1990)
- ▭ - BUILDINGS, ROADS, AND STREAMS 1990
- ▨ - DRIP AREA
- ▩ - THES AREA
- ▧ - FRESH LUMBER AREA
- ▭ - BUILDINGS, ROADS, AND STREAMS 1937/42



COUNTRY CLUB ROAD



REAC SUPPORT ORGANIZATION
GSA RARITAN DEPOT
WOODBIDGE AVENUE
BUILDING 209, BAY F
EDISON, NJ 08837
PHONE: 201-632-9200

DATE: February 16, 1990

TO: Harry Compton, US EPA-ERT Work Assignment Manager

FROM: Martin O'Neill, REAC Task Leader *Martin*

THRU: Craig Moylan, REAC O&A Section Chief *WOB/SM*

SUBJECT: GULF STATES CREOSOTE SOIL GAS AND SOIL SAMPLING SURVEY:
WA 3347-11-01-2335 - TRIP REPORT

BACKGROUND

?
The former Gulf States Creosote Site is located in a commercial area of Hattiesburg, Mississippi. The site was an active wood preserving facility from approximately 1920 to 1960. It is currently owned by the city of Hattiesburg and subleased to several automobile dealerships, car-parts stores, a beverage distributor, a food store, and a furniture store. The process areas and wood drying/drip areas have been regraded, covered with asphalt, and are no longer evident. The former site encompasses approximately 20 acres, and is bordered on the east by railroad tracks, on the west by Gordens Creek, on the south by a drainage swale which feeds into Gordens Creek, and on the north by Timothy Street.

The increase in surface runoff as a result of development and paving in the immediate area of the former site has significantly effected the flow into Gordens Creek. As a result, the U.S. Army Corps. of Engineers (Corps) has been requested to re-channel Gordens Creek. In preparation for the re-channelization project, the Corps requested assistance from the U.S. EPA in characterizing the nature and extent of contamination which may be present in the area as a result of the former Gulf States wood treating operation.

The purpose of the ERT/REAC sampling effort was to identify the extent of contamination by completing a soil gas survey in the area, and to determine the nature of soil and/or groundwater contamination through the installation of well points. In addition, air sampling was planned in an attempt to determine if contaminants associated with the wood treating process, namely polynuclear aromatic hydrocarbons (PAHs) were present in ambient air as a result of soil disturbance activities (i.e., soil borings).

OBSERVATIONS

The ERT/REAC TAGA arrived in Hattiesburg on Saturday, January 20, 1990, at which time TAGA operators Dave Mickunas, Mark Bernick, Joe Gorski, and Gmae Loy commenced with instrument calibration and preparation. Additional ERT/REAC personnel including Harry Compton, Mark Sprenger, Greg Powell, Martin O'Neill, Akos Fekete, and Mark Ellis arrived

rd:eh:mo/ONEILL/TR-2235

in Hattiesburg on Sunday. ERT/REAC performed a site walk-through, and area familiarization survey on Sunday.

On Monday, January 22, ERT/REAC personnel met with the U.S. EPA On-Scene Coordinator (OSC), Don Rigor, to discuss planned activities and the general sampling/survey approach. Following the meeting, REAC personnel commenced with equipment pick-up and logistical set-up at the site. The TAGA was mobilized to the site and began preparing for analysis of tedlar bags in conjunction with the soil gas sampling effort.

On Monday afternoon, ERT/REAC commenced with the soil gas sampling program. A total of four (4) transects were established running north to south, parallel to Pine Street. Transect A was established adjacent to the railroad tracks along the eastern border of the site. Transect C was placed along the eastern curb of Pine Street. Transect B was located approximately equidistant, and between, transect A and C, and transect E was placed along the eastern curb of 32nd Street. Where possible, sampling points were placed at 100 foot intervals along each of the transects. Because of building locations, paved areas and lack of access, the location of sampling stations along transect B varied from the expected straight line. Figure 1 provides the location of soil gas sample stations and soil borings.

Note
Cooler
Time
of Year. → The soil gas sampling continued into and was completed on Tuesday, January 23. A total of 49 stations were sampled. Sampling stations were surveyed using the HnU PI 101 photoionization detector, and Foxboro Organic Vapor Analyzer (OVA). In general, the HnU's were not responsive to the contaminants of concern whereas the OVA's were. Readings averaged 2 to 5 units and ranged from 1 to 400 units (at location A-07). A Tedlar bag was collected at only those stations where positive readings were obtained on the OVA. Bag samples were analyzed using the TAGA tandem mass spectrometer (MS/MS). Holding times for soil gas samples were less than 2 hours. The TAGA field report is presented in the Appendix of this trip report.

On Tuesday afternoon, a hand auger team commenced with the soil boring program in the area adjacent to the railroad tracks and along the tree-line west of Pine Street. The purpose of the hand auger points was to gather preliminary information regarding local surficial geology, and provide for a "quick and dirty" screening for the presence of creosote compounds. Another team began gathering and preparing equipment as required for the well point installations planned for Wednesday and Thursday.

A series of background samples were also collected on Tuesday. Two sampling stations were established in up-wind locations, and one station was located down-wind from the site. The background sample results were to be used in evaluating the possible effects of soil disturbance activities on ambient air quality.

Following review of the TAGA soil gas data on Wednesday, ERT in conjunction with the OSC decided that the investigation would focus on the areas adjacent to Gordens Creek. Additionally, it was decided that samples would be collected from each of the soil borings and sent to the ERT/REAC laboratory in Edison, NJ. The TAGA was no longer needed and could be de-mobilized. TAGA personnel spent Wednesday completing analyses and readying the instrument for the trip back to Edison. TAGA personnel departed Hattiesburg on Wednesday and the TAGA departed early on Thursday, January 25.

Preparation of equipment and establishment of a temporary decontamination facility was completed by Wednesday at noon. Two soil boring teams, both equipped with hydraulic power augers (Mini-Beaver), started sampling shortly after noon. Fourteen soil borings were drilled

prior to a torrential rain-storm that arrived at approximately 1500. This severe downpour, together with the 2+ inches of rain that the Hattiesburg area received during Tuesday night, made working conditions challenging and sampling of distinct depths difficult. Shortly after the rain commenced on Wednesday, the entire soil column at 1 to 2 feet below ground surface became saturated. ERT/REAC sampling efforts were abandoned at 1530, and on-site operations ceased. Equipment was decontaminated and some of the unnecessary pieces were shipped back to REAC in Edison, NJ. A total of ten (10) soil samples were also shipped to the ERT/REAC laboratory.

The rain continued throughout the night on Wednesday and into Thursday. Since characterization of distinct subsurface soil horizons would be compromised by the extremely elevated water table, ERT, in conjunction with the OSC, decided to postpone additional boring samples until dryer conditions prevailed. In addition, because of the rain and extreme wet conditions, the air sampling/monitoring program had to be suspended.

On Thursday, a team consisting of M. Ellis, G. Prince, G. Powell, and D. Rigor (OSC), commenced with the topographic survey of soil gas sampling locations, soil borings and significant features. The rest of the team began packaging the equipment for shipment back to Edison, and returning the rental equipment in preparation of site demobilization. A. Fekete, M. O'Neill, W. Batz, H. Compton, and M. Sprenger returned to NJ on Thursday night. The topographic survey was completed on Thursday which allowed the remaining crew to return to NJ on Friday.

FUTURE ACTIVITIES

The ten (10) soil samples and three (3) ambient air samples are currently being analyzed for PAH compounds by the S&A section of REAC. Draft analytical data are expected to be available in late February. Final analytical data are to be delivered to ERT on March 1, 1990.

REAC is currently preparing ACAD presentations of the land survey, soil gas contours and the extent of the former site operations. Preparation and delivery of a final summary report is planned for April 1, 1990.

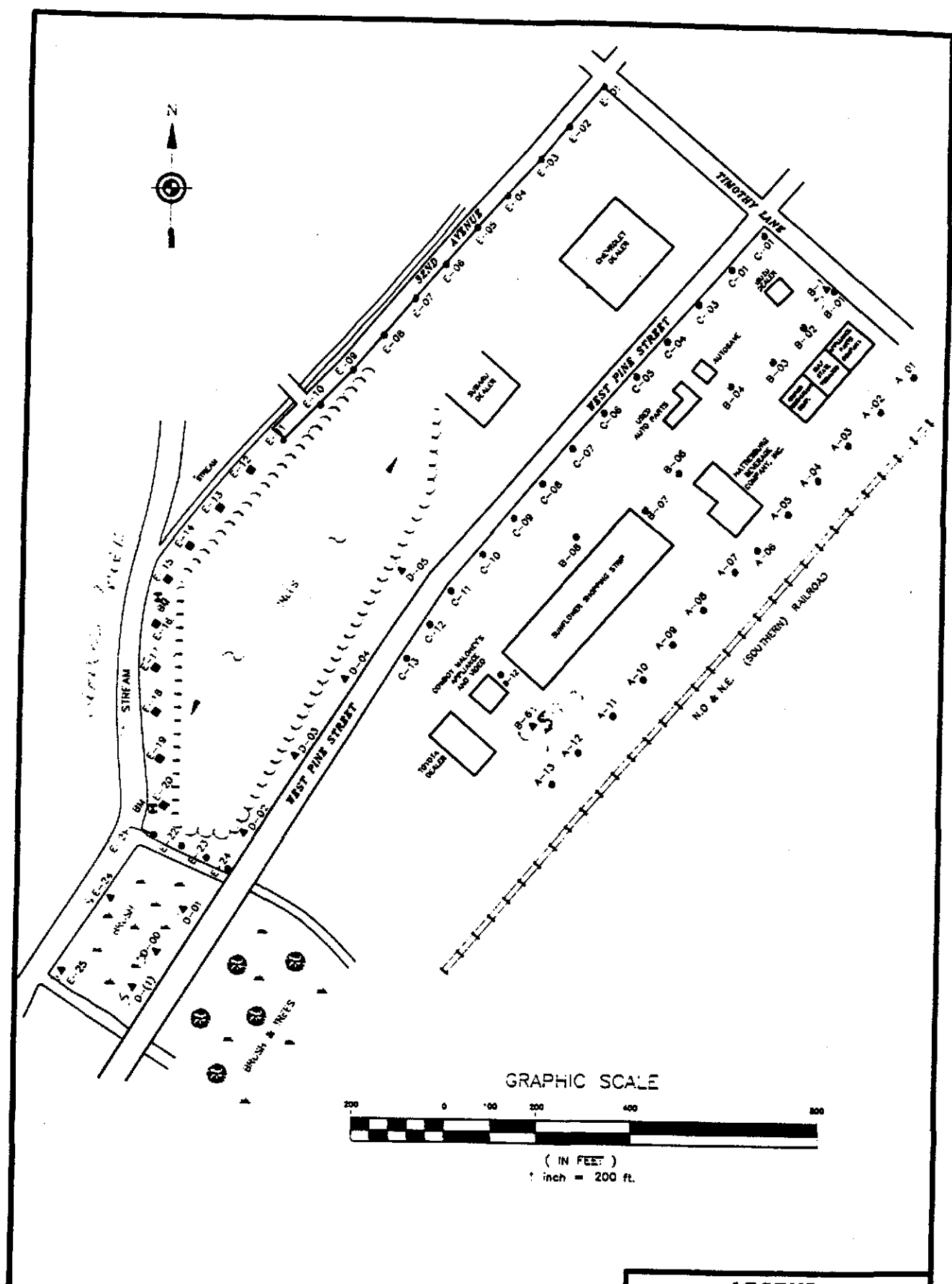


FIGURE 1
SAMPLE LOCATION MAP
GULF STATE CREOSOTE
HATTIESBURG MISSISSIPPI
JANUARY 22 - 26, 1990

- LEGEND**
- - SOIL GAS SAMPLES
 - ▲ - SOIL BORING SAMPLES
 - - SOIL GAS AND BORING SAMPLES
 - ⊕ - BENCHMARK

US EPA ENVIRONMENTAL RESPONSE TEAM
 RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
 68-03-3482
 V.O.R. 2947-13-01-9335

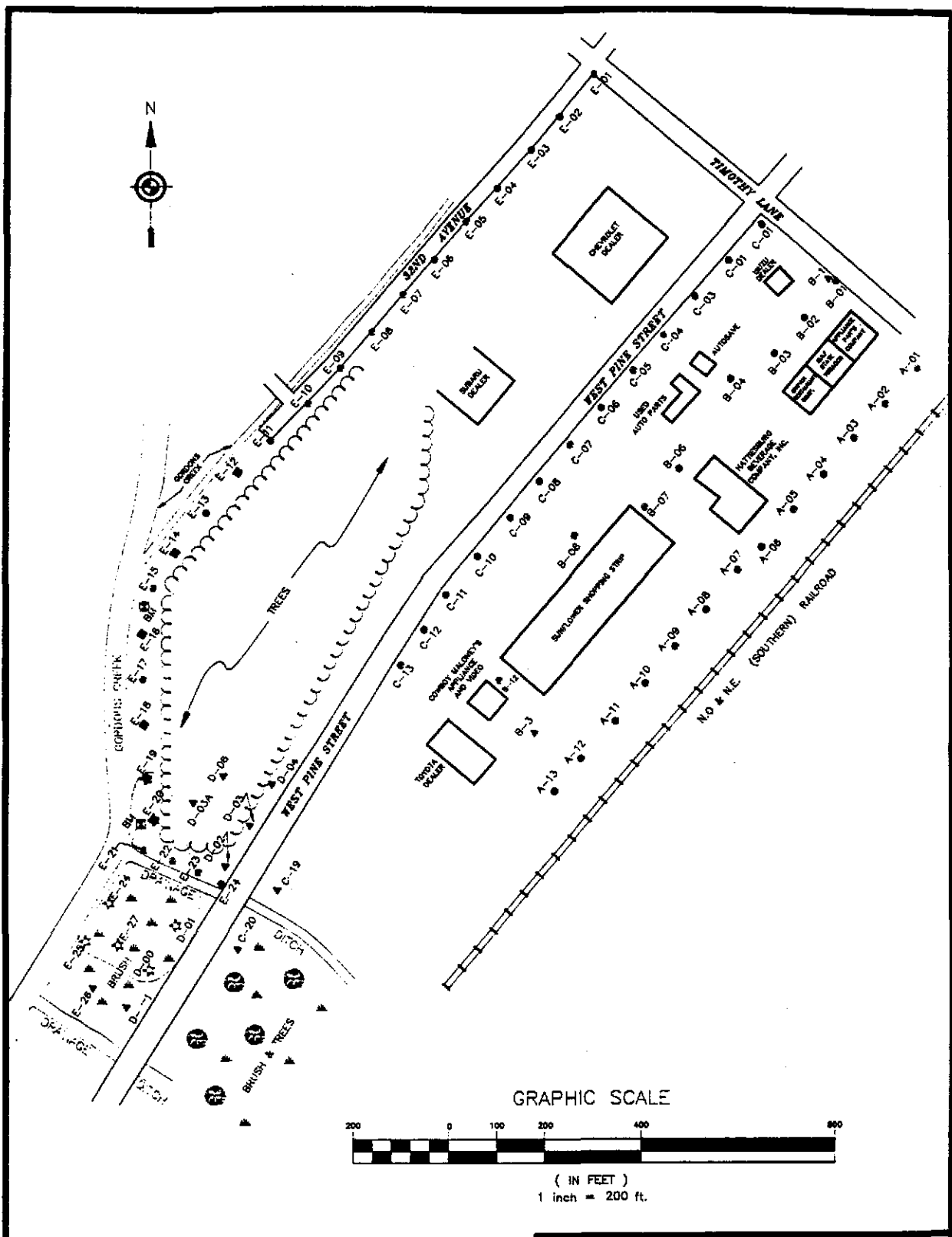


FIGURE 2
SAMPLE LOCATION MAP
GULF STATE CREOSOTE
HATTIESBURG, MISSISSIPPI
JANUARY & MARCH 1990

LEGEND

- ☆ - HOT BORING SAMPLES
- - SOIL GAS SAMPLES
- ▲ - SOIL BORING SAMPLES
- - SOIL GAS AND BORING SAMPLES
- ⊠ - BENCHMARK
- - APPROXIMATE CONTAMINATION ZONE BOUNDARY

US EPA ENVIRONMENTAL RESPONSE TEAM
 RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
 68-03-3482
 V.O.# 2347-11-01-2325



REAC SUPPORT ORGANIZATION
GSA RARITAN DEPOT
WOODBIDGE AVENUE
BUILDING 209, BAY F
EDISON, NJ 08837
PHONE: 201-632-9200

DATE: March 30, 1990

TO: Harry Compton, Work Assignment Manager

FROM: Mark Ellis, REAC Geologist *ME*
Martin O'Neill, REAC Task Leader *MO*

THRU: Craig Moylan, O&A Section Chief *CM*

SUBJECT: GULF STATE CREOSOTE SOIL SAMPLING SURVEY:
W.A. # 3347-11-01-2335 - TRIP REPORT

BACKGROUND

The former Gulf States Creosote Site is located in a commercial area of Hattiesburg, Mississippi. The site was an active wood preserving facility which operated from approximately 1920 to 1960. It is currently owned by the city of Hattiesburg and subleased to several automobile dealerships, car-parts stores, a beverage distributor, a food store, and a furniture store. The process areas and wood drying/drip areas have been regraded, covered with asphalt, and are no longer evident. The former site encompasses approximately 20 acres, and is bordered on the east by railroad tracks, on the west by Gordons Creek, on the south by a drainage swale which feeds into Gordons creek, and on the north by Timothy Street.

The increase in surface runoff as a result of development and paving in the immediate area of the former site has significantly effected the flow into Gordons Creek. As a result, the U.S. Army Corps of Engineers (Corps) has been requested to rechannel Gordons Creek. In preparation for the rechannelization project, the Corps requested assistance from the US EPA in characterizing the nature and extent of contamination, which may be present in the area as a result of former wood treating operations at the Gulf State Creosote site.

ERT/REAC completed a soil gas survey and a series of preliminary soil borings in January, 1990. Because of an unexpected amount of rainfall, completion of the soil sampling effort had to be postponed.

The purpose of this ERT/REAC sampling event was to complete the subsurface soil investigations in the area of the former Gulf States Creosote Plant. Samples were to be collected at borings which appeared to be contaminated and analyzed for Poly Aromatic Hydrocarbon (PAH) compounds by the S&A Section of REAC.

OBSERVATIONS

The ERT/REAC team consisting of George Prince and Mark Ellis arrived in Hattiesburg, MS at approximately 1430 on Monday, March 19, 1990. A meeting was held with the On-Scene Coordinator (OSC), Don Rigger, Richard Ball from the state of Mississippi, Department of Environmental Quality.

rd/ELLIS/TR-2335

Greg Powell of ERT Cincinnati, and JoAnna Cole from Region IV TAT to discuss the planned scope of work.

Following the meeting, the sampling teams met on site. One team began soil borings using the "Little Beaver" two-man power auger, while the other team surveyed new sampling locations from existing transects. Three borings were completed at locations D-1, E-26 and E-27, as depicted on Figure 1, Sample Location Map. Field data sheets are included in Appendix A. They include a rough geologic log and final depths for each boring. Boring locations E-26 and E-27 were measured 100 feet perpendicular from transect D. Boring E-27 had a distinct creosote odor, and a sample was collected using a stainless steel bucket auger. Site activities were completed at approximately 1745.

On Tuesday morning, the sampling teams met on site at 0730 and commenced boring at location E-25. The equipment was decontaminated after the completion of this boring using a high-pressure steam cleaner. A boring was then advanced at location E-24. Samples were collected at each of these locations from the bottom of the boreholes, or approximately nine feet.

A series of borings were drilled along transect D (D-02, D-03, D-03A, D-04, D-06). The first two locations, D-02 and D-03, were abandoned after the auger flights met refusal between three and six feet, due to an unknown thickness of fill material. Two samples were collected at location D-03A. One was representative of the wet sands just above a thick white clay layer and the other was a sample of the clay material. The clay layer was sampled to determine if the downward movement of the creosote is being retarded by the clay layer. Borings D-04 and D-06 were drilled to 10 feet and 14 feet, respectively. Both of these holes appeared to be clean (no odor), so no samples were collected.

Borings were completed at locations E-19, C-19 and C-20. Two samples were collected from boring E-19, again, one representing the sands above the clay layer and one of the clay itself. Samples were also collected at C-19 and C-20. These samples were collected in order to verify the presence/absence of any creosote compounds in the area east of West Pine Street.

? [After visual observation, it was decided that it was not necessary to drill or sample areas west of Gordons Creek. The crew mobilized to the decontamination area, cleaned all of the equipment, and began packaging it for shipment back to Edison. Site activities were completed at 1645 and the equipment was shipped back to Edison, NJ via Federal Express.

FUTURE ACTIVITIES

REAC is currently preparing to perform some preliminary treatability studies. Shaker tests will be performed to determine the likelihood of using microbial treatment as a means of remediation at the site.

The ACAD section at REAC is presently updating the sample location map which will be included in a final summary report.

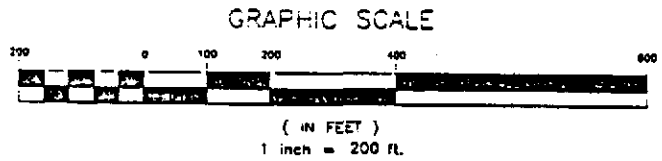
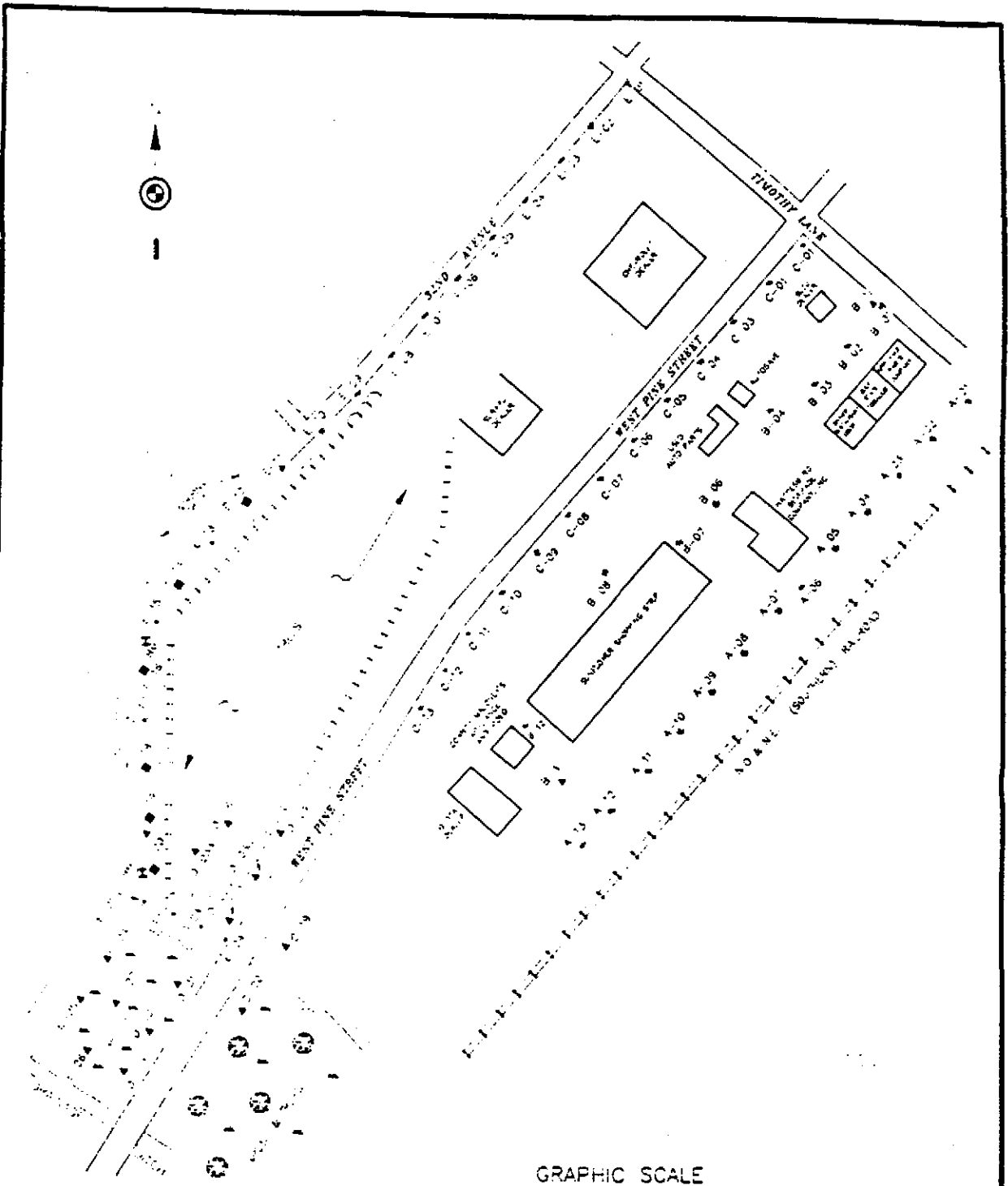


FIGURE 1
SAMPLE LOCATION MAP
GULF STATE CREOSOTE
HATTIESBURG MISSISSIPPI
JANUARY & MARCH 1990

- LEGEND**
- - SOIL GAS SAMPLES
 - ▲ - SOIL BORING SAMPLES
 - - SOIL GAS AND BORING SAMPLES
 - ⊙ - BENCHMARK

US EPA ENVIRONMENTAL RESPONSE TEAM
 RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
 68-03-3482
 WDB 316-11-21-2125

TAGA FIELD REPORT

**Prepared by
Roy F. Weston, Inc.**

**Gulf States Creosote Site
Hattiesburg, Mississippi**

February 13, 1990

**EPA Work Assignment No. 1-335
Project No. 3347-11-01-2335
EPA Contract No. 68-03-3482**

**Analysis by:
Mark Bernick
Gmae Loy
Dave Mickunas**

**Prepared by:
Mark Bernick
Gmae Loy**

**Reviewed by:
Dave Mickunas**

TABLE OF CONTENTS

	PAGE
LIST OF DATA TABLES	i
LIST OF QA/QC TABLES	ii
APPENDICES	iii
INTRODUCTION	1
PROCEDURE	3
TAGA	3
CENTURY ORGANIC VAPOR ANALYZER	4
RESULTS AND DISCUSSION	6
QUALITY ASSURANCE/QUALITY CONTROL	13
Calculations for the Summary of Actual and Intermediate Response Factors for the Target Compounds' Ion Pairs During the Sampling Period	15
Calculations for the Summary of the Detection and Quantitation Concentration . Limits for the Target Compounds, Ion Pairs During the Sampling Periods	21
Calculations for the Detection and Quantitation Concentration Limits for the Target Compounds During the Sampling Periods	27
Calculations for the Potential Maximum Concentration Percent Deviations for Target Compounds During the Sampling Periods	29

LIST OF DATA TABLES

TABLE		PAGE
1	Target Compound List	1
2	Sampling Period I TAGA Results	7
3	Sampling Period II TAGA Results	8
4	Sampling Period III TAGA Results	9
5	Sampling Period IV TAGA Results	10
6	Sampling Period V TAGA Results	11
7	Methane Analysis Results	12

LIST OF QA/QC TABLES

TABLE		PAGE
8	The Summary Of Actual And Intermediate Response Factors For The Target Compounds' Ion Pairs During Sampling Period I	....16
9	The Summary Of Actual And Intermediate Response Factors For The Target Compounds' Ion Pairs During Sampling Period II	....17
10	The Summary Of Actual And Intermediate Response Factors For The Target Compounds' Ion Pairs During Sampling Period III	....18
11	The Summary Of Actual And Intermediate Response Factors For The Target Compounds' Ion Pairs During Sampling Period IV	....19
12	The Summary Of Actual And Intermediate Response Factors For The Target Compounds' Ion Pairs During Sampling Period V	....20
13	The Summary Of Detection And Quantitation Concentration Limits For Target Compounds' Ion Pairs During Sampling Period I	.....22
14	The Summary Of Detection And Quantitation Concentration Limits For Target Compounds' Ion Pairs During Sampling Period II	.....23
15	The Summary Of Detection And Quantitation Concentration Limits For Target Compounds' Ion Pairs During Sampling Period III	.....24
16	The Summary Of Detection And Quantitation Concentration Limits For Target Compounds' Ion Pairs During Sampling Period IV	.....25
17	The Summary Of Detection And Quantitation Concentration Limits For Target Compounds' Ion Pairs During Sampling Period V	.....26
18	Summary Of Detection And Quantitation Concentration Limits For Target Compounds During The Sampling Periods	.....28
19	The Summary Of The Potential Maximum Concentration Percent Deviations For The Target Compounds During The Sampling Period	.....30

APPENDICES

APPENDIX

- A Gas Cylinder Certifications
- B Methane Analysis Data
- C Calibration Curves For Sampling Periods

INTRODUCTION

This report presents the results of EPA Work Assignment No. 0-335, Weston Order No. 3347-11-01-2335, EPA Contract No. 68-03-3482.

The Response Engineering and Analytical Contract (REAC) was tasked by the USEPA/ERT to mobilize the U.S. EPA Trace Atmospheric Gas Analyzer (TAGA) to Hattiesburg, Mississippi to analyze soil gas samples from the Gulf States Creosote Plant Site. The analysis commenced on January 22, 1990, and concluded one day earlier than anticipated on January 23, 1990, due to the meteorological forecast calling for rain that would impair soil gas sampling.

The goal of the investigation was to analyze soil gas and soil head space samples for target compounds to identify creosote, gas and oil contaminated soils. Naphthalene was used as the target compound for identification of creosote contaminated soil; benzene, toluene, and xylene were monitored as indicators of gasoline and/or oil contaminated soil.

TABLE 1

TARGET COMPOUND LIST

benzene
naphthalene
toluene
xylene

PROCEDURE

TAGA PROCEDURE

The following operating procedures were performed during each analysis day using the TAGA 6000E:

- (1) The first and third quadrupoles were scanned for 15 minutes each; this readied the instrument electronically.
- (2) A gas mixture containing trichloroethene and tetrachloroethene was introduced by a mass flow controller into the sample air stream to optimize the first and third quadrupoles for sensitivity and mass assignment.
- (3) The instrument was calibrated before and after each sampling period to generate target compound response factors - ion counts per second/parts per billion by volume (ICPS/ppbv).

Gas Calibration System

The gas calibration system consisted of a regulated gas cylinder with a mass flow controller. This calibration system was used to generate analytes' response factors (ICPS/ppbv), which were then used to quantify trace components in soil gas samples. The following is a list of target compounds, for which the instrument was calibrated, using the gas cylinder method:

benzene
toluene
xylene

A gas cylinder, containing a known mixture of target compounds as certified by Scott Specialty Gases (see Appendix A), was regulated at preset flow rates and diluted with ambient air. This dilution of the gas cylinder gave known analyte concentrations. Software, as described in the Plessey Interface Manual, utilized the analyte's cylinder concentration, the gas flow rate, the air sampling flow rate, and the atmospheric pressure to calculate the analyte's response factors (RFs). These response factors were obtained for the ion pairs of each compound of interest in the cylinder:

Cylinder ALM-001166

benzene
toluene
xylene

Tedlar Bag Calibration System

The Tedlar bag calibration system consisted of Tedlar bags, a 500 milliliter (ml) gas tight syringe, 5 and 60 ml sterile Becton-Dickinson B-D type syringes, and a temperature probe. The 5 and 60 ml syringes were filled with approximately 5 grams (gm) of the analyte and allowed to equilibrate for 15 minutes at room temperature. The temperature of the syringes was measured, and the concentration of the analyte in the gas phase of the syringe was calculated using the vapor pressure of the analyte, atmospheric pressure and the temperature of the syringe. The analyte was then diluted in the Tedlar bag to the target calibration concentration using ambient air and a volume of the syringe gas phase. The Tedlar bag was then attached directly to the TAGA sampling line and analyzed undiluted for the analyte's ion pairs.

A linear regression was run using the analyte's known Tedlar bag concentration and the respective ion pair's ion counts. The slope of the regression was equal to the ion pair's response factor. The target compound calibrated using the Tedlar bag calibration method was naphthalene.

Tedlar Bag Analysis

The Tedlar bags were received and stored inside an opaque plastic bag to prevent analyte degradation from by light. The bag sample number, location, sampling date and time were logged into the Taga computer prior to analysis. The Tedlar bag was attached directly to the TAGA sampling line and analyzed undiluted for the target compounds. Once the sample's target ion response equilibrated, a two minute file was collected and saved for each bag analyzed.

After the intensity data was downloaded off the hard disk, it was processed as described in the PC-Plessey Interface Manual. The PC-Plessey calculates an average concentration for each target compound. This concentration is arrived at by taking the signal intensity of selected parent/daughter ion pairs of a compound, dividing them by the appropriate response factor, and averaging the resultant concentrations of the ion pairs.

Soil Head Space Analysis

Soil samples were received and stored at room temperature in 40 ml glass Volatile Organic Analysis (VOA) bottles. These bottles contained about 35 ml of soil with about 5 ml of head space remaining. The samples were allowed to equilibrate at room temperature for one hour prior to analysis. The sample head space was bleed directly into the TAGA sampling line and analyzed undiluted for the target compounds. Once the sample's target ion response equilibrated, a two minute file was collected and saved for each sample analyzed.

After the intensity data was downloaded off the hard disk, it was processed as described in the PC-Plessey Interface Manual. Basically, this calculates an average concentration for each target compound. This concentration is arrived at by taking the signal intensity of selected parent/daughter ion pairs of a compound, dividing them by the appropriate response factor, and averaging the resultant concentrations of the ion pairs. The results of the soil head space target compound analysis are reported in ppbv.

CENTURY ORGANIC VAPOR ANALYZER PROCEDURE

Methane Analysis

A Model Century Organic Vapor Analyzer 128 Gas Chromatograph (OVA 128GC) was set up in the "GC Mode", as described in the instrument manual, using a 12 inch Poropak T 60/80 Mesh Stainless Steel OVA column (PT-12 column). An injection port was added to the front end of the column to allow gas-tight syringe injections of Tedlar bag samples, and a strip chart recorder was attached to the OVA 128GC to record the signal response of the flame ionization detector (FID).

A gas cylinder containing 889 parts per million by volume (ppmv) of methane as certified by Scott Specialty Gases (see Appendix A) was used as the methane calibration standard. Injections of 5 and 10 microliters (ul) of the calibration standard were recorded with the OVA 128GC CALIBRATE Switch set to X10. This gave a methane peak response equivalent to 45.0 ppmv and 89.9 ppmv methane respectively, for a sample injection of 100 ul.

A sample injection of 100 ul was used for analyzing the Tedlar bags for methane. The sample injection size was reduced to 10 or 5 ul if the signal response for a sample went off scale. The results of the methane analysis are present in ppmv methane.

RESULTS AND DISCUSSION

The TAGA 6000E laboratory performed both Tedlar bag and soil head space analyses for target compounds of samples from the Gulf States Creosote Site in Hattiesburg, Mississippi. The study was designed to monitor soil gas and head space using naphthalene as an indicator of creosote contamination. Naphthalene was chosen as an indicator as it was found to be present in a creosote contaminated soil sample from this site analyzed prior to mobilization. Additionally, benzene, toluene, and xylene were used as indicators of gas and/or oil contaminated soil.

The results of these analyses are broken down into five sampling periods which correspond to five calibration periods each having their own set of response factors, detection and quantitation limits, and maximum percent deviations. These are presented in the Quality Assurance/Quality Control section of this report. These sampling periods were:

Sampling Period I	January 22, 1990	14:30 - 17:00
Sampling Period II	January 22, 1990	17:00 - 19:14
Sampling Period III	January 22, 1990	19:14 - 21:00
Sampling Period IV	January 23, 1990	10:18 - 15:51
Sampling Period V	January 23, 1990	15:51 - 19:26

The results of this study are broken down by sampling period and are presented in Tables 2 - 6 respectively. These tables list the TAGA file, target compound results, Tedlar bag identification number (ID NO.), sampling date and time, and sample location. The tables present results of Tedlar bag soil gas analysis except TAGA file numbers AHT063, 64, 68 - 71, soil head space analysis results.

Additionally, selected Tedlar bags were analyzed for methane. The results of this analysis are presented in Table 7, including a list of the Tedlar bag ID No. and the methane results.

TABLE 2

SAMPLING PERIOD I TAGA RESULTS
CONCENTRATIONS IN PPBV

TAGA FILE	BEN	TOL	XYL	NAP	ID NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE LOCATION
AHT007	DL=5	DL=15	DL=10	DL=35	SG01492	1-22-90	14:40	C03
AHT008	DL=5	DL=15	DL=10	DL=35	SG01521	1-22-90	14:32	AD1
AHT009	DL=5	DL=15	DL=10	DL=35	SG01497	1-22-90	15:40	C09
AHT010	10-J	17-J	14-J	DL=35	SG01491	1-22-90	14:20	C01
AHT011	DL=5	DL=15	DL=10	DL=35	SG01522	1-22-90	14:49	A02
AHT012	DL=5	DL=15	DL=10	DL=35	SG01526	1-22-90	15:28	A06
AHT013	DL=5	DL=15	DL=10	DL=35	SG01530	1-22-90	16:10	A010
AHT014	12-J	19-J	16-J	DL=35	SG01493	1-22-90	14:55	C05
AHT015	DL=5	DL=15	DL=10	DL=35	SG01523	1-22-90	14:58	A03
AHT016	DL=5	DL=15	DL=10	DL=35	SG01524	1-22-90	15:10	A04

DL = DETECTION LIMIT

J = VALUE ABOVE DETECTION LIMIT BUT BELOW QUANTITATION LIMIT

TABLE 3

SAMPLING PERIOD II TAGA RESULTS

CONCENTRATIONS IN PPBV

TAGA FILE	BEN	TOL	XYL	NAP	ID NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE LOCATION
AHT019	11-J	DL=20	DL=12	DL=40	SG01494	1-22-90	15:00	C06
AHT020	DL=6	DL=20	DL=12	DL=40	SG01525	1-22-90	15:19	A05
AHT021	DL=6	DL=20	DL=12	DL=40	SG01527	1-22-90	15:43	A07
AHT022	DL=6	DL=20	DL=12	DL=40	SG01528	1-22-90	15:53	A08
AHT023	DL=6	DL=20	DL=12	DL=40	SG01529	1-22-90	16:01	A09
AHT024	31-J	31-J	18-J	DL=40	SG01498	1-22-90	16:10	C-11
AHT025	DL=6	DL=20	DL=12	DL=40	SG01500	1-22-90	16:20	C013
AHT026	DL=6	DL=20	DL=12	DL=40	SG00611	1-22-90	16:25	A011
AHT027	DL=6	DL=20	DL=12	DL=40	SG00612	1-22-90	16:33	A012
AHT028	DL=6	DL=20	DL=12	DL=40	SG01501	1-22-90	16:42	C015

DL = DETECTION LIMIT

J = VALUE ABOVE DETECTION LIMIT BUT BELOW QUANTITATION LIMIT

TABLE 4

SAMPLING PERIOD III TAGA RESULTS

CONCENTRATIONS IN PPBV

TAGA FILE	BEN	TOL	XYL	NAP	ID NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE LOCATION
AHT030	DL=8	DL=25	DL=16	DL=38	SG01531	1-22-90	16:44	
AHT031	DL=8	DL=25	DL=16	DL=38	SG01532	1-22-90	16:58	E02
AHT032	DL=8	30-J	DL=16	DL=38	SG00613	1-22-90	16:06	E015
AHT033	DL=8	DL=25	DL=16	DL=38	SG00614	1-22-90	17:15	E014
AHT034	DL=8	DL=25	DL=16	DL=38	SG01534	1-22-90	17:14	E04
AHT035	DL=8	DL=25	DL=16	DL=38	SG01533	1-22-90	17:10	E03
AHT036	DL=8	DL=25	DL=16	DL=38	SG01535	1-22-90	17:25	E05
AHT037	DL=8	DL=25	DL=16	DL=38	SG01536	1-22-90	17:30	E06

DL = DETECTION LIMIT

J = VALUE ABOVE DETECTION LIMIT BUT BELOW QUANTITATION LIMIT

TABLE 5

SAMPLING PERIOD IV TAGA RESULTS

CONCENTRATIONS IN PPBV

TAGA FILE	BEN	TOL	XYL	NAP	ID NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE LOCATION
AHT043	7-J	40-J	30-J	82-J	SG01538	1-23-90	09:07	B01
AHT044	7-J	30-J	24-J	57-J	SG01502	1-23-90	09:12	E07
AHT045	9-J	51-J	41-J	122-J	SG01540	1-23-90	09:30	B03
AHT046	7-J	36-J	27-J	73-J	SG01505	1-23-90	09:45	E10
AHT047	7-J	49-J	25-J	60-J	SG01503	1-23-90	09:30	E09
AHT049	DL=6	30-J	24-J	75-J	SG01504	1-23-90	09:39	E10
AHT050	10-J	31-J	23-J	75-J	SG01506	1-23-90	09:53	E11
AHT051	DL=6	28-J	20-J	53-J	SG00621	1-23-90	10:22	B06
AHT052	16-J	33-J	22-J	50-J	SG00622	1-23-90	10:35	B07
AHT055	14-J	40-J	26-J	53-J	SG00623	1-23-90	10:47	B012
AHT056	14-J	661	42-J	80-J	SG01508	1-23-90	10:57	E23
AHT057	DL=6	41-J	15-J	37-J	SG01509	1-23-90	11:16	E22
AHT058	7-J	37-J	23-J	52-J	SG01510	1-23-90	11:45	F1
AHT059	10-J	DL=25	DL=14	DL=29	SG00624	1-23-90		B09
AHT060	DL=6	33-J	22-J	47-J	SG01507	1-23-90		E24
AHT062	18-J	48-J	111	51-J	SG00625	1-23-90	12:08	B08
AHT063	11-J	51-J	102	938	BORE HOLE 9' DEEP			A01
AHT064	22	131	457	9709	E05321	SOIL HEAD SPACE		

DL = DETECTION LIMIT

J = VALUE ABOVE DETECTION LIMIT BUT BELOW QUANTITATION LIMIT

TABLE 6

SAMPLING PERIOD V TAGA RESULTS

CONCENTRATIONS IN PPBV

TAGA FILE	BEN	TOL	XYL	NAP	ID NO.	TITLE
AHT068	24	35-J	41-J	DL=38	F05308	SOIL HEAD SPACE
AHT069	27	37-J	46-J	DL=38	D05309	SOIL HEAD SPACE
AHT070	23	34-J	39-J	DL=38	K05322	SOIL HEAD SPACE
AHT071	24	32-J	34-J	DL=38	B05322	SOIL HEAD SPACE

DL = DETECTION LIMIT

J = VALUE ABOVE DETECTION LIMIT BUT BELOW QUANTITATION LIMIT

TABLE 7

METHANE ANALYSIS RESULTS
CONCENTRATION IN PPMV

DATE - January 23, 1990

SAMPLE ID NO. METHANE

SG01538	ND
SG01540	ND
SG01505	ND
SG01506	ND
SG01502	ND
SG01504	ND
SG01503	ND
SG00622	ND
SG00621	800
SG00623	ND
SG01507	ND
SG01509	ND
SG01510	ND
SG01508	ND
SG00625	ND
SG00624	ND

ND = NOT DETECTED

QUALITY ASSURANCE/QUALITY CONTROL

The compound parent/daughter ion pairs used for ion profile quantitation and detection are listed below:

Compound	ID	Parent Mass/Daughter Mass
benzene	BNZ	78/39
benzene	BNZ	78/52
toluene	TOL	92/39
toluene	TOL	92/51
xylene	XYL	106/65
xylene	XYL	106/91
naphthalene	NAP	128/78
naphthalene	NAP	128/128

Additional ion pairs had been calibrated and monitored for, but due to background interferences or insensitivity, they were not used.

**Calculations for the Summary of Actual and Intermediate
Response Factors for the Target Compounds' Ion Pairs During the
Sampling Period**

Response factors (RF) were generated from the final and initial calibration events, as described in the procedure. Tables 8 - 12 contain the RFs in units of ion counts per second/parts per billion by volume (ICPS/ppbv). The actual RFs are used to calculate the intermediate RFs, which are used to calculate the concentrations reported in the results. The following is a list of the target compounds and the identification "ID" used in Tables 8 - 12.

ID	COMPOUND
BNZ	benzene
TOL	toluene
XYL	xylene
NAP	naphthalene

The following equation was used to calculate the intermediate response factors (IRF) found in Tables 8 - 12.

$$IRF = \frac{2 (RF1 \times RF2)}{(RF1 + RF2)}$$

where:

IRF = intermediate response factor (ICPS/ppbv)

RF1 = the response factor for an ion pair measured during the initial calibration event (ICPS/ppbv)

RF2 = the response factor for the same ion pair measured during the final calibration event (ICPS/ppbv)

For example, the entry for the 78/39 ion pair of benzene from Table 8 is:

RF1 = 31.14 (ICPS/ppbv)

RF2 = 37.13 (ICPS/ppbv)

and then

$$\frac{2(31.14 \times 37.13)}{(31.14 + 37.13)} = \frac{2312.45}{68.27} = 33.87 \text{ ICPS/ppbv}$$

TABLE 8

THE SUMMARY OF ACTUAL AND INTERMEDIATE RESPONSE
FACTORS FOR THE TARGET COMPOUNDS' ION PAIRS
DURING SAMPLING PERIOD I

ID	CALIBRATION		RESPONSE FACTOR	RESPONSE FACTOR	INTERMEDIATE RESPONSE FACTOR
	TIME	01/22/90 14:30				01/22/90 17:00
	PM/DM				
BEN	78/ 39		31.14	37.13	33.87
BEN	78/ 52		44.63	53.21	48.54
TOL	92/ 39		6.23	8.19	7.08
TOL	92/ 51		17.11	22.49	19.43
XYL*	106/ 39		2.59	2.50	2.54
XYL*	106/ 51		2.49	2.42	2.45
XYL	106/ 65		9.87	9.56	9.71
XYL	106/ 91		65.90	63.84	64.85
NAP	128/ 78		2.12	2.29	2.20
NAP	128/128		106.56	115.42	110.81

ID = Identification Code
PM = Parent Mass
DM = Daughter Mass

* Ion Pairs Not Used in Quantitation.

TABLE 9

THE SUMMARY OF ACTUAL AND INTERMEDIATE RESPONSE
FACTORS FOR THE TARGET COMPOUNDS' ION PAIRS
DURING SAMPLING PERIOD II

ID	CALIBRATION 01/22/90		01/22/90		INTERMEDIATE RESPONSE FACTOR
	PM/DM	TIME	RESPONSE FACTOR	RESPONSE FACTOR	
BEN	78/ 39	14:30	31.14	28.63	29.83
BEN	78/ 52		44.63	41.02	42.75
TOL	92/ 39		6.23	5.83	6.03
TOL	92/ 51		17.11	16.02	16.55
XYL*	106/ 39		2.59	1.78	2.11
XYL*	106/ 51		2.49	1.72	2.04
XYL	106/ 65		9.87	6.81	8.06
XYL	106/ 91		65.90	45.50	53.83
NAP	128/ 78		2.12	1.85	1.98
NAP	128/128		106.56	93.28	99.48

ID = Identification Code
PM = Parent Mass
DM = Daughter Mass

* Ion Pairs Not Used in Quantitation.

TABLE 10

THE SUMMARY OF ACTUAL AND INTERMEDIATE RESPONSE
FACTORS FOR THE TARGET COMPOUNDS' ION PAIRS
DURING SAMPLING PERIOD III

ID	CALIBRATION		01/22/90		INTERMEDIATE RESPONSE FACTOR
	PM/DM	TIME	14:30	21:00	
			RESPONSE FACTOR	RESPONSE FACTOR	
BEN	78/ 39		31.14	23.24	26.61
BEN	78/ 52		44.63	33.56	38.31
TOL	92/ 39		6.23	4.09	4.94
TOL	92/ 51		17.11	10.07	12.68
XYL*	106/ 39		2.59	1.41	1.82
XYL*	106/ 51		2.49	1.16	1.58
XYL	106/ 65		9.87	4.82	6.48
XYL	106/ 91		65.90	34.10	44.94
NAP	128/ 78		2.12	2.10	2.11
NAP	128/128		106.56	94.70	100.28

ID = Identification Code
PM = Parent Mass
DM = Daughter Mass

* Ion Pairs Not Used in Quantitation.

TABLE 11

THE SUMMARY OF ACTUAL AND INTERMEDIATE RESPONSE
FACTORS FOR THE TARGET COMPOUNDS' ION PAIRS
DURING SAMPLING PERIOD IV

ID	CALIBRATION TIME	PM/DM	01/23/90	01/23/90	INTERMEDIATE RESPONSE FACTOR
			10:18	15:51	
			RESPONSE FACTOR	RESPONSE FACTOR	
BEN		78/ 39	30.30	24.09	26.840
BEN		78/ 52	42.72	31.25	36.094
TOL		92/ 39	6.10	3.38	4.349
TOL		92/ 51	16.34	11.72	13.653
XYL*		106/ 39	3.14	1.78	2.268
XYL*		106/ 51	2.75	0.74	1.165
XYL		106/ 65	11.50	5.70	7.621
XYL		106/ 91	73.31	33.37	45.863
NAP		128/ 78	4.54	2.23	2.991
NAP		128/128	222.17	109.31	146.527

ID = Identification Code
PM = Parent Mass
DM = Daughter Mass

* Ion Pairs Not Used in Quantitation.

TABLE 12

THE SUMMARY OF ACTUAL AND INTERMEDIATE RESPONSE
FACTORS FOR THE TARGET COMPOUNDS' ION PAIRS
DURING SAMPLING PERIOD V

ID	CALIBRATION TIME	PM/DM	01/23/90	01/23/90	INTERMEDIATE RESPONSE FACTOR
			10:18	19:26	
			RESPONSE FACTOR	RESPONSE FACTOR	
BEN	78/	39	30.30	21.33	25.04
BEN	78/	52	42.72	31.01	35.93
TOL	92/	39	6.10	3.03	4.05
TOL	92/	51	16.34	9.72	12.19
XYL*	106/	39	3.14	1.13	1.66
XYL*	106/	51	2.75	1.08	1.55
XYL	106/	65	11.50	4.92	6.89
XYL	106/	91	73.31	31.16	43.73
NAP	128/	78	4.54	1.65	2.42
NAP	128/	128	222.17	49.50	80.96

ID = Identification Code
PM = Parent Mass
DM = Daughter Mass

* Ion Pairs Not Used in Quantitation.

Calculations for the Summary of the Detection and Quantitation
Concentration Limits for the Target Compounds' Ion Pairs
During the Sampling Periods

The ion pairs' detection concentration limits (DL) and quantitation concentration limits (QL) were generated from the ion pairs' intensity of the standard deviation (SD) of the measurement of an ambient air Tedlar bag; as well as its intermediate response factor. Tables 13 - 17 contain these IRFs that are in units of ion counts per second/part per billion by volume (ICPS/ppbv). The following equation was used to calculate the detection concentration limits found in Table 13 to 17.

$$DL = \frac{3 \times SD}{IRF}$$

where:

DL = detection limit concentration for an ion pair (ppbv)

SD = Standard deviation of the ion intensity for an ion pair of the measurement of an ambient air Tedlar bag (ICPS)

IRF = intermediate response factor for an ion pair (ICPS/ppbv)

For example, the entry for the 78/39 ion pair of benzene from Table 13 is:

SD = 59 ICPS

IRF = 33.87 ICPS/ppbv

$$DL = \frac{3 \times 59}{33.87} = 5.2 \text{ ppbv}$$

The following equation was used to calculate the quantitation limit concentrations found in Table 13 to 17:

$$QL = \frac{10 \times SD}{IRF}$$

where:

QL = quantitation limit concentration for an ion pair (ppbv)

SD = ion intensity for an ion pair of the measurement of an ambient air Tedlar bag (ICPS)

IRF = intermediate response factor for an ion pair (ICPS/ppbv)

For example, the entry for the 78/39 ion pair of benzene from Table 13 is:

SD = 59 ICPS

IRF = 33.87 ICPS/ppbv

$$QL = \frac{10 \times 59}{33.87} = 17.4 \text{ ppbv}$$

TABLE 13

THE SUMMARY OF DETECTION AND QUANTITATION CONCENTRATION LIMITS
FOR THE TARGET COMPOUNDS' ION PAIRS DURING SAMPLING PERIOD I

ID	PM/DM	IRF (ICPS)	ERROR BAR	DL (ICPS)	QL (ICPS)	DL (ppbv)	QL (ppbv)	INTENSITY (ICPS)	SD (ICPS)
BEN	78/ 39	33.87	0.088	177	590	5.2	17.4	71	59
BEN	78/ 52	48.54	0.088	162	540	3.3	11.1	92	54
TOL	92/ 39	7.08	0.136	150	500	21.2	70.7	42	50
TOL	92/ 51	19.43	0.136	153	510	7.9	26.2	71	51
XYL*	106/ 39	2.54	0.016	138	460	54.2	180.8	29	46
XYL*	106/ 51	2.45	0.016	153	510	62.4	207.8	58	51
XYL	106/ 65	9.71	0.016	156	520	16.1	53.5	48	52
XYL	106/ 91	64.85	0.016	228	760	3.5	11.7	292	76
NAP	128/ 78	2.20	0.040	141	470	64.0	213.5	32	47
NAP	128/128	110.81	0.040	630	2100	5.7	19.0	1379	210

ID = Identification Code
 PM = Parent Mass
 DM = Daughter Mass
 IRF = Intermediate Response Factors
 DL = Detection Limit
 QL = Quantitation Limit
 SD = Standard Deviation

* Ion Pairs Not Used in Quantitation

TABLE 14

THE SUMMARY OF DETECTION AND QUANTITATION CONCENTRATION LIMITS
FOR THE TARGET COMPOUNDS' ION PAIRS DURING SAMPLING PERIOD II

ID	PM/DM	IRF (ICPS)	ERROR BAR	DL (ICPS)	QL (ICPS)	DL (ppbv)	QL (ppbv)	INTENSITY (ICPS)	SD (ICPS)
BEN	78/ 39	29.83	0.042	210	700	7.0	23.5	131	70
BEN	78/ 52	42.75	0.042	204	680	4.8	15.9	195	68
TOL	92/ 39	6.03	0.033	177	590	29.4	97.9	61	59
TOL	92/ 51	16.55	0.033	171	570	10.3	34.4	125	57
XYL*	106/ 39	2.11	0.183	150	500	71.0	236.8	46	50
XYL*	106/ 51	2.04	0.183	174	580	85.4	284.8	63	58
XYL	106/ 65	8.06	0.183	147	490	18.2	60.8	103	49
XYL	106/ 91	53.83	0.183	279	930	5.2	17.3	439	93
NAP	128/ 78	1.98	0.066	147	490	74.4	247.9	38	49
NAP	128/128	99.48	0.066	591	1970	5.9	19.8	1561	197

ID = Identification Code
 PM = Parent Mass
 DM = Daughter Mass
 IRF = Intermediate Response Factors
 DL = Detection Limit
 QL = Quantitation Limit
 SD = Standard Deviation

* Ion Pairs Not Used in Quantitation

TABLE 15

THE SUMMARY OF DETECTION AND QUANTITATION CONCENTRATION LIMITS
FOR THE TARGET COMPOUNDS' ION PAIRS DURING SAMPLING PERIOD III

ID	PM/DM	IRF (ICPS)	ERROR BAR	DL (ICPS)	QL (ICPS)	DL (ppbv)	QL (ppbv)	INTENSITY (ICPS)	SD (ICPS)
BEN	78/ 39	26.61	0.145	207	690	7.8	25.9	205	69
BEN	78/ 52	38.31	0.142	243	810	6.3	21.1	291	81
TOL	92/ 39	4.94	0.207	171	570	34.6	115.4	94	57
TOL	92/ 51	12.68	0.259	189	630	14.9	49.7	191	63
XYL*	106/ 39	1.82	0.294	171	570	93.7	312.5	59	57
XYL*	106/ 51	1.58	0.365	165	550	104.3	347.6	65	55
XYL	106/ 65	6.48	0.344	147	490	22.7	75.7	120	49
XYL	106/ 91	44.94	0.318	345	1150	7.7	25.6	677	115
NAP	128/ 78	2.11	0.004	147	490	69.7	232.4	39	49
NAP	128/128	100.28	0.059	618	2060	6.2	20.5	1696	206

ID = Identification Code
 PM = Parent Mass
 DM = Daughter Mass
 IRF = Intermediate Response Factors
 DL = Detection Limit
 QL = Quantitation Limit
 SD = Standard Deviation

* Ion Pairs Not Used in Quantitation

TABLE 16

THE SUMMARY OF DETECTION AND QUANTITATION CONCENTRATION LIMITS
FOR THE TARGET COMPOUNDS' ION PAIRS DURING SAMPLING PERIOD IV

ID	PM/DM	IRF (ICPS)	ERROR BAR	DL (ICPS)	QL (ICPS)	DL (ppbv)	QL (ppbv)	INTENSITY (ICPS)	SD (ICPS)
BEN	78/ 39	26.84	0.114	168	560	6.3	20.9	91	56
BEN	78/ 52	36.09	0.155	183	610	5.1	16.9	113	61
TOL	92/ 39	4.35	0.287	159	530	36.6	121.9	51	53
TOL	92/ 51	13.65	0.164	162	540	11.9	39.6	84	54
XYL*	106/ 39	2.27	0.276	150	500	66.1	220.4	51	50
XYL*	106/ 51	1.17	0.576	177	590	151.9	506.2	82	59
XYL	106/ 65	7.62	0.337	165	550	21.6	72.2	85	55
XYL	106/ 91	45.86	0.374	249	830	5.4	18.1	427	83
NAP	128/ 78	2.99	0.341	150	500	50.2	167.2	77	50
NAP	128/128	146.53	0.340	876	2920	6.0	19.9	5209	292

ID = Identification Code
 PM = Parent Mass
 DM = Daughter Mass
 IRF = Intermediate Response Factors
 DL = Detection Limit
 QL = Quantitation Limit
 SD = Standard Deviation

* Ion Pairs Not Used in Quantitation

TABLE 17

THE SUMMARY OF DETECTION AND QUANTITATION CONCENTRATION LIMITS
FOR THE TARGET COMPOUNDS' ION PAIRS DURING SAMPLING PERIOD V

ID	PM/DM	IRF (ICPS)	ERROR BAR	DL (ICPS)	QL (ICPS)	DL (ppbv)	QL (ppbv)	INTENSITY (ICPS)	SD (ICPS)
BEN	78/ 39	25.04	0.174	174	580	6.9	23.2	78	58
BEN	78/ 52	35.93	0.159	168	560	4.7	15.6	96	56
TOL	92/ 39	4.05	0.336	159	530	39.3	130.9	51	53
TOL	92/ 51	12.19	0.254	153	510	12.6	41.9	50	51
XYL*	106/ 39	1.66	0.471	258	860	155.6	518.6	46	86
XYL*	106/ 51	1.55	0.435	159	530	102.4	341.3	76	53
XYL	106/ 65	6.89	0.401	153	510	22.2	74.0	51	51
XYL	106/ 91	43.73	0.403	216	720	4.9	16.5	199	72
NAP	128/ 78	2.42	0.466	159	530	65.6	218.8	53	53
NAP	128/128	80.96	0.636	816	2720	10.1	33.6	2809	272

ID = Identification Code
 PM = Parent Mass
 DM = Daughter Mass
 IRF = Intermediate Response Factors
 DL = Detection Limit
 QL = Quantitation Limit
 SD = Standard Deviation

* Ion Pairs Not Used in Quantitation

Calculations for the Detection and Quantitation Concentration Limits
for the Target Compounds During the Sampling Periods

The detection concentration limits (DL) and quantitation concentration limits (QL) for compound were generated by averaging the respective DLs and QLs of the target compounds' ion pairs. Only the designated ion pairs in Tables 13 -17 were used to determine the DLs and Qls, because others have background interferences or were insensitive.

The following equation was used to calculate the compound's detection limit concentration found in Table 18:

$$DL = \frac{DL1 + DL2 + \dots + DLn}{n}$$

where:

- DL = detection limit for a compound (ppbv)
- DL1 = detection limit for the first ion pair (ppbv)
- DL2 = detection limit for the second ion pair (ppbv)
- DL3 = detection limit for the nth ion pair (ppbv)
- n = number of ion pairs to be averaged

For example, the entry for the 78/39 and 78/52 ion pairs of benzene from Table 12 is:

$$DL = \frac{5.2 + 3.3}{2} = \frac{8.5}{2} = 4.25 \text{ ppbv}$$

This number was rounded up to the next whole number resulting in the detection limit equal to 5 ppbv.

The following equation was used to calculate the compound's quantitation limit concentration found in Table 18:

$$QL = \frac{QL1 + QL2 + \dots + QLn}{n}$$

where:

- QL = quantitation limit for a compound (ppbv)
- QL1 = quantitation limit for the first ion pair (ppbv)
- QL2 = quantitation limit for the second ion pair (ppbv)
- QL3 = quantitation limit for the nth ion pair (ppbv)
- n = number of ion pairs to be averaged

For example, the entry for the 78/39 and 78/52 ion pairs of benzene from Table 13 is:

$$QL = \frac{17.4 + 11.1}{2} = \frac{28.5}{2} = 14.25 \text{ ppbv}$$

This number was rounded up to the next whole number resulting in the quantitation limit equal to 15 ppbv.

TABLE 18

SUMMARY OF DETECTION AND QUANTITATION CONCENTRATION LIMITS FOR TARGET COMPOUNDS
DURING THE SAMPLING PERIODS

CONCENTRATIONS IN PPBV

COMPOUND	SAMPLING PERIOD I		SAMPLING PERIOD II		SAMPLING PERIOD III		SAMPLING PERIOD IV		SAMPLING PERIOD V	
	DL	QL	DL	QL	DL	QL	DL	QL	DL	QL
benzene	5	15	6	20	8	24	6	19	6	20
toluene	15	49	20	67	25	83	25	81	26	87
xylene	10	33	12	40	16	51	14	46	14	46
naphthalene	35	116	40	134	38	127	29	94	38	127

DL = Detection Limit

QL = Quantitation Limit

Calculations for the Potential Maximum Concentration Percent Deviations for Target Compounds
During the Sampling Periods

The potential maximum concentration percent deviations presented in Table 19 are called "error bars" for simplicity. They represent the potential bias in the concentration due to changes in the sensitivity of the TAGA. "Error bars" were calculated using the following equation:

$$\text{"error bars"} = \frac{|RF1 - RF2|}{(RF1 + RF2)} \times 100$$

where:

error bars = maximum concentration percent deviation (unitless)

RF1 = the response factor for an ion pair measured during the initial calibration event (ICPS/ppbv)

RF2 = the response factor for the same ion pair measured during the final calibration event (ICPS/ppbv)

The above calculation was repeated for each ion pair. The "error bars" for each compound were averaged to give a single value for each compound between the two calibrations each sampling period.

For example, using the BNZ data from Table 8 for the 78/39 ion pair:

RF1 = 31.14

RF2 = 37.13

and then

$$\frac{|RF1 - RF2|}{(RF1 + RF2)} \times 100 = \frac{|31.14 - 37.13|}{31.14 + 37.13} \times 100 = 8.8\%$$

and the other BNZ ion pair: 78/51 the "error bar" is 8.8%. These ion pair "error bars" are averaged to give an "error bar" for BNZ equal to 8.8%, which is the entry in Table 19.

TABLE 19

THE SUMMARY OF THE POTENTIAL MAXIMUM CONCENTRATION
PERCENT DEVIATIONS FOR THE TARGET COMPOUNDS
DURING THE SAMPLING PERIOD

SAMPLING PERIOD	I	II	III	IV	V
COMPOUND	ERROR BAR PERCENTAGE	ERROR BAR PERCENTAGE	ERROR BAR PERCENTAGE	ERROR BAR PERCENTAGE	ERROR BA PERCENTAG
benzene	8.8	4.2	14.4	13.5	16.7
toluene	13.6	3.3	23.3	22.6	29.5
xylene	1.6	18.3	33.1	35.6	40.2
naphthalene	4.0	6.6	3.2	34.1	55.1

BORING B-01

GULF STATE CREOSOTE
HATTIESBURG, MS

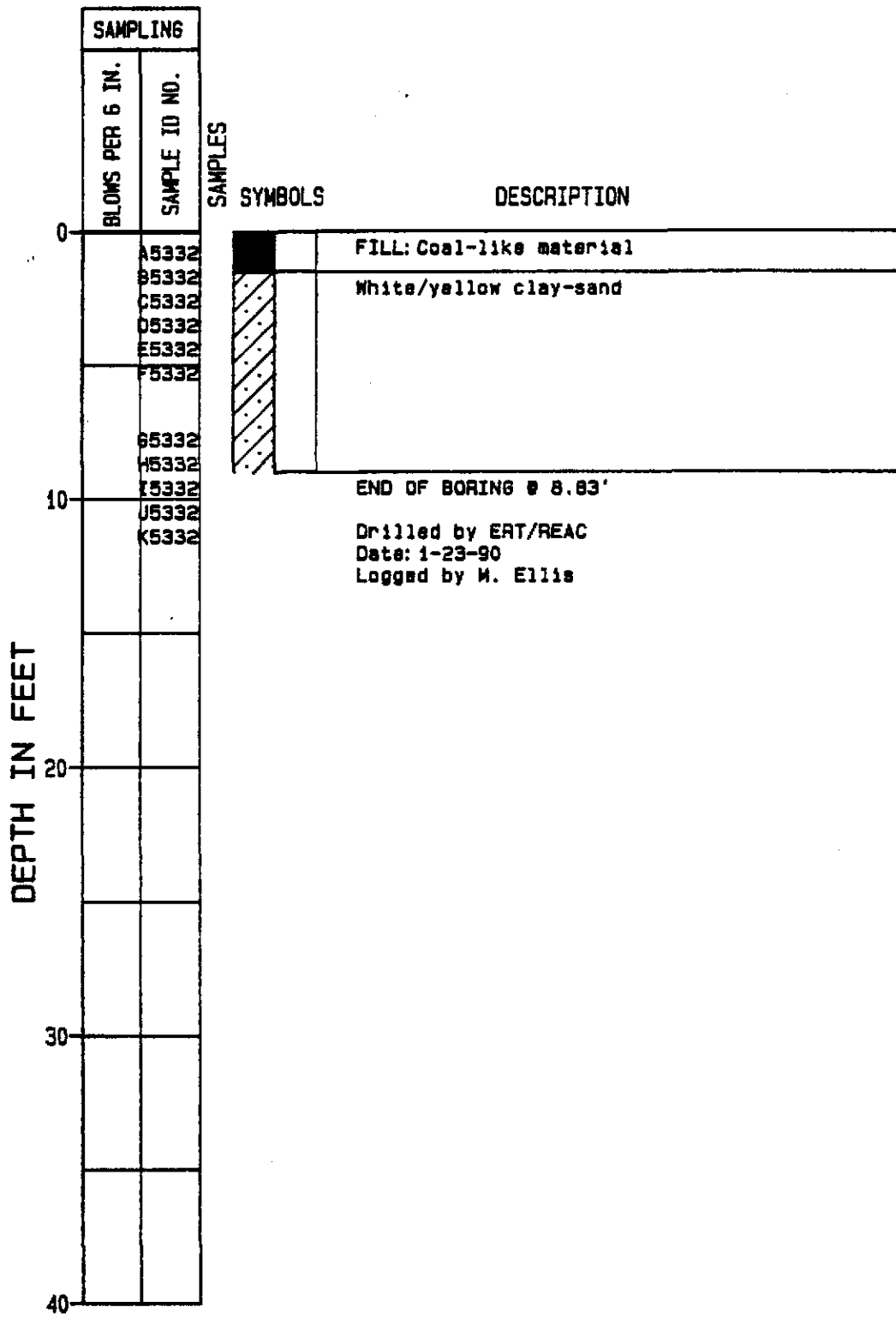
DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOMS PER 6 IN.	SAMPLE ID NO.		
0				FILL: Coal material
				Brown sandy clay, tight
				Brown sandy clay, white streaks
				Ditto with whiter material
10				White clay with streaks, plastic, moist
				END OF BORING @ 13.5'
				Drilled by ERT/REAC with Beaver
				Date: 1-23-90
				Logged by M. Ellis
20				
30				
40				

BORING LOG

Response Engineering and Analytical Contract

BORING B-02.5

GULF STATE CREOSOTE
HATTIESBURG, MS



BORING LOG

Response Engineering and Analytical Contract

BORING B-3


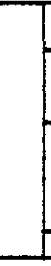

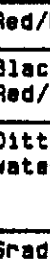
GULF STATES CREOSOTE
HATTIESBURG, MS

DEPTH IN FEET	SAMPLING	
	BLOWS PER 6 IN.	SAMPLE ID NO.
0		
		A5308
10		
20		
30		
40		

SAMPLES

SYMBOLS

DESCRIPTION

	Red/brown sandy clay
	Black organic material grading back to Red/brown sandy clay
	Ditto with white streaks of clay water @3.83'
	Grades into sandy clay

END OF BORING @ 8.17'

Drilled by ERT/REAC with Beaver
Date: 1-23-90
Logged by M. Ellis

BORING LOG

Response Engineering and Analytical Contract

BORING C-19

GULF STATE CREOSOTE
HATTIESBURG, MS

DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOMS PER 6 IN.	SAMPLE ID NO.		
0				Dark brown loam. organics
				Light brown silty sand moist @ 4' wet @ 6'
10		A6031		Coarse SAND, little very coarse sand @ 12' Refusal @ 12'
20				
30				
40				

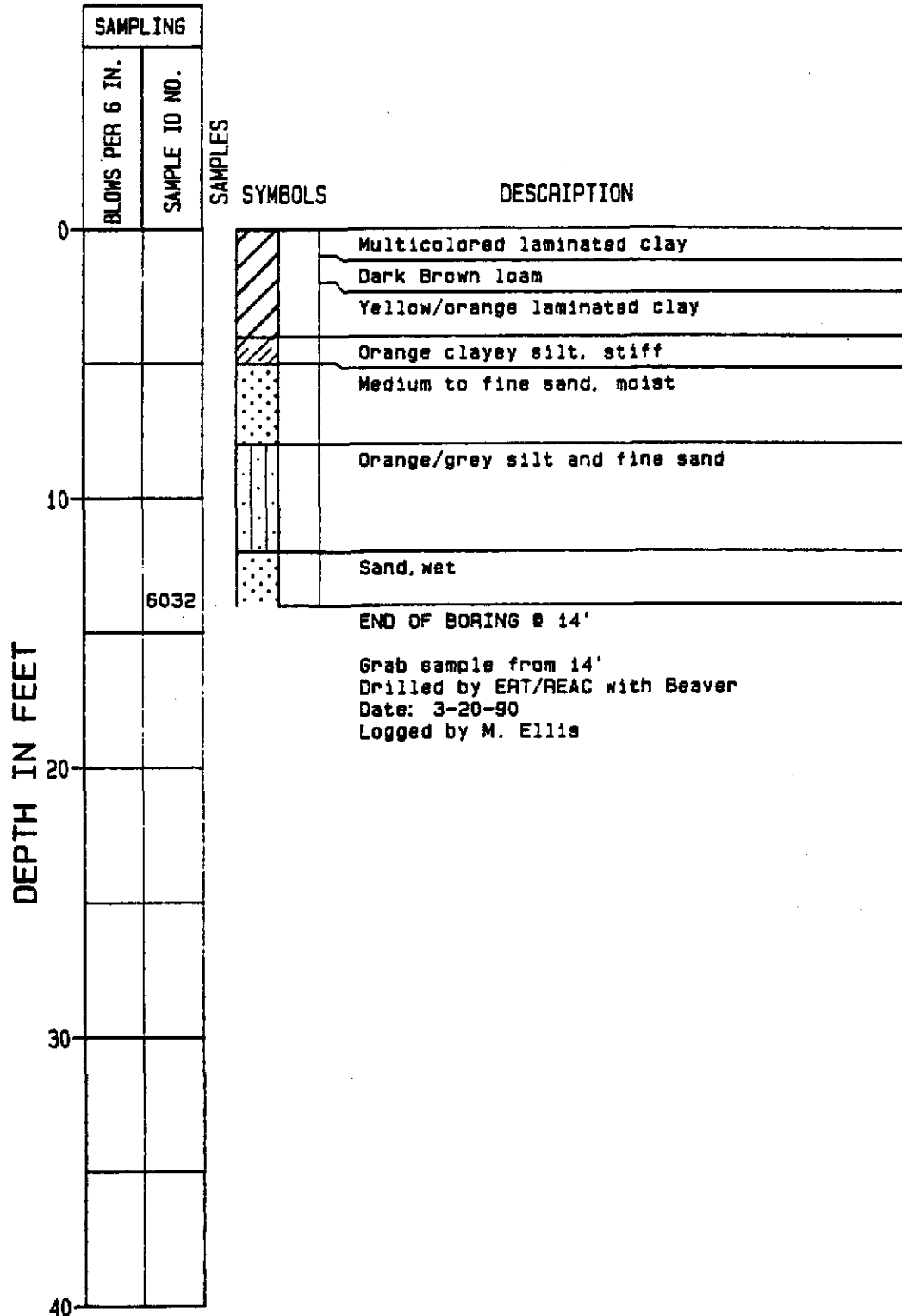
Drilled by ERT/REAC with Beaver
Date: 3-20-90
Logged by M. Ellis

BORING LOG

Response Engineering and Analytical Contract

BORING C-20

GULF STATE CREOSOTE
HATTIESBURG, MS

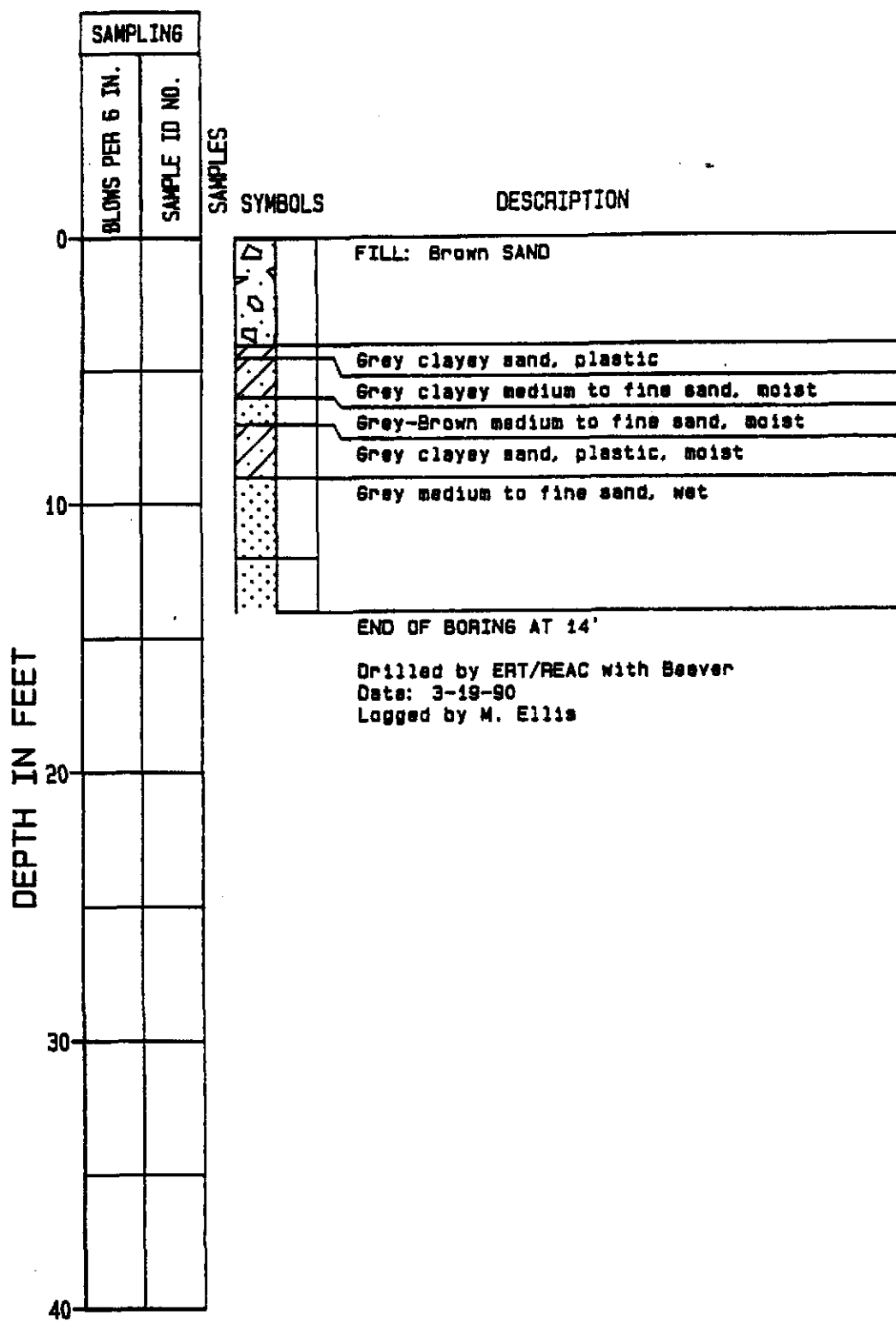


BORING LOG

Response Engineering and Analytical Contract

BORING D- -1

GULF STATE CREOSOTE
HATTIESBURG, MS



BORING LOG

Response Engineering and Analytical Contract

BORING D-02

GULF STATE CREOSOTE
HATTIESBURG, MS

DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOWS PER 6 IN.	SAMPLE ID NO.		
0			[Symbol: a vertical column of small triangles]	FILL: sand with bricks etc.
				Refusal at 6 feet
10				Drilled by ERT/REAC with Beaver Date: 3-20-90 Logged by M. Ellis
20				
30				
40				

BORING LOG

Response Engineering and Analytical Contract

BORING D-03

GULF STATE CREOSOTE
HATTIESBURG, MS

DEPTH IN FEET	SAMPLING	
	BLOWS PER 6 IN.	SAMPLE ID NO.
0		
10		
20		
30		
40		

SAMPLES

SYMBOLS

DESCRIPTION

0-3	FILL: Sand, cobbles and gravel present
-----	--

Refusal at 3 feet




Drilled by ERT/REAC
Date: 3/20/90
Logged by M. Ellis

BORING LOG

Response Engineering and Analytical Contract

BORING D-03A

GULF STATE CREOSOTE
HATTIESBURG, MS


DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOWS PER 6 IN.	SAMPLE ID NO.		
0				Brown clayey sand, plastic
				Silty sand, moist, trace clay wet @ 6', no creosote odor
		86028		Very coarse to coarse angular sand, wet, little silt water at 10'
10		86028		END OF BORING @ 10'
				Drilled by ERT/REAC with Beaver Date: 3-20-90 Logged by M. Ellis
20				
30				
40				

BORING LOG

Response Engineering and Analytical Contract

BORING D-06

GULF STATE CREOSOTE
HATTIESBURG, MS

DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOWS PER 6 IN.	SAMPLE ID NO.		
0				Light brown/gray sandy clay
				Medium sand, little clay
10				Orange sandy clay, moist
				Clayey sand, moist
				END OF BORING AT 14'
				Drilled by ERT/REAC with Beaver
				Date: 3-20-90
				Logged by M. Ellis
20				
30				
40				

BORING LOG

Response Engineering and Analytical Contract

BORING E-19

GULF STATE CREOSOTE
HATTIESBURG, MS

DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOMS PER 6 IN.	SAMPLE ID NO.		
0				Brown medium to fine sand, moist
				Dark brown organic silty sand
				Black sand, wet
10		A6030		
		B6030		
20				
30				
40				

END OF BORING @ 11'

Drilled by ERT/REAC with Beaver
Date: 3-20-90
Logged by M. Ellis

BORING LOG

Response Engineering and Analytical Contract

BORING E-20

GULF STATE CREOSOTE
HATTIESBURG, MS

DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOWS PER 6 IN.	SAMPLE ID NO.		
0				Brown silty sand
				Black silty loam
		A3106 B3106 C3106		Yellow/orange sand, little clay water @ 2.5', black muck, sheen
				END OF BORING @ 4'
10				
20				
30				
40				





Drilled by ERT/REAC with Beaver
Date: 1-24-90
Logged by M. Ellis

BORING LOG

Response Engineering and Analytical Contract

BORING E-24

GULF STATE CREOSOTE
HATTIESBURG, MS

DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOWS PER 6 IN.	SAMPLE ID NO.		
0				Brown medium sand, moist
				Brown medium sand, little clay, moist
				Brown/gray medium sand, some silt
		A6021		Medium to fine sand, wet, creosote odor
10				END OF BORING @ 9'
				Drilled by ERT/REAC with Beaver
				Date: 3-20-90
				Logged by M. Ellis
20				
30				
40				

BORING LOG

Response Engineering and Analytical Contract

BORING E-25

GULF STATE CREOSOTE
HATTIESBURG, MS

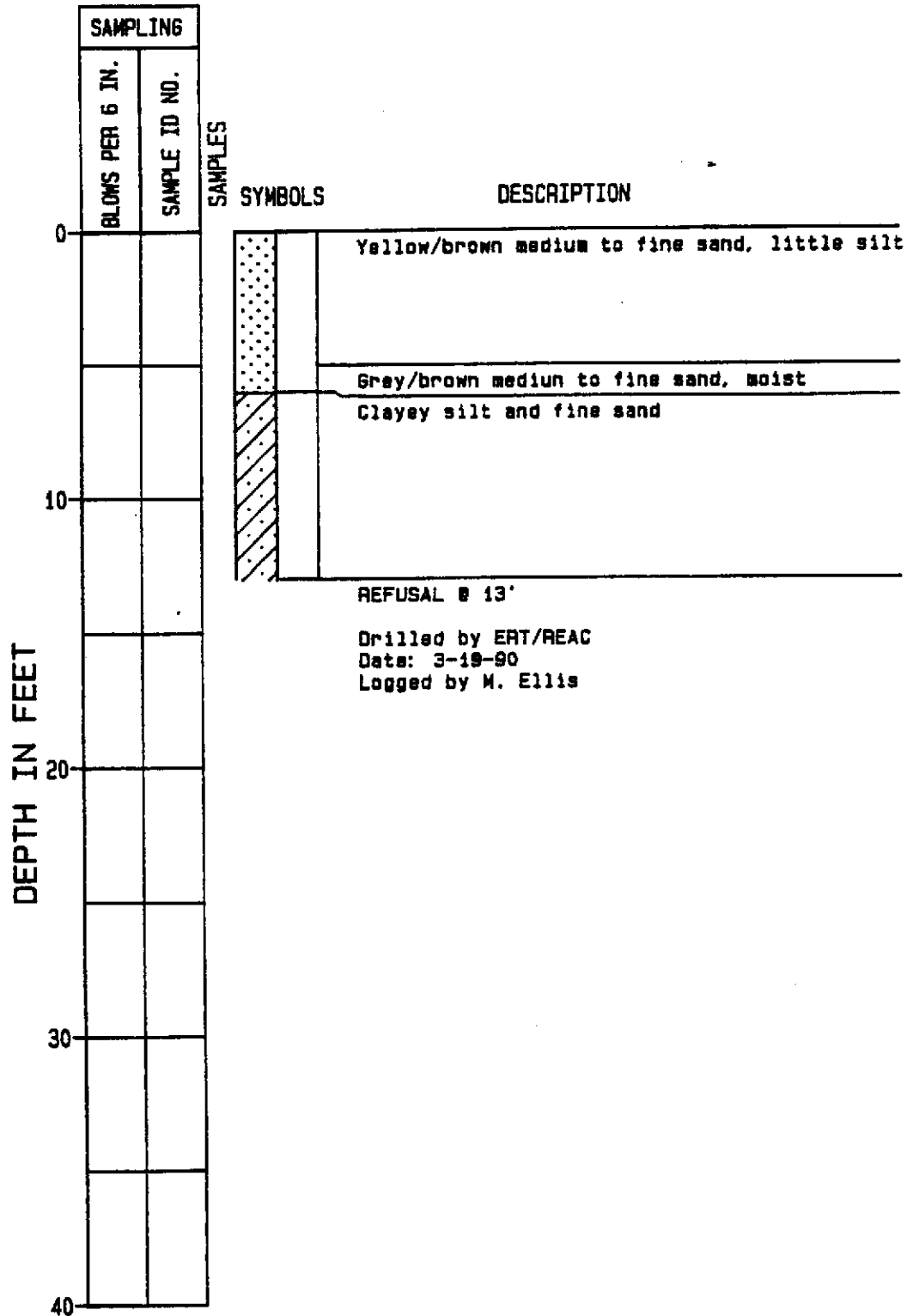
DEPTH IN FEET	SAMPLING		SYMBOLS	DESCRIPTION
	BLOWS PER 6 IN.	SAMPLE ID NO.		
0				Silty sand
				Silt, moist
		A6020		Coarse sand, wet clay @ 9'
10				END OF BORING @ 9'
				Drilled by ERT/REAC with Beaver
				Date: 3-20-90
				Logged by M. Ellis
20				
30				
40				

BORING LOG

Response Engineering and Analytical Contract

BORING E-26

GULF STATE CREOSOTE
HATTIESBURG, MS

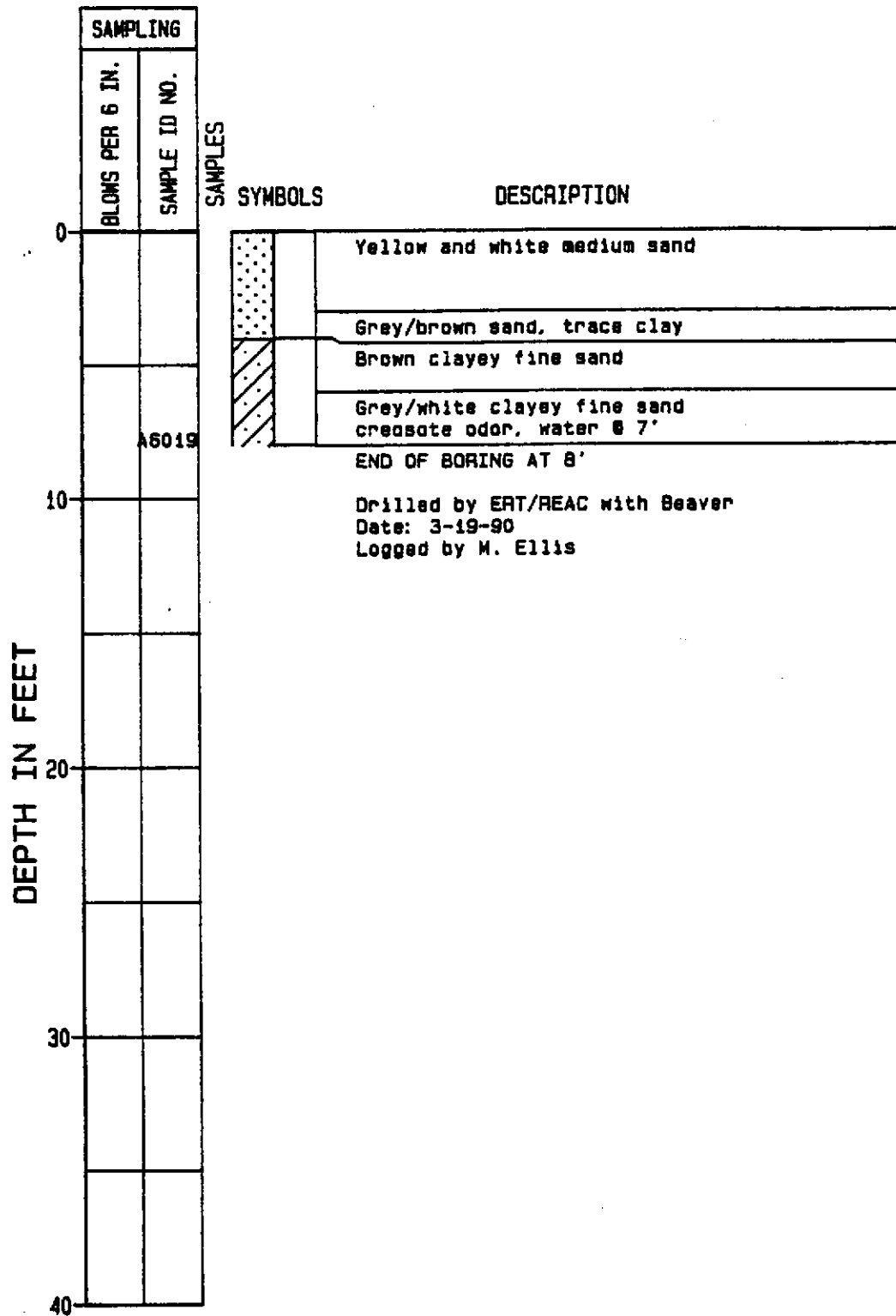


BORING LOG

Response Engineering and Analytical Contract

BORING E-27

GULF STATE CREOSOTE
HATTIESBURG, MS



BORING LOG

Response Engineering and Analytical Contract



ENVIRONMENTAL RESPONSE TEAM
AIR SAMPLING WORKSHEET

Roy F. Weston, Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-03-3482

SITE Gulf State Creosote W.A. # 347-1101-2335
 SAMPLERS WB EPA WAM HARRY COMPTON
 DATE 1/23/90 REAC TL M. O'Neill

SAMPLE NO.	<u>3203^F</u>	<u>3204^F</u>	<u>3206^F</u>	<u>Field Blank^F</u>	<u>03201^F</u>
Sample Location	<u>Near Tracks.</u>	<u>Near creek on fence</u>	<u>behind Hotel near creek</u>	<u>Field blank</u>	
Remarks					
Pump No.	<u>3404</u>	<u>7325</u>	<u>7342</u>	<u>—</u>	
Collection Media	<u>XAD+filter</u>	<u>XAD+filter</u>	<u>XAD+filter</u>	<u>XAD+filter</u>	
Analysis Requested	<u>5515</u>	<u>5515</u>	<u>5515</u>	<u>5515</u>	
Time of Day	<u>9:45</u>	<u>10:00</u>	<u>10:10</u>	<u>9:00</u>	
Time/Counter (Start)	<u>0</u>	<u>0</u>	<u>0</u>	<u>—</u>	
Time/Counter (Stop)	<u>480 min</u>	<u>454 min</u>	<u>453 min</u>	<u>—</u>	
Total Sampling Time	<u>480 min</u>	<u>454 min</u>	<u>453 min</u>	<u>—</u>	
Pump Fault	<u>Y/N</u>	<u>Y/N</u>	<u>Y/N</u>	<u>Y/N</u>	<u>Y/N</u>
Flow Rate (Start)	<u>2 l/m</u>	<u>2 l/m</u>	<u>2 l/m</u>	<u>—</u>	
Flow Rate (Stop)	<u>2 l/m</u>	<u>2 l/m</u>	<u>2 l/m</u>	<u>—</u>	
Flow Rate (Average)	<u>2 l/m</u>	<u>2 l/m</u>	<u>2 l/m</u>	<u>—</u>	
Volume Sampled	<u>960 lit.</u>	<u>908</u>	<u>906</u>	<u>—</u>	
Air Monitoring Data					
HNU					
OVA					
LEL/RAM					

WEATHER PARAMETERS
 Weather Conditions Sunny Temperature 27°C Windspeed 2 mph
 Wind direction See Site map Pressure 30.3 Humidity 22% Met ID —

GENERAL COMMENTS:



ENVIRONMENTAL RESPONSE TEAM
AIR SAMPLING WORKSHEET

Roy F. Weston, Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-03-3482

SITE Gulf State W.A. # 2335
 SAMPLERS WB EPA WAM Harry Compton
 DATE 1/23/90 REAC TL DUU

SAMPLE NO.	<u>Realtime</u> →				
Sample Location	<u>DO1</u>	<u>ED12</u>	<u>ED14</u>	<u>E16</u>	<u>E18</u>
Remarks	<u>headspace above bore</u>	<u>headspace above bore</u>	<u>headspace above bore</u>	<u>headspace above bore</u>	<u>headspace above bore</u>
Pump No.	<u>OVAS</u>	<u>HNU1</u>	<u>OVA</u>	<u>OVA 5</u>	<u>OVA 5</u>
Collection Media	<u>HNU1</u>	<u>OVA 5</u>	<u>HNU1</u>	<u>HNU1</u>	<u>HNU1</u>
Analysis Requested	<u>none</u> →				
Time of Day	<u>4:10</u>	<u>4:15</u>	<u>4:20</u>	<u>4:45pm</u>	<u>5:00pm</u>
Time/Counter (Start)	—	—	—	—	—
Time/Counter (Stop)	—	—	—	—	—
Total Sampling Time	—	—	—	—	—
Pump Fault	<u>Y/N</u>	<u>Y/N</u>	<u>Y/N</u>	<u>Y/N</u>	<u>Y/N</u>
Flow Rate (Start)	—	—	—	—	—
Flow Rate (Stop)	—	—	—	—	—
Flow Rate (Average)	—	—	—	—	—
Volume Sampled	—	—	—	—	—
Air Monitoring Data					
HNU	<u>3.5</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
OVA	<u>3.5</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
LEL/RAM	—	—	—	—	—

WEATHER PARAMETERS
 Weather Conditions Sunny Temperature 27°C Windspeed —
 Wind direction Sec Pressure 30.30 Humidity 22% Met ID —
Site map

GENERAL COMMENTS:

CURRENT DATE: 1/23/90

CURRENT TIME: 22:35:59

LIBRATION

0.014 V = 0.000 mgm3
2.223 V = 4.500 mgm3

LOWER ALARM: 0.000 mgm3

UPPER ALARM: 0.000 mgm3

UNITS: mgm3

INPUT READS: 0.046 mgm3

TEST STARTING DATE: 1/23/90

TEST STARTING TIME: 14:40:31

ELAPSED TIME: 0 DAYS 2:22:47

OVERALL AVG: 0.008 mgm3

OVERALL MIN: - 0.014 mgm3

MIN OCCURRED 1/23/90 @ 15:21:08

OVERALL MAX: 1.086 mgm3

MAX OCCURRED 1/23/90 @ 16:59:24

STEL: 0.058 mgm3

STEL OCCURRED 1/23/90 @ 16:48:11

AMP DIST

SAMPLES LOGGED: 8567

mgm3	SAMPLES	%
- 0.374	8203 *****	095.75
0.028	356 ****	004.15
0.430	4 .	000.04
0.833	4 .	000.04

FIELD DATA SHEET

N: 005309

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No: _____ Samplers: Plrice | Powell Chain of Custody No. _____
 Date: 1/23/90 Site Name: GAULT STATES CREOSOTE REAC Task Leader: COMPTON
 Time: _____ Sample Location: B-01 EPA Task Monitor: O'Neil
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE	SURFACE WATER	STREAM	BOTTOM
landfill	old field	upland palustrine	rock <input checked="" type="checkbox"/>	color _____	width _____	rock slit
industrial	wooded	lowland riverine	gravel	odor _____	depth _____	rubble clay
<u>commercial</u>	farmland	lacustrine	<u>slit</u> loam	flow _____	velocity _____ cm/s	gravel organic
residential	gully		silt	direction _____	pools _____ %	shell other _____
hedgerows	floodplain		color <u>ORANGE</u>		riffles _____ %	sand

SAMPLE TYPE	DEVICE	SAMPLE INFORMATION		WEATHER PARAMETERS
stream/surface	<u>soil</u> kemmerer	color _____	pH _____	ambient temp _____
groundwater	pond/lake trowl	odor <u>NO</u>	ORP _____	barometric pressure _____
brackish	river <u>DUCK</u>	temp _____	salinity _____	relative humidity _____
ocean/saline	effluent sugar	DO _____	sample depth <u>13.3</u>	weather conditions _____
sediment	sludge ekman	cond _____	tide stage _____	

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides _____
- B. ignitability _____
- C. corrosivity _____ pH _____
- D. reactivity _____

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
<u>glass jar</u>	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

COMMENTS:

0-12" Fill / coal MATERIAL
 10:5' BROWN SANDY CLAY TIGHT
 5'-8' BROWN SANDY CLAY / WHITE STREAKS / MOTTLED
 3.5' white material
 10:8' - moist white plastic clay w/ streaks
 13:5' clay white / mottled

FIELD DATA SHEET

N: 005322

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Lab No.: 1123190 Samplers: Prince 1 Powell Chain of Custody No. _____
 Date: 1/23/90 Site Name: Caulk States Creosote REAC Task Leader: O'NEIL
 Time: _____ Sample Location: B.O.Z.S EPA Task Monitor: COMPTON
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland	rock	clay	color	width	depth	rock	slit	
industrial	wooded	lowland	gravel	muck	odor	depth	velocity	rubble	clay	
commercial	farmland	lacustrine	clay	loam	flow	velocity	cm/s	gravel	organic	
residential	gully		silt	peat	direction	pools	%	shell	other	
hedgerows	floodplain		color			riffles	%	sand		

SAMPLE TYPE		DEVICE	SAMPLE INFORMATION			WEATHER PARAMETERS	
stream/surface	soil	kemmerer	color	pH	ambient temp		
groundwater	pond/lake	trowl	odor	ORP	barometric pressure		
brackish	river	bucket	temp	salinity	relative humidity		
ocean/saline	effluent	sugar	DO	sample depth	weather conditions		
sediment	sludge	ekman	cond	tide stage			

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____

Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

A. halogenated & aromatic volatiles
 B. volatiles-USEPA 624
 C. trihalomethanes
 D. pesticides/PCB
 E. PCB
 F. base neutral/acid extractables-USEPA 625
 G. pesticides, drinking water
 H. herbicides, drinking water

*JARS at
- 0-12"
- 8' 10"*

LIMITED CHEMISTRY

A. total cyanide
 B. total phenol
 C. petroleum hydrocarbons
 D. pH
 E. alkalinity
 F. hardness
 G. total dissolved solids
 H. total suspended solids
 I. sulfate

CONTAINER

~~glass jar~~
 plastic jar
 acetate core
 plastic bag
 plastic bucket
 4L plastic

PRESERVATIVES

HNO3
 NaOH
 Zn Acetate
 HCL
 Na2SO4
 other _____

STORAGE

wet ice
 dry ice
 ambient

OTHER ANALYSES (specify)

INORGANICS

A. metals, priority pollutant
 B. metals scan (ICP)
 C. metals, other _____

OVA = NO

BIOASSESSMENT

See attached data sheet
 See comments

RCRA

A. EP toxicity _____ metals _____ pesticides _____ herbicides
 B. ignitability _____
 C. corrosivity _____ pH _____
 D. reactivity _____

AIR SAMPLING

Sampling Method _____
 Sample Flow Rate _____
 Sampling Time _____
 Volume Collected _____

Collection Media _____
Special Shipping Instructions _____
 #Field Blanks _____ #Sample Blanks _____

COMMENTS:

*0-6" 12" over coal material / sample taken B=OAR + JAR
 JARS C&D, E&F + UAA-A ONLY → OVA = NO
 → 1'5" - 8' 10" white/yellow/ clay-sand
 B' 10" → G.H.I.J.K JARS OVA = NP*

FIELD DATA SHEET

N: 005308

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: COMPTON 1 Chain of Custody No. _____
 Date: 1/23/90 Site Name: Gulf States CREOSOTE REAC Task Leader: O'NEAL
 Time: 1210 Sample Location: B-43 w/ A-12 EPA Task Monitor: COMPTON
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	<u>clay</u>	color	_____	width	_____	rock	slit
industrial	wooded	lowland riverine	gravel	muck	odor	_____	depth	_____	rubble	clay
<u>commercial</u>	farmland	lacustrine	<u>sand</u>	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully		silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain		color	_____			riffles	_____ %	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS		
stream/surface	<u>soil</u>	kemmerer	ponar	color	_____	pH	_____	ambient temp	_____
groundwater	pond/lake	trowl	other	odor	<u>NO</u>	ORP	_____	barometric pressure	_____
brackish	river	<u>bucket</u>		temp	_____	salinity	_____	relative humidity	_____
ocean/saline	effluent	sugar		DO	_____	sample depth	<u>7'6"</u>	weather conditions	_____
sediment	sludge	ekman		cond	_____	tide stage	_____		

ANALYSES TO BE PERFORMED **SAMPLE PREPARATION**

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

- LIMITED CHEMISTRY**
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate

- CONTAINER** **PRESERVATIVES**
- glass jar
 - plastic jar
 - acetate core
 - plastic bag
 - plastic bucket
 - 4L plastic
- HNO3
 - NaOH
 - Zn Acetate
 - HCL
 - Na2SO4
 - other _____

- ORGANICS**
- A. halogenated & aromatic volatiles
 - B. volatiles-USEPA 624
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables-USEPA 625
 - G. pesticides, drinking water
 - H. herbicides, drinking water

OTHER ANALYSES (specify)

STORAGE

- wet ice
- dry ice
- ambient

- INORGANICS**
- A. metals, priority pollutant
 - B. metals scan (ICP)
 - C. metals, other _____

BIOASSESSMENT
 See attached data sheet
 See comments

- RCRA**
- A. EP toxicity _____ metals _____ pesticides _____ herbicides
 - B. ignitability
 - C. corrosivity _____ pH _____
 - D. reactivity

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS: 1135 Auger START 0-1.5' Red BROWN SANDY Clay (RBSC)
1.5'-2'4" Black organic material grading back to RBSC
3'10" WATER -sandy RBSC w/whitestreaked clay
7'4 RBSC grading to kaolinitic sandy clay
- T.P. 8' 2"

FIELD DATA SHEET

Nº 006031

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/20/80 Site Name: _____ REAC Task Leader: _____
 Time: 1415 Sample Location: C-~~18~~19 EPA Task Monitor: _____
 Project No.: 2335

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color _____	width _____	depth _____	rock	slit	
industrial	wooded	lowland riverine	gravel	muck	odor _____	depth _____	velocity _____ cm/s	rubble	clay	
commercial	farmland	lacustrine	sand	loam	flow _____	direction _____	pools _____ %	gravel	organic	
residential	gully		silt	peat			riffles _____ %	shell	other _____	
hedgerows	floodplain		color _____					sand		

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION				WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color _____	pH _____	odor _____	ORP _____	ambient temp _____	
groundwater	pond/lake	trowl	other _____	temp _____	salinity _____	DO _____	sample depth _____	barometric pressure _____	
brackish	river	bucket		cond _____	tide stage _____			relative humidity _____	
ocean/saline	effluent	sugar						weather conditions _____	
sediment	sludge	ekman							

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides
- B. ignitability
- C. corrosivity _____ pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

COMMENTS:

5' off Pine St C-transect C-18.15

0-1' dk brown loam, organic

1-2' lt brown silty sand

2-3' ditto

3-4' ditto

4-5' ditto moist

5-6' ditto

6-8' ditto, wet

8-12' ditto

12' coarse wet sand little v. coarse sand fingers binding B.O.B.

A: Btm Samp sand

FIELD DATA SHEET

N^o: 006032

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: 1 Chain of Custody No. _____
 Date: 3/20/90 Site Name: _____ REAC Task Leader: _____
 Time: 1440 Sample Location: C-20 EPA Task Monitor: _____
 Project No.: 2335

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width	rock	silt		
industrial	wooded	lowland riverine	gravel	muck	odor	depth	rubble	clay		
commercial	farmland	lacustrine	sand	loam	flow	velocity	gravel	organic		
residential	gully		silt	peat	direction	pools	shell	other		
hedgerows	floodplain		color			ntiles	sand			

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp		
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure		
brackish	river	bucket		temp	salinity	relative humidity		
ocean/saline	effluent	sugar		DO	sample depth	weather conditions		
sediment	sludge	ekman		cond	tide stage			

ANALYSES TO BE PERFORMED **SAMPLE PREPARATION**

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

LIMITED CHEMISTRY

A. total cyanide
 B. total phenol
 C. petroleum hydrocarbons
 D. pH
 E. alkalinity
 F. hardness
 G. total dissolved solids
 H. total suspended solids
 I. sulfate

CONTAINER **PRESERVATIVES**

glass jar HNO3
 plastic jar NaOH
 acetate core Zn Acetate
 plastic bag HCL
 plastic bucket Na2SO4
 4L plastic other _____

ORGANICS

A. halogenated & aromatic volatiles
 B. volatiles-USEPA 624
 C. trihalomethanes
 D. pesticides/PCB
 E. PCB
 F. base neutral/acid extractables-USEPA 625
 G. pesticides, drinking water
 H. herbicides, drinking water

OTHER ANALYSES (specify)

INORGANICS

A. metals, priority pollutant
 B. metals scan (ICP)
 C. metals, other _____

BIOASSESSMENT
 See attached data sheet
 See comments

RCRA

A. EP toxicity _____metals _____pesticides _____herbicides
 B. ignitability
 C. corrosivity _____pH _____
 D. reactivity

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

C19-5 off Pine

0-1' multi-colored laminated clays 7-8' ditto
 1-2' dk brown loam 8-9' orange/grey silt + fine sand
 2-3' yellow/orange clay laminated 9-12' ditto
 3-4' ditto 12-14' wet sands
 4-5' dense orange clay ~~fine~~ silt A- bucket auger sample NO odor
 5-7' fine-med sand moist

FIELD DATA SHEET

Nº 006017

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: Rigger Ellis Chain of Custody No. _____
 Date: 3/19/90 Site Name: Gulf State Creosote REAC Task Leader: M G W
 Time: 1600 Sample Location: D-7 EPA Task Monitor: HC
 Project No.: 2335

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM	BOTTOM	
landfill	<u>old field</u>	upland palustrine	rock	clay	color	width	_____	rock	slit
industrial	wooded	lowland riverine	gravel	muck	odor	depth	_____	rubble	clay
commercial	farmland	lacustrine	sand	loam	flow	velocity	_____ cm/s	gravel	organic
residential	gully		silt	peat	direction	pools	_____ %	shell	other
hedgerows	rice paddy		color	_____		riffles	_____ %	sand	

SAMPLE TYPE		DEVICE	SAMPLE INFORMATION		WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure
brackish	river	bucket		temp	salinity	relative humidity
ocean/saline	effluent	sugar		DO	sample depth	weather conditions
sediment	sludge	ekman		cond	tide stage	

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides
- B. ignitability
- C. corrosivity _____ pH _____
- D. reactivity

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

0-4' darky fill, brown
 4' grey clayey sand, plastic
 4.5-6' grey clayey med-fine sands, moist
 7' grey fine sand and brown peat parts
 7-9' grey clayey sands, moist plastic

10.5-12' grey fine-med sand, wet
 12-14' "
 At 14' auger bit has grey clay on it.

FIELD DATA SHEET

No 006023

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/20/20 Site Name: _____ REAC Task Leader: _____
 Time: _____ Sample Location: D-02 EPA Task Monitor: _____
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM	BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width		rock	silt
industrial	wooded	lowland riverine	gravel	muck	odor	depth		rubble	clay
commercial	farmland	lacustrine	sand	loam	flow	velocity	cm/s	gravel	organic
residential	gully		silt	peat	direction	pools	%	shell	other
hedgerows	floodplain		color			riffles	%	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH		ambient temp	
groundwater	pond/lake	trowl	other	odor	ORP		barometric pressure	
brackish	river	bucket		temp	salinity		relative humidity	
ocean/saline	effluent	sugar		DO	sample depth		weather conditions	
sediment	sludge	ekman		cond	tide stage			

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity metals pesticides herbicides
- B. ignitability
- C. corrosivity pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

*0-3 fill material
 3-6' more fill, bricks etc.
 drill augers are binding
 stopped drilling*

FIELD DATA SHEET

N^o. 005510

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Lab No.: _____ Samplers: Cile, Powell Chain of Custody No. _____
Date: 1-24 Site Name: Gulf State Creekside REAC Task Leader: _____
Time: 1330 Sample Location: DDX - 8 ft EPA Task Monitor: _____
Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM	BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width	rock	slit	
industrial	wooded	lowland riverine	gravel	muck	odor	depth	rubble	clay	
commercial	farmland	lacustrine	sand	loam	flow	velocity	cm/s	gravel	organic
residential	gully		silt	peat	direction	pools	%	shell	other
hedgerows	floodplain		color			riffles	%	sand	

SAMPLE TYPE		DEVICE	SAMPLE INFORMATION			WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp	
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure	
brackish	river	bucket		temp	salinity	relative humidity	<u>100%</u>
ocean/saline	effluent	sugar		DO	sample depth	weather conditions	<u>Rc.n</u>
sediment	sludge	ekman		cond	tide stage		

ANALYSES TO BE PERFORMED

TOC required? Yes No
If No, explain _____

Grain size analysis required? Yes No
If No, explain _____

- ORGANICS**
- A. halogenated & aromatic volatiles
 - B. volatiles-USEPA 624
 - C. trihalomethanes
 - D. pesticides/PCB
 - E. PCB
 - F. base neutral/acid extractables-USEPA 625
 - G. pesticides, drinking water
 - H. herbicides, drinking water

- INORGANICS**
- A. metals, priority pollutant
 - B. metals scan (ICP)
 - C. metals, other _____

- RCRA**
- A. EP toxicity _____metals _____pesticides _____herbicides
 - B. ignitability
 - C. corrosivity _____pH _____
 - D. reactivity

- LIMITED CHEMISTRY**
- A. total cyanide
 - B. total phenol
 - C. petroleum hydrocarbons
 - D. pH
 - E. alkalinity
 - F. hardness
 - G. total dissolved solids
 - H. total suspended solids
 - I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE
wet ice
dry ice
ambient

BIOASSESSMENT
See attached data sheet
See comments

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

FIELD DATA SHEET

N: 005511

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Lab No.: _____ Samplers: Cole 1 Powell Chain of Custody No. _____
 Date: 1-24-90 Site Name: Griff State Creekside REAC Task Leader: _____
 Time: 1320 Sample Location: D800 - 5 ft. EPA Task Monitor: _____
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM	BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width		rock	slit
industrial	wooded	lowland riverine	gravel	muck	odor	depth		rubble	clay
commercial	farmland	lacustrine	sand	loam	flow	velocity	cm/s	gravel	organic
residential	gully		silt	peat	direction	pools	%	shell	other
hedgerows	floodplain		color			riffles	%	sand	

SAMPLE TYPE		DEVICE	SAMPLE INFORMATION			WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp	
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure	
brackish	river	bucket		temp	salinity	relative humidity	<u>100%</u>
ocean/saline	effluent	sugar		DO	sample depth	weather conditions	<u>Cloudy, IR</u>
sediment	sludge	ekman		cond	tide stage		

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____

Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____metals _____pesticides _____herbicides
- B. ignitability
- C. corrosivity _____pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

OVA - 2 ppm

FIELD DATA SHEET

N: 005321

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: Powell & Compton Chain of Custody No. _____
 Date: 1/23/90 Site Name: Carl State REAC Task Leader: O'Neil
 Time: _____ Sample Location: D-01 EPA Task Monitor: Compton
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	_____	rock	slit
industrial	wooded	lowland riverine	gravel	_____	odor	_____	depth	_____	rubble	clay
commercial	farmland	lacustrine	sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	quilt	_____	silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain	_____	color	_____	_____	_____	riffles	_____ %	sand	_____

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS		
stream/surface	soil	kemmerer	ponar	color	_____	pH	_____	ambient temp	_____
groundwater	pond/lake	trowl	other	odor	_____	ORP	_____	barometric pressure	_____
brackish	river	bucket	_____	temp	_____	salinity	_____	relative humidity	_____
ocean/saline	effluent	sugar	_____	DO	_____	sample depth	_____	weather conditions	_____
sediment	sludge	ekman	_____	cond	_____	tide stage	_____	_____	_____

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides
- B. ignitability
- C. corrosivity _____ pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

D-01 (Across from C-20 on Pine St)

AIR SAMPLING

Sampling Method 1 Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____ #Field Blanks _____ #Sample Blanks _____
 Volume Collected _____

COMMENTS:

sample A+B 5' deep gray, odorless, in water
C+D 8' deep gray, odorless, in water
E. VOA for TAGA

FIELD DATA SHEET

Nº 006028

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/20/90 Site Name: _____ REAC Task Leader: _____
 Time: _____ Sample Location: D-03A EPA Task Monitor: _____
 Project No.: 2335

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM		
landfill	old field	upland	palustrine	rock	clay	color	_____	width	_____	rock	slit
industrial	wooded	lowland	riverine	gravel	muck	odor	_____	depth	_____	rubble	clay
commercial	farmland	lacustrine		sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully			silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain			color	_____			riffles	_____ %	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH	_____	ambient temp	_____
groundwater	pond/lake	trowl	other	odor	ORP	_____	barometric pressure	_____
brackish	river	bucket		temp	salinity	_____	relative humidity	_____
ocean/saline	effluent	sugar		DO	sample depth	_____	weather conditions	_____
sediment	sludge	ekman		cond	tide stage	_____		

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 825
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides
- B. ignitability
- C. corrosivity _____ pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

*In Woods
 end creek
 east of D-03*

*0-2' brown clayey sand, plastic
 3' ditto
 3-6' Silty sand, w/ tree clay.
 6' cuttings up wet, brown
 sand, no creosote odor
 6-8' V. coarse - coarse angular
 sand, w/ little silt*

*8-9' ditto
 10' - water, no odor. will take
 sample*

D-03A

*A: wet sand sample
 B: Btm auger
 sample/clay*

FIELD DATA SHEET

No 006025

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/20/90 Site Name: _____ REAC Task Leader: _____
 Time: _____ Sample Location: D-04 EPA Task Monitor: _____
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	_____	width	_____	rock	slit
industrial	wooded	lowland riverine	gravel	muck	odor	_____	depth	_____	rubble	clay
commercial	farmland	lacustrine	sand	loam	flow	_____	velocity	_____ cm/s	gravel	organic
residential	gully		silt	peat	direction	_____	pools	_____ %	shell	other
hedgerows	floodplain		color	_____			riffles	_____ %	sand	

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS		
stream/surface	soil	kemmerer	ponar	color	_____	pH	_____	ambient temp	_____
groundwater	pond/lake	trowl	other	odor	_____	ORP	_____	barometric pressure	_____
brackish	river	bucket		temp	_____	salinity	_____	relative humidity	_____
ocean/saline	effluent	sugar		DO	_____	sample depth	_____	weather conditions	_____
sediment	sludge	ekman		cond	_____	tide stage	_____		

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides
- B. ignitability
- C. corrosivity _____ pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments.

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

0-3' fill mat'l
 3' silty sand, dark grey
 5' brown sandy clay
 6' lt brown orange clay
 7' ditto moist
 9' ditto,
 10' ditto
 stopped

FIELD DATA SHEET

No 006026

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/20/90 Site Name: _____ REAC Task Leader: _____
 Time: _____ Sample Location: D-06 EPA Task Monitor: _____
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland	palustrine	rock	clay	color	width	rock	slit	
industrial	wooded	lowland	riverine	gravel	muck	odor	depth	rubble	clay	
commercial	farmland	lacustrine		sand	loam	flow	velocity	gravel	organic	
residential	gully			silt	peat	direction	pools	shell	other	
hedgerows	floodplain			color			riffles	sand		

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION		WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp	
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure	
brackish	river	bucket		temp	salinity	relative humidity	
ocean/saline	effluent	sugar		DO	sample depth	weather conditions	
sediment	sludge	ekman		cond	tide stage		

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____metals _____pesticides _____herbicides
- B. ignitability
- C. corrosivity _____pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

COMMENTS:

0-3' lt brown/grey sandy clay 12' clayey sand, moist
 3-6' ditto 14' ditto
 7' ditto, moist
 8' med sand, little clay stopped drilling
 9' orange sandy clay, moist

FIELD DATA SHEET

N: 005314

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Lab No.: _____ Samplers: Prince & Ellis Chain of Custody No. _____
Date: _____ Site Name: Gulf States REAC Task Leader: _____
Time: _____ Sample Location: E 014 EPA Task Monitor: _____
Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland	palustrine	rock	<u>clay</u>	color	width	rock	silt	
industrial	wooded	lowland	riverine	gravel	muck	odor	depth	rubble	clay	
commercial	farmland	lacustrine		<u>sand</u>	loam	flow	velocity	gravel	organic	
residential	gully			silt	peat	direction	pools	shell	other	
hedgerows	floodplain			color			riffles	sand		

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS		
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp			
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure			
brackish	river	<u>bucket</u>		temp	salinity	relative humidity			
ocean/saline	effluent	sugar		DO	sample depth	weather conditions			
sediment	sludge	ekman		cond	tide stage				

ANALYSES TO BE PERFORMED

TOC required? Yes No
If No, explain _____
Grain size analysis required? Yes No
If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____metals _____pesticides _____herbicides
- B. ignitability
- C. corrosivity _____pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
See comments

COMMENTS:

soil sample
@ 8'
Brower. ~~sandy clay~~ @ 8' W.L. @ 4.5' ▽
silty SAND
poorly sorted

FIELD DATA SHEET

Nº 006030

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/20/90 Site Name: _____ REAC Task Leader: _____
 Time: _____ Sample Location: F-19 EPA Task Monitor: _____
 Project No.: _____

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland	rock	clay	color	width	rock	slit		
industrial	wooded	lowland	gravel	muck	odor	depth	rubble	clay		
commercial	farmland	lacustrine	sand	loam	flow	velocity	gravel	organic		
residential	gully		silt	peat	direction	pools	shell	other		
hedgerows	floodplain		color			riffles	sand			

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp		
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure		
brackish	river	bucket		temp	salinity	relative humidity		
ocean/saline	effluent	sugar		DO	sample depth	weather conditions		
sediment	sludge	ekman		cond	tide stage			

ANALYSES TO BE PERFORMED **SAMPLE PREPARATION**

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

CONTAINER **PRESERVATIVES**

- glass jar HNO3
- plastic jar NaOH
- acetate core Zn Acetate
- plastic bag HCL
- plastic bucket Na2SO4
- 4L plastic other _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

OTHER ANALYSES (specify)

STORAGE

- wet ice
- dry ice
- ambient

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

BIOASSESSMENT
 See attached data sheet
 See comments

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides _____
- B. ignitability _____
- C. corrosivity _____ pH _____
- D. reactivity _____

AIR SAMPLING

- Sampling Method _____
- Sample Flow Rate _____
- Sampling Time _____
- Volume Collected _____
- Collection Media _____
- Special Shipping Instructions _____
- #Field Blanks _____ #Sample Blanks _____

COMMENTS:

Along bank of creek

- 0-3' brown sand medium fines, moist
- 4' dk brown silty sand organic
- 4-5' Black wet sands
- 6-8' no feed
- 8-9 wet coarse sands

11' no cuttings
will sample at bottom

A: string auger, clay sample
B: top of auger, sands

FIELD DATA SHEET

No 003106

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 1/24/90 Site Name: Gully St. West REAC Task Leader: M. D'Neil
 Time: 1250 Sample Location: E-20 EPA Task Monitor: H. Compton
 Project No.: 2335

SITE DESCRIPTION			SOIL TYPE	SURFACE WATER	STREAM	BOTTOM	
landfill	old field	upland palustrine	rock <u>clay</u>	color _____	width _____	rock	slit
industrial	<u>wooded</u>	lowland riverine	gravel <u>clay</u>	odor _____	depth _____	rubble	clay
commercial	farmland	lacustrine	<u>sand</u> <u>loam</u>	flow _____	velocity _____ cm/s	gravel	organic
residential	gully		silt <u>peat</u>	direction _____	pools _____ %	shell	other _____
hedgerows	<u>woodland</u>		color _____	riffles _____ %		sand	

SAMPLE TYPE		DEVICE	SAMPLE INFORMATION		WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color _____	pH _____	ambient temp <u>65</u>
groundwater	pond/lake	trowl	other _____	odor _____	ORP _____	barometric pressure _____
brackish	river	bucket		temp _____	salinity _____	relative humidity <u>100</u>
ocean/saline	effluent	sugar		DO _____	sample depth _____	weather conditions <u>wet, rainy</u>
sediment	sludge	ekman		cond _____	tide stage _____	

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____

Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 825
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides _____
- B. ignitability _____
- C. corrosivity _____ pH _____
- D. reactivity _____

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

COMMENTS:

0-1.0' brown silty sand
 1-1.5' black silty loam
 1.5-2.0 yellow-orange sand, little clay
 2.5 water (black mud) shear

A, B, C - 4.0' samples (black sand)
 D - NO sample, hole collapsing

No activities being performed on this site? Samples at 4.0' w/ bucket and shovel (sandy bk)

FIELD DATA SHEET

№ 006021

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/20/90 Site Name: _____ REAC Task Leader: _____
 Time: 0840 Sample Location: E-24 EPA Task Monitor: _____
 Project No.: 2335

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland	palustrine	rock	clay	color	width	rock	silt	
industrial	wooded	lowland	riverine	gravel	muck	odor	depth	rubble	clay	
commercial	farmland	lacustrine		sand	loam	flow	velocity	gravel	organic	
residential	gully			silt	peat	direction	pools	shell	other	
hedgerows	floodplain			color			riffles	sand		

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS	
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp		
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure		
brackish	river	bucket		temp	salinity	relative humidity		
ocean/saline	effluent	sugar		DO	sample depth	weather conditions		
sediment	sludge	ekman		cond	tide stage			

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____metals _____pesticides _____herbicides
- B. ignitability
- C. corrosivity _____pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

COMMENTS:

0-3' brown, med sand, moist
 3-4' brown med sand little clay, moist
 4-6' brown-grey med sand some silt
 6' fine-med sand wet creosote odor
 65' no cuttings

sample at 8'

FIELD DATA SHEET

N^o 006020

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/29/90 Site Name: _____ REAC Task Leader: _____
 Time: _____ Sample Location: E-25 EPA Task Monitor: _____
 Project No.: 2335

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM	BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width	rock	slit	
industrial	wooded	lowland riverine	gravel	muck	odor	depth	rubble	clay	
commercial	farmland	lacustrine	sand	loam	flow	velocity	gravel	organic	
residential	gully		silt	peat	direction	pools	shell	other	
hedgerows	floodplain		color			riffles	sand		

SAMPLE TYPE	DEVICE	SAMPLE INFORMATION		WEATHER PARAMETERS	
stream/surface	<u>soil</u> kemmerer	ponar	color	pH	ambient temp
groundwater	pond/lake	other	odor	ORP	barometric pressure
brackish	river	bucket	temp	salinity	relative humidity
ocean/saline	effluent	sugar	DO	sample depth	weather conditions
sediment	sludge	ekman	cond	tide stage	

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____metals _____pesticides _____herbicides
- B. ignitability
- C. corrosivity _____pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO ₃
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na ₂ SO ₄
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

*Along bank
 creek*

*0-3' silty sand
 3' moist silt
 6-7' wet coarse sand
 9' hit clay layer
 creosote present*

E-25 A: Sample at 8' MS/MSD

FIELD DATA SHEET

No 006018

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Lab No.: _____ Samplers: _____ Chain of Custody No. _____
 Date: 3/19/90 Site Name: Gully 5th Creek REAC Task Leader: _____
 Time: _____ Sample Location: F-26 EPA Task Monitor: _____
 Project No.: 2335

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland palustrine	rock	clay	color	width	rock	silt		
industrial	wooded	lowland riverine	gravel	muck	odor	depth	rubble	clay		
commercial	farmland	lacustrine	sand	loam	flow	velocity	gravel	organic		
residential	gully		silt	peat	direction	pools	shell	other		
hedgerows	floodplain		color			riffles	sand			

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION			WEATHER PARAMETERS		
stream/surface	soil	kemmerer	ponar	color	pH	ambient temp			
groundwater	pond/lake	trowl	other	odor	ORP	barometric pressure			
brackish	river	bucket		temp	salinity	relative humidity			
ocean/saline	effluent	sugar		DO	sample depth	weather conditions			
sediment	sludge	ekman		cond	tide stage				

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No. explain _____
 Grain size analysis required? Yes No
 If No. explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____metals _____pesticides _____herbicides
- B. ignitability
- C. corrosivity _____pH _____
- D. reactivity

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

OTHER ANALYSES (specify)

SAMPLE PREPARATION

CONTAINER	PRESERVATIVES
glass jar	HNO3
plastic jar	NaOH
acetate core	Zn Acetate
plastic bag	HCL
plastic bucket	Na2SO4
4L plastic	other _____

STORAGE

- wet ice
- dry ice
- ambient

BIOASSESSMENT

See attached data sheet
 See comments

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

*40' into field
 from D-1
 towards creek*

0-3' yellow-brown fine med. sand
 little silt

3-5' ditto

5-6' grey-brown fine - med sand
 moist

6-9' clayey silt and fine sand
 No feed after 9' looks up at 13'

clay on bit when withdrawn

FIELD DATA SHEET

№ 006019

Roy F. Weston, Inc.
 REAC, Edison, N.J.
 EPA Contract 68-03-3482

Chain of Custody No. _____
 REAC Task Leader: _____
 EPA Task Monitor: _____
 Project No.: _____

Lab No.: _____ Samplers: _____
 Date: 3/19/90 Site Name: Gully St. Creosote
 Time: _____ Sample Location: E-27

SITE DESCRIPTION			SOIL TYPE		SURFACE WATER		STREAM		BOTTOM	
landfill	old field	upland	palustrine	rock	clay	color	width	rock	slit	
industrial	wooded	lowland	riverine	gravel	muck	odor	depth	rubble	clay	
commercial	farmland	lacustrine		sand	loam	flow	velocity	gravel	organic	
residential	gully			silt	peat	direction	pools	shell	other	
hedgerows	floodplain			color			riffles	sand		

SAMPLE TYPE		DEVICE		SAMPLE INFORMATION				WEATHER PARAMETERS	
stream/surface	<u>soil</u>	kemmerer	ponar	color	pH		ambient temp		
groundwater	pond/lake	trowl	other	odor	ORP		barometric pressure		
brackish	river	bucket		temp	salinity		relative humidity		
ocean/saline	effluent	sugar		DO	sample depth		weather conditions		
sediment	sludge	ekman		cond	tide stage				

ANALYSES TO BE PERFORMED

TOC required? Yes No
 If No, explain _____
 Grain size analysis required? Yes No
 If No, explain _____

ORGANICS

- A. halogenated & aromatic volatiles
- B. volatiles-USEPA 624
- C. trihalomethanes
- D. pesticides/PCB
- E. PCB
- F. base neutral/acid extractables-USEPA 625
- G. pesticides, drinking water
- H. herbicides, drinking water

INORGANICS

- A. metals, priority pollutant
- B. metals scan (ICP)
- C. metals, other _____

RCRA

- A. EP toxicity _____ metals _____ pesticides _____ herbicides
- B. ignitability
- C. corrosivity _____ pH _____
- D. reactivity

SAMPLE PREPARATION

LIMITED CHEMISTRY

- A. total cyanide
- B. total phenol
- C. petroleum hydrocarbons
- D. pH
- E. alkalinity
- F. hardness
- G. total dissolved solids
- H. total suspended solids
- I. sulfate

CONTAINER

- glass jar
- plastic jar
- acetate core
- plastic bag
- plastic bucket
- 4L plastic

PRESERVATIVES

- HNO3
- NaOH
- Zn Acetate
- HCL
- Na2SO4
- other _____

STORAGE

- wet ice
- dry ice
- ambient

OTHER ANALYSES (specify)

BIOASSESSMENT

See attached data sheet
 See comments

AIR SAMPLING

Sampling Method _____ Collection Media _____
 Sample Flow Rate _____ Special Shipping Instructions _____
 Sampling Time _____
 Volume Collected _____ #Field Blanks _____ #Sample Blanks _____

COMMENTS:

0-3' yellow & white med. sand
 3-4' grey-brown sand trace clay
 4-6' brown clayey fine sand
 6-8' grey-white clayey fine sand
 creosote smell (will hangover)
 water at 7'
 E-27
 N of field
 No E26

A! Sample at 8'

Called
Don Ribbee
7/29/93.
To SEND ANALYSIS

On drawing, but NOT in report

- A13
- B1
- E13
- E14
- E15
- ~~E16~~
- E17
- ~~E18~~

EPA

In report, but NOT on drawing

- | | |
|--------|----------------|
| ? B-2? | E012 |
| B0 | E014 |
| B05 | E16 |
| B09 | E18 |
| B10 | |
| B11 | |
| C14 | |
| C15 | |
| C16 | |
| C17 | |
| D01 | |

APPENDIX D

SITE RECONNAISSANCE OF GORDON'S CREEK

S. Kirchoff Field Notes

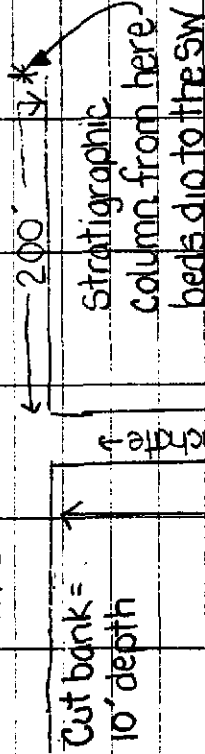
5-25-94

temp = 90's, no rain for weeks
 clear → cloudy skies
 drought-like.

2 weeks ago H₂O in Gordon's creek
 ~ 2 ft. higher; more leachate evident
 today compared to yesterday

Hwy 49

H₂O bearing sands visible
 on Creek bed



See Photo No. 1
 taken at this location
 creosote leachate
 into Creek

North

5-25-94	1 ft.	soil, vegetation grey, yellow, brown f.gr. sand
Stratigraphic Column from Cut- Bank of Gordon's Creek	4 ft.	compact grey clayey- sand, f.gr., non-plastic
	4 ft.	
	3 ft.	yellow-white H ₂ O bearing Sands currently creek bank
See Photo No. 3 for sand-clay interface w/acing creosote detail	creosote thickness varied & some on edge of H ₂ O too difficult to estimate ~ 1 ft thick on some outcrops to 2 ft.	grey compact dense clay, v. fine grained

**SITE HEALTH AND SAFETY PLAN
FOR**

**THE GULF STATES CREOSOTE COMPANY
PLANT PROCESS AREA
SECTION 16 LAND
HATTIESBURG, MISSISSIPPI**

**EPS Project No. 1.V7101.002
May, 1994**

1.0 INTRODUCTION

This plan presents Health and Safety procedures and practices to be used during the field investigation of potential contamination at the Gulf States Creosote Company site.

1.1 KEY PERSONNEL AND ORGANIZATION

Personnel responsible for the implementation of this Health and Safety Plan are:

- Project Manager: Scharine Kirchoff
- Health and Safety Manager: James D. Rembert
- Site Safety Officer: To be designated by EPS
- Field Personnel: To be designated by EPS

The Project Manager is responsible for all on-site operations and assumes control of the site. The Project Manager is also responsible for ensuring the health and safety of personnel at the site. The Health and Safety manager (HSM) is responsible for overseeing all health and safety activities within the company. The HSM has review and approval authority for all Health and Safety Plans to ensure their procedures and provisions provide adequate protection for all hazards anticipated during site activities.

The HSM is responsible for all health and safety activities and has the authority to make all site health and safety-related decisions for the company. The HSM has stop work authorization which will be executed upon determination of an imminent safety hazard, emergency, or other potentially dangerous situation. Authorization to proceed with work will be issued by the HSM. The HSM will initiate and execute all contact with support facilities and personnel when this action is appropriate.

The Site Safety Officer (SSO) is designated by the Project Manager and confirmed by the HSM. The SSO will supervise site activities. The SSO's primary responsibility is to provide the appropriate monitoring to ensure the safe conduct of field operations. The SSO also has stop-work authority. Authorization to proceed must be approved by the HSM.

The SSO will also be responsible for the control of specific field operations and all related activities such as personnel decontamination, monitoring of worker heat stress, distribution of safety equipment, calibration and maintenance of monitoring equipment, and conformance with all other procedures established in this Health and Safety Plan. Should an immediate need to modify the health and safety procedures detailed in this plan arise due to changes in site conditions, the SSO shall consult with the HSM and notify the Project Manager prior to implementing these changes.

The Site Safety Officer has the authority to exclude from the site all personnel who will not or can not abide by the site safety plan. Should the Site Safety Officer be unable to adequately control the site, work will cease, and the Project Manager and HSM will be notified.

1.2 MEDICAL SURVEILLANCE AND TRAINING

Project personnel working on-site will have undergone either a baseline or annual medical monitoring examination within one year prior to participation in field work. This exam must meet the requirements of 29CFR1910.120(e). This training includes 40 hours of classroom instruction.

2.0 SCOPE OF INVESTIGATION

The objective of this investigation is to conduct soil borings and to install groundwater monitoring wells for an environmental site assessment.

The scope of work designed to meet this objective involves:

- The collection of soil and groundwater samples from specified locations at the facility in areas identified by EPS as having potential for contamination.
- The analysis of selected soil and groundwater samples for Polyaromatic Hydrocarbons (PAH).
- Preparation of a report which will detail the investigation procedures and present results.

3.0 HAZARD ASSESSMENT

3.1 CHEMICAL HAZARDS

The types of chemicals that have been identified as having the potential for being encountered in this investigation are polyaromatic hydrocarbons (PAH).

Exposure levels are expected to be below the permissible OSHA, National Institute for Occupational Safety and Health (NIOSH), and/or the American Conference of Governmental Industrial Hygienists (ACGIH) exposure limits. Potential exposure hazards include inhalation of airborne particulates and vapors and/or dermal or eye contact. The various chemicals or chemical groups, their exposure limits, and health hazards area discussed below.

Creosote

Creosote is a mixture of phenols and phenol derivatives obtained from wood tar. Acute doses may cause gastrointestinal irritation and cardiovascular collapse. Creosote is flammable and is a confirmed human carcinogen.

- A. Levels Anticipated: Creosote may be present in the soils at levels from low parts per billion to low parts per thousands.
- B. Exposure Routes: Inhalation, Ingestion
- C. Exposure Limits: 0.2 mg/m³ TWA (OSHA PEL), 0.2, A1 mg/m³ TWA (ACGIH TLV)

3.2 Physical Hazards

3.2.1 Slip-Trip-Fall Hazards

While it is difficult to prevent slip-trip-fall hazards, injuries can be prevented by proper site control measures and by keeping the work area free of obstructions. Personnel will be required to perform field work in pairs (buddy system) so that immediate assistance will be available should an illness or injury occur.

3.2.2 Tool and Equipment Hazards

Hazards present during the use of tools and equipment are generally associated with improper tool handling and inadequate maintenance. Management of these hazards requires rigorous maintenance of tools and equipment and effective training of employees in the proper use of these tools.

Electrically-powered tools have inherent physical hazards. Hand-held power tools should be held firmly. Electrical cords should have unbroken insulation and should not be exposed to water or other liquids.

Large power tools and equipment should be lifted properly to prevent back injuries. Safety glasses, ear protection, and steel toed boots will be worn while operating powered tools or equipment.

3.2.3 Heat Stress Hazards

The use of personal protective clothing will increase the potential for heat stress. During hot or humid days or during the performance of strenuous work, extra precautions may be necessary to reduce the potential for heat stress. Implementation of worker rotation and rest period schedules, and adjustments of the workday to take advantage of the cooler parts of the day may be used to prevent exposure to heat stress hazards; frequent consumption of liquids (i.e., Gatorade™, etc.) is necessary to prevent dehydration. Should heat problems be encountered, contact the Health and Safety department for guidelines regarding implementation of heat stress mitigation procedures.

Heat stress is characterized by the following symptoms:

- * Heat Cramps
Muscle cramps, especially in the legs and abdomen.

Treatment: Move individual to a cool area to rest and provide electrolyte beverage (i.e., Gatorade™).

- * Heat Exhaustion
Body temperature elevated (100° to 104°F). Skin is pale and moist (clammy). Profuse perspiration. Victim feels tired and weak. Possible headache and nausea. Possible fainting.

Treatment: Move victim to a cool area and provide electrolytic beverage, if conscious.

- * Heat Stroke
Elevated body temperature (may be as high as 106°F). Skin is characteristically hot, red, and dry (sweating mechanism is blocked). Pulse is rapid and strong. Victim may lose consciousness, become delirious, or fall into a coma. This is a life-threatening situation.

Treatment: Rapidly cool the victim with ice, isopropyl alcohol, or water and immediately transport to the designated emergency facility or nearest hospital.

The site safety officer is responsible for monitoring the status of all on-site workers. Should anyone appear disoriented, irritable, or suddenly pale, the SSO will direct the person to the rest area.

4.0 SAFETY PROCEDURES

4.1 PERSONAL PROTECTION

Modified Level D protection will be worn at the site.

Personal protection equipment required for Level "D" protection includes:

- General work uniform, Tyvek coveralls, or cotton coveralls
- Boots/Shoes: Steel toed
- Hard Hat (face shield optional)
- Carry one-half face, air purifying respirator (NIOSH approved) with organic vapor cartridges (color coded yellow)
- Chemically Resistant Gloves

Level D Protection can be worn only under the following circumstances:

- No indication of airborne health hazards present.
- No gross indication above background on the Photoionization Detector.
- Continuous air or personnel monitoring will occur while wearing Level D protection.

Personnel will carry Level C protective gear and be prepared to upgrade to this level when action levels are reached.

Personnel Protection Equipment recommended for Level C protection includes the following:

- Full-face, air purifying respirator (NIOSH approved) with organic vapor cartridges (color coded yellow)
- Tyvek Suit
- Gloves taped to coveralls
- Hard Hat
- Boots (steel toed)
- Equipment operators may use half-face respirators and non-vented goggles in place of full-face respirators.

4.2 MONITORING GUIDELINES

Frequent monitoring of the work area for hazardous vapors and gases is an essential work practice to ensure worker safety. The following guidance should be followed when choosing monitoring equipment, selecting instrument action levels and using the monitoring equipment.

A. Instruments

The preferred instruments are an OVA meter.

B. Action Levels

Respirators must be worn when sustained breathing zone readings exceed the action level.

Instrument	Calibration Gas	Meter Reading Action Level (ppm)
OVA meter	isobutylene	10

C. Use of Monitoring Equipment

Vapor monitoring should be performed as often as necessary and wherever necessary to protect field personnel from hazardous vapors. Monitoring must be performed by individuals trained in the use and care of the required instruments. Because toxicity action levels are considerably lower than explosivity action levels, monitoring efforts are focused on detection of toxic vapor concentrations.

If the meter readings above background are obtained while monitoring continuously for toxic concentrations, the breathing zones of individuals closest to the boring should immediately be measured. Decisions regarding respirator use should be based on breathing zone vapor concentrations.

5.0 AREA CONTROL

Access to hazardous and potential hazardous areas of contaminated sites must be controlled to reduce the probability of occurrence of physical injury and chemical exposure of field personnel, visitors and the public. A hazardous or potentially hazardous area includes any area where (1) field personnel are required to wear respirators and (2) borings are being drilled with powered augers.

The boundaries of hazardous and potentially hazardous area can be identified by cordons, barricades, or emergency traffic cones or posts, if necessary.

Entry to hazardous areas shall be limited to individuals who must work in those areas. Unofficial visitors must not be permitted to enter hazardous areas while work in those areas is in progress. Official visitors should be discouraged from entering hazardous areas, but may be allowed to enter only if they agree to abide by the provisions of this document, follow orders issued by the site safety officer and are informed of the potential dangers that could be encountered in the areas.

6.0 DECONTAMINATION

Field decontamination of personnel and equipment is required. Recommended decontamination procedures follow:

A. Personnel

Potential contaminants should be removed from skin using a mild detergent and water. Hot water is more effective than cold. Liquid dishwashing detergent is more effective than hand soap.

B. Equipment

Gloves, respirators, hardhats, boots and goggles should be cleaned as described under personnel; however, if boots do not become clean after washing with detergent and water, wash them with a strong solution of trisodium phosphate and hot water.

Sampling equipment and augers shall be steam cleaned. The steam cleaner is also a convenient source of hot water for personnel and protective equipment cleaning.

6.1 DECONTAMINATION DURING MEDICAL EMERGENCIES

If emergency life-saving first aid and/or medical treatment is required, decontamination procedures may be limited or omitted. If the contamination does not present a hazard to the rescue personnel, life-saving care may be instituted immediately. If the contamination will present a risk to the rescue personnel, minimal decontamination may be implemented to allow initiation of aid.

Medical assistance personnel should be notified prior to initiating the response if the victim is contaminated with hazardous materials. Assurance must be made that the medical personnel at the receiving area are able and willing to handle a victim who is contaminated. Site personnel will accompany contaminated victims to the medical facility to advise on matters involving decontamination.

Heat-related illnesses range from heat fatigue to heat stroke. Heat stroke requires prompt treatment to prevent irreversible damage or death. Protective clothing must be promptly removed. Less serious forms of heat stress also require prompt attention. Unless the victim is obviously contaminated, decontamination may be omitted or minimized and treatment begun immediately.

For inhalation exposure cases, treatment can only be performed by a qualified physician. If the contaminant is on the skin or in the eyes, an emergency shower should be used to rinse the affected area with water for at least 15 minutes.

7.0 EMERGENCY ASSISTANCE

The name, telephone number, and location of police, fire, or other emergency response agencies will be present in the support zone. If emergency personnel are called to the site, efforts should be made to accommodate their operations in the support zone.

7.1 ROUTES TO HOSPITAL

The route to the closest emergency medical facilities or hospital will be readily available at the site.

7.2 EMERGENCY RESOURCES

The following emergency information will be posed prominently on-site for appropriate use for the Contractor personnel.

AREA RESOURCES

Ambulance:	911
Police:	911
Fire Department:	911

EMERGENCY CONTACTS

Environmental Protection Systems, Inc. Office	(601) 956-1400
Supervisor:	James D. Rembert (601) 956-1400
Hospital:	Forest General Hospital 6051 Highway 49 Hattiesburg, MS (601) 288-7000



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB1/MW3

SHEET 1 OF 1

DATE: 5-24-94 PROJECT NO. 1.V7101.002

BORING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: RELATIVE 99.33
DATE STARTED: 5-24-94 DATE ENDED: 5-24-94

AUGER		SAMPLER		OTHER:	GROUNDWATER READINGS			
SIZE	TYPE	TYPE			DATE	DEPTH	CASING	STABILIZATION TIME
6.25" ID	SPLIT SPOON				5-27-94	16.7'	WELL	24 HRS.
HAMMER	HAMMER	140 LBS						
FALL	FALL	30'			5-24-94	22.0'	AUGER	

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
					GRAY/YELLOW CLAY. CLAY IS COMPACT, PLASTIC, DENSE AND FINE-GRAINED. RED IRON VEINING. CREOSOTE-LIKE ODOR.	CLAY (GRAY/YELLOW)		SEE GROUNDWATER MONITORING WELL REPORT FOR INSTALLATION DETAIL
5'	001	24"	3-5	27				
	002	24"	8-10	33	SAME AS ABOVE. MOIST.	↓		
15'	003	24"	13-15	31	GRAY CLAY. COMPACT, PLASTIC, DENSE AND FINE-GRAINED. RED IRON VEINING.	(GRAY)	▼ 22.0'	
20'	004	24"	18-20	20	SAME AS ABOVE. CREOSOTE-LIKE ODOR.	SAND (WHITE)		B.O.B. 30.0'
22'					WHITE SAND. MEDIUM TO FINE-GRAINED. WATER BEARING UNIT. SOME WHITE CLAY. CLAY IS COMPACT AND VERY FINE-GRAINED.			
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30" ON 2" O.D. SAMPLER

COHESIONLESS DENSITY	COHESIVE CONSISTENCY
0-4 VERY LOOSE	0-2 VERY SOFT
5-9 LOOSE	3-4 SOFT
10-29 MED. DENSE	5-8 MED. STIFF
30-49 DENSE	9-15 STIFF
50+ VERY DENSE	16-30 VERY STIFF
	31+ HARD

WELL CONSTRUCTION LEGEND

CONCRETE	BENTONITE	GROUT
SILICA SAND	NATURAL BACKFILL	BEDROCK



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB2
SHEET 1 OF 1
DATE: 5-24-94 PROJECT NO. 1.V7101.002

RING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-24-94 DATE ENDED: 5-24-94

AUGER SIZE 6.25" ID TYPE _____ OTHER: _____
SAMPLER TYPE SPLIT SPOON
HAMMER 140 LBS
FALL 30'

GROUNDWATER READINGS			
DATE	DEPTH	CASING	STABILIZATION TIME

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
					GRAY/YELLOW CLAY. COMPACT, PLASTIC, DENSE AND FINE-GRAINED. SOME GRAVELLY SAND AND COBBLES. CREOSOTE-LIKE ODOR. WOOD TIMBERS. CREOSOTE TREATED STUMP VISIBLE ON AUGER.	CLAY (GRAY/YELLOW)		
5'	001	15"	3-5	20				
					GRAY AND WHITE CLAYEY SAND. RED IRON VEINING. COMPACT.	CLAYEY SAND (GRAY AND WHITE)		
	002	15"	8-10	70				
					SAME AS ABOVE.			
15'	003	23"	13-15	27				
					GRAY CLAY. COMPACT, PLASTIC, DENSE AND FINE-GRAINED. RED IRON VEINING.	CLAY (GRAY)		
20'	004	20"	18-20	18				
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER

COHESIONLESS DENSITY	COHESIVE CONSISTENCY
0-4 VERY LOOSE	0-2 VERY SOFT
5-9 LOOSE	3-4 SOFT
10-29 MED. DENSE	5-8 MED. STIFF
30-49 DENSE	9-15 STIFF
50+ VERY DENSE	16-30 VERY STIFF
	31+ HARD

WELL CONSTRUCTION LEGEND

CONCRETE	BENTONITE	GROUT
SILICA SAND	NATURAL BACKFILL	BEDROCK



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB3
SHEET 1 OF 1
DATE: 5-24-94 PROJECT NO. 1.V7101.002

BORING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-24-94 DATE ENDED: 5-24-94

AUGER SIZE 6.25" ID TYPE SAMPLER SPLIT SPOON OTHER: _____
HAMMER _____ HAMMER 140 LBS
FALL _____ FALL 30'

GROUNDWATER READINGS			
DATE	DEPTH	CASING	STABILIZATION TIME

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
					GRAY CLAYEY SAND. COMPACT. RED IRON VEINING. CREOSOTE-LIKE ODOR.	CLAYEY SAND (GRAY)		
5'	001	24"	3-5	26				
	002	24"	8-10	34	SAME AS ABOVE GRADING DOWN TO GRAY CLAY. INTERFACE OCCURS AT 8.3 FEET. CLAY IS COMPACT, PLASTIC, DENSE AND FINE-GRAINED.	8.3'		
					SAME AS ABOVE.	CLAY (GRAY)		
15'	003	24"	13-15	18				
					SAME AS ABOVE GRADING DOWN TO GRAY/WHITE SAND. INTERFACE OCCURS AT 19 FEET. SAND IS MEDIUM TO FINE-GRAINED. WATER BEARING UNIT.	19.0' SAND 20.0' B.O.B.		
20'	004	24"	18-20	28				
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER

COHESIONLESS DENSITY		COHESIVE CONSISTENCY	
0-4	VERY LOOSE	0-2	VERY SOFT
5-9	LOOSE	3-4	SOFT
10-29	MED. DENSE	5-8	MED. STIFF
30-49	DENSE	9-15	STIFF
50+	VERY DENSE	16-30	VERY STIFF
		31+	HARD

WELL CONSTRUCTION LEGEND

CONCRETE		BENTONITE		GROUT	
SILICA SAND		NATURAL BACKFILL		BEDROCK	



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB4-1
SHEET 1 OF 1
DATE: 5-24-94 PROJECT NO. 1.V7101.002

BORING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-24-94 DATE ENDED: 5-24-94

AUGER SIZE 6.25" ID TYPE _____ OTHER: _____
SAMPLER TYPE SPLIT SPOON OTHER: _____
HAMMER _____ HAMMER 140 LBS
FALL _____ FALL 30'

GROUNDWATER READINGS
DATE DEPTH CASING STABILIZATION TIME

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
					RED CLAY FILL 0-0.5 FEET GRADING DOWN TO BLACK SAND AND GRAVEL. CREOSOTE TREATED TIMBERS.	FILL		
5'	001	10"	3-5	BOUNCED	HIT REFUSAL AT 5.5 FEET. BUBBLING LIQUID SOUND EVIDENT AS AUGER BOUNCED UP AND DOWN. TIMBERS VISIBLE ON AUGER.	5.5' B.O.B.		
15'								
20'								
25'								

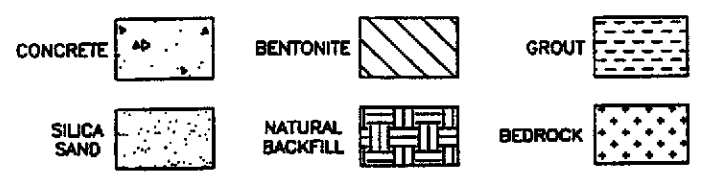
PROPORTIONS USED

RACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER
COHESIONLESS DENSITY
0-4 VERY LOOSE
5-9 LOOSE
10-26 MED. DENSE
30-49 DENSE
50+ VERY DENSE
COHESIVE CONSISTENCY
0-2 VERY SOFT
3-4 SOFT
5-8 MED. STIFF
9-15 STIFF
16-30 VERY STIFF
31+ HARD

WELL CONSTRUCTION LEGEND





Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB4-2
SHEET 1 OF 1
DATE: 5-24-94 PROJECT NO. 1.V7101.002

RING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-24-94 DATE ENDED: 5-24-94

AUGER SIZE 6.25" ID TYPE _____ OTHER: _____
SAMPLER TYPE SPLIT SPOON
HAMMER _____ HAMMER 140 LBS
FALL _____ FALL 30'

GROUNDWATER READINGS
DATE _____ DEPTH _____ CASING _____ STABILIZATION TIME _____

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
						FILL		
3'			BOUNCED		HIT REFUSAL AT 3 FEET. FILL AND CREOSOTE TREATED TIMBERS ON AUGER. NO SAMPLE TAKEN.	3.0' B.O.B.		
5'								
15'								
20'								
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER
COHESIONLESS DENSITY
0-4 VERY LOOSE
5-9 LOOSE
10-29 MED. DENSE
30-49 DENSE
50+ VERY DENSE
COHESIVE CONSISTENCY
0-2 VERY SOFT
3-4 SOFT
5-8 MED. STIFF
9-15 STIFF
16-30 VERY STIFF
31+ HARD

WELL CONSTRUCTION LEGEND

CONCRETE	BENTONITE	GROUT
SILICA SAND	NATURAL BACKFILL	BEDROCK



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB4-3/MW2
SHEET 1 OF 1
DATE: 5-25-94 PROJECT NO. 1.V7101.002

BORING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: RELATIVE 97.64
DATE STARTED: 5-25-94 DATE ENDED: 5-25-94

AUGER		SAMPLER		OTHER:	GROUNDWATER READINGS			
SIZE	6.25" ID	TYPE	SPLIT SPOON		DATE	DEPTH	CASING	STABILIZATION TIME
HAMMER		HAMMER	140 LBS		5-27-94	17.6'	WELL	24 HRS.
FALL		FALL	30'		5-25-94	23.0'	AUGER	

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
					NO RECOVERY. WOOD TIMBERS AND TOP SOIL VISIBLE ON AUGER.	TOP SOIL		SEE GROUNDWATER MONITORING WELL REPORT FOR INSTALLATION DETAIL
5'		3-5	4					
002	18"	8-10	34		GRAY/YELLOW CLAYEY SAND. CREOSOTE-LIKE ODOR. BLACK TAR-LIKE VEINING INCREASES WITH DEPTH OF BORING. MOIST.	8.0'		
15'	003	24"	13-15	16	SAME AS ABOVE.	CLAYEY SAND (GRAY/YELLOW)		
20'	004	24"	18-20	30	GRAY CLAY. COMPACT, PLASTIC, DENSE AND FINE-GRAINED. RED IRON VEINING.	20.0'		
23'						CLAY (GRAY)		
25'					WHITE SAND. MEDIUM TO FINE-GRAINED. SOME WHITE CLAY. GOLDEN SHEEN AND BLACK TAR-LIKE OOZE ON SPLIT SPOON. WATER BEARING UNIT.	23.0'		
						SAND (WHITE)		B.O.B. 33.0'

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER

COHESIONLESS DENSITY		COHESIVE CONSISTENCY	
0-4	VERY LOOSE	0-2	VERY SOFT
5-9	LOOSE	3-4	SOFT
10-29	MED. DENSE	5-8	MED. STIFF
30-49	DENSE	9-15	STIFF
50+	VERY DENSE	16-30	VERY STIFF
		31+	HARD

WELL CONSTRUCTION LEGEND

CONCRETE		BENTONITE		GROUT	
SILICA SAND		NATURAL BACKFILL		BEDROCK	



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB6
SHEET 1 OF 1
DATE: 5-24-94 PROJECT NO. 1.V7101.002

BORING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-24-94 DATE ENDED: 5-24-94

AUGER
SIZE 6.25" ID TYPE SPLIT SPOON OTHER:
HAMMER _____ HAMMER 140 LBS
FALL _____ FALL 30'

GROUNDWATER READINGS
DATE _____ DEPTH _____ CASING _____ STABILIZATION TIME _____

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
						FILL		
4'			BOUNCED		HIT REFUSAL AT 4 FEET. FILL AND CONCRETE PIECES VISIBLE ON AUGER. NO VISIBLE DISCOLORATION/STAINING OF FILL. NO SAMPLE TAKEN.	4.0' B.O.B.		
5'								
10'								
15'								
20'								
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER

COHESIONLESS DENSITY		COHESIVE CONSISTENCY	
0-4	VERY LOOSE	0-2	VERY SOFT
5-9	LOOSE	3-4	SOFT
10-29	MED. DENSE	5-8	MED. STIFF
30-49	DENSE	9-15	STIFF
50+	VERY DENSE	16-30	VERY STIFF
		31+	HARD

WELL CONSTRUCTION LEGEND

CONCRETE		BENTONITE		GROUT	
SILICA SAND		NATURAL BACKFILL		BEDROCK	



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB7
SHEET 1 OF 1
DATE: 5-25-94 PROJECT NO. 1.V7101.002

BORING COMPANY: GRINER DRILLING SERVICE
SUPERVISOR: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-25-94 DATE ENDED: 5-25-94

AUGER SIZE 6.25" ID TYPE SPLIT SPOON OTHER: _____
HAMMER _____ HAMMER 140 LBS
FALL _____ FALL 30'

GROUNDWATER READINGS			
DATE	DEPTH	CASING	STABILIZATION TIME

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
					GRAY CLAY MIXED WITH FILL (COARSE GRAVEL AND SAND). STRONG CREOSOTE-LIKE ODOR. FIRST ENCOUNTERED LIQUID IN BORING AT 3 FEET. BLACK LIQUID HAS 2 DENSITIES. LESS DENSE LIQUID APPEARS TO BE CREOSOTE, OTHER WATER.	FILL/CLAY (GRAY)		
5'	001	10"	3-5	18				
		4"	8-10	18	SAME AS ABOVE. SAMPLE NOT SUBMITTED FOR ANALYSIS DUE TO POOR RECOVERY.	-12.0' B.O.B.		
12'				BOUNCED	HIT REFUSAL.			
15'								
20'								
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%

B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER

COHESIONLESS DENSITY		COHESIVE CONSISTENCY	
0-4	VERY LOOSE	0-2	VERY SOFT
5-9	LOOSE	3-4	SOFT
10-29	MED. DENSE	5-8	MED. STIFF
30-49	DENSE	9-15	STIFF
50+	VERY DENSE	16-30	VERY STIFF
		31+	HARD

WELL CONSTRUCTION LEGEND

CONCRETE		BENTONITE		GROUT	
SILICA SAND		NATURAL BACKFILL		BEDROCK	



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:

GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. S88

SHEET 1 OF 1

DATE: 5-25-94 PROJECT NO. 1.V7101.002

RING COMPANY: GRINER DRILLING SERVICE

BORING LOCATION: SEE SITE PLAN

FOREMAN: K. GRINER

GROUND ELEVATION: _____

EPS GEOLOGIST: S. KIRCHOFF

DATE STARTED: 5-25-94 DATE ENDED: 5-25-94

AUGER		SAMPLER		OTHER:
SIZE	<u>6.25" ID</u>	TYPE	<u>SPLIT SPOON</u>	
HAMMER	_____	HAMMER	<u>140 LBS</u>	
FALL	_____	FALL	<u>30'</u>	

GROUNDWATER READINGS			
DATE	DEPTH	CASING	STABILIZATION TIME

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
2'	001				HIT REFUSAL AT 2 FEET. RED CLAY FILL AND COARSE GRAVELLY SAND VISIBLE ON AUGER. FIRST ENCOUNTERED LIQUID IS AT 2 FEET. LIQUID IS BLACK, DENSE AND TAR-LIKE. CREOSOTE-LIKE ODOR. GRAB SAMPLE TAKEN FROM AUGER. LIQUIDS HAVE 2 DENSITIES.	FILL 2.0' B.O.B.		
5'								
15'								
20'								
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER

COHESIONLESS DENSITY		COHESIVE CONSISTENCY	
0-4	VERY LOOSE	0-2	VERY SOFT
5-9	LOOSE	3-4	SOFT
10-29	MED. DENSE	5-8	MED. STIFF
30-49	DENSE	9-15	STIFF
50+	VERY DENSE	16-30	VERY STIFF
		31+	HARD

WELL CONSTRUCTION LEGEND

CONCRETE		BENTONITE		GROUT	
SILICA SAND		NATURAL BACKFILL		BEDROCK	



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB9
SHEET 1 OF 1
DATE: 5-25-94 PROJECT NO. 1.V7101.002

RING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-25-94 DATE ENDED: 5-25-94

AUGER SIZE 6.25" ID TYPE _____ OTHER: _____
SAMPLER TYPE SPLIT SPOON
HAMMER 140 LBS
FALL 30'

GROUNDWATER READINGS			
DATE	DEPTH	CASING	STABILIZATION TIME

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
1.5'	001			BOUNCED	RED CLAY FILL 0-0.5 FEET GRADING DOWN TO BLACK SAND AND GRAVEL. CREOSOTE-LIKE ODOR. REINFORCING WIRE MESH AND CONCRETE PULLED-UP BY AUGER. HIT REFUSAL. GRAB SAMPLE TAKEN FROM AUGER.	FILL 1.5' B.O.B.		
5'								
15'								
20'								
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
NO - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER

COHESIONLESS DENSITY	COHESIVE CONSISTENCY
0-4 VERY LOOSE	0-2 VERY SOFT
5-9 LOOSE	3-4 SOFT
10-29 MED. DENSE	5-8 MED. STIFF
30-49 DENSE	9-15 STIFF
50+ VERY DENSE	16-30 VERY STIFF
	31+ HARD

WELL CONSTRUCTION LEGEND

CONCRETE	BENTONITE	GROUT
SILICA SAND	NATURAL BACKFILL	BEDROCK



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:

GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB10/MW1

SHEET 1 OF 1

DATE: 5-25-94 PROJECT NO. 1.V7101.002

RING COMPANY: GRINER DRILLING SERVICE

BORING LOCATION: SEE SITE PLAN

FOREMAN: K. GRINER

GROUND ELEVATION: RELATIVE 99.20

EPS GEOLOGIST: S. KIRCHOFF

DATE STARTED: 5-25-94 DATE ENDED: 5-25-94

AUGER		SAMPLER		OTHER:	GROUNDWATER READINGS			
SIZE	6.25" ID	TYPE	SPLIT SPOON		DATE	DEPTH	CASING	STABILIZATION TIME
HAMMER		HAMMER	140 LBS		5-27-94	16.88'	WELL	24 HRS.
FALL		FALL	30'		5-25-94	22.0'	AUGER	

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
					GRAY/YELLOW CLAYEY SAND. VERY STRONG CREOSOTE-LIKE ODOR. VISIBLE BLACK TAR-LIKE SUBSTANCE THROUGHOUT BOREHOLE AND IN SOIL CUTTINGS.		HNU = 1.0ppm IN BREATHING ZONE	SEE GROUNDWATER MONITORING WELL REPORT FOR INSTALLATION DETAIL
5'	001	24"	3-5	15		CLAYEY SAND (GRAY/YELLOW)		
	002	24"	8-10	28	GRAY CLAY. COMPACT, PLASTIC, DENSE AND FINE-GRAINED. RED IRON VEINING. VERY STRONG CREOSOTE-LIKE ODOR.	10.0'		
						CLAY (GRAY)		
15'	003	24"	13-15	19	GRAY CLAYEY SAND. RED IRON VEINING.	15.0'		
						CLAYEY SAND (GRAY)		
20'	004	12"	18-20	20	WHITE CLAYEY SAND. STRONG CREOSOTE-LIKE ODOR.			
						(WHITE)		
22'								
					WHITE SAND. WATER BEARING UNIT. MEDIUM TO FINE-GRAINED.	22.0'		
						SAND (WHITE)		
25'								B.O.B. 35.0'

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%

B.O.B. - BOTTOM OF BORING







ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30" ON 2" O.D. SAMPLER

COHESIONLESS DENSITY	COHESIVE CONSISTENCY
0-4 VERY LOOSE	0-2 VERY SOFT
5-9 LOOSE	3-4 SOFT
10-29 MED. DENSE	5-8 MED. STIFF
30-49 DENSE	9-15 STIFF
50+ VERY DENSE	16-30 VERY STIFF
	31+ HARD

WELL CONSTRUCTION LEGEND

CONCRETE 	BENTONITE 	GROUT 
SILICA SAND 	NATURAL BACKFILL 	BEDROCK 



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB11
SHEET 1 OF 1
DATE: 5-26-94 PROJECT NO. 1.V7101.002

BORING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-26-94 DATE ENDED: 5-26-94

AUGER		SAMPLER		OTHER:	GROUNDWATER READINGS			
SIZE	TYPE	TYPE	TYPE		DATE	DEPTH	CASING	STABILIZATION TIME
<u>6.25" ID</u>		<u>SPLIT SPOON</u>						
HAMMER _____		HAMMER <u>140 LBS</u>						
FALL _____		FALL <u>30'</u>						

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
2'	001				HIT REFUSAL AT 2 FEET. RED CLAY FILL AND BLACK GRAVELLY SAND VISIBLE IN BORING AND ON AUGER. CREOSOTE-LIKE ODOR. GRAB SAMPLE TAKEN FROM AUGER.	FILL — 2.0' — B.O.B.		
5'								
15'								
20'								
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30' ON 2" O.D. SAMPLER

COHESIONLESS DENSITY		COHESIVE CONSISTENCY	
0-4	VERY LOOSE	0-2	VERY SOFT
5-9	LOOSE	3-4	SOFT
10-29	MED. DENSE	5-8	MED. STIFF
30-49	DENSE	9-15	STIFF
50+	VERY DENSE	16-30	VERY STIFF
		31+	HARD

WELL CONSTRUCTION LEGEND

CONCRETE		BENTONITE		GROUT	
SILICA SAND		NATURAL BACKFILL		BEDROCK	



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB13
SHEET 1 OF 1
DATE: 5-26-94 PROJECT NO. 1.V7101.002

DRILLING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: _____
DATE STARTED: 5-26-94 DATE ENDED: 5-26-94

AUGER SIZE 6.25" ID TYPE SPLIT SPOON OTHER: _____
HAMMER _____ HAMMER 140 LBS
FALL _____ FALL 30"

GROUNDWATER READINGS			
DATE	DEPTH	CASING	STABILIZATION TIME

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
5'	001	21"	3-5	25	GRAY/YELLOW CLAYEY SAND. RED IRON VEINING. SOME BLACK COARSE-GRAINED GRAVEL. SOME WOOD TIMBERS. CREOSOTE-LIKE ODOR.	CLAYEY SAND (GRAY/YELLOW)		
						8.5'		
	002	23"	8-10	44	SAME AS ABOVE GRADING DOWN TO GRAY CLAY. INTERFACE OCCURS AT 8.5 FEET. CLAY IS COMPACT, PLASTIC, DENSE AND FINE-GRAINED. RED IRON VEINING. SOME COARSE-GRAINED GRAVELLY SAND WITH WOOD TIMBERS. CREOSOTE-LIKE ODOR.	CLAY (GRAY)		
						13.0'		
15'	003	24"	13-15	28	GRAY/YELLOW CLAYEY SAND. SAME AS 3-5 FOOT INTERVAL. CREOSOTE-LIKE ODOR.	CLAYEY SAND (GRAY/YELLOW)		
						18.0'		
						CLAY (GRAY)		
20'	004	24"	18-20	27	GRAY CLAY. COMPACT, PLASTIC, DENSE AND FINE-GRAINED. RED IRON VEINING. CREOSOTE-LIKE ODOR.	20.0' B.O.B.		
25'								

PROPORTIONS USED

TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE

140 LB WT FALLING 30" ON 2" O.D. SAMPLER

COHESIONLESS DENSITY	COHESIVE CONSISTENCY
0-4 VERY LOOSE	0-2 VERY SOFT
5-9 LOOSE	3-4 SOFT
10-29 MED. DENSE	5-8 MED. STIFF
30-49 DENSE	9-15 STIFF
50+ VERY DENSE	16-30 VERY STIFF
	31+ HARD

WELL CONSTRUCTION LEGEND

CONCRETE	BENTONITE	GROUT
SILICA SAND	NATURAL BACKFILL	BEDROCK



Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

PROJECT:
GULF STATES CREOSOTE, PHASE II
HATTIESBURG, MISSISSIPPI

BORING NO. SB14/MW4
SHEET 1 OF 1
DATE: 5-26-94 PROJECT NO. 1.V7101.002

BORING COMPANY: GRINER DRILLING SERVICE
FOREMAN: K. GRINER
EPS GEOLOGIST: S. KIRCHOFF

BORING LOCATION: SEE SITE PLAN
GROUND ELEVATION: RELATIVE 98.62
DATE STARTED: 5-26-94 DATE ENDED: 5-26-94

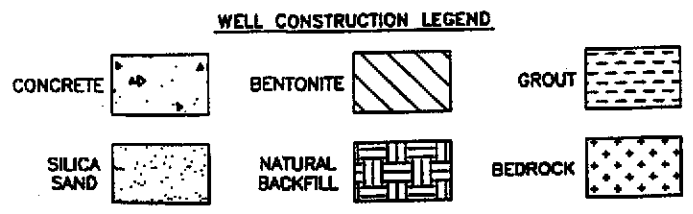
AUGER		SAMPLER		OTHER:	GROUNDWATER READINGS			
SIZE	TYPE	TYPE	OTHER:		DATE	DEPTH	CASING	STABILIZATION TIME
6.25" ID	SPLIT SPOON				5-27-94	19.72'	WELL	24 HRS.
HAMMER	HAMMER	140 LBS			5-26-94	26.0'	AUGER	
FALL	FALL	30'						

SAMPLE					SAMPLE DESCRIPTION	STRATA. CHANGE AND GENERAL DESCRIPTION	FIELD TESTING HNU OR OVA	EQUIPMENT OR WELL INSTALLED
NO.	REC.	DEPTH	BLOWS					
					GRAY/YELLOW CLAYEY SAND. BLACK TAR-LIKE VEINING AND RED IRON VEINING.			SEE GROUNDWATER MONITORING WELL REPORT FOR INSTALLATION DETAIL
5'	001	24"	3-5	32		CLAYEY SAND		
						9.0'		
10'	002	23"	8-10	20	GRAY/YELLOW CLAY GRADING DOWN TO GRAY CLAY. INTERFACE OCCURS AT 9 FEET. CLAY IS COMPACT, PLASTIC, DENSE AND FINE-GRAINED. RED IRON VEINING.	CLAY (GRAY/YELLOW)		
						↓		
15'	003	24"	13-15	17	SAME AS ABOVE. BLACK COARSE-GRAINED CHUNKS OF MATERIAL IN CLAY. MOIST.			
						(GRAY)		
20'	004	24"	18-20	16	GRAY CLAY. COMPACT, PLASTIC, DENSE AND FINE-GRAINED.			
25'						▼ 26.0'		B.O.B. 36.0'

PROPORTIONS USED
TRACE 0 TO 10%
LITTLE 10 TO 20%
SOME 20 TO 35%
AND 35 TO 50%
B.O.B. - BOTTOM OF BORING
ND - NOT DETECTED

PENETRATION RESISTANCE
140 LB WT FALLING 30" ON 2" O.D. SAMPLER

COHESIONLESS DENSITY	COHESIVE CONSISTENCY
0-4 VERY LOOSE	0-2 VERY SOFT
5-9 LOOSE	3-4 SOFT
10-29 MED. DENSE	5-8 MED. STIFF
30-49 DENSE	9-15 STIFF
50+ VERY DENSE	16-30 VERY STIFF
	31+ HARD





CHAIN OF CUSTODY RECORD

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

CONTAINERS

CLIENT NAME: Van Slyke
 PROJECT NO.: 1.V7101.002
 PROJECT CONTACT: S. Kirchoff
 PROJECT REPRESENTATIVE: S. Kirchoff

PROJECT LOCATION: Hatterasburg, Mo
 PROJECT TELEPHONE NO.: EKS Jackson Office
 PROJECT MANAGER/SUPERVISOR: S. Kirchoff

ITEM #	SAMPLE NUMBER	DATE	TIME	C O M P	G R A B	SAMPLE DESCRIPTION (Include Mtdr & Point of Sample)	REMARKS
1	SB-5-002	5/24	1720			SOIL	
2	SB-1-001	5/24	0750				
3	SB-1-002	5/24	0810				
4	SB-2-001	5/24	1330				
5	SB-1-003	5/24	0820				
6	SB-2-003	5/24	1400				
7	SB-5-002	5/24	1710				
8	SB-7-001	5/25	1125				
9	SB-2-002	5/24	1344				
10	SB-3-001	5/24	1440				
11	SB-1-004	5/24	0830				
12	SB-2-004	5/24	1410				

TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY:	DATE	TIME	REMARKS
	<i>[Signature]</i>			

SAMPLER'S NAME: *[Signature]*
 SAMPLER'S SIGNATURE: *[Signature]*



CHAIN OF CUSTODY RECORD

CLIENT NAME: Van Slyke

PROJECT NAME: GOC Phase II

PROJECT LOCATION: Hattiesburg, MS

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

PROJECT NO.: 1.17101.002

PROJECT CONTACT: S. Kirchoff

PROJECT TELEPHONE NO.: EPS Jackson Office

CLIENT'S REPRESENTATIVE

PROJECT MANAGER/SUPERVISOR: S. Kirchoff

ITEM #	SAMPLE NUMBER	DATE	TIME	COMP	GRA	SAMPLE DESCRIPTION (Include Matrix & Point of Sample)	REMARKS
1	584-3 003	5/25	0810			SOIL	
2	5810 004	5/25	1455				
3	584-3 002	5/25	0900				
4	584-3 004	5/25	0830				
5	585 004	5/24	1730				
6	589 001	5/25	1330				
7	5610 003	5/25	1415				
8	588 001	5/25	1215				
9	5610 001	5/25	1350				
10	5610 002	5/25	1405				
11	585 004	5/24	1515				
12	563 002	5/24	1450				

ITEM NO.	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY:	DATE	TIME	REMARKS
1			<i>Michael Cheppel</i>			
2						
3						
4						

SAMPLER'S NAME: [Signature]

SAMPLER'S SIGNATURE: [Signature]



CHAIN OF CUSTODY RECORD

CLIENT NAME Yuri Slyke		PROJECT LOCATION Halliburton, Mo		ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)																																								
PROJECT NAME GSCC Phase II		PROJECT TELEPHONE NO. Jacksonville, FL 905																																										
PROJECT NO. 1V7101.002	PROJECT CONTACT S. Kinstoff	PROJECT MANAGER/SUPERVISOR S. Kinstoff																																										
CLIENT'S REPRESENTATIVE		PROJECT MANAGER/SUPERVISOR		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:5%;">#</td><td style="width:15%;">CONTAINERS</td><td style="width:15%;">REMARKS</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> <tr><td>2</td><td>1</td><td>2</td></tr> <tr><td>3</td><td>1</td><td>3</td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td></tr> </table>		#	CONTAINERS	REMARKS	1	1	1	2	1	2	3	1	3	4			5			6			7			8			9			10			11			12		
#	CONTAINERS	REMARKS																																										
1	1	1																																										
2	1	2																																										
3	1	3																																										
4																																												
5																																												
6																																												
7																																												
8																																												
9																																												
10																																												
11																																												
12																																												
ITEM #	SAMPLE NUMBER	DATE	TIME	COMPS	G R A S	SAMPLE DESCRIPTION (Include Matrix & Point of Sample)	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY:	DATE	TIME	REMARKS																																	
1	165-001	7/24	1700			soil		<i>[Signature]</i>	7/24	1700																																		
2	165-002	7/24	1700																																									
3	165-001	7/24	1700																																									
4																																												
5																																												
6																																												
7																																												
8																																												
9																																												
10																																												
11																																												
12																																												
Trans No.	ITEM NUMBER	TRANSFERS RELINQUISHED BY		TRANSFERS ACCEPTED BY:		DATE		TIME		REMARKS																																		
1				<i>[Signature]</i>																																								
2																																												
3																																												
4																																												

CHAIN OF CUSTODY RECORD

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

CONTAINERS		1		2		3		4		5		6		7		8		9		10		11		12	

REMARKS

CLIENT NAME: Yon Dupe

PROJECT NAME: High Stairs Phase II

PROJECT LOCATION: Huttonburg, Va

PROJECT CONTACT: S. Kinch

PROJECT TELEPHONE NO.: EPS Jacobson, Mr. Office

CLIENT'S REPRESENTATIVE: Shaun Kinch

PROJECT MANAGER/SUPERVISOR: Shaun Kinch

ITEM #	SAMPLE NUMBER	DATE	TIME	C O M P	G R A B	SAMPLE DESCRIPTION (Include Matrix & Point of Sample)	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY:	DATE	TIME	REMARKS
1	MW/2-001	5/27/04	1045		✓	Water					
2	MW/1-001	5/27/04	1000		✓						
3	MW/3-001	5/27/04	1335		✓						
4	MW/4-001	5/27/04	1300		✓						
5											
6											
7											
8											
9											
10											
11											
12											

SAMPLER'S NAME: _____

SAMPLER'S SIGNATURE: _____

APPENDIX H

**GROUNDWATER MONITORING WELL
CONSTRUCTION DETAILS**

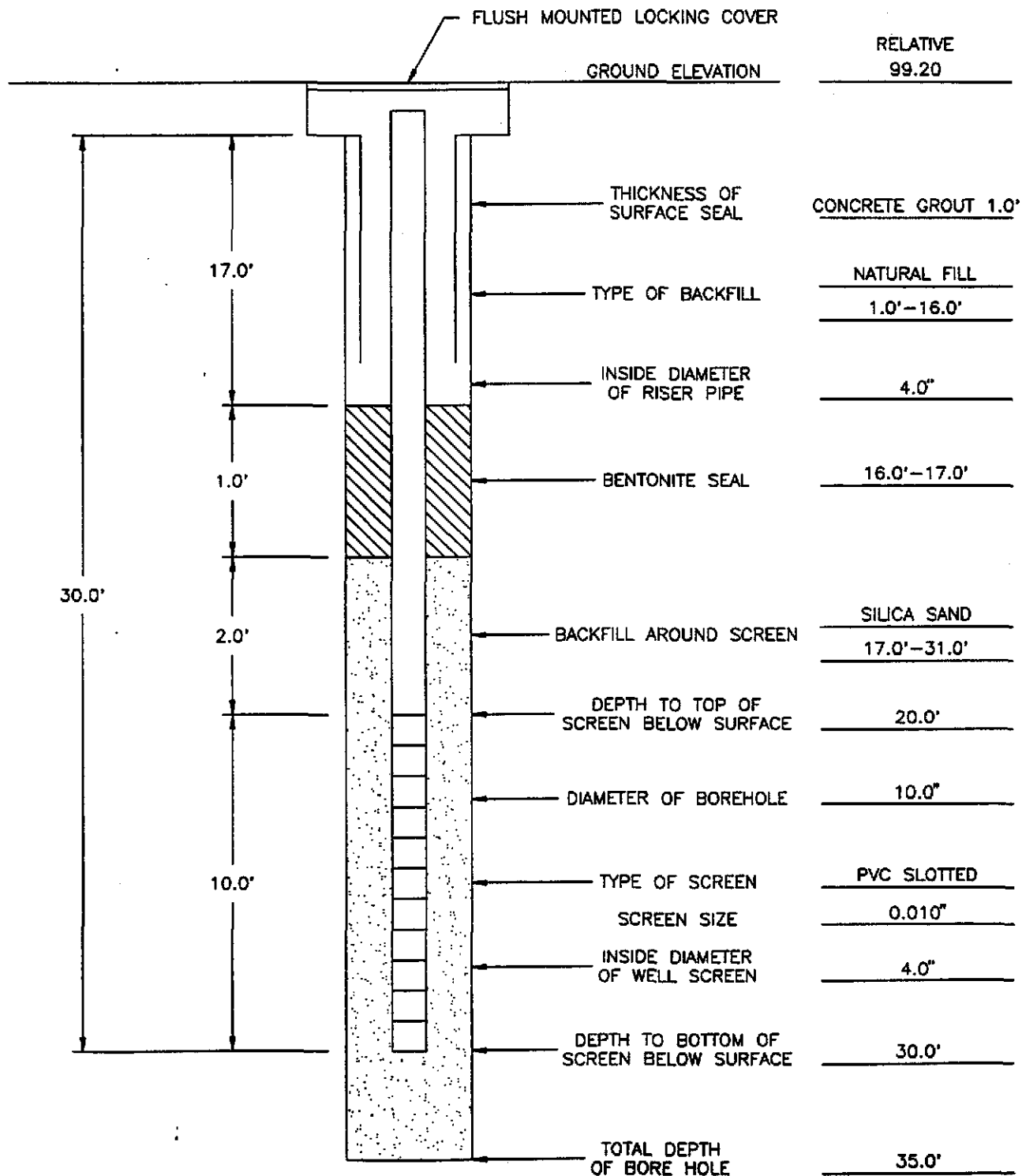


5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

GROUNDWATER MONITORING WELL REPORT

PROJECT: GULF STATES CREOSOTE - PHASE II
 LOCATION: HATTIESBURG, MISSISSIPPI
 CLIENT: J.B. VAN SLYKE
 CONTRACTOR: _____
 DRILLER: GRINER DRILLING SERVICE INSPECTOR: S. KIRCHOFF
 INSTALLATION DATE: MAY 26, 1994

WELL NO. 1
 PROJECT NO. 1.V7101.002
 LOCATION: _____
SEE SITE PLAN
 SHEET 1 OF 1





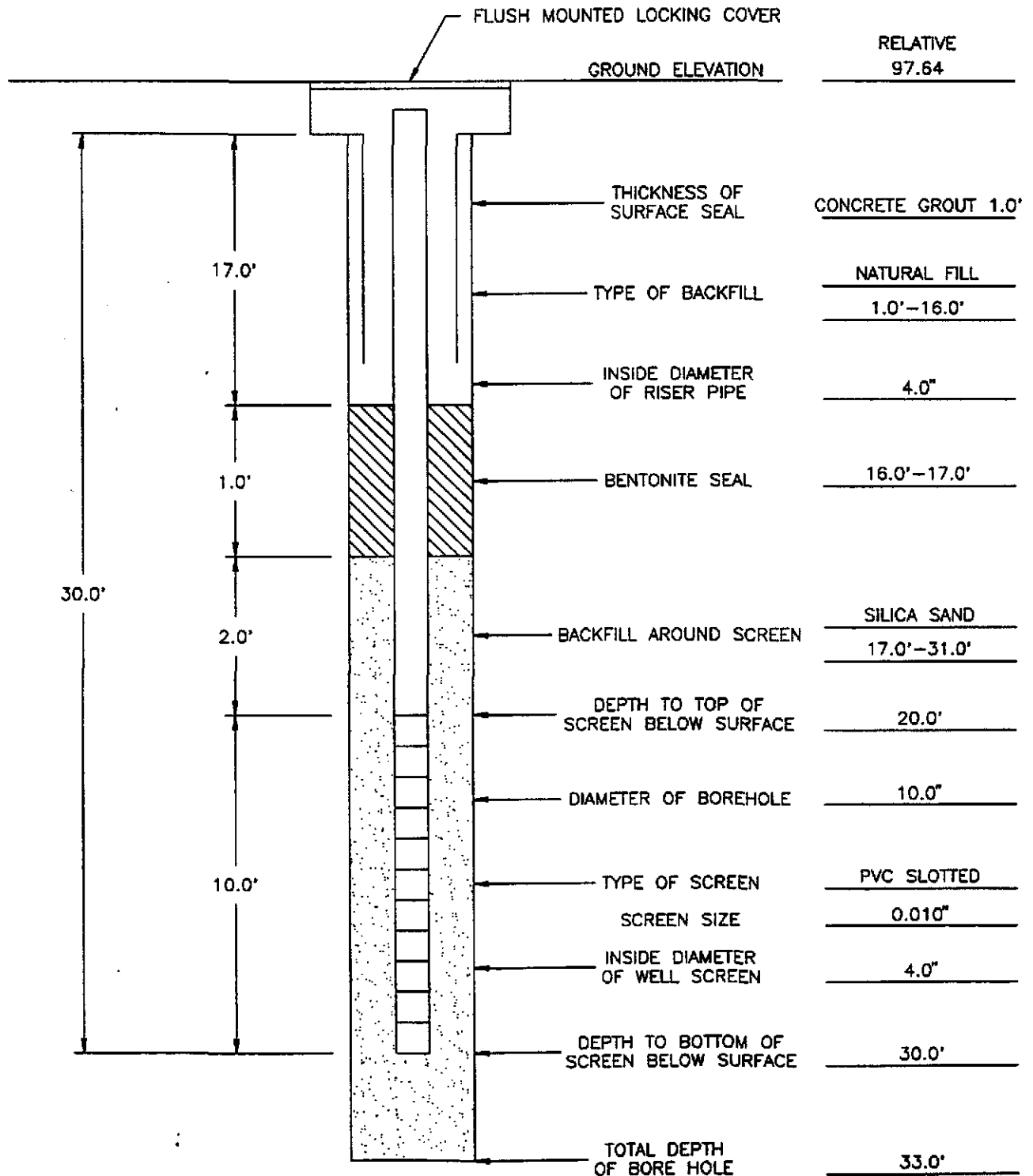
Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

GROUNDWATER MONITORING WELL REPORT

PROJECT: GULF STATES CREOSOTE - PHASE II
 LOCATION: HATTIESBURG, MISSISSIPPI
 CLIENT: J.B. VAN SLYKE
 CONTRACTOR: _____
 DRILLER: GRINER DRILLING SERVICE INSPECTOR: S. KIRCHOFF
 INSTALLATION DATE: MAY 25, 1994

WELL NO. 2
 PROJECT NO. 1.V7101.002
 LOCATION: _____
 SEE SITE PLAN
 SHEET 1 OF 1





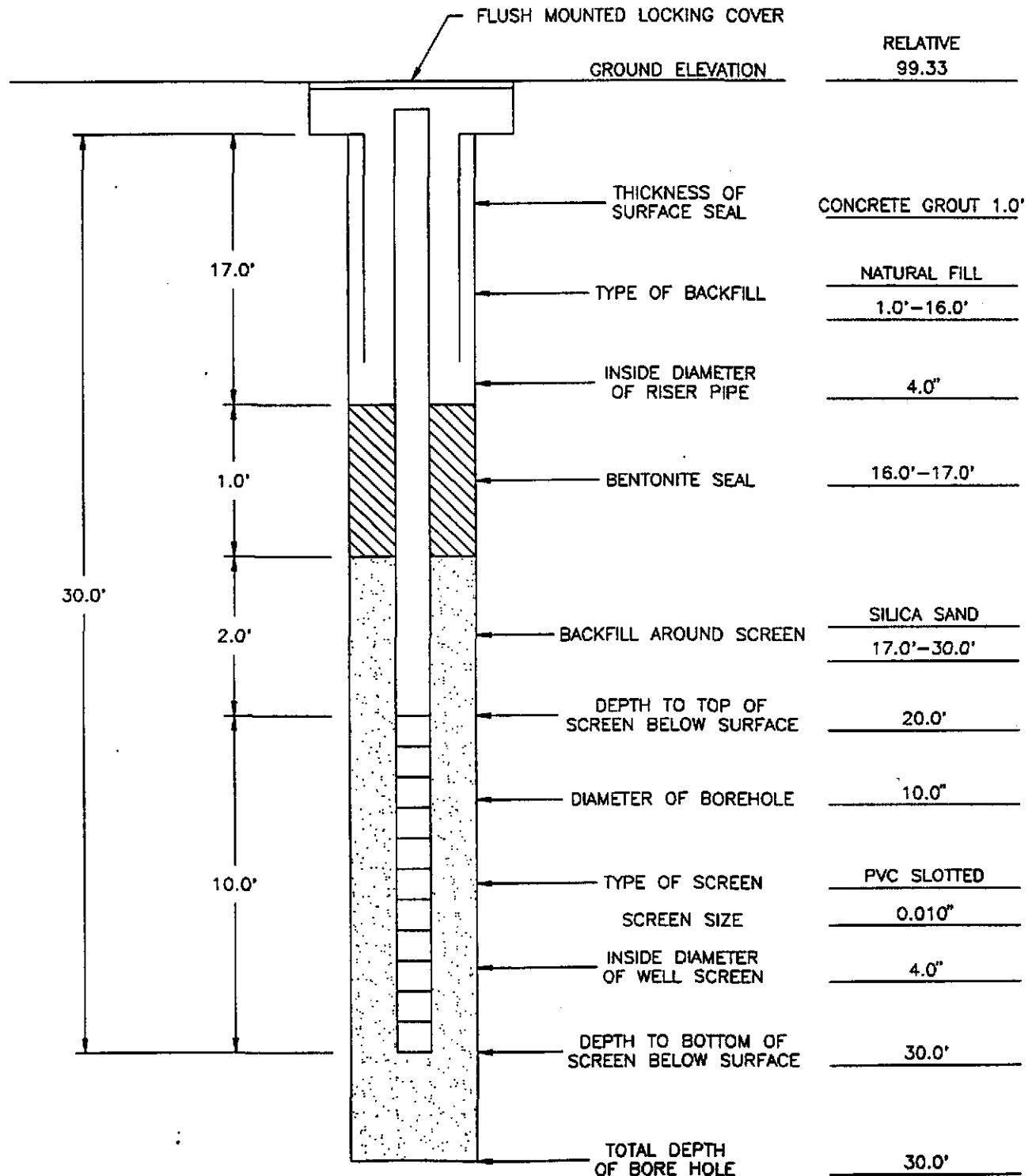
Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

GROUNDWATER MONITORING WELL REPORT

PROJECT: GULF STATES CREOSOTE - PHASE II
 LOCATION: HATTIESBURG, MISSISSIPPI
 CLIENT: J.B. VAN SLYKE
 CONTRACTOR: _____
 DRILLER: GRINER DRILLING SERVICE INSPECTOR: S. KIRCHOFF
 INSTALLATION DATE: MAY 25, 1994

WELL NO. 3
 PROJECT NO. 1.V7101.002
 LOCATION: _____
 SEE SITE PLAN
 SHEET 1 OF 1





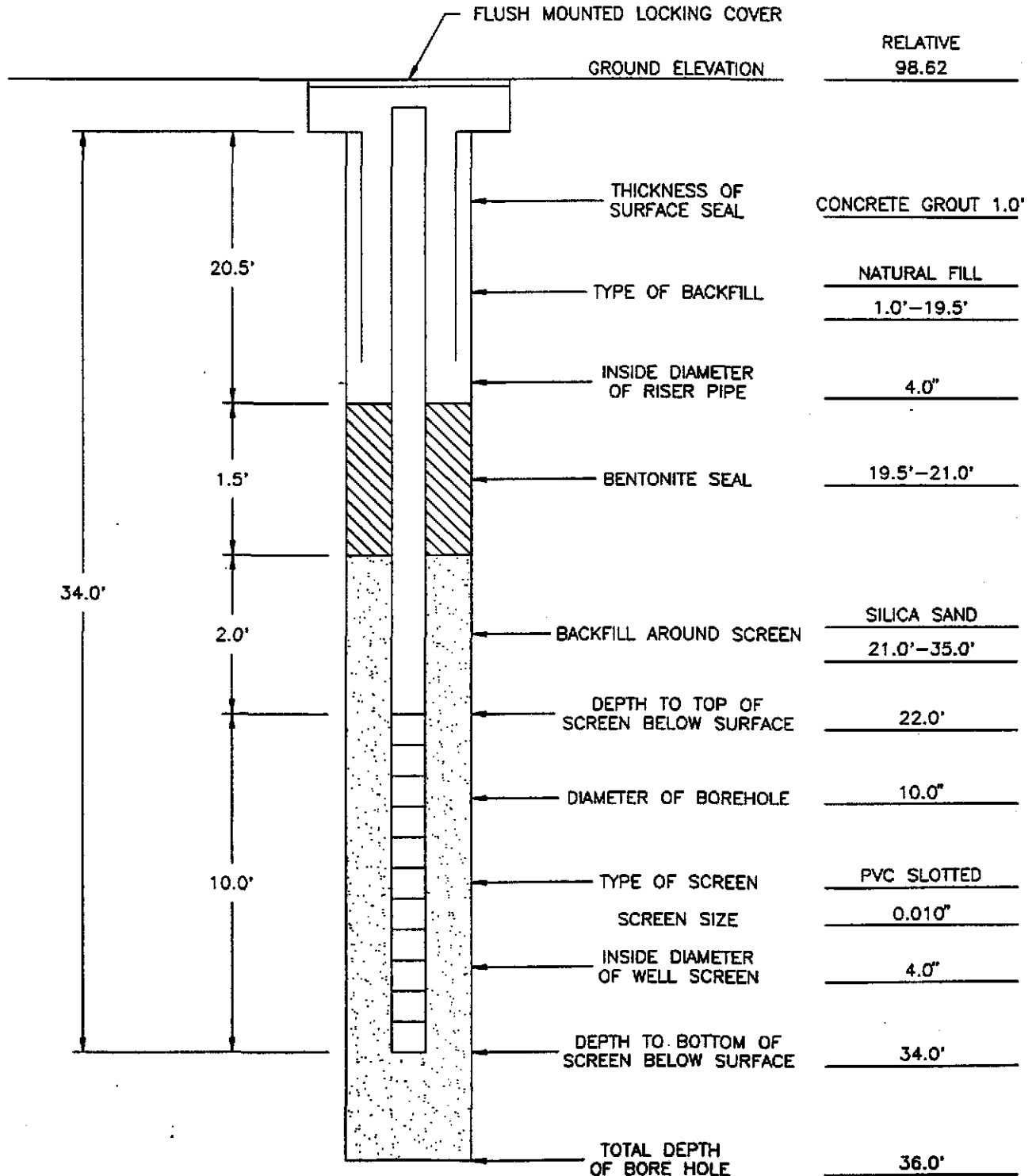
Environmental
Protection
Systems

5360 I-55 NORTH
JACKSON, MISSISSIPPI
39211

GROUNDWATER MONITORING WELL REPORT

PROJECT: GULF STATES CREOSOTE - PHASE II
 LOCATION: HATTIESBURG, MISSISSIPPI
 CLIENT: J.B. VAN SLYKE
 CONTRACTOR: _____
 DRILLER: GRINER DRILLING SERVICE INSPECTOR: S. KIRCHOFF
 INSTALLATION DATE: MAY 26, 1994

WELL NO. 4
 PROJECT NO. 1.V7101.002
 LOCATION: _____
SEE SITE PLAN
 SHEET 1 OF 1



Quality Control / Quality Assurance Summary

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: <i>James A. Colburn</i> Manager: <i>James A. Colburn</i> Facil ID:</p>	<p>Report #: 5197 Date: 06/13/94 Page #: 1</p>			
<p>Acct #: 0051 Client: ENVIRONMENTAL PROTECTION SYSTEMS - ENG. Address: 5360 I-55 NORTH City: JACKSON, MS 39211- Contact: SCHARINE KIRCHOFF Phone: 601/956-1400 Fax: 601/956-2365</p>	<p>Contract Descrip: VAN SLYKE-HATTIESBURG, MS ANALYSIS Project Location: VAN SLYKE-HTSBRG, MS Contract Number : 1.V7101.002 Contract PO: Expiration Date: 01/01/95</p>					
<p>Analyte</p>	<p>Method</p>	<p>Holding Time</p>	<p>Surrogate Recovery</p>	<p>Mtx Spk Recovery</p>	<p>Blank</p>	<p>Batch Number</p>
<p>GC/MS FOR SEMIVOLATILE ORGANICS</p>	<p>SW846 METHOD 8270</p>	<p>A</p>	<p>A</p>	<p>A</p>	<p>A</p>	<p>6803</p>

Note: Note Description

A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5197
Date: 06/13/94
Page #: 2

Lab #: 15349.00 **Client Ref #:** SB-5 003
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 17:20

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Limt of Hold Ana-	Prep	Date	Date	Time	Batch	Lab	Note Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS										
Suff: NITROBENZENE-d5	ppm	screen	screen A	TKW	05/28/94	06/08/94	15:50	6803		
Suff: 2-FLUOROBIPHENYL		968 A								
Suff: 2,4,6-TRIBROMOPHENOL		708 A								
Suff: 1,2,4-TRICHLOROBENZENE		838 A								
Capt: 1,2-DICHLOROBENZENE		ND	0.01							
Capt: 1,3-DICHLOROBENZENE		ND	0.01							
Capt: 1,4-DICHLOROBENZENE		ND	0.01							
Capt: 1,4-DICHLOROBENZENE		ND	0.01							
Capt: 2,3-DIMETHYLPHENOL		ND	0.01							
Capt: 2,4,5-TRICHLOROPHENOL		ND	0.01							
Capt: 2,4,6-TRICHLOROPHENOL		ND	0.01							
Capt: 2,4-DICHLOROPHENOL		ND	0.01							
Capt: 2,4-DINITROPHENOL		ND	0.01							
Capt: 2,4-DINITROPHENOL		ND	0.01							
Capt: 2,6-DINITROPHENOL		ND	0.01							
Capt: 2,6-DINITROPHENOL		ND	0.01							
Capt: 2-CHLORONAPHTHALENE		ND	0.01							
Capt: 2-CHLOROPHENOL		ND	0.01							
Capt: 2-METHYLNAPHTHALENE		ND	0.01							
Capt: 2-METHYLPHENOL		ND	0.01							
Capt: 2-METHYLPHENOL		ND	0.01							
Capt: 2-NITROANILINE		ND	0.01							
Capt: 2-NITROPHENOL		ND	0.01							
Capt: 3,3-DICHLOROBENZIDINE		ND	0.01							
Capt: 3-NITROANILINE		ND	0.01							
Capt: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01							
Capt: 4-BROMOPHENYL PHENYL ETHER		ND	0.01							
Capt: 4-CHLORO-3-METHYLPHENOL		ND	0.01							

Note Note Description
A Requirements set by method were met. Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 3

Lab #: 15349.00 Client Ref #: SB-5 003
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 17:20
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
Cmpd: 4-CHLOROANILINE		ND	0.01						
Cmpd: 4-CHLOROPHENYL PHENYL ETHER		ND	0.01						
Cmpd: 4-METHYLPHENOL		ND	0.01						
Cmpd: 4-NITROANILINE		ND	0.01						
Cmpd: 4-NITROPHENOL		ND	0.01						
Cmpd: ACENAPHTHENE		ND	0.01						
Cmpd: ACENAPHTHYLENE		ND	0.01						
Cmpd: ANTHRACENE		ND	0.01						
Cmpd: BENZO(a)ANTHRACENE		ND	0.01						
Cmpd: BENZO(a)PYRENE		ND	0.01						
Cmpd: BENZO(b)FLUORANTHENE		ND	0.01						
Cmpd: BENZO(g,h,i)PERYLENE		ND	0.01						
Cmpd: BENZO(k)FLUORANTHENE		ND	0.01						
Cmpd: BENZOIC ACID		ND	0.01						
Cmpd: BENZYL ALCOHOL		ND	0.01						
Cmpd: bis(2-CHLOROETHOXY) METHANE		ND	0.01						
Cmpd: bis(2-CHLOROETHYL) ETHER		ND	0.01						
Cmpd: bis(2-CHLOROISOPROPYL) ETHER		ND	0.01						
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE		ND	0.01						
Cmpd: BUTYL BENZYL PHTHALATE		ND	0.01						
Cmpd: CHRYSENE		ND	0.01						
Cmpd: DI-N-BUTYLPHTHALATE		ND	0.01						
Cmpd: DI-N-OCTYL PHTHALATE		ND	0.01						
Cmpd: DIBENZ(a,h)ANTHRACENE		ND	0.01						
Cmpd: DIBENZOFURAN		ND	0.01						
Cmpd: DIETHYLPHTHALATE		ND	0.01						

Note: Note Description

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 4

Lab #: 15349.00 Client Ref #: SB-5 003
 Sample Description
 SOIL

sample collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 17:20

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Detect	Time	Prep	Date	Batch	Lab	Note
Cmpd: DIMETHYL PHTHALATE		ND	0.01						
Cmpd: FLUORANTHENE		ND	0.01						
Cmpd: FLUORENE		ND	0.01						
Cmpd: HEXACHLOROBENZENE		ND	0.01						
Cmpd: HEXACHLOROBUTADIENE		ND	0.01						
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND	0.01						
Cmpd: HEXACHLOROTHANE		ND	0.01						
Cmpd: INDENO(1,2,3-cd)PYRENE		ND	0.01						
Cmpd: ISOPHTHALATE		ND	0.01						
Cmpd: N-NITROSO-DI-N-PROPYLAMINE		ND	0.01						
Cmpd: N-NITROSODIPHENYLAMINE		ND	0.01						
Cmpd: NAPHTHALENE		ND	0.01						
Cmpd: NITROBENZENE		ND	0.01						
Cmpd: PENTACHLOROPHENOL		ND	0.01						
Cmpd: PHENANTHRENE		ND	0.01						
Cmpd: PHENOL		ND	0.01						
Cmpd: PYRENE		ND	0.01						

Note: ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5197 Date: 06/13/94 Page #: 5
Lab #: 15350.00 Client Ref #: SB-1 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 07:50	Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Time Number	Lab Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	PPM	screen	screen A	TKW	05/28/94	06/08/94	15:50	6803
SUFF: NITROBENZENE-d5		95% A						
SUFF: 2-FLUOROPHENYL		90% A						
SUFF: 2,4,6-TRIBROMOPHENOL		83% A						
Compd: 1,2,4-TRICHLOROBENZENE		ND	0.01					
Compd: 1,2-DICHLOROBENZENE		ND	0.01					
Compd: 1,3-DICHLOROBENZENE		ND	0.01					
Compd: 1,4-DICHLOROBENZENE		ND	0.01					
Compd: 2,3-DIMETHYLPHENOL		ND	0.01					
Compd: 2,4,5-TRICHLOROPHENOL		ND	0.01					
Compd: 2,4,6-TRICHLOROPHENOL		ND	0.01					
Compd: 2,4-DICHLOROPHENOL		ND	0.01					
Compd: 2,4-DINITROPHENOL		ND	0.01					
Compd: 2,4-DINITROTOLUENE		ND	0.01					
Compd: 2,6-DINITROTOLUENE		ND	0.01					
Compd: 2-CHLOROPHTHALENE		ND	0.01					
Compd: 2-CHLOROPHENOL		ND	0.01					
Compd: 2-METHYLNAPHTHALENE		41.5	0.01					
Compd: 2-METHYLPHENOL		ND	0.01					
Compd: 2-NITROANILINE		ND	0.01					
Compd: 2-NITROPHENOL		ND	0.01					
Compd: 3,3-DICHLOROBENZIDINE		ND	0.01					
Compd: 3-NITROANILINE		ND	0.01					
Compd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01					
Compd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01					
Compd: 4-CHLORO-3-METHYLPHENOL		ND	0.01					

Note---Note Description
 ND NOT DETECTED

A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5197 Date: 06/13/94 Page #: 6
Lab #: 15350.00 Client Ref #: SB-1 001 Sample Description SOIL	sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 07:50	Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	{---}Test{---} Date	Batch Time	Lab Number	Note	Analyst's Note
Cmpd: 4-CHLOROANILINE		ND	0.01						
Cmpd: 4-CHLOROPHENYL PHENYL ETHER		ND	0.01						
Cmpd: 4-METHYLPHENOL		ND	0.01						
Cmpd: 4-NITROANILINE		ND	0.01						
Cmpd: 4-NITROPHENOL		ND	0.01						
Cmpd: ACENAPHTHENE		1.63	0.01						
Cmpd: ACENAPHTHYLENE		ND	0.01						
Cmpd: ANTHRACENE		7685	0.01						
Cmpd: BENZO(a)ANTHRACENE		ND	0.01						
Cmpd: BENZO(a)PYRENE		ND	0.01						
Cmpd: BENZO(b)FLUORANTHENE		ND	0.01						
Cmpd: BENZO(g,h,i)PERYLENE		ND	0.01						
Cmpd: BENZO(k)FLUORANTHENE		ND	0.01						
Cmpd: BENZOIC ACID		ND	0.01						
Cmpd: BENZYL ALCOHOL		ND	0.01						
Cmpd: bis(2-CHLOROETHOXY) METHANE		ND	0.01						
Cmpd: bis(2-CHLOROETHYL) ETHER		ND	0.01						
Cmpd: bis(2-CHLOROISOPROPYL) ETHER		ND	0.01						
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE		ND	0.01						
Cmpd: BUTYL BENZYL PHTHALATE		ND	0.01						
Cmpd: CHRYSENE		ND	0.01						
Cmpd: DI-N-BUTYLPHTHALATE		ND	0.01						
Cmpd: DI-N-OCTYL PHTHALATE		ND	0.01						
Cmpd: DIBENZ(a,h)ANTHRACENE		ND	0.01						
Cmpd: DIBENZOFURAN		136	0.01						
Cmpd: DIETHYLPHTHALATE		ND	0.01						

Note---Note Description

Note---Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 7

Lab #: 15350.00 Client Ref #: SB-1 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 07:50
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Amount	Units	Last of Hold Ana-			Batch	Lab
			Detect	Time	Prep		
			Time	l	l	l	l
Cmpd: DIMETHYL PHTHALATE	ND						
Cmpd: FLUORANTHENE	942						
Cmpd: FLUORENE	290						
Cmpd: HEXACHLOROBENZENE	ND						
Cmpd: HEXACHLOROBUTADIENE	ND						
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND						
Cmpd: HEXACHLOROETHANE	ND						
Cmpd: INDENO(1,2,3-cd)PYRENE	ND						
Cmpd: ISOPHORONE	ND						
Cmpd: M-NITROSO-DI-N-PROPYLAMINE	ND						
Cmpd: M-NITROSDIPENTYLAMINE	ND						
Cmpd: NAPHTHALENE	219						
Cmpd: NITROBENZENE	ND						
Cmpd: PENTACHLOROPHENOL	ND						
Cmpd: PHENANTHRENE	189						
Cmpd: PHEROL	ND						
Cmpd: PYRENE	521						

Note---Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5197
P 5360 I-55 North 601/956-0513 Fax Date: 06/13/94
S Jackson, MS 39211 Facil ID: Page #: 8

Lab #: 15351.00 Client Ref #: SB-1 002 Receipt Date: 05/26/94
 Sample Description sample collected by: S KIRCHOFF Sample Type: GRAB
 SOIL Coll. Ending Date: 05/24/94 Sample Matrix: SOIL
 Coll. Ending Time: 08:10

Analyte	Units	Amount	Limt of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time lyst	Date	Time	Number	Note Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TRW	05/28/94	06/08/94	15:50 6803
Surr: NITROBENZENE-d5		80% A					
Surr: 2-FLUOROBIPHENYL		80% A					
Surr: 2,4,6-TRIBROMOPHENOL		80% A					
Compd: 1,2,4-TRICHLOROBENZENE		ND	0.01				
Compd: 1,2-DICHLOROBENZENE		ND	0.01				
Compd: 1,3-DICHLOROBENZENE		ND	0.01				
Compd: 1,4-DICHLOROBENZENE		ND	0.01				
Compd: 2,3-DIMETHYLPHENOL		ND	0.01				
Compd: 2,4,5-TRICHLOROPHENOL		ND	0.01				
Compd: 2,4,6-TRICHLOROPHENOL		ND	0.01				
Compd: 2,4-DICHLOROPHENOL		ND	0.01				
Compd: 2,4-DINITROPHENOL		ND	0.01				
Compd: 2,4-DINITROTOLUENE		ND	0.01				
Compd: 2,6-DINITROTOLUENE		ND	0.01				
Compd: 2-CHLORONAPHTHALENE		ND	0.01				
Compd: 2-CHLOROPHENOL		ND	0.01				
Compd: 2-METHYLNAPHTHALENE		ND	0.01				
Compd: 2-METHYLPHENOL		ND	0.01				
Compd: 2-NITROANILINE		ND	0.01				
Compd: 2-NITROPHENOL		ND	0.01				
Compd: 3,3-DICHLOROBENZIDINE		ND	0.01				
Compd: 3-NITROANILINE		ND	0.01				
Compd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01				
Compd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01				
Compd: 4-CHLORO-3-METHYLPHENOL		ND	0.01				

Note ~~Note Description~~ ~~Note Description~~
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office QA/QC: COLEMAN, J Report #: 5197
P 5360 I-55 North 601/956-0513 Fax Manager: JOHNSTON, H Date: 06/13/94
S Jackson, MS 39211 Facil ID: Page #: 9

Lab #: 15351.00 Client Ref #: SB-1 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF Receipt Date: 05/26/94
 Coll. Ending Date: 05/24/94 Sample Type: GRAB
 Coll. Ending Time: 08:10 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-	Prep	Date	Batch	Lab	Note
			Detect Time	Time	Test	Number	Analyst's	Note
Cmpd: 4-CHLOROANILINE	ND	0.01						
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Cmpd: 4-METHYLPHENOL	ND	0.01						
Cmpd: 4-NITROANILINE	ND	0.01						
Cmpd: 4-NITROPHENOL	ND	0.01						
Cmpd: ACENAPHTHENE	ND	0.01						
Cmpd: ACENAPHTHYLENE	ND	0.01						
Cmpd: ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)PYRENE	ND	0.01						
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01						
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01						
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01						
Cmpd: BENZOIC ACID	ND	0.01						
Cmpd: BENZYL ALCOHOL	ND	0.01						
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01						
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01						
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01						
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01						
Cmpd: CHRYSENE	ND	0.01						
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01						
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01						
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01						
Cmpd: DIBENZOFURAN	ND	0.01						
Cmpd: DIETHYLPHTHALATE	ND	0.01						

Note—Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 10

Lab #: 15351.00 Client Ref #: SB-1 002

Sample Description
 SOIL

sample collected by: S KIRCHOFF
 coll. Ending Date: 05/24/94
 coll. Ending Time: 08:10

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01						
Cmpd: FLUORANTHRENE	ND	0.01						
Cmpd: FLUORENE	ND	0.01						
Cmpd: HEXACHLOROBENZENE	ND	0.01						
Cmpd: HEXACHLOROBUTADIENE	ND	0.01						
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01						
Cmpd: HEXACHLOROETHANE	ND	0.01						
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01						
Cmpd: ISOPHORONE	ND	0.01						
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01						
Cmpd: N-NITROSDIPIPERYLAMINE	ND	0.01						
Cmpd: NAPHTHALENE	ND	0.01						
Cmpd: NITROBENZENE	ND	0.01						
Cmpd: PENTACHLOROPHEROL	ND	0.01						
Cmpd: PHENANTHRENE	ND	0.01						
Cmpd: PHEROL	ND	0.01						
Cmpd: PYRENE	ND	0.01						

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 11

Lab #: 15352.00 Client Ref #: SB-2 001
 Sample Description
 SOIL

sample collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 13:36

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Detect Time lyst	Prep Date	{---Test---} Date	Batch Time Number	Lab Note Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW 05/28/94	06/08/94	15:50 6803	
SUFF: NITROBENZENE-d5		918 A					
SUFF: 2-FLUOROBIPHENYL		908 A					
SUFF: 2,4,6-TRIBROMOPHENOL		608 A					
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01					
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01					
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROTOLUENE	ND	0.01					
Cmpd: 2,6-DINITROTOLUENE	ND	0.01					
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01					
Cmpd: 2-CHLOROPHENOL	ND	0.01					
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01					
Cmpd: 2-METHYLPHENOL	ND	0.01					
Cmpd: 2-NITROANILINE	ND	0.01					
Cmpd: 2-NITROPHENOL	ND	0.01					
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01					
Cmpd: 3-NITROANILINE	ND	0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01					

Note: Note Description
 A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 12

Lab #: 15352.00 Client Ref #: SB-2 001

Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 13:36

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Limt of Hold Ana- Detect Time lyst	Prep Date	{----Test----} Date	Batch Number	Lab Note	Analyst's Note
Cmpd: 4-CHLORANILINE	ND	0.01						
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Cmpd: 4-METHYLPHENOL	ND	0.01						
Cmpd: 4-NITROANILINE	ND	0.01						
Cmpd: 4-NITROPHENOL	ND	0.01						
Cmpd: ACENAPHTHENE	ND	0.01						
Cmpd: ACENAPHTHYLENE	ND	0.01						
Cmpd: ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)PYRENE	ND	0.01						
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01						
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01						
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01						
Cmpd: BENZOIC ACID	ND	0.01						
Cmpd: BENZYL ALCOHOL	ND	0.01						
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01						
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01						
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01						
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01						
Cmpd: CHRYSENE	ND	0.01						
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01						
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01						
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01						
Cmpd: DIBENZOFURAN	ND	0.01						
Cmpd: DIETHYL PHTHALATE	ND	0.01						

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 13

Lab #: 15352.00 Client Ref #: SB-2 001

Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 13:36

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lat of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Time	Lab Number	Note Analyst's Note
Cmpd: DIMETHYL PHTHALATE		ND						
Cmpd: FLUORANTHENE		ND	0.01					
Cmpd: FLUORENE		ND	0.01					
Cmpd: HEXACHLOROBENZENE		ND	0.01					
Cmpd: HEXACHLOROBUTADIENE		ND	0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND	0.01					
Cmpd: HEXACHLOROTHANE		ND	0.01					
Cmpd: INDENO(1,2,3-cd)PYRENE		ND	0.01					
Cmpd: ISOPHORONE		ND	0.01					
Cmpd: N-NITROSO-DI-N-PROPYLAMINE		ND	0.01					
Cmpd: N-NITROSDIPHENYLAMINE		ND	0.01					
Cmpd: NAPHTHALENE		ND	0.01					
Cmpd: NITROBENZENE		ND	0.01					
Cmpd: PENTACHLOROPHENOL		ND	0.01					
Cmpd: PHENANTHRENE		ND	0.01					
Cmpd: PHENOL		ND	0.01					
Cmpd: PYRENE		ND	0.01					

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 14

Lab #: 15353.00 Client Ref #: SB-1 003

Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 08:20

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Iat of Hold Ana- Detect Time	Prep lyst Date	Prep Date	Batch Time	Lab Number	Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen							
Surr: NITROBENZENE-d5		78% A							
Surr: 2-FLUOROBIPHENYL		80% A							
Surr: 2,4,6-TRIBROMOPHENOL		80% A							
Capd: 1,2,4-TRICHLOROBENZENE		ND						0.01	
Capd: 1,2-DICHLOROBENZENE		ND						0.01	
Capd: 1,3-DICHLOROBENZENE		ND						0.01	
Capd: 1,4-DICHLOROBENZENE		ND						0.01	
Capd: 2,3-DIMETHYLPHENOL		ND						0.01	
Capd: 2,4,5-TRICHLOROPHENOL		ND						0.01	
Capd: 2,4,6-TRICHLOROPHENOL		ND						0.01	
Capd: 2,4-DICHLOROPHENOL		ND						0.01	
Capd: 2,4-DINITROPHENOL		ND						0.01	
Capd: 2,4-DINITROTOLUENE		ND						0.01	
Capd: 2,6-DINITROTOLUENE		ND						0.01	
Capd: 2-CHLORONAPHTHALENE		ND						0.01	
Capd: 2-CHLOROPHENOL		ND						0.01	
Capd: 2-METHYLNAPHTHALENE		ND						0.01	
Capd: 2-METHYLPHENOL		ND						0.01	
Capd: 2-NITROANILINE		ND						0.01	
Capd: 2-NITROPHENOL		ND						0.01	
Capd: 3,3-DICHLOROBENZIDINE		ND						0.01	
Capd: 3-NITROANILINE		ND						0.01	
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND						0.01	
Capd: 4-BROMOPHENYL PHENYL ETHER		ND						0.01	
Capd: 4-CHLORO-3-METHYLPHENOL		ND						0.01	

Note: Note Description
 A Requirements set by method were met. ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5197 Date: 06/13/94 Page #: 15</p>
<p>Lab #: 15353.00 Client Ref #: SB-1 003</p>	<p>Sample collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 08:20</p>	
<p>Sample Description SOIL</p>		
<p>Receipt Date: 05/26/94 sample Type: GRAB Sample Matrix: SOIL</p>		

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep Date	Test Date	Batch Time	Lab Number	Note Analyst's Note
Capd: 4-CHLORANILINE		ND	0.01					
Capd: 4-CHLOROPHENYL PHENYL ETHER		ND	0.01					
Capd: 4-METHYLPHENOL		ND	0.01					
Capd: 4-NITROANILINE		ND	0.01					
Capd: 4-NITROPHENOL		ND	0.01					
Capd: ACENAPHTHENE		ND	0.01					
Capd: ACENAPHTHYLENE		ND	0.01					
Capd: ANTHRACENE		ND	0.01					
Capd: BENZO(a)ANTHRACENE		ND	0.01					
Capd: BENZO(a)PYRENE		ND	0.01					
Capd: BENZO(b)FLUORANTHENE		ND	0.01					
Capd: BENZO(g,h,i)PERYLENE		ND	0.01					
Capd: BENZO(k)FLUORANTHENE		ND	0.01					
Capd: BENZOIC ACID		ND	0.01					
Capd: BENZYL ALCOHOL		ND	0.01					
Capd: bis(2-CHLOROETHOXY) METHANE		ND	0.01					
Capd: bis(2-CHLOROETHYL) ETHER		ND	0.01					
Capd: bis(2-CHLOROISOPROPYL) ETHER		ND	0.01					
Capd: bis(2-ETHYLHEXYL)PHTHALATE		ND	0.01					
Capd: BUTYL BENZYL PHTHALATE		ND	0.01					
Capd: CHRYSENE		ND	0.01					
Capd: DI-N-BUTYLPHTHALATE		ND	0.01					
Capd: DI-N-OCTYL PHTHALATE		ND	0.01					
Capd: DIBENZO(a,h)ANTHRACENE		ND	0.01					
Capd: DIBENZOFURAN		ND	0.01					
Capd: DIETHYLPHTHALATE		ND	0.01					

Note: ND NOT DETECTED
 Note: Note Description

Analytical Report

E EPS Analytical Services, Inc.
 P 5360 I-55 North
 S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 16

Lab #: 15353.00 Client Ref #: SB-1 003
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 08:20

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Unite	Amount	Int of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	lyst	Date	Time	Note
						Number	Analyst's Note
Compd: DIMETHYL PHTHALATE		ND					
Compd: FLUORANTHENE		ND					
Compd: FLUORENE		ND					
Compd: HEXACHLOROBENZENE		ND					
Compd: HEXACHLOROBUTADIENE		ND					
Compd: HEXACHLOROCYCLOPENTADIENE		ND					
Compd: HEXACHLOROTRANS		ND					
Compd: INDENO(1,2,3-cd)PYRENE		ND					
Compd: ISOPHORONE		ND					
Compd: N-NITROSO-DI-N-PROPYLAMINE		ND					
Compd: N-NITROSODIPENTYLAMINE		ND					
Compd: NAPHTHALENE		ND					
Compd: NITROBENZENE		ND					
Compd: PENTACHLOROPHENOL		ND					
Compd: PERMATHERENE		ND					
Compd: PHEMOL		ND					
Compd: PYRENE		ND					

---Note---Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 17

Lab #: 15354.00 Client Ref #: SB-2 003

Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 14:00

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-	Prep	Date	Time	Batch	Lab
			Detect	Time	lyst	Date	Number	Note Analyst's Note

GC/MS FOR SEMI-VOLATILE ORGANICS

Surr: NITROBENZENE-d5	ppm	screen	screen A	TKW	05/28/94	06/08/94	15:50	6803	
Surr: 2-FLUOROBIPHENYL		918 A							
Surr: 2,4,6-TRIBROMOPHENOL		878 A							
Surr: 1,2,4-TRICHLOROBENZENE		878 A							
Compd: 1,2-DICHLOROBENZENE		ND							0.01
Compd: 1,3-DICHLOROBENZENE		ND							0.01
Compd: 1,4-DICHLOROBENZENE		ND							0.01
Compd: 2,3-DIMETHYLPHENOL		ND							0.01
Compd: 2,4,5-TRICHLOROPHENOL		ND							0.01
Compd: 2,4,6-TRICHLOROPHENOL		ND							0.01
Compd: 2,4-DICHLOROPHENOL		ND							0.01
Compd: 2,4-DINITROPHENOL		ND							0.01
Compd: 2,4-DINITROTOLUENE		ND							0.01
Compd: 2,6-DINITROTOLUENE		ND							0.01
Compd: 2-CHLORONAPHTHALENE		ND							0.01
Compd: 2-CHLOROPHENOL		ND							0.01
Compd: 2-METHYLNAPHTHALENE		18.12							0.01
Compd: 2-METHYLPHENOL		ND							0.01
Compd: 2-NITROANILINE		ND							0.01
Compd: 2-NITROPHENOL		ND							0.01
Compd: 3,3-DICHLOROBENZIDINE		ND							0.01
Compd: 3-NITROANILINE		ND							0.01
Compd: 4,6-DINITRO-2-METHYLPHENOL		ND							0.01
Compd: 4-BROMOPHENYL PHENYL ETHER		ND							0.01
Compd: 4-CHLORO-3-METHYLPHENOL		ND							0.01

Note—Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 18

Lab #: 15354.00 Client Ref #: SB-2 003
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 14:00
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Limt of Hold Ana- Detect Time lyet	Prep Date	Test Date	Batch Time	Number	Lab	Note	Analyt's Note
Cmpd: 4-CHLOROANILINE		ND	0.01							
Cmpd: 4-CHLOROPHENYL PHENYL ETHER		ND	0.01							
Cmpd: 4-METHYLPHENOL		ND	0.01							
Cmpd: 4-NITROANILINE		ND	0.01							
Cmpd: 4-NITROPHENOL		ND	0.01							
Cmpd: ACENAPHTHENE		49.19	0.01							
Cmpd: ACENAPHTHYLENE		ND	0.01							
Cmpd: ANTHRACENE		3339	0.01							
Cmpd: BENZO(a)ANTHRACENE		ND	0.01							
Cmpd: BENZO(a)PYRENE		ND	0.01							
Cmpd: BENZO(b)FLUORANTHENE		10.35	0.01							
Cmpd: BENZO(g,h,i)PERYLENE		ND	0.01							
Cmpd: BENZO(k)FLUORANTHENE		ND	0.01							
Cmpd: BENZOIC ACID		ND	0.01							
Cmpd: BENZYL ALCOHOL		ND	0.01							
Cmpd: bis(2-CHLOROETHOXY) METHANE		ND	0.01							
Cmpd: bis(2-CHLOROETHYL) ETHER		ND	0.01							
Cmpd: bis(2-CHLOROISOPROPYL) ETHER		ND	0.01							
Cmpd: bis(2-ETHYLHEXYL) PHTHALATE		ND	0.01							
Cmpd: BUTYL BENZYL PHTHALATE		ND	0.01							
Cmpd: CHRYSENE		ND	0.01							
Cmpd: DI-N-BUTYL PHTHALATE		ND	0.01							
Cmpd: DI-N-OCTYL PHTHALATE		ND	0.01							
Cmpd: DIBENZ(a,b)ANTHRACENE		ND	0.01							
Cmpd: DIBENZOFURAN		36.89	0.01							
Cmpd: DIETHYL PHTHALATE		ND	0.01							

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5197 Date: 06/13/94 Page #: 19
Lab #: 15354.00 Client Ref #: SB-2 003 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:00 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Lmt of Hold Ans- Detect Time lyst	Prep Date	(---Test---) Date	Batch Time	Lab Number	Note Analyst's Note
Capt: DIMETHYL PHTHALATE	ND		0.01					
Capt: FLUORANTHENE	210		0.01					
Capt: FLUORENE	91.91		0.01					
Capt: HEXACHLOROBENZENE	ND		0.01					
Capt: HEXACHLOROBUTADIENE	ND		0.01					
Capt: HEXACHLOROCYCLOPENTADIENE	ND		0.01					
Capt: HEXACHLOROETHANE	ND		0.01					
Capt: INDBENO (1,2,3-cd)PYRENE	ND		0.01					
Capt: ISOPHORONE	ND		0.01					
Capt: N-NITROSO-DI-N-PROPYLAMINE	ND		0.01					
Capt: N-NITROSDIPHENYLAMINE	ND		0.01					
Capt: NAPHTHALENE	22.65		0.01					
Capt: NITROBENZENE	ND		0.01					
Capt: PENTACHLOROPHENOL	ND		0.01					
Capt: PHEMANTHRENE	ND		0.01					
Capt: PHENOL	ND		0.01					
Capt: PYRENE	62.78		0.01					

~~Note~~ ~~Note Description~~ ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5197
P 5360 I-55 North 601/956-0513 Fax Date: 06/13/94
S Jackson, MS 39211 Facil ID: Page #: 20

Lab #: 15355.00 Client Ref #: SB-5 002 Receipt Date: 05/26/94
 Sample Description Sample Type: GRAB
 SOIL Coll. Ending Time: 17:10 Sample Matrix: SOIL

Analyte	Units	Amount	Lim of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW 05/28/94	06/08/94	15:50	6803	
SUFF: NITROBENZENE-45		71± A						
SUFF: 2-FLUOROBIPHENYL		94± A						
SUFF: 2,4,6-TRIBROMOPHENOL		72± A						
Capd: 1,2,4-TRICHLOROBENZENE		ND	0.01					
Capd: 1,2-DICHLOROBENZENE		ND	0.01					
Capd: 1,3-DICHLOROBENZENE		ND	0.01					
Capd: 1,4-DICHLOROBENZENE		ND	0.01					
Capd: 2,3-DIMETHYLPHENOL		ND	0.01					
Capd: 2,4,5-TRICHLOROPHENOL		ND	0.01					
Capd: 2,4,6-TRICHLOROPHENOL		ND	0.01					
Capd: 2,4-DICHLOROPHENOL		ND	0.01					
Capd: 2,4-DINITROPHENOL		ND	0.01					
Capd: 2,4-DINITROTOLUENE		ND	0.01					
Capd: 2,6-DINITROTOLUENE		ND	0.01					
Capd: 2-CHLORONAPHTHALENE		ND	0.01					
Capd: 2-CHLOROPHENOL		ND	0.01					
Capd: 2-METHYLNAPHTHALENE		20.45	0.01					
Capd: 2-METHYLPHENOL		ND	0.01					
Capd: 2-NITROANILINE		ND	0.01					
Capd: 2-NITROPHENOL		ND	0.01					
Capd: 3,3-DICHLOROBENZIDINE		ND	0.01					
Capd: 3-NITROANILINE		ND	0.01					
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01					
Capd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01					
Capd: 4-CHLORO-3-METHYLPHENOL		ND	0.01					

Note—Note Description Note Note Description
 A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 21

Lab #: 15355.00 Client Ref #: SB-5 002

Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 17:10

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Unite	Amount	Lmt of Hold Ana-	Prep	Batch	Lab
			Detect Time lyst	Date	Time Number	Note Analyst's Note
Cpds: 4-CHLORANILINE		ND	0.01			
Cpds: 4-CHLOROPHENYL PHENYL ETHER		ND	0.01			
Cpds: 4-METHYLPHENOL		ND	0.01			
Cpds: 4-NITROANILINE		ND	0.01			
Cpds: 4-NITROPHENOL		ND	0.01			
Cpds: ACENAPHTHENE		18.94	0.01			
Cpds: ACENAPHTHYLENE		ND	0.01			
Cpds: ANTHRACENE		105	0.01			
Cpds: BENZO(a)ANTHRACENE		ND	0.01			
Cpds: BENZO(a)PYRENE		ND	0.01			
Cpds: BENZO(b)FLUORANTHENE		ND	0.01			
Cpds: BENZO(g,h,i)PERYLENE		ND	0.01			
Cpds: BENZO(k)FLUORANTHENE		ND	0.01			
Cpds: BENZOIC ACID		ND	0.01			
Cpds: BENZYL ALCOHOL		ND	0.01			
Cpds: bis(2-CHLOROETHOXY) METHANE		ND	0.01			
Cpds: bis(2-CHLOROETHYL) ETHER		ND	0.01			
Cpds: bis(2-CHLOROISOPROPYL) ETHER		ND	0.01			
Cpds: bis(2-ETHYLHEXYL)PHTHALATE		ND	0.01			
Cpds: BUTYL BENZYL PHTHALATE		ND	0.01			
Cpds: CHRYSENE		ND	0.01			
Cpds: DI-N-BUTYLPHTHALATE		ND	0.01			
Cpds: DI-N-OCTYL PHTHALATE		ND	0.01			
Cpds: DIBENS(a,h)ANTHRACENE		ND	0.01			
Cpds: DIMENOFURAN		165	0.01			
Cpds: DIETHYLPHTHALATE		ND	0.01			

Note: Note Description

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 Facil ID:

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H

Report #: 5197
 Date: 06/13/94
 Page #: 22

Lab #: 15355.00 Client Ref #: SB-5 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 17:10

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep lYST	Date	Date	Time	Batch Number	Lab	Note Analyst's Note
Cmpd: DIMETHYL PHTHALATE		ND								
Cmpd: FLUORANTHENE		28.2								
Cmpd: FLUORINE		17.8								
Cmpd: HEXACHLOROBENZENE		ND								
Cmpd: HEXACHLOROBUTADIENE		ND								
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND								
Cmpd: HEXACHLOROTHANE		ND								
Cmpd: INDENO(1,2,3-cd)PYRENE		ND								
Cmpd: ISOPHORONE		ND								
Cmpd: N-NITROSO-DI-N-PROPYLAMINE		ND								
Cmpd: N-NITRODIPHENYLAMINE		ND								
Cmpd: NAPHTHALENE		66.66								
Cmpd: NITROBENZENE		ND								
Cmpd: PENTACHLOROPHENOL		ND								
Cmpd: PERMANTHERENE		ND								
Cmpd: PHENOL		ND								
Cmpd: PYRENE		ND								

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5197
Date: 06/13/94
Page #: 23

Lab #: 15356.00 **Client Ref #:** SB-7 001
Sample Description
SOIL

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 11:25

Analyte	Units	Amount	screen	Int of Hold Ana- Prep {---Test---} Batch Lab					
				Detect Time	Date	Time Number	Note		
GC/MS FOR SEMIVOLATILE ORGANICS	ppm			TKW	05/28/94	06/08/94	15:50	6803	
SURT: NITROBENZENE-d5		95% A							
SURT: 2-FLUOROBIPHENYL		127% A							
SURT: 2,4,6-TRIBROMOPHENOL		116% A							
Capd: 1,2,4-TRICHLOROBENZENE		ND	0.01						
Capd: 1,2-DICHLOROBENZENE		ND	0.01						
Capd: 1,3-DICHLOROBENZENE		ND	0.01						
Capd: 1,4-DICHLOROBENZENE		ND	0.01						
Capd: 2,3-DIMETHYLPHENOL		ND	0.01						
Capd: 2,4,5-TRICHLOROPHENOL		ND	0.01						
Capd: 2,4,6-TRICHLOROPHENOL		ND	0.01						
Capd: 2,4-DICHLOROPHENOL		ND	0.01						
Capd: 2,4-DINITROPHENOL		ND	0.01						
Capd: 2,4-DINITROTOLUENE		ND	0.01						
Capd: 2,6-DINITROTOLUENE		ND	0.01						
Capd: 2-CHLORONAPHTHALENE		ND	0.01						
Capd: 2-CHLOROPHENOL		ND	0.01						
Capd: 2-METHYLNAPHTHALENE		ND	0.01						
Capd: 2-METHYLPHENOL		ND	0.01						
Capd: 2-NITROANILINE		ND	0.01						
Capd: 2-NITROPHENOL		ND	0.01						
Capd: 3,3-DICHLOROBENZIDINE		ND	0.01						
Capd: 3-NITROANILINE		ND	0.01						
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01						
Capd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01						
Capd: 4-CHLORO-3-METHYLPHENOL		ND	0.01						

Note --- **Note Description** **Note** --- **Note Description**
A **Requirements set by method were met.** **ND** **NOT DETECTED**

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 24

Lab #: 15356.00 Client Ref #: SB-7 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 11:25
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Date	Time	Batch	Lab	Note	Analyst's Note
Cmpd: 4-CELOANILINE		ND									
Cmpd: 4-CELOPHENYL PHENYL ETHER		ND									
Cmpd: 4-METHYLPHENOL		ND									
Cmpd: 4-NITROANILINE		ND									
Cmpd: 4-NITROPHENOL		ND									
Cmpd: ACENAPHTHENE		18.55									
Cmpd: ACENAPHTHYLENE		ND									
Cmpd: ANTHRACENE		ND									
Cmpd: BENZO(a)ANTHRACENE		ND									
Cmpd: BENZO(a)PYRENE		ND									
Cmpd: BENZO(b)FLUORANTHENE		ND									
Cmpd: BENZO(g,h,i)PERYLENE		ND									
Cmpd: BENZO(k)FLUORANTHENE		ND									
Cmpd: BENZOIC ACID		ND									
Cmpd: BENZYL ALCOHOL		ND									
Cmpd: bis(2-CHLOROETHOXY) METHANE		ND									
Cmpd: bis(2-CHLOROETHYL) ETHER		ND									
Cmpd: bis(2-CHLOROISOPROPYL) ETHER		ND									
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE		ND									
Cmpd: BUTYL BENZYL PHTHALATE		ND									
Cmpd: CHRYSENE		ND									
Cmpd: DI-N-BUTYLPHTHALATE		ND									
Cmpd: DI-N-OCTYL PHTHALATE		ND									
Cmpd: DIMENE(a,h)ANTHRACENE		ND									
Cmpd: DIMENOFURAN		ND									
Cmpd: DIETHYLPHTHALATE		ND									

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5197 Date: 06/13/94 Page #: 25
Lab #: 15356.00 Client Ref #: SB-7 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/25/94 Coll. Ending Time: 11:25 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyet	Prep Date	{---Test---} Date	Batch Time	Lab Number	Note Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01						
Cmpd: FLUORANTHENE	13.32	0.01						
Cmpd: FLUORENE	ND	0.01						
Cmpd: HEXACHLOROBENZENE	ND	0.01						
Cmpd: HEXACHLOROBUTADIENE	ND	0.01						
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01						
Cmpd: HEXACHLOROTHANE	ND	0.01						
Cmpd: INDENO (1,2,3-cd)PYRENE	ND	0.01						
Cmpd: ISOPHORONE	ND	0.01						
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01						
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01						
Cmpd: NAPHTHALENE	146	0.01						
Cmpd: NITROBENZENE	ND	0.01						
Cmpd: PENTACHLOROPHENOL	ND	0.01						
Cmpd: PHENANTHRENE	12.84	0.01						
Cmpd: PHENOL	ND	0.01						
Cmpd: PYRENE	47.10	0.01						

Note --- **Note Description** --- **Note** --- **Note Description**
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5197 Date: 06/13/94 Page #: 26
Lab #: 15357.00 Client Ref #: SB-2 002 Sample Description: SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 13:49 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Int of Hold Ana-	Prep	Batch	Lab
			Detect Time	lyst	Date	Note
			screen A	TKW	05/26/94	06/08/94
			15:50	6903		
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen				
Surr: NITROBENZENE-d5		83± A				
Surr: 2-FLUOROBIPHENYL		87± A				
Surr: 2,4,6-TRIBROMOPHENOL		74± A				
Capd: 1,2,4-TRICHLOROBENZENE		ND	0.01			
Capd: 1,2-DICHLOROBENZENE		ND	0.01			
Capd: 1,3-DICHLOROBENZENE		ND	0.01			
Capd: 1,4-DICHLOROBENZENE		ND	0.01			
Capd: 2,3-DIMETHYLPHENOL		ND	0.01			
Capd: 2,4,5-TRICHLOROPHENOL		ND	0.01			
Capd: 2,4,6-TRICHLOROPHENOL		ND	0.01			
Capd: 2,4-DICHLOROPHENOL		ND	0.01			
Capd: 2,4-DINITROPHENOL		ND	0.01			
Capd: 2,4-DINITROTOLUENE		ND	0.01			
Capd: 2,6-DINITROTOLUENE		ND	0.01			
Capd: 2-CHLORONAPHTHALENE		ND	0.01			
Capd: 2-CHLOROPHENOL		ND	0.01			
Capd: 2-METHYLNAPHTHALENE		52.77	0.01			
Capd: 2-METHYLPHENOL		ND	0.01			
Capd: 2-NITROANILINE		ND	0.01			
Capd: 2-NITROPHENOL		ND	0.01			
Capd: 3,3-DICHLOROBENZIDINE		ND	0.01			
Capd: 3-NITROANILINE		ND	0.01			
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01			
Capd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01			
Capd: 4-CHLORO-3-METHYLPHENOL		ND	0.01			

Note ~~Note Description~~ ~~Note Description~~
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5197
Date: 06/13/94
Page #: 27

Lab #: 15357.00 **Client Ref #:** SB-2 002
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 13:49

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab	Note
Ccpd: 4-CHLOROANILINE	ND	0.01						
Ccpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Ccpd: 4-METHYLPHENOL	ND	0.01						
Ccpd: 4-NITROANILINE	ND	0.01						
Ccpd: 4-NITROPHENOL	ND	0.01						
Ccpd: ACENAPHTHENE	51.52	0.01						
Ccpd: ACENAPHTHYLENE	ND	0.01						
Ccpd: ANTHRACENE	19261	0.01						
Ccpd: BENZO(a)ANTHRACENE	ND	0.01						
Ccpd: BENZO(a)PYRENE	ND	0.01						
Ccpd: BENZO(b)FLUORANTHRENE	ND	0.01						
Ccpd: BENZO(g,h,i)PERYLENE	ND	0.01						
Ccpd: BENZO(k)FLUORANTHRENE	ND	0.01						
Ccpd: BENZOIC ACID	ND	0.01						
Ccpd: BENZYL ALCOHOL	ND	0.01						
Ccpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01						
Ccpd: bis(2-CHLOROETHYL) ETHER	ND	0.01						
Ccpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Ccpd: bis(2-ETHYLHEXYL) PHTHALATE	ND	0.01						
Ccpd: BUTYL BENZYL PHTHALATE	ND	0.01						
Ccpd: CHRYSENE	ND	0.01						
Ccpd: DI-N-BUTYL PHTHALATE	ND	0.01						
Ccpd: DI-N-OCTYL PHTHALATE	ND	0.01						
Ccpd: DIBENZO(a,h)ANTHRACENE	ND	0.01						
Ccpd: DIBENZO(FURAN	42.72	0.01						
Ccpd: DIETHYL PHTHALATE	ND	0.01						

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5197 Date: 06/13/94 Page #: 28
Lab #: 15357.00 Client Ref #: SB-2 002 Sample Description SOIL	sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 13:49	Receipt Date: 05/26/94 sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Time Number	Lab Note Analyst's Note
Compd: DIMETHYL PHTHALATE	ND	0.01					
Compd: FLUORANTHENE	668	0.01					
Compd: FLUORENE	119	0.01					
Compd: HEXACHLOROBENZENE	ND	0.01					
Compd: HEXACHLOROBUTADIENE	ND	0.01					
Compd: HEXACHLOROCYCLOPENTADIENE	ND	0.01					
Compd: HEXACHLOROETHANE	ND	0.01					
Compd: INDENO(1,2,3-cd)PYRENE	ND	0.01					
Compd: ISOPHORONE	ND	0.01					
Compd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01					
Compd: N-NITROSODIPHENYLAMINE	ND	0.01					
Compd: NAPHTHALENE	28.90	0.01					
Compd: NITROBENZENE	ND	0.01					
Compd: PENTACHLOROPHENOL	ND	0.01					
Compd: PHEANTHRENE	37.70	0.01					
Compd: PHENOL	ND	0.01					
Compd: PYRENE	168	0.01					

ND	NOT DETECTED
-----------	---------------------

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 29

Lab #: 15358.00 Client Ref #: SB-3 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 14:40

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	Time	Time	Number	Note
			llyst	Test	Number	Number	Analyst's
				---			Notes
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TXW	05/28/94	06/08/94	15:50 6803
Surf: NITROBENZENE-d5		91% A					
Surf: 2-FLUOROBIPHENYL		101% A					
Surf: 2,4,6-TRIBROMOPHENOL		91% A					
Compd: 1,2,4-TRICHLOROBENZENE	ND	0.01					
Compd: 1,2-DICHLOROBENZENE	ND	0.01					
Compd: 1,3-DICHLOROBENZENE	ND	0.01					
Compd: 1,4-DICHLOROBENZENE	ND	0.01					
Compd: 2,3-DIMETHYLPHENOL	ND	0.01					
Compd: 2,4,5-TRICHLOROPHENOL	ND	0.01					
Compd: 2,4,6-TRICHLOROPHENOL	ND	0.01					
Compd: 2,4-DICHLOROPHENOL	ND	0.01					
Compd: 2,4-DINITROPHENOL	ND	0.01					
Compd: 2,4-DINITROTOLUENE	ND	0.01					
Compd: 2,6-DINITROTOLUENE	ND	0.01					
Compd: 2-CHLORONAPHTHALENE	ND	0.01					
Compd: 2-CHLOROPHENOL	ND	0.01					
Compd: 2-METHYLNAPHTHALENE	818	0.01					
Compd: 2-METHYLPHENOL	ND	0.01					
Compd: 2-NITROANILINE	ND	0.01					
Compd: 2-NITROPHENOL	ND	0.01					
Compd: 3,3-DICHLOROBENZIDINE	ND	0.01					
Compd: 3-NITROANILINE	ND	0.01					
Compd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01					
Compd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01					
Compd: 4-CHLORO-3-METHYLPHENOL	ND	0.01					

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5197 Date: 06/13/94 Page #: 30</p>
<p>Lab #: 15358.00 Client Ref #: SB-3 001</p>	<p>sample Collected by: S KIRCHOFF coll. Ending Date: 05/24/94 Coll. Ending Time: 14:40</p>	
<p>Sample Description SOIL</p>		
<p>Receipt Date: 05/26/94 sample Type: GRAB sample Matrix: SOIL</p>		

Analyte	Units	Amount	Lmt of Hold Ana- Prep {---Test---} Batch Lab			Note Analyst's Note
			Detect	Time	Date		Time	Number
Cmpd: 4-CHLORANILINE	ND	0.01				
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01				
Cmpd: 4-METHYLPHENOL	ND	0.01				
Cmpd: 4-NITROANILINE	ND	0.01				
Cmpd: 4-NITROPHENOL	ND	0.01				
Cmpd: ACENAPHTHENE	357	0.01				
Cmpd: ACENAPHTHYLENE	ND	0.01				
Cmpd: ANTHRACENE	13115	0.01				
Cmpd: BENZO(a)ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)PYRENE	ND	0.01				
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01				
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01				
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01				
Cmpd: BENZOIC ACID	ND	0.01				
Cmpd: BENZYL ALCOHOL	ND	0.01				
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01				
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01				
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01				
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01				
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01				
Cmpd: CHRYSENE	23.79	0.01				
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01				
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01				
Cmpd: DIENES(e,h)ANTHRACENE	ND	0.01				
Cmpd: DIENSOFURAN	247	0.01				
Cmpd: DIETHYLPHTHALATE	ND	0.01				

Note---Note Description

Note---Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 31

Lab #: 15358.00 Client Ref #: SB-3 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 14:40

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Detect Time	Prep Date	(---Test---) Date	Batch Number	Lab Note	Analyst's Note
Compd: DIMETHYL PHTHALATE		ND	0.01					
Compd: FLUORANTHENE		1555	0.01					
Compd: FLUORENE		404	0.01					
Compd: HEXACHLOROBENZENE		ND	0.01					
Compd: HEXACHLOROCYCLOPENTADIENE		ND	0.01					
Compd: HEXACHLOROETHANE		ND	0.01					
Compd: INDENO(1,2,3-cd)PYRENE		ND	0.01					
Compd: ISOPHTHORENE		ND	0.01					
Compd: M-NITROSO-DI-N-PROPYLAMINE		ND	0.01					
Compd: M-NITRODIPHENYLAMINE		ND	0.01					
Compd: NAPHTHALENE		23857	0.01					
Compd: NITROBENZENE		ND	0.01					
Compd: PENTACHLOROPHENOL		ND	0.01					
Compd: PHENANTHRENE		504	0.01					
Compd: PHENOL		ND	0.01					
Compd: PYRENE		409	0.01					

ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 Fax

Report #: 5197
Date: 06/13/94
Page #: 32

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
Units: Ppm
Analyst: TENNIE WHITE

Preparation Date: 05/28/94
Test Began Date & Time: 06/02/94 @ 08:00
Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803
Book/Page: 4/32

Log Number:	Sample Matrix:	Sample Type:	Screen Compound Amount/Limit of Detection:	Sample			Replicate			Matrix Spike			Mtx & Recovery				
				Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD		
15349	SOIL	GRAB		15349	0.01	15349	0.01	15349	0.01	15349	0.01	15349	0.01	15349	0.01	15349	0.01
968			SUZZ: NITROBENZENE-d5	798	0.01	0.500	0.01	0	0	0	0	0	0	0	0	0	0
708			SUZZ: 2-FLUOROBIPHENYL	858	0.01	0.500	0.01	0	0	0	0	0	0	0	0	0	0
838			SUZZ: 2,4,6-TRIBROMOPHENOL	668	0.01	0.500	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 1,2,4-TRICHLOROBENZENE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 1,2-DICHLOROBENZENE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 1,3-DICHLOROBENZENE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 1,4-DICHLOROBENZENE	ND	0.01	1.00	0.01	1.00	0	1.00	0	1.00	0	1.00	0	1.00	0
			Compd: 2,3-DIMETHYLPHENOL	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2,4,5-TRICHLOROPHENOL	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2,4,6-TRICHLOROPHENOL	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2,4-DICHLOROPHENOL	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2,4-DINITROPHENOL	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2,4-DINITROTOLUENE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2,6-DINITROTOLUENE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2-CHLORONAPHTHALENE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2-CHLOROPHENOL	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2-METHYLNAPHTHALENE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2-METHYLPHENOL	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2-NITROANILINE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 2-NITROPHENOL	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 3,3-DICHLOROBENZIDINE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0
			Compd: 3-NITROANILINE	ND	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0

Note
Note Description

ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facill ID:

Report #: 5197
 Date: 06/13/94
 Page #: 33

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Units: PPM

Analyst: TENNIE WHITE

Preparation Date: 05/28/94

Test Began Date & Time: 06/02/94 @ 08:00

Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803
 Book/Page: 4/32

Compd	{---Sample---		{---Replicats---		{---Matrix Spikes---		{---Mtx & Recovery---		{---Blank---	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Compd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: 4-CHLORO-3-METHYLPHENOL	ND	0.01	ND	0.01	1.00	0.01	80%	80%	ND	0.01
Compd: 4-CHLOROANILINE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: 4-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: 4-NITROANILINE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: 4-NITROPHENOL	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: ACENAPHTHENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: ACENAPHTHYLENE	ND	0.01	ND	0.01	1.00	0.01	79%	79%	ND	0.01
Compd: ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: BENZO(a)PYRENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: BENZO(b)FLUORANTHENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: BENZO(g,h,i)PERYLENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: BENZO(k)FLUORANTHENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: BENZOIC ACID	ND	0.01	ND	0.01	1.00	0.01	68%	68%	ND	0.01
Compd: BENZYL ALCOHOL	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: bis(2-CHLOROETHOXY) METHANE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: bis(2-CHLOROETHYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: BUTYL BENZYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: CHRYSENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: DI-N-BUTYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: DI-N-OCTYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Compd: DI-N-OCTYL PHTHALATE	ND	0.01	ND	0.01	1.00	0.01	78%	78%	ND	0.01

Note: Note Description
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5197
 Date: 06/13/94
 Page #: 34

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Units: ppm

Analyst: TENNIE WHITE

Preparation Date: 05/28/94

Test Began Date & Time: 06/02/94 @ 08:00

Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803

Book/Page: 4/32

Compd	Sample		Replicate		Matrix Spike		Mtx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Compd: DIBENE (a,b)ANTHRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: DIBENZOFURAN	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: DIETHYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: FLUORANTHENE	ND	0.01	ND	0.01	1.00	0.01	84%	0.01	ND	0.01
Compd: FLORENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: HEXACHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: HEXACHLOROBUTADIENE	ND	0.01	ND	0.01	1.00	0.01	80%	0.01	ND	0.01
Compd: HEXACHLOROCYCLOPENTADIENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: HEXACHLOROSTANE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: INDENO(1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: ISOPHORONE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: N-NITROSDIPHENYLAMINE	ND	0.01	ND	0.01	1.00	0.01	84%	0.01	ND	0.01
Compd: NAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: NITROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: PENTACHLOROPHENOL	ND	0.01	ND	0.01	1.00	0.01	57%	0.01	ND	0.01
Compd: PHENANTHRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Compd: PHENOL	ND	0.01	ND	0.01	1.00	0.01	56%	0.01	ND	0.01
Compd: PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01

Quality Control Summary Notes:

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Quality Control / Quality Assurance Summary

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: <i>James A. Colby</i> Manager: <i>Jackie Stewart</i> Facil ID:</p>	<p>Report #: 5198 Date: 06/13/94 Page #: 1</p>			
<p>Acct #: 0051 Client: ENVIRONMENTAL PROTECTION SYSTEMS - ENG. Address: 5360 I-55 NORTH City: JACKSON, MS 39211- Contact: SCHARINE KIRCHOFF Phone: 601/956-1400 Fax: 601/956-2365</p>	<p>Contract Descrip: VAN SLYKE-HATTIESBURG,MS ANALYSIS Project Location: VAN SLYKE-HTSBRG,MS Contract Number : 1.V7101.002 Contract PO: Expiration Date: 01/01/95</p>					
<p>Analyte</p>	<p>Method</p>	<p>Holding Time</p>	<p>Surrogate Recovery</p>	<p>Mtx spk Recovery</p>	<p>Blank</p>	<p>Batch Number</p>
<p>GC/MS FOR SEMIVOLATILE ORGANICS</p>	<p>SW846 METHOD 8270</p>	<p>A</p>	<p>A</p>	<p>A</p>	<p>A</p>	<p>6803</p>
<p>Note - Note Description</p> <p>A Requirements set by method were met.</p>						

Analytical Report

K EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 2

Lab #: 15359.00 Client Ref #: SB-1 004
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 08:30

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	Test	Date	Time	Note
			lyst	(---Test---)		Number	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	15:50 6803
SUIT: NITROBENZENE-d5		85% A					
SUIT: 2-FLUOROBIPHENYL		71% A					
SUIT: 2,4,6-TRIBROMOPHENOL		51% A					
Cmpd: 1,2,4-TRICHLOROBENZENE		ND					
Cmpd: 1,2-DICHLOROBENZENE		ND					
Cmpd: 1,3-DICHLOROBENZENE		ND					
Cmpd: 1,4-DICHLOROBENZENE		ND					
Cmpd: 2,3-DIMETHYLPHENOL		ND					
Cmpd: 2,4,5-TRICHLOROPHENOL		ND					
Cmpd: 2,4,6-TRICHLOROPHENOL		ND					
Cmpd: 2,4-DICHLOROPHENOL		ND					
Cmpd: 2,4-DINITROPHENOL		ND					
Cmpd: 2,4-DINITROTOLUENE		ND					
Cmpd: 2,6-DINITROTOLUENE		ND					
Cmpd: 2-CHLORONAPHTHALENE		ND					
Cmpd: 2-CHLOROPHENOL		ND					
Cmpd: 2-METHYLNAPHTHALENE		ND					
Cmpd: 2-METHYLPHENOL		ND					
Cmpd: 2-NITROANILINE		ND					
Cmpd: 2-NITROPHENOL		ND					
Cmpd: 3,3-DICHLOROBENZIDINE		ND					
Cmpd: 3-NITROANILINE		ND					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND					
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND					
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND					

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5198 Date: 06/13/94 Page #: 3
Lab #: 15359.00 Client Ref #: SB-1 004 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 08:30	Receipt Date: 05/26/94 sample Type: GRAB sample Matrix: SOIL

Analyte	Units	Amount	Limt of Hold Ana- Detect Time lyst	Prep Date	{---}Test{---} Date	Batch Time Number	Lab Note Analyst's Note
Compd: 4-CHLOROANILINE	ND	0.01					
Compd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01					
Compd: 4-METHYLPHENOL	ND	0.01					
Compd: 4-NITROANILINE	ND	0.01					
Compd: 4-NITROPHENOL	ND	0.01					
Compd: ACENAPHTHENE	ND	0.01					
Compd: ACENAPHTHYLENE	ND	0.01					
Compd: ANTHRACENE	ND	0.01					
Compd: BENZO(a)ANTHRACENE	ND	0.01					
Compd: BENZO(a)PYRENE	ND	0.01					
Compd: BENZO(b)FLUORANTHENE	ND	0.01					
Compd: BENZO(g,h,i)PERYLENE	ND	0.01					
Compd: BENZO(k)FLUORANTHENE	ND	0.01					
Compd: BENZOIC ACID	ND	0.01					
Compd: BENZYL ALCOHOL	ND	0.01					
Compd: bis(2-CHLOROETHOXY) METHANE	ND	0.01					
Compd: bis(2-CHLOROETHYL) ETHER	ND	0.01					
Compd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01					
Compd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01					
Compd: BUTYL BENZYL PHTHALATE	ND	0.01					
Compd: CHRYSENE	ND	0.01					
Compd: DI-N-BUTYLPHTHALATE	ND	0.01					
Compd: DI-N-OCTYL PHTHALATE	ND	0.01					
Compd: DIBENZ(a,h)ANTHRACENE	ND	0.01					
Compd: DIBENSOFURAN	ND	0.01					
Compd: DIETHYLPHTHALATE	ND	0.01					

Note---Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 4

Lab #: 15359.00 Client Ref #: SB-1 004
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 08:30

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
Ccpd: DIMETHYL PHTHALATE		ND	0.01					
Ccpd: FLOORANTHRENE		ND	0.01					
Ccpd: FLUORENE		ND	0.01					
Ccpd: HEXACHLOROBENZENE		ND	0.01					
Ccpd: HEXACHLOROBUTADIENE		ND	0.01					
Ccpd: HEXACHLOROCYCLOPENTADIENE		ND	0.01					
Ccpd: HEXACHLOROETHANE		ND	0.01					
Ccpd: INDENO(1,2,3-cd)PYRENE		ND	0.01					
Ccpd: ISOPHORONE		ND	0.01					
Ccpd: N-NITROSO-DI-N-PROPYLAMINE		ND	0.01					
Ccpd: N-NITROSODIPHENYLAMINE		ND	0.01					
Ccpd: NAPHTHALENE		ND	0.01					
Ccpd: NITROBENZENE		ND	0.01					
Ccpd: PENTACHLOROBENGL		ND	0.01					
Ccpd: PHENANTHRENE		ND	0.01					
Ccpd: PHENOL		ND	0.01					
Ccpd: PYRENE		ND	0.01					

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 5

Lab #: 15360.00 Client Ref #: SB-2 004

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 14:10

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Sample Description
 SOIL

Analyte	Units	Amount	Int of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab Note	Analytst's Note
GC/MS FOR SEMI-VOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	15:50	6803
SUFF: NITROBENZENE-d5		50% A						
SUFF: 2-FLUOROBIPHENYL		50% A						
SUFF: 2,4,6-TRIBROMOPHENOL		43% A						
Compd: 1,2,4-TRICHLOROBENZENE	ND	ND	0.01					
Compd: 1,2-DICHLOROBENZENE	ND	ND	0.01					
Compd: 1,3-DICHLOROBENZENE	ND	ND	0.01					
Compd: 1,4-DICHLOROBENZENE	ND	ND	0.01					
Compd: 2,3-DIMETHYLPHENOL	ND	ND	0.01					
Compd: 2,4,5-TRICHLOROPHENOL	ND	ND	0.01					
Compd: 2,4,6-TRICHLOROPHENOL	ND	ND	0.01					
Compd: 2,4-DICHLOROPHENOL	ND	ND	0.01					
Compd: 2,4-DINITROPHENOL	ND	ND	0.01					
Compd: 2,4-DINITROTOLUENE	ND	ND	0.01					
Compd: 2,6-DINITROTOLUENE	ND	ND	0.01					
Compd: 2-CHLORONAPHTHALENE	ND	ND	0.01					
Compd: 2-CHLOROPHENOL	ND	ND	0.01					
Compd: 2-METHYLNAPHTHALENE	449		0.01					
Compd: 2-METHYLPHENOL	ND	ND	0.01					
Compd: 2-NITROANILINE	ND	ND	0.01					
Compd: 2-NITROPHENOL	ND	ND	0.01					
Compd: 3,3-DICHLOROBENZIDINE	ND	ND	0.01					
Compd: 3-NITROANILINE	ND	ND	0.01					
Compd: 4,6-DINITRO-2-METHYLPHENOL	ND	ND	0.01					
Compd: 4-BROMOPHENYL PHENYL ETHER	ND	ND	0.01					
Compd: 4-CHLORO-3-METHYLPHENOL	ND	ND	0.01					

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5198 Date: 06/13/94 Page #: 6
Lab #: 15360.00 Client Ref #: SB-2 004 Sample Description SOIL	sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:10	Receipt Date: 05/26/94 sample Type: GRAB sample Matrix: SOIL

Analyte	Units	Amount	Detect	Time	Prep	Date	Test	Batch	Lab	Note	Analyst's Note
Cmpd: 4-CHLOROANILINE	ND	0.01									
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01									
Cmpd: 4-METHYLPHENOL	ND	0.01									
Cmpd: 4-NITROANILINE	ND	0.01									
Cmpd: 4-NITROPHENOL	ND	0.01									
Cmpd: ACENAPHTHENE	106	0.01									
Cmpd: ACENAPHTHYLENE	ND	0.01									
Cmpd: ANTHRACENE	3486	0.01									
Cmpd: BENZO(a)ANTHRACENE	ND	0.01									
Cmpd: BENZO(a)PYRENE	ND	0.01									
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01									
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01									
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01									
Cmpd: BENZOIC ACID	ND	0.01									
Cmpd: BENZYL ALCOHOL	ND	0.01									
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01									
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01									
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01									
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01									
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01									
Cmpd: CHRYSENE	ND	0.01									
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01									
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01									
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01									
Cmpd: DIBENSOFURAN	66.60	0.01									
Cmpd: DIETHYLPHTHALATE	ND	0.01									

Note: Note Description

Note: Note Description

ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5198 Date: 06/13/94 Page #: 7</p>
<p>Lab #: 15360.00 Client Ref #: SB-2 004</p>		<p>Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL</p>	
<p>Sample Description SOIL</p>			
<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:10</p>			

Analyte	Units	Amount	Lat of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01							
Cmpd: FLUORANTHENE	241	0.01							
Cmpd: FLUORENE	82.46	0.01							
Cmpd: HEXACHLOROBENZENE	ND	0.01							
Cmpd: HEXACHLOROBUTADIENE	ND	0.01							
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01							
Cmpd: HEXACHLOROTRIENE	ND	0.01							
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01							
Cmpd: ISOPHORONE	ND	0.01							
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01							
Cmpd: N-NITROSDIPENTYLAMINE	ND	0.01							
Cmpd: NAPHTHALENE	500	0.01							
Cmpd: NITROBENZENE	ND	0.01							
Cmpd: PENTACHLOROPHENOL	ND	0.01							
Cmpd: PHENANTHRENE	ND	0.01							
Cmpd: PHENOL	ND	0.01							
Cmpd: PYRENE	66.10	0.01							

Note Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 8

Lab #: 15361.00 Client Ref #: SB4-3 003
 Sample Description
 SOIL

sample collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 08:10

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lat of Held Ana-	Prep	Test	Batch	Lab
			Detect Time	lyet	Date	Time	Number
			TKW	05/28/94	06/08/94	15:50	6803
GC/MS FOR SEMIVOLATILE ORGANICS	Ppm	screen	screen A	TKW	05/28/94	06/08/94	15:50 6803
SUIT: NITROBENZENE-d5		934 A					
SUIT: 2-FLUOROBIPHENYL		934 A					
SUIT: 2,4,6-TRIBROMOPHENOL		934 A					
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01					
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01					
Cmpd: 2,3-DIMETHYLPHENOL	46.62	0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROTOLUENE	ND	0.01					
Cmpd: 2,6-DINITROTOLUENE	ND	0.01					
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01					
Cmpd: 2-CHLOROPHENOL	ND	0.01					
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01					
Cmpd: 2-METHYLPHENOL	6042	0.01					
Cmpd: 2-NITROANILINE	ND	0.01					
Cmpd: 2-NITROPHENOL	ND	0.01					
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01					
Cmpd: 3-NITROANILINE	ND	0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01					

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5198
Date: 06/13/94
Page #: 9

Lab #: 15361.00 **Client Ref #:** SB4-3 003
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 08:10
Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note	
			Detect Time	lyst	Date		Time	Number
Cmpd: 4-CHLORANILINE		ND				0.01	
Cmpd: 4-CHLOROPHENYL PHENYL ETHER		ND				0.01	
Cmpd: 4-METHYLPHENOL		ND				0.01	
Cmpd: 4-NITROANILINE		ND				0.01	
Cmpd: 4-NITROPHENOL		ND				0.01	
Cmpd: ACENAPHTHENE		1725				0.01	
Cmpd: ACENAPHTHYLENE		ND				0.01	
Cmpd: ANTHRACENE		10261				0.01	
Cmpd: BENZO(a)ANTHRACENE		41.96				0.01	
Cmpd: BENZO(a)PYRENE		ND				0.01	
Cmpd: BENZO(b)FLUORANTHENE		ND				0.01	
Cmpd: BENZO(g,h,i)PERYLENE		ND				0.01	
Cmpd: BENZO(k)FLUORANTHENE		ND				0.01	
Cmpd: BENZOIC ACID		ND				0.01	
Cmpd: BENEYL ALCOHOL		ND				0.01	
Cmpd: bis(2-CHLOROETHOXY) METHANE		ND				0.01	
Cmpd: bis(2-CHLOROETHYL) ETHER		ND				0.01	
Cmpd: bis(2-CHLOROISOPROPYL) ETHER		ND				0.01	
Cmpd: bis(2-ETHYLEXYL)PHTHALATE		ND				0.01	
Cmpd: BUTYL BENEYL PHTHALATE		ND				0.01	
Cmpd: CHRYSENE		37.30				0.01	
Cmpd: DI-N-BUTYLPHTHALATE		ND				0.01	
Cmpd: DI-N-OCTYL PHTHALATE		ND				0.01	
Cmpd: DIBENS(a,h)ANTHRACENE		ND				0.01	
Cmpd: DIMESOPURAN		1315				0.01	
Cmpd: DIETHYLPHTHALATE		ND				0.01	

Note Description

Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 10

Lab #: 15361.00 Client Ref #: SB4-3 003
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 08:10

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Detect Time	Prep Date	Test Date	Batch Time	Lab Number	Note Analyst's Note
Cmpd: DIMETHYL PHTHALATE		ND	0.01					
Cmpd: FLUORANTHRENE		6326	0.01					
Cmpd: FLUORENE		2494	0.01					
Cmpd: HEXACHLOROBENZENE		ND	0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND	0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND	0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND	0.01					
Cmpd: INDENO(1,2,3-cd)PYRENE		ND	0.01					
Cmpd: ISOPHORONE		ND	0.01					
Cmpd: N-NITROSO-DI-N-PROPYLAMINE		ND	0.01					
Cmpd: N-NITROSO-DIPHTHALAMINE		ND	0.01					
Cmpd: NAPHTHALENE		4615	0.01					
Cmpd: NITROBENZENE		ND	0.01					
Cmpd: PENTACHLOROPHENOL		ND	0.01					
Cmpd: PHENANTHRENE		ND	0.01					
Cmpd: PHENOL		119	0.01					
Cmpd: PYRENE		4466	0.01					

Note: Note Description
 ND NOT DETECTED

Analytical Report

Report #: 5198
Date: 06/13/94
Page #: 11

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 Fax

EPS Analytical Services, Inc.
5360 I-55 North
Jackson, MS 39211

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 14:35

Lab #: 15362.00 Client Ref #: SB10 004
Sample Description
SOIL

Analyte	Units	Amount	Lat of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS			screen A	TKW	05/28/94	06/08/94	15:50	6803
SUFF: NITROBENZENE-d5	Ppm	screen	90% A					
SUFF: 2-FLUOROBIPHENYL			87% A					
SUFF: 2,4,6-TRIBROMOPHENOL			83% A					
Capd: 1,2,4-TRICHLOROBENZENE		ND	0.01					
Capd: 1,2-DICHLOROBENZENE		ND	0.01					
Capd: 1,3-DICHLOROBENZENE		ND	0.01					
Capd: 1,4-DICHLOROBENZENE		ND	0.01					
Capd: 2,3-DIMETHYLPHENOL		ND	0.01					
Capd: 2,4,5-TRICHLOROPHENOL		ND	0.01					
Capd: 2,4,6-TRICHLOROPHENOL		ND	0.01					
Capd: 2,4-DICHLOROPHENOL		ND	0.01					
Capd: 2,4-DINITROPHENOL		ND	0.01					
Capd: 2,4-DINITROTOLUENE		ND	0.01					
Capd: 2,6-DINITROTOLUENE		ND	0.01					
Capd: 2-CHLORONAPHTHALENE		ND	0.01					
Capd: 2-CHLOROPHENOL		ND	0.01					
Capd: 2-METHYLNAPHTHALENE		2506	0.01					
Capd: 2-METHYLPHENOL		ND	0.01					
Capd: 2-NITROANILINE		ND	0.01					
Capd: 2-NITROPHENOL		ND	0.01					
Capd: 3,3-DICHLOROBENZIDINE		ND	0.01					
Capd: 3-NITROANILINE		ND	0.01					
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01					
Capd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01					
Capd: 4-CHLORO-3-METHYLPHENOL		ND	0.01					

Note: Note Description ND NOT DETECTED

A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 fax

Report #: 5198
Date: 06/13/94
Page #: 12

Lab #: 15362.00 **Client Ref #:** SB10 004
Sample Description
SOIL

sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 14:35

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Time	Date	Batch	Lab	Note
			Detect	Time	Test	Number	Number	Number	Analyst's
			Time	l	Time	Number	Number	Number	Note
Cmpd: 4-CHLORANILINE	ND	0.01							
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01							
Cmpd: 4-METHYLPHENOL	ND	0.01							
Cmpd: 4-NITROANILINE	ND	0.01							
Cmpd: 4-NITROPHENOL	ND	0.01							
Cmpd: ACENAPHTHENE	857	0.01							
Cmpd: ACENAPHTHYLENE	ND	0.01							
Cmpd: ANTHRACENE	40722	0.01							
Cmpd: BENZO(a)ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)PYRENE	ND	0.01							
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01							
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01							
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01							
Cmpd: BENZOIC ACID	ND	0.01							
Cmpd: BENZYL ALCOHOL	ND	0.01							
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01							
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01							
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01							
Cmpd: bis(2-ETHYLEXYL)PHTHALATE	ND	0.01							
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01							
Cmpd: CHRYSENE	76.34	0.01							
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01							
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01							
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01							
Cmpd: DIBENZOFURAN	ND	0.01							
Cmpd: DIETHYLPHTHALATE	ND	0.01							

Note: ~~Note Description~~ ~~Note Description~~
ND ~~NOT DETECTED~~

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 13

Lab #: 15362.00 Client Ref #: SB10 004
 Sample Description
 SOIL

sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 14:35
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
Capd: DIMETHYL PHTHALATE	ND		0.01					
Capd: FLUORANTHENE	9139		0.01					
Capd: FLUORENE	674		0.01					
Capd: HEXACHLOROBENZENE	ND		0.01					
Capd: HEXACHLOROBUTADIENE	ND		0.01					
Capd: HEXACHLOROCYCLOPENTADIENE	ND		0.01					
Capd: HEXACHLOROETHANE	ND		0.01					
Capd: INDENO(1,2,3-cd)PYRENE	ND		0.01					
Capd: ISOPHORONE	ND		0.01					
Capd: N-NITROSO-DI-N-PROPYLAMINE	ND		0.01					
Capd: N-NITROSDIPHENYLAMINE	ND		0.01					
Capd: NAPHTHALENE	10830		0.01					
Capd: NITROBENZENE	ND		0.01					
Capd: PENTACHLOROPHENOL	ND		0.01					
Capd: PHENANTHRENE	818		0.01					
Capd: PHENOL	ND		0.01					
Capd: PYRENE	3751		0.01					

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

Report #: 5198
 Date: 06/13/94
 Page #: 14

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Lab #: 15363.00 Client Ref #: SB4-3 002
 Sample Description
 SOIL

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 08:00

Analyte	Units	Amount	Int of Hold Ana-	Prep	{---Test---	Batch	Lab
			Detect Time	lyst	Date	Time	Note
						Number	Analyst's Note

GC/MS FOR SEMIVOLATILE ORGANICS		screen	TXW	05/28/94	06/08/94	15:50	6803
Suff: NITROBENZENE-d5	ppm	864 A					
Suff: 2-FLUOROBIPHENYL		864 A					
Suff: 2,4,6-TRIBROMOPHENOL		784 A					
Capd: 1,2,4-TRICHLOROBENZENE	ND	0.01					
Capd: 1,2-DICHLOROBENZENE	ND	0.01					
Capd: 1,3-DICHLOROBENZENE	ND	0.01					
Capd: 1,4-DICHLOROBENZENE	ND	0.01					
Capd: 2,3-DIMETHYLPHENOL	ND	0.01					
Capd: 2,4,5-TRICHLOROPHENOL	ND	0.01					
Capd: 2,4,6-TRICHLOROPHENOL	ND	0.01					
Capd: 2,4-DICHLOROPHENOL	ND	0.01					
Capd: 2,4-DINITROPHENOL	ND	0.01					
Capd: 2,4-DINITROTOLUENE	ND	0.01					
Capd: 2,6-DINITROTOLUENE	ND	0.01					
Capd: 2-CELORONAPHTHALENE	ND	0.01					
Capd: 2-CELOROPHENOL	ND	0.01					
Capd: 2-METHYLNAPHTHALENE	1475	0.01					
Capd: 2-METHYLPHENOL	ND	0.01					
Capd: 2-NITROANILINE	ND	0.01					
Capd: 2-NITROPHENOL	ND	0.01					
Capd: 3,3-DICHLOROBENZIDINE	ND	0.01					
Capd: 3-NITROANILINE	ND	0.01					
Capd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01					
Capd: 4-BROMOPHENYL PHTHYL ETHER	ND	0.01					
Capd: 4-CHLORO-3-METHYLPHENOL	ND	0.01					

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 15

Lab #: 15363.00 Client Ref #: SB4-3 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 08:00

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lat of Hold Ana-	Prep	Date	Test	Batch	Lab	Note
			Detect Time	lyst	Date	Time	Number		Analyst's Note
Capt: 4-CHLOROANILINE	ND	0.01							
Capt: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01							
Capt: 4-METHYLPHENOL	ND	0.01							
Capt: 4-NITROANILINE	ND	0.01							
Capt: 4-NITROPHENOL	ND	0.01							
Capt: ACENAPHTHENE	2541	0.01							
Capt: ACENAPHTHYLENE	ND	0.01							
Capt: ANTHRACENE	327549	0.01							
Capt: BENZO(a)ANTHRACENE	ND	0.01							
Capt: BENZO(a)PYRENE	573	0.01							
Capt: BENZO(b)FLUORANTHENE	ND	0.01							
Capt: BENZO(g,h,i)PERYLENE	ND	0.01							
Capt: BENZO(k)FLUORANTHENE	1066	0.01							
Capt: BENZOIC ACID	ND	0.01							
Capt: BENZYL ALCOHOL	ND	0.01							
Capt: bis(2-CHLOROETHOXY) METHANE	ND	0.01							
Capt: bis(2-CHLOROETHYL) ETHER	ND	0.01							
Capt: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01							
Capt: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01							
Capt: BUTYL BENZYL PHTHALATE	ND	0.01							
Capt: CHRYSENE	4344	0.01							
Capt: DI-N-BUTYLPHTHALATE	ND	0.01							
Capt: DI-N-OCTYL PHTHALATE	ND	0.01							
Capt: DIBENS(a,h)ANTHRACENE	ND	0.01							
Capt: DIBENZOPIRAN	2459	0.01							
Capt: DIETHYLPHTHALATE	ND	0.01							

Note: Note Description

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5198
P 5360 I-55 North 601/956-0513 Fax Date: 06/13/94
S Jackson, MS 39211 Facil ID: Page #: 16

Lab #: 15363.00 Client Ref #: SB4-3 002 Receipt Date: 05/26/94
 Sample Description Sample Type: GRAB
 SOIL Sample Matrix: SOIL

Analyte	Units	Amount	Prep (---Test---) Batch			Lab
			Detect Time	Date	Time Number		Note
Capd: DIMETHYL PHTHALATE	ND	0.01				
Capd: FLUORANTHENE	97625	0.01				
Capd: FLUORENE	8524	0.01				
Capd: HEXACHLOROBENZENE	ND	0.01				
Capd: HEXACHLOROBUTADIENE	ND	0.01				
Capd: HEXACHLOROCYCLOPENTADIENE	ND	0.01				
Capd: HEXACHLOROSTHENE	ND	0.01				
Capd: INDENO(1,2,3-cd)PYRENE	ND	0.01				
Capd: ISOPHORONE	ND	0.01				
Capd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01				
Capd: N-NITROSODIPHENYLAMINE	ND	0.01				
Capd: NAPHTHALENE	195742	0.01				
Capd: NITROBENZENE	ND	0.01				
Capd: PENTACHLOROPHENOL	ND	0.01				
Capd: PHENANTHERENE	ND	0.01				
Capd: PHEWOL	ND	0.01				
Capd: PYRENE	105084	0.01				

~~Note~~ ~~Note Description~~ ~~Note~~ ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5198
P 5360 I-55 North 601/956-0513 Fax Date: 06/13/94
S Jackson, MS 39211 Facil ID:

Lab #: 15364.00 Client Ref #: SB4-3 004 Receipt Date: 05/26/94
 Sample Description Sample Type: GRAB
 SOIL Sample Matrix: SOIL

Analyte	Units	Amount	screen	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab	Note
	ppm			Detect Time	l yst	Date	Time	Number		Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS										
SURF: NITROBENZENE-d5		78% A				05/28/94	06/08/94	15:50	6803	
SURF: 2-FLUOROBIPHENYL		83% A								
SURF: 2,4,6-TRIBROMOPHENOL		83% A								
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01							
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01							
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01							
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01							
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01							
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01							
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01							
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01							
Cmpd: 2,4-DINITROPHENOL		ND	0.01							
Cmpd: 2,4-DINITROTOLUENE		ND	0.01							
Cmpd: 2,6-DINITROTOLUENE		ND	0.01							
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01							
Cmpd: 2-CHLOROPHENOL		ND	0.01							
Cmpd: 2-METHYLNAPHTHALENE		ND	0.01							
Cmpd: 2-METHYLPHENOL		ND	0.01							
Cmpd: 2-NITROANILINE		ND	0.01							
Cmpd: 2-NITROPHENOL		ND	0.01							
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01							
Cmpd: 3-NITROANILINE		ND	0.01							
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01							
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01							
Cmpd: 4-CELORO-3-METHYLPHENOL		ND	0.01							

Note Note Description Note Description
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 18

Lab #: 15364.00 Client Ref #: SB4-3 004
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 08:30
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-			Batch	Lab
			Prep	Date	Note		
Cmpd: 4-CHLOROANILINE	ND	0.01					
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-METHYLPHENOL	ND	0.01					
Cmpd: 4-NITROANILINE	ND	0.01					
Cmpd: 4-NITROPHENOL	ND	0.01					
Cmpd: ACENAPHTHENE	48.88	0.01					
Cmpd: ACENAPHTHYLENE	ND	0.01					
Cmpd: ANTHRACENE	2346	0.01					
Cmpd: BENZO(a)ANTHRACENE	ND	0.01					
Cmpd: BENZO(a)PYRENE	ND	0.01					
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01					
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01					
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01					
Cmpd: BENZOIC ACID	ND	0.01					
Cmpd: BENZYL ALCOHOL	ND	0.01					
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01					
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01					
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01					
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01					
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01					
Cmpd: CHRYSENE	ND	0.01					
Cmpd: DI-n-BUTYL PHTHALATE	ND	0.01					
Cmpd: DI-n-OCTYL PHTHALATE	ND	0.01					
Cmpd: DIENSI(a,h)ANTHRACENE	ND	0.01					
Cmpd: DIBENZOFORAN	ND	0.01					
Cmpd: DIETHYL PHTHALATE	ND	0.01					

Note: Note Description

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5198 Date: 06/13/94 Page #: 19
Lab #: 15364.00 Sample Description SOIL	Client Ref #: SB4-3 004	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/25/94 Coll. Ending Time: 08:30	Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-	Prep	Batch	Lab	
			Detect Time	l yst	Date	Time Number	
						Note	
						Analyst's Note	
Cmpd: DIMETHYL PHTHALATE		ND					
Cmpd: FLUORANTHENE		311					
Cmpd: FLUORENE		62.21					
Cmpd: HEXACHLOROBENZENE		ND					
Cmpd: HEXACHLOROBUTADIENE		ND					
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND					
Cmpd: HEXACHLOROTHANE		ND					
Cmpd: INDENO(1,2,3-cd)PYRENE		ND					
Cmpd: ISOPHORONE		ND					
Cmpd: N-NITROSO-DI-N-PROPYLAMINE		ND					
Cmpd: N-NITROSODIPENTYLAMINE		ND					
Cmpd: NAPHTHALENE		2675					
Cmpd: NITROBENZENE		ND					
Cmpd: PENTACHLOROPHENOL		ND					
Cmpd: PHENANTHRENE		ND					
Cmpd: PHENOL		124					
Cmpd: PYRENE		71.10					

ND	NOT DETECTED	Note	Description

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5198
Date: 06/13/94
Page #: 20

Lab #: 15365.00 **Client Ref #:** SB5 004
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 17:30

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Limt of Hold Ana- Detect time lyst	Prep	Date	Time	Batch	Lab	Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	PPM	screen								
Surr: NITROBENZENE-d5		86% A								
Surr: 2-FLUOROBIPHENYL		80% A								
Surr: 2,4,6-TRIBROMOPHENOL		72% A								
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01							
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01							
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01							
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01							
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01							
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01							
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01							
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01							
Cmpd: 2,4-DINITROPHENOL		ND	0.01							
Cmpd: 2,4-DINITROTOLUENE		ND	0.01							
Cmpd: 2,6-DINITROTOLUENE		ND	0.01							
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01							
Cmpd: 2-CHLOROPHENOL		ND	0.01							
Cmpd: 2-METHYLNAPHTHALENE		ND	0.01							
Cmpd: 2-METHYLPHENOL		ND	0.01							
Cmpd: 2-NITROANILINE		ND	0.01							
Cmpd: 2-NITROPHENOL		ND	0.01							
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01							
Cmpd: 3-NITROANILINE		ND	0.01							
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01							
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01							
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND	0.01							

Note Requirements set by method were met. **Note** Description ND **Note** Description NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 21

Lab #: 15365.00 Client Ref #: SB5 004
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 17:30

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab	Note
			Detect Time	lyst	Date	Time	Number	Analyst's
								Note
Capt: 4-CHLOROANILINE	ND	0.01						
Capt: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Capt: 4-METHYLPHENOL	ND	0.01						
Capt: 4-NITROANILINE	ND	0.01						
Capt: 4-NITROPHENOL	ND	0.01						
Capt: ACENAPHTHENE	ND	0.01						
Capt: ACENAPHTHYLENE	ND	0.01						
Capt: ANTHRACENE	ND	0.01						
Capt: BENZO(a)ANTHRACENE	ND	0.01						
Capt: BENZO(a)PYRENE	ND	0.01						
Capt: BENZO(b)FLUORANTHENE	ND	0.01						
Capt: BENZO(g,h,i)PERYLENE	ND	0.01						
Capt: BENZO(k)FLUORANTHENE	ND	0.01						
Capt: BENZOIC ACID	ND	0.01						
Capt: BENZYL ALCOHOL	ND	0.01						
Capt: bis(2-CHLOROPHOXY) METHANE	ND	0.01						
Capt: bis(2-CHLOROPHYL) ETHER	ND	0.01						
Capt: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Capt: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01						
Capt: BUTYL BENZYL PHTHALATE	ND	0.01						
Capt: CHRYSENE	ND	0.01						
Capt: DI-N-BUTYLPHTHALATE	ND	0.01						
Capt: DI-N-OCTYL PHTHALATE	ND	0.01						
Capt: DIBENS(e,h)ANTHRACENE	ND	0.01						
Capt: DIBENOFURAN	ND	0.01						
Capt: DIETHYLPHTHALATE	ND	0.01						

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
F 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 22

Lab #: 15365.00 Client Ref #: SB5 004
 Sample Description
 SOIL

Sample collected by: S KIRCHOFF
 coll. Ending Date: 05/24/94
 coll. Ending Time: 17:30
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
Capd: DIMETHYL PHTHALATE	ND	0.01						
Capd: FLUORANTHENE	ND	0.01						
Capd: FLUORENE	ND	0.01						
Capd: HEXACHLOROBENZENE	ND	0.01						
Capd: HEXACHLOROBUTADIENE	ND	0.01						
Capd: HEXACHLOROCYCLOPENTADIENE	ND	0.01						
Capd: HEXACHLOROETHANE	ND	0.01						
Capd: INDENO(1,2,3-cd)PYRENE	ND	0.01						
Capd: ISOPHORONE	ND	0.01						
Capd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01						
Capd: N-NITROSODIPHENYLAMINE	ND	0.01						
Capd: NAPHTHALENE	ND	0.01						
Capd: NITROBENZENE	ND	0.01						
Capd: PENTACHLOROPHENOL	ND	0.01						
Capd: PHENANTHRENE	ND	0.01						
Capd: PHENOL	ND	0.01						
Capd: PYRENE	ND	0.01						

Note: Note Description
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. 601/956-1400 Office QA/QC: COLEMAN, J Report #: 5198
P 5360 I-55 North 601/956-0513 Fax Manager: JOHNSTON, H Date: 06/13/94
S Jackson, MS 39211 Facil ID: Page #: 23

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS Preparation Date: 05/28/94 Batch Number: 6803
Units: ppm Test Began Date & Time: 06/02/94 @ 08:00 Book/Page: 4/32
Analyst: TENNIE WHITE Test Ended Date & Time: 06/08/94 @ 15:50

Screen Compound Amount/Limit of Detection:	{---Sample---		{---Replicate---		{---Matrix Spike---		{---Mix & Recovery---		{---Blank---	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Log Number:	15349		15349		15349		15349			
Sample Matrix:	SOIL		SOIL		SOIL		SOIL		BLANK	
Sample Type:	GRAB		GRAB		GRAB		GRAB		SOIL	
									GRAB	
SURT: NITROBENZENE-d5	96%		79%		0.500		76%		98%	
SURT: 2-FLUOROPHENYL	70%		85%		0.500		69%		73%	
SURT: 2,4,6-TRIBROMOPHENOL	83%		66%		0.500		91%		65%	
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01	ND	0.01	1.00		57%		ND	0.01
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01	ND	0.01	1.00		74%		ND	0.01
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01	ND	0.01	1.00		91%		ND	0.01
Cmpd: 2,4-DINITROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4-DINITROTOLUENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,6-DINITROTOLUENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-CELORONAPHTHALENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-CELOROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-METHYLPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-NITROANILINE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-NITROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01	ND	0.01	1.00		60%		ND	0.01
Cmpd: 3-NITROANILINE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 3-NITROANILINE	ND	0.01	ND	0.01	0		0%		ND	0.01

Note: Note Description Note Description
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 Facil ID:

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Report #: 5198
 Date: 06/13/94
 Page #: 24

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
 Units: ppm
 Analyst: TENNIE WHITE

Preparation Date: 05/28/94
 Test Began Date & Time: 06/02/94 @ 08:00
 Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803
 Book/Page: 4/32

	Sample		Replicate		Matrix Spike		Mix & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Capt: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: 4-CHLORO-3-METHYLPHENOL	ND	0.01	ND	0.01	1.00	0.01	80%	0.01	ND	0.01
Capt: 4-CHLOROANILINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: 4-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: 4-NITROANILINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: 4-NITROPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: ACENAPHTHENE	ND	0.01	ND	0.01	1.00	0.01	79%	0.01	ND	0.01
Capt: ACENAPHTHYLENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: BENZO(a)PYRENE	ND	0.01	ND	0.01	1.00	0.01	68%	0.01	ND	0.01
Capt: BENZO(b)FLUORANTHRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: BENZO(g,h,i)PERYLENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: BENZO(k)FLUORANTHRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: BENZOIC ACID	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: BENZYL ALCOHOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: bis(2-CHLOROETHOXY) METHANE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: bis(2-CHLOROETHYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: BUTYL BENZYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: CHRYSENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: DI-N-BUTYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capt: DI-N-OCTYL PHTHALATE	ND	0.01	ND	0.01	1.00	0.01	78%	0.01	ND	0.01

Note: Note Description
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 Facil ID:

Report #: 5198
 Date: 06/13/94
 Page #: 25

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Units: ppm

Analyst: TENNIE WHITE

Preparation Date: 05/28/94

Test Began Date & Time: 06/02/94 @ 08:00

Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803

Book/Page: 4/32

	Sample		Replicate		Matrix Spike		Atx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Compd: DIBENZ(a,h)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: DIBENZOPIRAN	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: DIETHYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: FLUORANTHENE	ND	0.01	ND	0.01	1.00	0.01	84%	ND	ND	0.01
Compd: FLUORENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: HEXACHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: HEXACHLOROBUTADIENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: HEXACHLOROCYCLOPENTADIENE	ND	0.01	ND	0.01	1.00	0.01	80%	ND	ND	0.01
Compd: HEXACHLOROETHANE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: INDENO(1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: ISOPHORONE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: N-NITROSODIPHENTYLAMINE	ND	0.01	ND	0.01	1.00	0.01	84%	ND	ND	0.01
Compd: NAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: NITROBENZENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: PENTACHLOROPHENOL	ND	0.01	ND	0.01	1.00	0.01	57%	ND	ND	0.01
Compd: PHENANTHRENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: PHENOL	ND	0.01	ND	0.01	1.00	0.01	56%	ND	ND	0.01
Compd: PYRENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01

Quality Control Summary Notes:

Note: Note Description
 A Requirements set by method were met. ND NOT DETECTED

Quality Control / Quality Assurance Summary

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC:
 Manager:
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 1

Acct #: 0051
 Client: ENVIRONMENTAL PROTECTION SYSTEMS - ENG.
 Address: 5360 I-55 NORTH
 City: JACKSON, MS 39211-
 Contact: SCHARINE KIRCHOFF
 Phone: 601/956-1400 Fax: 601/956-2365

Contract Descrip: VAN SLYKE-HATTIESBURG, MS ANALYSIS
 Project Location: VAN SLYKE-HTSBRG, MS
 Contract Number : 1.V7101.002
 Contract PO:
 Expiration Date: 01/01/95

Analyte	Method	Holding Time	Surrogate Recovery	Mtx Spk Recovery	Blank	Batch Number
GC/MS FOR SEMIVOLATILE ORGANICS	SW846 METHOD 8270	A	A	A	A	6803
GC/MS FOR SEMIVOLATILE ORGANICS	SW846 METHOD 8270	A	A	A	A	6842

Note: Note Description

A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 2

Lab #: 15366.00 **Client Ref #:** SB9 001
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 13:30

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab	Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	15:50	6803		
Surr: NITROBENZENE-d5		95% A								
Surr: 2-FLUOROBIPHENYL		95% A								
Surr: 2,4,6-TRIBROMOPHENOL		95% A								
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01							
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01							
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01							
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01							
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01							
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01							
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01							
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01							
Cmpd: 2,4-DINITROPHENOL		ND	0.01							
Cmpd: 2,4-DINITROTOLUENE		ND	0.01							
Cmpd: 2,6-DINITROTOLUENE		ND	0.01							
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01							
Cmpd: 2-CHLOROPHENOL		ND	0.01							
Cmpd: 2-METHYLNAPHTHALENE		ND	0.01							
Cmpd: 2-METHYLPHENOL		ND	0.01							
Cmpd: 2-NITROANILINE		ND	0.01							
Cmpd: 2-NITROPHENOL		ND	0.01							
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01							
Cmpd: 3-NITROANILINE		ND	0.01							
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01							
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01							
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND	0.01							

Note—Note Description
 ND NOT DETECTED

A Requirements set by method were met.

Analytical Report

Report #: 5199
Date: 06/14/94
Page #: 3

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 Fax

EPS Analytical Services, Inc.
5360 I-55 North
Jackson, MS 39211

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 13:30

Lab #: 15366.00 Client Ref #: SB9 001
Sample Description
SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Test	Batch	Lab	Note
			Detect Time	Time	Time	Time	Number		Analyst's Note
Cmpd: 4-CHLOROANILINE	ND	0.01							
Cmpd: 4-CHLOROPENTYL PHENYL ETHER	ND	0.01							
Cmpd: 4-METHYLPHENOL	ND	0.01							
Cmpd: 4-NITROANILINE	ND	0.01							
Cmpd: 4-NITROPHENOL	ND	0.01							
Cmpd: ACENAPHTHENE	15136	0.01							
Cmpd: ACENAPHTHYLENE	ND	0.01							
Cmpd: ANTHRACENE	478712	0.01							
Cmpd: BENZO(a)ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)PYRENE	ND	0.01							
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01							
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01							
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01							
Cmpd: BENZOIC ACID	ND	0.01							
Cmpd: BENZYL ALCOHOL	ND	0.01							
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01							
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01							
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01							
Cmpd: bis(2-ETHYLETHYL)PHTHALATE	ND	0.01							
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01							
Cmpd: CHRYSENE	ND	0.01							
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01							
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01							
Cmpd: DIBENZO(a,h)ANTHRACENE	ND	0.01							
Cmpd: DIBENZO(FURAN)	ND	0.01							
Cmpd: DIETHYLPHTHALATE	ND	0.01							

Note: Note Description
ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 4

Lab #: 15366.00 Client Ref #: SB9 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 13:30

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-			Prep	Batch	Lab
			Detect	Time	l yst				Date	Time	Number	Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01						
Cmpd: FLUORANTHENE	167509	0.01						
Cmpd: FLUORENE	13420	0.01						
Cmpd: HEXACHLOROBENZENE	ND	0.01						
Cmpd: HEXACHLOROBUTADIENE	ND	0.01						
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01						
Cmpd: HEXACHLOROTHANE	ND	0.01						
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01						
Cmpd: ISOPHORONE	ND	0.01						
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01						
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01						
Cmpd: NAPHTHALENE	ND	0.01						
Cmpd: NITROBENZENE	ND	0.01						
Cmpd: PENTACHLOROPHENOL	ND	0.01						
Cmpd: PHENANTHRENE	ND	0.01						
Cmpd: PHENOL	ND	0.01						
Cmpd: PYRENE	53986	0.01						

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 Facil ID:

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Report #: 5199
 Date: 06/14/94
 Page #: 5

Lab #: 15367.00 Client Ref #: SB10 003
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 14:15
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	screen	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab	Note
				Detect Time	lyst	Date	Time	Number		Analyt's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm			screen A	TKW	05/28/94	06/08/94	15:50	6803	
Suff: NITROBENZENE-d5		90% A								
Suff: 2-FLUOROBIPHENYL		81% A								
Suff: 2,4,6-TRIBROMOPHENOL		90% A								
Capt: 1,2,4-TRICHLOROBENZENE		ND	0.01							
Capt: 1,2-DICHLOROBENZENE		ND	0.01							
Capt: 1,3-DICHLOROBENZENE		ND	0.01							
Capt: 1,4-DICHLOROBENZENE		ND	0.01							
Capt: 2,3-DIMETHYLPHENOL		ND	0.01							
Capt: 2,4,5-TRICHLOROPHENOL		ND	0.01							
Capt: 2,4,6-TRICHLOROPHENOL		ND	0.01							
Capt: 2,4-DICHLOROPHENOL		ND	0.01							
Capt: 2,4-DINITROPHENOL		ND	0.01							
Capt: 2,4-DINITROTOLUENE		ND	0.01							
Capt: 2,6-DINITROTOLUENE		ND	0.01							
Capt: 2-CHLORONAPHTHALENE		ND	0.01							
Capt: 2-CHLOROPHENOL		ND	0.01							
Capt: 2-METHYLNAPHTHALENE		ND	0.01							
Capt: 2-METHYLPHENOL		ND	0.01							
Capt: 2-NITROANILINE		ND	0.01							
Capt: 2-NITROPHENOL		ND	0.01							
Capt: 3,3-DICHLOROBENZIDINE		ND	0.01							
Capt: 3-NITROANILINE		ND	0.01							
Capt: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01							
Capt: 4-BROMOPHENYL PHENYL ETHER		ND	0.01							
Capt: 4-CHLORO-3-METHYLPHENOL		ND	0.01							

Note: Note Description
 A Requirements set by method were met.

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 6

Lab #: 15367.00 **Client Ref #:** SB10 003
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 14:15

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lat of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note
			Detect Time	l yst Date	Date		Time Number
Cmpd: 4-CHLORANILINE	ND	0.01				
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01				
Cmpd: 4-METHYLPHENOL	ND	0.01				
Cmpd: 4-NITROANILINE	ND	0.01				
Cmpd: 4-NITROPHENOL	ND	0.01				
Cmpd: ACENAPHTHENE	ND	0.01				
Cmpd: ACENAPHTHYLENE	ND	0.01				
Cmpd: ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)PYRENE	ND	0.01				
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01				
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01				
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01				
Cmpd: BENZOIC ACID	ND	0.01				
Cmpd: BENZYL ALCOHOL	ND	0.01				
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01				
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01				
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01				
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01				
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01				
Cmpd: CHRYSENE	ND	0.01				
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01				
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01				
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01				
Cmpd: DIBENZOPIRAN	ND	0.01				
Cmpd: DISTYLPHTHALATE	ND	0.01				

Note---Note Description
 ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5199 Date: 06/14/94 Page #: 7</p>
<p>Lab #: 15367.00 Client Ref #: SB10 003</p> <p>sample Description SOIL</p>	<p>sample collected by: S KIRCHOFF Coll. Ending Date: 05/25/94 Coll. Ending Time: 14:15</p>	<p>Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL</p>

Analyte	Unite	Amount	Lmt of Held Ana-	Prep	Date	Date	Time	Batch	Lab	Note	Analyt's Note
			Detect	Time	lyst	Test	---	---			
Cmpd: DIMETHYL PHTHALATE	ND		0.01								
Cmpd: FLUORANTHENE	ND		0.01								
Cmpd: FLUORENE	ND		0.01								
Cmpd: HEXACHLOROBENZENE	ND		0.01								
Cmpd: HEXACHLOROBUTADIENE	ND		0.01								
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND		0.01								
Cmpd: HEXACHLOROETHANE	ND		0.01								
Cmpd: INDENO(1,2,3-cd)PYRENE	ND		0.01								
Cmpd: ISOPHORONE	ND		0.01								
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND		0.01								
Cmpd: N-NITROSODIPENTYLAMINE	ND		0.01								
Cmpd: NAPHTHALENE	ND		0.01								
Cmpd: NITROBENZENE	ND		0.01								
Cmpd: PENTACHLOROPHENOL	ND		0.01								
Cmpd: PERMANENTHENE	ND		0.01								
Cmpd: PHEWOL	ND		0.01								
Cmpd: PYRENE	ND		0.01								

Note	Note Description
ND	NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 8

Lab #: 15368.00 Client Ref #: SB8 001 Receipt Date: 05/26/94
 Sample Description Sample Type: GRAB
 SOIL Sample Matrix: SOIL

Analyte	Units	Amount	Lim of Hold Ans- Detect Time lyst	Prep Date	Test Date	Batch Time	Number	Lab Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS									
Surr: NITROBENZENE-d5	PFM	screen	screen A	TKW	05/28/94	06/08/94	15:50	6803	
Surr: 2-FLUOROBIPHENYL		60% A							
Surr: 2,4,6-TRIBROMOPHENOL		53% A							
Surr: 1,2,4-TRICHLOROBENZENE		49% A							
Compd: 1,2-DICHLOROBENZENE		ND						0.01	
Compd: 1,3-DICHLOROBENZENE		ND						0.01	
Compd: 1,4-DICHLOROBENZENE		ND						0.01	
Compd: 2,3-DIMETHYLPHENOL		ND						0.01	
Compd: 2,4,5-TRICHLOROPHENOL		ND						0.01	
Compd: 2,4,6-TRICHLOROPHENOL		ND						0.01	
Compd: 2,4-DICHLOROPHENOL		ND						0.01	
Compd: 2,4-DINITROPHENOL		ND						0.01	
Compd: 2,4-DINITROTOLUENE		ND						0.01	
Compd: 2,6-DINITROTOLUENE		ND						0.01	
Compd: 2-CHLORONAPHTHALENE		ND						0.01	
Compd: 3-CHLOROPHENOL		ND						0.01	
Compd: 2-METHYLNAPHTHALENE		ND						0.01	
Compd: 2-METHYLPHENOL		ND						0.01	
Compd: 2-NITROANILINE		ND						0.01	
Compd: 2-NITROPHENOL		ND						0.01	
Compd: 3,3-DICHLOROBENZIDINE		ND						0.01	
Compd: 3-NITROANILINE		ND						0.01	
Compd: 4,6-DINITRO-2-METHYLPHENOL		ND						0.01	
Compd: 4-BROMOPHENYL PHENYL ETHER		ND						0.01	
Compd: 4-CHLORO-3-METHYLPHENOL		ND						0.01	

Note: Note Description Note Description
 A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 9

Lab #: 15368.00 Client Ref #: SB8 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 13:15

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep l yst	Date	Date	Time	Batch Number	Lab	Note	Analyst's Note
Cmpd: 4-CHLORANILINE	ND	0.01									
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01									
Cmpd: 4-METHYLPHENOL	ND	0.01									
Cmpd: 4-NITROANILINE	ND	0.01									
Cmpd: 4-NITROPHENOL	ND	0.01									
Cmpd: ACENAPHTHENE	ND	0.01									
Cmpd: ACENAPHTHYLENE	ND	0.01									
Cmpd: ANTHRACENE	ND	0.01									
Cmpd: BENZO(a)ANTHRACENE	ND	0.01									
Cmpd: BENZO(a)PYRENE	ND	0.01									
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01									
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01									
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01									
Cmpd: BENZOIC ACID	ND	0.01									
Cmpd: BENZYL ALCOHOL	ND	0.01									
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01									
Cmpd: bis(2-CHLOROTHYL) ETHER	ND	0.01									
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01									
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01									
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01									
Cmpd: CHRYSENE	ND	0.01									
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01									
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01									
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01									
Cmpd: DIBENZOFURAN	ND	0.01									
Cmpd: DIETHYLPHTHALATE	ND	0.01									

ND NOT DETECTED

Note: Note Description

Note: Note Description

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 10
Lab #: 15368.00 Client Ref #: SB8 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/25/94 Coll. Ending Time: 13:15	Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note
			Detect Time	l yst	Date		Time	Number
Cmpd: DIMETHYL PHTHALATE	ND	0.01				
Cmpd: FLUORANTHENE	ND	0.01				
Cmpd: FLUORENE	ND	0.01				
Cmpd: HEXACHLOROBENZENE	ND	0.01				
Cmpd: HEXACHLOROBUTADIENE	ND	0.01				
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01				
Cmpd: HEXACHLOROTHANE	ND	0.01				
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01				
Cmpd: ISOPHORONE	ND	0.01				
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01				
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01				
Cmpd: NAPHTHALENE	ND	0.01				
Cmpd: NITROBENZENE	ND	0.01				
Cmpd: PENTACHLOROPHENOL	ND	0.01				
Cmpd: PHENANTHRENE	17819	0.01				
Cmpd: PHENOL	ND	0.01				
Cmpd: PYRENE	17659	0.01				

Note---Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
 601/956-0513 Fax

Report #: 5199
Date: 06/14/94
Page #: 11

Lab #: 15369.00 **Client Ref #:** SB10 001
Sample Description
SOIL

Sample collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 13:50

Receipt Date: 05/26/94
sample Type: GRAB
sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	Test	Time	Number	Note Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	08:00 6842
SUIT: NITROBENZENE-d5		92± A					
SUIT: 2-FLUOROBIPHENYL		91± A					
SUIT: 2,4,6-TRIBROMOPHENOL		50± A					
Compd: 1,2,4-TRICHLOROBENZENE		ND					
Compd: 1,2-DICHLOROBENZENE		0.01					
Compd: 1,3-DICHLOROBENZENE		ND					
Compd: 1,4-DICHLOROBENZENE		0.01					
Compd: 2,3-DIMETHYLPHENOL		ND					
Compd: 2,4,5-TRICHLOROPHENOL		0.01					
Compd: 2,4,6-TRICHLOROPHENOL		0.01					
Compd: 2,4-DICHLOROPHENOL		0.01					
Compd: 2,4-DINITROPHENOL		0.01					
Compd: 2,4-DINITROTOLUENE		0.01					
Compd: 2,6-DINITROTOLUENE		0.01					
Compd: 2-CHLORONAPHTHALENE		0.01					
Compd: 2-CHLOROPHENOL		0.01					
Compd: 2-METHYLNAPHTHALENE		0.01					
Compd: 2-METHYLPHENOL		0.01					
Compd: 2-NITROANILINE		0.01					
Compd: 2-NITROPHENOL		0.01					
Compd: 3,3-DICHLOROBENZIDINE		0.01					
Compd: 3-NITROANILINE		0.01					
Compd: 4,6-DINITRO-2-METHYLPHENOL		0.01					
Compd: 4-BROMOPHENYL PHENYL ETHER		0.01					
Compd: 4-CHLORO-3-METHYLPHENOL		0.01					

Note: Note Description

A Requirements set by method were met.

ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5199 Date: 06/14/94 Page #: 12</p>
<p>Lab #: 15369.00 Client Ref #: SB10 001</p>	<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/25/94 Coll. Ending Time: 13:50</p>	
<p>Sample Description SOIL</p>		
<p>Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL</p>		

Analyte	Units	Amount	Last of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note
			Detect Time	lyst	Date		Time	Number
Cpds: 4-CHLORANILINE	ND	0.01				
Cpds: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01				
Cpds: 4-METHYLPHENOL	ND	0.01				
Cpds: 4-NITROANILINE	ND	0.01				
Cpds: 4-NITROPHENOL	ND	0.01				
Cpds: ACENAPHTHENE	962	0.01				
Cpds: ACENAPHTHYLENE	ND	0.01				
Cpds: ANTHRACENE	10499	0.01				
Cpds: BENZO(a)ANTHRACENE	ND	0.01				
Cpds: BENZO(a)PYRENE	ND	0.01				
Cpds: BENZO(b)FLUORANTHENE	ND	0.01				
Cpds: BENZO(g,h,i)PERYLENE	ND	0.01				
Cpds: BENZO(k)FLUORANTHENE	ND	0.01				
Cpds: BENZOIC ACID	ND	0.01				
Cpds: BENZYL ALCOHOL	ND	0.01				
Cpds: bis(2-CHLOROETHOXY) METHANE	ND	0.01				
Cpds: bis(2-CHLOROETHYL) ETHER	ND	0.01				
Cpds: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01				
Cpds: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01				
Cpds: BUTYL BENZYL PHTHALATE	ND	0.01				
Cpds: CHRYSENE	ND	0.01				
Cpds: DI-N-BUTYL PHTHALATE	ND	0.01				
Cpds: DI-N-OCTYL PHTHALATE	ND	0.01				
Cpds: DIBENZ(a,b)ANTHRACENE	ND	0.01				
Cpds: DIBENZOFURAN	ND	0.01				
Cpds: DIETHYL PHTHALATE	ND	0.01				

Note: Note Description

Note: Note Description

ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5199 Date: 06/14/94 Page #: 13</p>
<p>Lab #: 15369.00 Client Ref #: SB10 001 Sample Description SOIL</p>		<p>sample collected by: S KIRCHOFF Coll. Ending Date: 05/25/94 Coll. Ending Time: 13:50</p>	
<p>Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL</p>			

Analyte	Units	Amount	Lmt of Hold Ana- Prep			Batch	Lab
			Detect	Time	Test		
Cmpd: DIMETHYL PHTHALATE	ND	0.01					
Cmpd: FLUORANTHENE	5034	0.01					
Cmpd: FLUORENE	772	0.01					
Cmpd: HEXACHLOROBENZENE	ND	0.01					
Cmpd: HEXACHLOROBUTADIENE	ND	0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01					
Cmpd: HEXACHLOROETHANE	ND	0.01					
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01					
Cmpd: ISOPHORONE	ND	0.01					
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01					
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01					
Cmpd: NAPHTHALENE	4607	0.01					
Cmpd: NITROBENZENE	ND	0.01					
Cmpd: PENTACHLOROPHENOL	ND	0.01					
Cmpd: PHELANTERENE	ND	0.01					
Cmpd: PHENOL	ND	0.01					
Cmpd: PYRENE	2752	0.01					

~~Note~~ ~~Note Description~~ ~~Note~~ ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 14
Lab #: 15370.00 Client Ref #: SB10 002 Sample Description SOIL	sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:05	Receipt Date: 05/26/94 sample Type: GRAB sample Matrix: SOIL

Analyte	Units	Amount	Detect Time	l yst	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS										
Surr: NITROBENZENE-d5		screen								
Surr: 2-FLUOROBIPHENYL		78% A								
Surr: 2,4,6-TRIBROMOPHENOL		59% A								
Surr: 1,2,4-TRICHLOROBENZENE		56% A								
Cmpd: 1,2,4-TRICHLOROBENZENE		ND								
Cmpd: 1,2-DICHLOROBENZENE		0.01								
Cmpd: 1,3-DICHLOROBENZENE		ND								
Cmpd: 1,4-DICHLOROBENZENE		0.01								
Cmpd: 2,3-DIMETHYLPHENOL		ND								
Cmpd: 2,4,5-TRICHLOROPHENOL		0.01								
Cmpd: 2,4,6-TRICHLOROPHENOL		ND								
Cmpd: 2,4-DICHLOROPHENOL		0.01								
Cmpd: 2,4-DINITROPHENOL		ND								
Cmpd: 2,4-DINITROTOLUENE		ND								
Cmpd: 2,6-DINITROTOLUENE		ND								
Cmpd: 2-CHLORONAPHTHALENE		ND								
Cmpd: 2-CHLOROPHENOL		ND								
Cmpd: 2-METHYLNAPHTHALENE		ND								
Cmpd: 2-METHYLPHENOL		ND								
Cmpd: 2-NITROANILINE		ND								
Cmpd: 2-NITROPHENOL		ND								
Cmpd: 3,3-DICHLOROBENZIDINE		ND								
Cmpd: 3-NITROANILINE		ND								
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND								
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND								
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND								

Note—Note Description
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 15

Lab #: 15370.00 Client Ref #: SB10 002 Receipt Date: 05/26/94
 Sample Description Sample Collected by: S KIRCHOFF Sample Type: GRAB
 SOIL Coll. Ending Date: 05/24/94 Sample Matrix: SOIL
 Coll. Ending Time: 14:05

Analyte	Units	Amount	Lst of Hold Ana- Prep (---Test---) Batch Lab		
			Detect Time	lyst Date	Time Number
Cmpd: 4-CHLOROANILINE	ND	0.01			
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01			
Cmpd: 4-METHYLPHENOL	ND	0.01			
Cmpd: 4-NITROANILINE	ND	0.01			
Cmpd: 4-NITROPHENOL	ND	0.01			
Cmpd: ACENAPHTHENE	ND	0.01			
Cmpd: ACENAPHTHYLENE	ND	0.01			
Cmpd: ANTHRACENE	ND	0.01			
Cmpd: BENZO(a)ANTHRACENE	ND	0.01			
Cmpd: BENZO(a)PYRENE	ND	0.01			
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01			
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01			
Cmpd: BENZO(k)FLUORANTHENE	43.48	0.01			
Cmpd: BENZOIC ACID	ND	0.01			
Cmpd: BENZYL ALCOHOL	ND	0.01			
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01			
Cmpd: bis(2-CHLOROBUTYL) ETHER	ND	0.01			
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01			
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01			
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01			
Cmpd: CHRISENE	ND	0.01			
Cmpd: DI-n-BUTYLPHTHALATE	ND	0.01			
Cmpd: DI-n-OCTYL PHTHALATE	ND	0.01			
Cmpd: DIBENS(a,h)ANTHRACENE	ND	0.01			
Cmpd: DIBENZO-FURAN	ND	0.01			
Cmpd: DIETHYLPHTHALATE	ND	0.01			

ND NOT DETECTED Note---Note Description

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 16
Lab #: 15370.00 Client Ref #: SB10 002 Sample Description SOIL		Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:05 Receipt Date: 05/26/94 sample Type: GRAB sample Matrix: SOIL	

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	lyet	Date	Time	Note
							Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01					
Cmpd: FLUORANTHENE	ND	0.01					
Cmpd: FLUORENE	ND	0.01					
Cmpd: HEXACHLOROBENZENE	ND	0.01					
Cmpd: HEXACHLOROBUTADIENE	ND	0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01					
Cmpd: HEXACHLOROETHANE	ND	0.01					
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01					
Cmpd: ISOPHORONE	ND	0.01					
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01					
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01					
Cmpd: NAPHTHALENE	ND	0.01					
Cmpd: NITROBENZENE	ND	0.01					
Cmpd: PENTACHLOROPHENOL	ND	0.01					
Cmpd: PERMANENTHERENE	ND	0.01					
Cmpd: PHENOL	ND	0.01					
Cmpd: PYRENE	ND	0.01					

Note	Description
ND	NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office QA/QC: COLEMAN, J Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Manager: JOHNSTON, H Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 17

Lab #: 15371.00 **Client Ref #:** SB3 004 **Receipt Date:** 05/26/94
Sample Description **Sample Collected by:** S KIRCHOFF **Sample Type:** GRAB
SOIL **Coll. Ending Date:** 05/24/94 **Sample Matrix:** SOIL
 Coll. Ending Time: 14:50

Analyte	Units	Amount	Detect Time	Prep Date	Test Date	Batch	Lab
GC/MS FOR SEMI-VOLATILE ORGANICS							
Surr: NITROBENZENE-d5	ppm	screen	TKW	05/28/94	06/08/94	08:00	6842
Surr: 2-FLUOROBIPHENYL		55% A					
Surr: 2,4,6-TRIBROMOPHENOL		62% A					
Surr: 1,2,4-TRICHLOROBENZENE		76% A					
Cmpd: 1,2-DICHLOROBENZENE		ND					
Cmpd: 1,3-DICHLOROBENZENE		0.01					
Cmpd: 1,4-DICHLOROBENZENE		ND					
Cmpd: 2,3-DIMETHYLPHENOL		0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL		0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL		0.01					
Cmpd: 2,4-DICHLOROPHENOL		0.01					
Cmpd: 2,4-DINITROPHENOL		0.01					
Cmpd: 2,4-DINITROTOLUENE		0.01					
Cmpd: 2,6-DINITROTOLUENE		0.01					
Cmpd: 2-CHLORONAPHTHALENE		0.01					
Cmpd: 2-CHLOROPHENOL		0.01					
Cmpd: 2-METHYLNAPHTHALENE		0.01					
Cmpd: 2-METHYLPHENOL		0.01					
Cmpd: 2-NITROANILINE		0.01					
Cmpd: 2-NITROPHENOL		0.01					
Cmpd: 3,3-DICHLOROBENZIDINE		0.01					
Cmpd: 3-NITROANILINE		0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER		0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL		0.01					

Note: Note Description Note Note Description
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 18
Lab #: 15371.00 Client Ref #: SB3 004 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:50 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL		

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab	Note
			Detect	Time	lyet	Date	Number		Analyt's Note
Cmpd: 4-CHLOROANILINE	ND	0.01							
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01							
Cmpd: 4-METHYLPHENOL	ND	0.01							
Cmpd: 4-NITROANILINE	ND	0.01							
Cmpd: 4-NITROPHENOL	ND	0.01							
Cmpd: ACENAPHTHENE	ND	0.01							
Cmpd: ACENAPHTHYLENE	ND	0.01							
Cmpd: ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)PYRENE	ND	0.01							
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01							
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01							
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01							
Cmpd: BENZOIC ACID	ND	0.01							
Cmpd: BENZYL ALCOHOL	ND	0.01							
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01							
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01							
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01							
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01							
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01							
Cmpd: CHRYSENE	ND	0.01							
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01							
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01							
Cmpd: DIBENS(a,b)ANTHRACENE	ND	0.01							
Cmpd: DIBENZOFURAN	ND	0.01							
Cmpd: DIETHYL PHTHALATE	ND	0.01							

Note: ND NOT DETECTED
 Note: Note Description

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 19
Lab #: 15371.00 Client Ref #: SB3 004 Sample Description SOIL	Sample Collected by: S KIRCHOFF coll. Ending Date: 05/24/94 coll. Ending Time: 14:50 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL		

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Date	Time	Batch	Lab	Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01									
Cmpd: FLUORANTHENE	ND	0.01									
Cmpd: FLUORENE	ND	0.01									
Cmpd: HEXACHLOROBENZENE	ND	0.01									
Cmpd: HEXACHLOROBUTADIENE	ND	0.01									
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01									
Cmpd: HEXACHLOROETHANE	ND	0.01									
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01									
Cmpd: ISOPHORONE	ND	0.01									
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01									
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01									
Cmpd: NAPHTHALENE	ND	0.01									
Cmpd: NITROBENZENE	ND	0.01									
Cmpd: PENTACHLOROPHENOL	ND	0.01									
Cmpd: PHENANTHRENE	ND	0.01									
Cmpd: PHENOL	ND	0.01									
Cmpd: PYRENE	ND	0.01									

ND	NOT DETECTED
-----------	---------------------

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 20
Lab #: 15372.00 Client Ref #: SB3 002 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:50	Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab
			screen A	TKW	05/28/94	06/08/94	08:00	6842
GC/MS FOR SEMIVOLATILE ORGANICS								
Surr: NITROBENZENE-d5	ppm	screen	64% A					
Surr: 2-FLUOROBIPHENYL			90% A					
Surr: 2,4,6-TRIBROMOPHENOL			90% A					
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01					
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01					
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01					
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01					
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01					
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01					
Cmpd: 2,4-DINITROPHENOL		ND	0.01					
Cmpd: 2,4-DINITROTOLUENE		ND	0.01					
Cmpd: 2,6-DINITROTOLUENE		ND	0.01					
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01					
Cmpd: 2-CHLOROPHENOL		ND	0.01					
Cmpd: 2-METHYLNAPHTHALENE		ND	0.01					
Cmpd: 2-METHYLPHENOL		ND	0.01					
Cmpd: 2-NITROANILINE		ND	0.01					
Cmpd: 2-NITROPHENOL		ND	0.01					
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01					
Cmpd: 3-NITROANILINE		ND	0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01					
Cmpd: 4-CELORO-3-METHYLPHENOL		ND	0.01					

Note Note Description
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 21

Lab #: 15372.00 **Client Ref #:** SB3 002
Sample Description
 SOIL

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 14:50

Analyte	Units	Amount	Lmt of Hold Ans-	Prep	Date	Batch	Lab	Note	Analyst's Note
			Detect Time	l yst	Date	(---Test---)	Number		
Cmpd: 4-CHLORANILINE	ND	0.01							
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01							
Cmpd: 4-METHYLPHENOL	ND	0.01							
Cmpd: 4-NITROANILINE	ND	0.01							
Cmpd: 4-NITROPHENOL	ND	0.01							
Cmpd: ACENAPHTHENE	ND	0.01							
Cmpd: ACENAPHTHYLENE	ND	0.01							
Cmpd: ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)PYRENE	ND	0.01							
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01							
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01							
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01							
Cmpd: BENZOIC ACID	ND	0.01							
Cmpd: BENZYL ALCOHOL	ND	0.01							
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01							
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01							
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01							
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01							
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01							
Cmpd: CERYSENE	ND	0.01							
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01							
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01							
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01							
Cmpd: DIBENZOFURAN	ND	0.01							
Cmpd: DIETHYLPHTHALATE	ND	0.01							

Note---Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 22

Lab #: 15372.00 **Client Ref #:** SB3 002
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 14:50

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note
			Detect	Time	Date	
Cmpd: DIMETHYL PHTHALATE		ND	0.01			
Cmpd: FLUORANTHENE		ND	0.01			
Cmpd: FLUORENE		ND	0.01			
Cmpd: HEXACHLOROBENZENE		ND	0.01			
Cmpd: HEXACHLOROBUTADIENE		ND	0.01			
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND	0.01			
Cmpd: HEXACHLOROTHAENE		ND	0.01			
Cmpd: INDENO(1,2,3-cd)PYRENE		ND	0.01			
Cmpd: ISOPHORONE		ND	0.01			
Cmpd: N-NITROSO-DI-N-PROPYLAMINE		ND	0.01			
Cmpd: N-NITROSODIPENTYLAMINE		ND	0.01			
Cmpd: NAPHTHALENE		1390	0.01			
Cmpd: NITROBENZENE		ND	0.01			
Cmpd: PENTACHLOROPHENOL		ND	0.01			
Cmpd: PHENANTHRENE		31.12	0.01			
Cmpd: PHENOL		ND	0.01			
Cmpd: PYRENE		ND	0.01			

Note---Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 23
Lab #: 15373.00 Client Ref #: SB5 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 17:00	Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Lim of Hold Ana-	Prep	Date	Batch	Lab	Note
			Detect Time	lstat	Date	Number		Analyst's
GC/MS FOR SEMIVOLATILE ORGANICS								
SUFF: NITROBENZENE-d5	ppze	screen	screen A	TKW	05/28/94	06/08/94	08:00	6842
SUFF: 2-FLUOROBIPHENYL		78% A						
SUFF: 2,4,6-TRIBROMOPHENOL		60% A						
Cmpd: 1,2,4-TRICHLOROBEZENE		81% A						
Cmpd: 1,2-DICHLOROBEZENE		ND						
Cmpd: 1,3-DICHLOROBEZENE		ND						
Cmpd: 1,4-DICHLOROBEZENE		ND						
Cmpd: 2,3-DIMETHYLPHENOL		ND						
Cmpd: 2,4,5-TRICHLOROPHENOL		ND						
Cmpd: 2,4,6-TRICHLOROPHENOL		ND						
Cmpd: 2,4-DICHLOROPHENOL		ND						
Cmpd: 2,4-DINITROPHENOL		ND						
Cmpd: 2,4-DINITROTOLUENE		ND						
Cmpd: 2,6-DINITROTOLUENE		ND						
Cmpd: 2-CHLORONAPHTHALENE		ND						
Cmpd: 2-CHLOROPHENOL		ND						
Cmpd: 2-METHYLNAPHTHALENE		ND						
Cmpd: 2-METHYLPHENOL		ND						
Cmpd: 2-NITROANILINE		ND						
Cmpd: 2-NITROPHENOL		ND						
Cmpd: 3,3-DICHLOROBENZIMINE		ND						
Cmpd: 3-NITROANILINE		ND						
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND						
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND						
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND						

Note Requirements set by method were met.

Note Note Description

A ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 24

Lab #: 15373.00 **Client Ref #:** SB5 001
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 17:00

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Batch Time	Lab Number	Note	Analyst's Note
Capd: 4-CHLORANILINE	ND		0.01					
Capd: 4-CHLOROPHENYL PHENYL ETHER	ND		0.01					
Capd: 4-METHYLPHENOL	ND		0.01					
Capd: 4-NITROANILINE	ND		0.01					
Capd: 4-NITROPHENOL	ND		0.01					
Capd: ACENAPHTHENE	27.84		0.01					
Capd: ACENAPHTHYLENE	ND		0.01					
Capd: ANTHRACENE	196894		0.01					
Capd: BENZO(a)ANTHRACENE	ND		0.01					
Capd: BENZO(a)PYRENE	ND		0.01					
Capd: BENZO(b)FLUORANTHENE	ND		0.01					
Capd: BENZO(g,h,i)PERYLENE	ND		0.01					
Capd: BENZO(k)FLUORANTHENE	ND		0.01					
Capd: BENZOIC ACID	ND		0.01					
Capd: BENZYL ALCOHOL	ND		0.01					
Capd: bis(2-CHLOROETHOXY) METHANE	ND		0.01					
Capd: bis(2-CHLOROETHYL) ETHER	ND		0.01					
Capd: bis(2-CHLOROISOPROPYL) ETHER	ND		0.01					
Capd: bis(2-ETHYLHEXYL)PHTHALATE	ND		0.01					
Capd: BUTYL BENZYL PHTHALATE	ND		0.01					
Capd: CHRYSENE	ND		0.01					
Capd: DI-N-BUTYLPHTHALATE	ND		0.01					
Capd: DI-N-OCTYL PHTHALATE	ND		0.01					
Capd: DIBENZ(a,h)ANTHRACENE	ND		0.01					
Capd: DIBENZOFURAN	ND		0.01					
Capd: DIETHYLPHTHALATE	ND		0.01					

Note: ~~Note Description~~ **Note Description**
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

Report #: 5199
 Date: 06/14/94
 Page #: 25

Lab #: 15373.00 Client Ref #: SB5 001
 Sample Description
 SOIL

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 17:00

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time lyst	Date	Date	Time Number	Note Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01					
Cmpd: FLUORANTHENE	368	0.01					
Cmpd: FLUORENE	47.49	0.01					
Cmpd: HEXACHLOROBENZENE	ND	0.01					
Cmpd: HEXACHLOROBUTADIENE	ND	0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01					
Cmpd: HEXACHLOROTERANE	ND	0.01					
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01					
Cmpd: ISOPHORONE	ND	0.01					
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01					
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01					
Cmpd: NAPHTHALENE	ND	0.01					
Cmpd: NITROBENZENE	ND	0.01					
Cmpd: PESTACHLOROPHENOL	ND	0.01					
Cmpd: PHENANTHRENE	ND	0.01					
Cmpd: PHENOL	ND	0.01					
Cmpd: PYRENE	ND	0.01					

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 26

Lab #: 15374.00 **Client Ref #:** SB3 003
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 15:05

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-	Prep	Date	Test	Batch	Lab	Note
			Time	lyst	Date	Time	Number		Analyst's
									Note

GC/MS FOR SEMIVOLATILE ORGANICS screen A TRW 05/28/94 06/08/94 08:00 6842

SURT: NITROBENZENE-d5	ppm	screen							
SURT: 2-FLUOROBIPHENYL		566 A							
SURT: 2,4,6-TRIBROMOPHENOL		466 A							
Cmpd: 3,2,4-TRICHLOROBENZENE		556 A							
Cmpd: 1,2-DICHLOROBENZENE	ND								
Cmpd: 1,3-DICHLOROBENZENE	ND								
Cmpd: 1,4-DICHLOROBENZENE	ND								
Cmpd: 2,3-DIMETHYLPHENOL	ND								
Cmpd: 2,4,5-TRICHLOROPHENOL	ND								
Cmpd: 2,4,6-TRICHLOROPHENOL	ND								
Cmpd: 2,4-DICHLOROPHENOL	ND								
Cmpd: 2,4-DINITROPHENOL	ND								
Cmpd: 2,4-DINITROTOLUENE	ND								
Cmpd: 2,6-DINITROTOLUENE	ND								
Cmpd: 2-CHLORONAPHTHALENE	ND								
Cmpd: 2-CHLOROPHENOL	ND								
Cmpd: 2-METHYLNAPHTHALENE	ND								
Cmpd: 2-METHYLPHENOL	ND								
Cmpd: 2-NITROANILINE	ND								
Cmpd: 2-NITROPHENOL	ND								
Cmpd: 3,3-DICHLOROBENZIDINE	ND								
Cmpd: 3-NITROANILINE	ND								
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND								
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND								
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND								

Note---Note Description

A Requirements set by method were met.

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:
Lab #: 15374.00 Client Ref #: SB3 003		Report #: 5199 Date: 06/14/94 Page #: 27

Sample Description SOIL	Receipt Date: 05/26/94 Sample Type: GRAB sample Matrix: SOIL
----------------------------	--

Analyte	Units	Amount	Lmt of Hold Ans- Prep			Batch	Lab
			Detect Time	lyst	Date		
Cmpd: 4-CHLORANILINE	ND	0.01					
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-METHYLPHENOL	ND	0.01					
Cmpd: 4-NITROANILINE	ND	0.01					
Cmpd: 4-NITROPHENOL	ND	0.01					
Cmpd: ACENAPHTHENE	ND	0.01					
Cmpd: ACENAPHTHYLENE	ND	0.01					
Cmpd: ANTHRACENE	ND	0.01					
Cmpd: BENZO(a)ANTHRACENE	ND	0.01					
Cmpd: BENZO(a)PYRENE	ND	0.01					
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01					
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01					
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01					
Cmpd: BENZOIC ACID	ND	0.01					
Cmpd: BENZYL ALCOHOL	ND	0.01					
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01					
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01					
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01					
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01					
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01					
Cmpd: CHRISENE	ND	0.01					
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01					
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01					
Cmpd: DIMENS(a,b)ANTHRACENE	ND	0.01					
Cmpd: DIMENOFURAN	ND	0.01					
Cmpd: DIETHYLPHTHALATE	ND	0.01					

Note: ND NOT DETECTED	Note: Note Description
-----------------------	------------------------

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 28

Lab #: 15374.00 Client Ref #: SB3 003
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 15:05

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab	Time	Number	Note	Analyst's	Note	
													Detect
Cmpd: DIMETHYL PHTHALATE		ND											
Cmpd: FLUORANTHENE		ND											
Cmpd: FLUORENE		ND											
Cmpd: HEXACHLOROBENZENE		ND											
Cmpd: HEXACHLOROBUTADIENE		ND											
Cmpd: HEXACHLOROCYCLOPENTADIENE		ND											
Cmpd: HEXACHLOROETHANE		ND											
Cmpd: INDERO(1,2,3-cd)PYRENE		ND											
Cmpd: ISOPHORONE		ND											
Cmpd: N-NITROSO-DI-N-PROPYLAMINE		ND											
Cmpd: N-NITROSDIPHENYLAMINE		ND											
Cmpd: NAPHTHALENE		ND											
Cmpd: NITROBENZENE		ND											
Cmpd: PENTACHLOROPHENOL		ND											
Cmpd: PHEMANTHRENE		ND											
Cmpd: PHEROL		ND											
Cmpd: PYRENE		ND											

Note—Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 29

Lab #: 15375.00 Client Ref #: SB4 001

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 15:50

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Sample Description
 SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	lyst	Date	Time	Note
						Number	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	PPM	screen	screen A	TRW	05/28/94	06/08/94 08:00	6842
Surr: NITROBENZENE-d5		598 A					
Surr: 2-FLUOROBIPHENYL		648 A					
Surr: 2,4,6-TRIBROMOPHENOL		598 A					
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01				
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01				
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01				
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01				
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01				
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01				
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01				
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01				
Cmpd: 2,4-DINITROPHENOL		ND	0.01				
Cmpd: 2,4-DINITROTOLUENE		ND	0.01				
Cmpd: 2,6-DINITROTOLUENE		ND	0.01				
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01				
Cmpd: 2-CHLOROPHENOL		ND	0.01				
Cmpd: 2-METHYLNAPHTHALENE		21778	0.01				
Cmpd: 2-METHYLPHENOL		ND	0.01				
Cmpd: 2-NITROANILINE		ND	0.01				
Cmpd: 2-NITROPHENOL		ND	0.01				
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01				
Cmpd: 3-NITROANILINE		ND	0.01				
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01				
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01				
Cmpd: 4-CELORO-3-METHYLPHENOL		ND	0.01				

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 30

Lab #: 15375.00 Client Ref #: SB4 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 15:50

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-			Batch	Lab								
			Detect	Time	lyst			Prep	Date	Time	Number	Note	Analyst's	Note	
Cmpd: 4-CHLORANILINE		ND					0.01								
Cmpd: 4-CHLOROPHENYL PHENYL ETHER		ND					0.01								
Cmpd: 4-METHYLPHENOL		ND					0.01								
Cmpd: 4-NITROANILINE		ND					0.01								
Cmpd: 4-NITROPHENOL		ND					0.01								
Cmpd: ACENAPHTHENE		4396					0.01								
Cmpd: ACENAPHTHYLENE		ND					0.01								
Cmpd: ANTHRACENE		284781					0.01								
Cmpd: BENZO(a)ANTHRACENE		ND					0.01								
Cmpd: BENZO(a)PYRENE		ND					0.01								
Cmpd: BENZO(b)FLUORANTHENE		ND					0.01								
Cmpd: BENZO(g,h,i)PERYLENE		ND					0.01								
Cmpd: BENZO(k)FLUORANTHENE		ND					0.01								
Cmpd: BENZOIC ACID		ND					0.01								
Cmpd: BENZYL ALCOHOL		ND					0.01								
Cmpd: bis(2-CHLOROETHOXY) METHANE		ND					0.01								
Cmpd: bis(2-CHLOROETHYL) ETHER		ND					0.01								
Cmpd: bis(2-CHLOROISOPROPYL) ETHER		ND					0.01								
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE		ND					0.01								
Cmpd: BUTYL BENZYL PHTHALATE		ND					0.01								
Cmpd: CHRYSENE		ND					0.01								
Cmpd: DI-N-BUTYL PHTHALATE		ND					0.01								
Cmpd: DI-N-OCTYL PHTHALATE		ND					0.01								
Cmpd: DIBENZ(a,h)ANTHRACENE		ND					0.01								
Cmpd: DIBENZOFURAN		ND					0.01								
Cmpd: DIETHYL PHTHALATE		ND					0.01								

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 31

Lab #: 15375.00 **Client Ref #:** SB4 001
Sample Description:
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 15:50
Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Date	Batch	Time	Number	Lab	Note	Analyst's Note
Capd: DIMETHYL PHTHALATE	ND		0.01								
Capd: FLUORANTHENE	33566		0.01								
Capd: FLORENE	4529		0.01								
Capd: HEXACHLOROBENZENE	ND		0.01								
Capd: HEXACHLOROBUTADIENE	ND		0.01								
Capd: HEXACHLOROCYCLOPENTADIENE	ND		0.01								
Capd: HEXACHLOROETHANE	ND		0.01								
Capd: INDENO(1,2,3-cd)PYRENE	ND		0.01								
Capd: ISOPHORONE	ND		0.01								
Capd: N-NITROSO-DI-N-PROPYLAMINE	ND		0.01								
Capd: N-NITROSODIPHENYLAMINE	ND		0.01								
Capd: NAPHTHALENE	250882		0.01								
Capd: NITROBENZENE	ND		0.01								
Capd: PENTACHLOROPHENOL	ND		0.01								
Capd: PHENANTHRENE	3998		0.01								
Capd: PHENOL	ND		0.01								
Capd: PYRENE	ND		0.01								

Note: Note Description
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 32

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Preparation Date: 05/28/94
Test Began Date & Time: 06/02/94 @ 08:00
Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803
Book/Page: 4/32

Log Number:	{---Sample---		{---Replicate---		{---Matrix Spike---		{---Mtx & Recovery---		{---Blank---	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
15349	SOIL	15349	SOIL	15349	SOIL	15349	SOIL	15349	SOIL	BLANK
964	GRAB	794	GRAB	0.500	GRAB	764	GRAB	694	GRAB	SOIL
704		854		0.500		694		734		SOIL
834		664		0.500		914		654		GRAB
Surr: NITROBENZENE-d5	ND	0.01	ND	0.01	0	04	ND	04	ND	ND
Surr: 2-FLUOROBIPHENYL	ND	0.01	ND	0.01	0	04	ND	04	ND	ND
Surr: 2,4,6-TRIBROMOPHENOL	ND	0.01	ND	0.01	0	04	ND	04	ND	ND
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01	ND	0.01	1.00	574	ND	04	ND	0.01
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01	ND	0.01	1.00	744	ND	04	ND	0.01
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01	ND	0.01	1.00	914	ND	04	ND	0.01
Cmpd: 2,4-DINITROPHENOL	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2,4-DINITROTOLENE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2,6-DINITROTOLENE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2-CHLOROPHENOL	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2-METHYLPHENOL	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2-NITROANILINE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 2-NITROPHENOL	ND	0.01	ND	0.01	1.00	604	ND	04	ND	0.01
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01
Cmpd: 3-NITROANILINE	ND	0.01	ND	0.01	0	04	ND	04	ND	0.01

Note: Note Description

ND NOT DETECTED

Quality Control / Quality Assurance Report

601/956-1400 Office
601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 33

E MPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Preparation Date: 05/28/94
Test Began Date & Time: 06/02/94 @ 08:00
Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803
Book/Page: 4/32

Units: ppm

Analyst: TENNIE WHITE

	Sample		Replicate		Matrix Spike		Mtx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01	ND	0.01	1.00	0.01	80%	0.01	ND	0.01
Cmpd: 4-CHLORANILINE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: 4-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: 4-NITROANILINE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: 4-NITROPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: ACENAPHTHENE	ND	0.01	ND	0.01	1.00	0.01	79%	0.01	ND	0.01
Cmpd: ACENAPHTYLENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: BENZO(a)PYRENE	ND	0.01	ND	0.01	1.00	0.01	58%	0.01	ND	0.01
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: BENZOIC ACID	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: BENZYL ALCOHOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: bis(2-ETHYLENYL)PHTHALATE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: CHRYSENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
	ND	0.01	ND	0.01	1.00	0.01	78%	0.01	ND	0.01

Note: Note Description

ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 34

QA/QC: COLEMAN, J Batch Number: 6803
Manager: JOHNSTON, H Book/Page: 4/32
Facil ID:

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS Preparation Date: 05/28/94
Units: ppm Test Began Date & Time: 06/02/94 @ 08:00
Analyst: TENNIE WHITE Test Ended Date & Time: 06/08/94 @ 15:50

	Sample		Replicate		Matrix Spike		Mix & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Capt: DIBENZ(a,h)ANTHRACENE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: DIBENZOFLURAN	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: DIETHYLPHTHALATE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: FLUORANTHENE	ND	0.01	ND	0.01	1.00		84		ND	0.01
Capt: FLUORENE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: HEXACHLOROBENZENE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: HEXACHLOROBUTADIENE	ND	0.01	ND	0.01	1.00		80		ND	0.01
Capt: HEXACHLOROCYCLOPENTADIENE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: HEXACHLOROTHANE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: INDENO(1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: ISOPHORBONE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: N-NITROSDIPHENYLAMINE	ND	0.01	ND	0.01	1.00		84		ND	0.01
Capt: NAPHTHALENE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: NITROBENZENE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: PENTACHLOROPHENOL	ND	0.01	ND	0.01	1.00		57		ND	0.01
Capt: PERMANTHRENE	ND	0.01	ND	0.01	0		0		ND	0.01
Capt: PHENOL	ND	0.01	ND	0.01	1.00		56		ND	0.01
Capt: PYRENE	ND	0.01	ND	0.01	0		0		ND	0.01

Quality Control Summary Notes:

Note: Note Descriptions set by method were met. A ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 35

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
Units: ppm
Analyst: TENNIE WHITE

Preparation Date: 05/28/94
Test Began Date & Time: 06/02/94 @ 08:00
Test Ended Date & Time: 06/08/94 @ 08:00

Batch Number: 6842
Book/Page: 4/55

	Sample		Replicate		Matrix Spike		Mtx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Log Number:	15370		15370		15370		15370		15370	
Sample Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
Sample Type:	GRAB		GRAB		GRAB		GRAB		GRAB	
Screen Compound Amount/Limit of Detection:	78%		93%		0.500		80%		64%	
Surr: NITROBENZENE-d5	59%		83%		0.500		72%		91%	
Surr: 2-FLUOROBIPHENYL	56%		76%		0.500		72%		51%	
Surr: 2,4,6-TRIBROMOPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Surr: 1,2,4-TRICHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01	ND	0.01	0.50		50%		ND	0.01
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01	ND	0.01	0.50		50%		ND	0.01
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4-DINITROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4-DINITROTOLUENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,6-DINITROTOLUENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-CHLOROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-METHYLPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-NITROANILINE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-NITROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01	ND	0.01	0.50		59%		ND	0.01
Cmpd: 3-NITROANILINE	ND	0.01	ND	0.01	0		0%		ND	0.01

Note: ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 Facil ID:

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Report #: 5199
 Date: 06/14/94
 Page #: 36

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
 Units: Ppm
 Analyst: TENNIE WHITE

Preparation Date: 05/28/94
 Test Began Date & Time: 06/02/94 @ 08:00
 Test Ended Date & Time: 06/08/94 @ 08:00
 Batch Number: 6842
 Book/Page: 4/55

	{---Sample---		{---Replicate---		{---Matrix Spike---		{---Htx & Recovery---		{---Blank---	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: 4-CHLORANILINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: 4-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: 4-NITROANILINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: 4-NITROPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: ACENAPHTHENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: ACENAPHTHYLENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: BENZO(a)PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: BENZO(g,h,i)PERYLENE	43.48	0.01	42.80	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: BENZOIC ACID	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: BENZYL ALCOHOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: CHRYSENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
	ND	0.01	ND	0.01	0.50	0.01	0	0.01	ND	0.01

Note: Note Description
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. 601/956-1400 Office QA/QC: COLEMAN, J Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Manager: JOHNSTON, H Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 37

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS Preparation Date: 05/28/94 Batch Number: 6842
 Units: PPM Test Began Date & Time: 06/02/94 @ 08:00 Book/Page: 4/55
 Analyst: TENNIE WHITE Test Ended Date & Time: 06/08/94 @ 08:00

	Sample		Replicate		Matrix Spike		Mix & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Capd: DIBENS (a,h)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: DIBENOFURAN	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: DIETHYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0.0	0.01	0	0.01	ND	0.01
Capd: FLUORANTHENE	ND	0.01	ND	0.01	0.50	0.01	0	0.01	ND	0.01
Capd: FLUORENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: HEXACHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: HEXACHLOROBUTADIENE	ND	0.01	ND	0.01	0.50	0.01	52%	0.01	ND	0.01
Capd: HEXACHLOROCYCLOPENTADIENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: HEXACHLOROTHANE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: INDENO (1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: ISOPHORONE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: N-NITROSODIPHENYLAMINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: NAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: NITROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: PENTACHLOROPHENOL	ND	0.01	ND	0.01	0.50	0.01	59%	0.01	ND	0.01
Capd: PHENANTHRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: PHENOL	ND	0.01	ND	0.01	0.50	0.01	68%	0.01	ND	0.01
Capd: PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01

Quality Control Summary Notes:

Note: Note Description A Requirements set by method were met. Note: Note Description ND NOT DETECTED

Quality Control / Quality Assurance Summary

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5199
 P 5360 I-55 North 601/956-0513 Fax Date: 06/14/94
 S Jackson, MS 39211 Facil ID: *James A. Johnson* Page #: 1

Acct #: 0051 Contract Descrip: VAN SLYKE-HATTIESBURG, MS ANALYSIS
 Client: ENVIRONMENTAL PROTECTION SYSTEMS - ENG. Project Location: VAN SLYKE-HTSBRG, MS
 Address: 5360 I-55 NORTH Contract Number : 1.V7101.002
 City: JACKSON, MS 39211- Contract PO:
 Contact: SCHARINE KIRCHOFF Expiration Date: 01/01/95
 Phone: 601/956-1400 Fax: 601/956-2365

Analyte	Method	Holding Time	Surrogate Recovery	Mtx Spk Recovery	Blank	Batch Number
GC/MS FOR SEMIVOLATILE ORGANICS	SW846 METHOD 8270	A	A	A	A	6803
GC/MS FOR SEMIVOLATILE ORGANICS	SW846 METHOD 8270	A	A	A	A	6842

~~Note~~-----~~Note Description~~
 A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 2

Lab #: 15366.00 **Client Ref #:** SB9 001

Sample Description
 SOIL
Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 13:30

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab
CC/MS FOR SEMIVOLATILE ORGANICS								
SUFF: NITROBENZENE-d5	Ppm	screen	screen A	TKW	05/28/94	06/08/94	15:50	6803
SUFF: 2-FLUOROBIPHENYL		95% A						
SUFF: 2,4,6-TRIBROMOPHENOL		95% A						
SUFF: 1,2,4-TRICHLOROBENZENE		ND	0.01					
Capd: 1,2-DICHLOROBENZENE		ND	0.01					
Capd: 1,3-DICHLOROBENZENE		ND	0.01					
Capd: 1,4-DICHLOROBENZENE		ND	0.01					
Capd: 2,3-DIMETHYLPHENOL		ND	0.01					
Capd: 2,4,5-TRICHLOROPHENOL		ND	0.01					
Capd: 2,4,6-TRICHLOROPHENOL		ND	0.01					
Capd: 2,4-DICHLOROPHENOL		ND	0.01					
Capd: 2,4-DINITROPHENOL		ND	0.01					
Capd: 2,4-DINITROTOLUENE		ND	0.01					
Capd: 2,6-DINITROTOLUENE		ND	0.01					
Capd: 2-CHLORONAPHTHALENE		ND	0.01					
Capd: 2-CHLOROPHENOL		ND	0.01					
Capd: 2-METHYLNAPHTHALENE		ND	0.01					
Capd: 2-METHYLPHENOL		ND	0.01					
Capd: 2-NITROANILINE		ND	0.01					
Capd: 2-NITROPHENOL		ND	0.01					
Capd: 3,3-DICHLOROBENZIDINE		ND	0.01					
Capd: 3-NITROANILINE		ND	0.01					
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01					
Capd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01					
Capd: 4-CELORO-3-METHYLPHENOL		ND	0.01					

Note: Note Description
A Requirements set by method were met.

Note: Note Description
ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 3

Lab #: 15366.00 Client Ref #: SB9 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 13:30

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note
			Detect Time	l yst	Date		Time	Number
Cmpd: 4-CHLORANILINE	ND	0.01				
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01				
Cmpd: 4-METHYLPHENOL	ND	0.03				
Cmpd: 4-NITROANILINE	ND	0.01				
Cmpd: 4-NITROPHENOL	ND	0.01				
Cmpd: ACENAPHTHENE	15136	0.01				
Cmpd: ACENAPHTHYLENE	ND	0.01				
Cmpd: ANTHRACENE	478712	0.01				
Cmpd: BENZO(a)ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)PYRENE	ND	0.01				
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01				
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01				
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01				
Cmpd: BENZOIC ACID	ND	0.01				
Cmpd: BENZYL ALCOHOL	ND	0.01				
Cmpd: bis(2-CHLOROTHOXY) METHANE	ND	0.01				
Cmpd: bis(2-CHLOROTHYL) ETHER	ND	0.01				
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01				
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01				
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01				
Cmpd: CHRYSENE	ND	0.01				
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01				
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01				
Cmpd: DIBENZ(a,b)ANTHRACENE	ND	0.01				
Cmpd: DIBENZO FURAN	ND	0.01				
Cmpd: DIETHYL PHTHALATE	ND	0.01				

ND NOT DETECTED

Note---Note Description

Note---Note Description

Analytical Report

Report #: 5199
Date: 06/14/94
Page #: 4

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 Fax

EPS Analytical Services, Inc.
5360 I-55 North
S Jackson, MS 39211

Lab #: 15366.00 Client Ref #: SB9 001
Sample Description
SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 13:30
Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Limt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch	Lab	Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND		0.01						
Cmpd: FLUORANTHENE	167509		0.01						
Cmpd: FLUORENE	13420		0.01						
Cmpd: HEXACHLOROBENSENE	ND		0.01						
Cmpd: HEXACHLOROBUTADIENE	ND		0.01						
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND		0.01						
Cmpd: HEXACHLOROTHANE	ND		0.01						
Cmpd: INDENO(1,2,3-cd)PYRENE	ND		0.01						
Cmpd: ISOPHORONE	ND		0.01						
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND		0.01						
Cmpd: N-NITROSODIPHENYLAMINE	ND		0.01						
Cmpd: NAPHTHALENE	ND		0.01						
Cmpd: NITROBENZENE	ND		0.01						
Cmpd: PENTACHLOROPHENOL	ND		0.01						
Cmpd: PHENANTHRENE	ND		0.01						
Cmpd: PHENOL	ND		0.01						
Cmpd: PYRENE	53986		0.01						

Note: Note Description
ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 5

Lab #: 15367.00 **Client Ref #:** SB10 003
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 14:15
Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab
GC/MS FOR SEMI-VOLATILE ORGANICS							
Surr: NITROBENZENE-d5	PPM	screen	screen A	TKW	05/28/94	06/08/94 15:50	6803
Surr: 2-FLUOROBIPHENYL		90% A					
Surr: 2,4,6-TRIBROMOPHENOL		81% A					
Cmpd: 1,2,4-TRICHLOROBENZENE		90% A					
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01				
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01				
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01				
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01				
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01				
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01				
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01				
Cmpd: 2,4-DINITROPHENOL		ND	0.01				
Cmpd: 2,4-DINITROTOLUENE		ND	0.01				
Cmpd: 2,6-DINITROTOLUENE		ND	0.01				
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01				
Cmpd: 2-CHLOROPHENOL		ND	0.01				
Cmpd: 2-METHYLNAPHTHALENE		ND	0.01				
Cmpd: 2-METHYLPHENOL		ND	0.01				
Cmpd: 2-NITROANILINE		ND	0.01				
Cmpd: 2-NITROPHENOL		ND	0.01				
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01				
Cmpd: 3-NITROANILINE		ND	0.01				
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01				
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01				
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND	0.01				

Note: Note Description
 ND NOT DETECTED

A Requirements set by method were met.

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5199 Date: 06/14/94 Page #: 6</p>
<p>Lab #: 15367.00 Client Ref #: SB10 003</p>	<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/25/94 Coll. Ending Time: 14:15</p>	
<p>Sample Description SOIL</p>	<p>Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL</p>	

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	(---Test---) Date	Batch Time Number	Lab Note	Analyst's Note
Cmpd: 4-CHLORANILINE	ND	0.01						
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Cmpd: 4-METHYLPHENOL	ND	0.01						
Cmpd: 4-NITROANILINE	ND	0.01						
Cmpd: 4-NITROPHENOL	ND	0.01						
Cmpd: ACENAPHTHENE	ND	0.01						
Cmpd: ACENAPHTHYLENE	ND	0.01						
Cmpd: ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)PYRENE	ND	0.01						
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01						
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01						
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01						
Cmpd: BENZOIC ACID	ND	0.01						
Cmpd: BENZYL ALCOHOL	ND	0.01						
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01						
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01						
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Cmpd: bis(2-ETHYLHEXYL) PHTHALATE	ND	0.01						
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01						
Cmpd: CHRYSENE	ND	0.01						
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01						
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01						
Cmpd: DIBENZ(a,b)ANTHRACENE	ND	0.01						
Cmpd: DIBENSOFORAN	ND	0.01						
Cmpd: DIETHYL PHTHALATE	ND	0.01						

Note --- Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 7	
Lab #: 15367.00 Client Ref #: SB10 003 Sample Description SOIL	Sample Collected by: S KIRCHOFF coll. Ending Date: 05/25/94 coll. Ending Time: 14:15	Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Limt of Hold Ana- Detect Time	Prep lyst	Date	Date	Time	Batch Number	Lab	Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01									
Cmpd: FLUORANTHENE	ND	0.01									
Cmpd: FLUORENE	ND	0.01									
Cmpd: HEXACHLOROBENZENE	ND	0.01									
Cmpd: HEXACHLOROBUTADIENE	ND	0.01									
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01									
Cmpd: HEXACHLOROTHANE	ND	0.01									
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01									
Cmpd: ISOPHORONE	ND	0.01									
Cmpd: M-NITROSO-DI-N-PROPYLAMINE	ND	0.01									
Cmpd: M-NITROSODIPHENYLAMINE	ND	0.01									
Cmpd: NAPHTHALENE	ND	0.01									
Cmpd: NITROBENZENE	ND	0.01									
Cmpd: PENTACHLOROPHENOL	ND	0.01									
Cmpd: PHENANTHRENE	ND	0.01									
Cmpd: PHENOL	ND	0.01									
Cmpd: PYRENE	ND	0.01									

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 8

Lab #: 15368.00 **Client Ref #:** SB8 001
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 13:15

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lot of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	lyst	Date	Time	Number
							Note
							Analyst's Note

Analyte	Units	Amount	Lot of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	lyst	Date	Time	Number
							Note
							Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	15:50 6803
Surr: NITROBENZENE-d5		60% A					
Surr: 2-FLUOROBIPHENYL		53% A					
Surr: 2,4,6-TRIBROMOPHENOL		49% A					
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01					
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01					
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROTOLUENE	ND	0.01					
Cmpd: 2,6-DINITROTOLUENE	ND	0.01					
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01					
Cmpd: 2-CHLOROPHENOL	ND	0.01					
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01					
Cmpd: 2-METHYLPHENOL	ND	0.01					
Cmpd: 2-NITROANILINE	ND	0.01					
Cmpd: 2-NITROPHENOL	ND	0.01					
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01					
Cmpd: 3-NITROANILINE	ND	0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01					

Note Requirements set by method were met.

Note Description ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 9

Lab #: 15368.00 Client Ref #: SB8 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 13:15

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lab			Note
			Prep	Batch	Time	
			Date	Number	Number	Analyst's Note
Cmpd: 4-CHLORANILINE	ND	0.01				
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01				
Cmpd: 4-METHYLPHENOL	ND	0.01				
Cmpd: 4-NITROANILINE	ND	0.01				
Cmpd: 4-NITROPHENOL	ND	0.01				
Cmpd: ACENAPHTHENE	ND	0.01				
Cmpd: ACENAPHTHYLENE	ND	0.01				
Cmpd: ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)PYRENE	ND	0.01				
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01				
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01				
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01				
Cmpd: BENZOIC ACID	ND	0.01				
Cmpd: BENZYL ALCOHOL	ND	0.01				
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01				
Cmpd: bis(2-CHLOROTHYL) ETHER	ND	0.01				
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01				
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01				
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01				
Cmpd: CHRISENE	ND	0.01				
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01				
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01				
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01				
Cmpd: DIBENSOFUAN	ND	0.01				
Cmpd: DIETHYLPHTHALATE	ND	0.01				

ND NOT DETECTED

Note: Note Description

Note: Note Description

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 10

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Lab #: 15368.00 Client Ref #: SB8 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 13:15

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Batch	Lab
			Detect Time	Time	Time	Note
			lyst	Date	Number	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01				
Cmpd: FLUORANTHENE	ND	0.01				
Cmpd: FLUORENE	ND	0.01				
Cmpd: HEXACHLOROBENZENE	ND	0.01				
Cmpd: HEXACHLOROBUTADIENE	ND	0.01				
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01				
Cmpd: HEXACHLOROETHANE	ND	0.01				
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01				
Cmpd: ISOPHORONE	ND	0.01				
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01				
Cmpd: N-NITROSO-DIPENTAMINE	ND	0.01				
Cmpd: NAPHTHALENE	ND	0.01				
Cmpd: NITROBENZENE	ND	0.01				
Cmpd: PENTACHLOROPHENOL	ND	0.01				
Cmpd: PHENANTHRENE	17819	0.01				
Cmpd: PHENOL	ND	0.01				
Cmpd: PYRENE	17659	0.01				

Note: Note Description
 ND NOT DETECTED

Analytical Report

Report #: 5199
Date: 06/14/94
Page #: 11

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 Fax

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

Lab #: 15369.00 Client Ref #: SB10 001
Sample Description
SOIL

sample collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 13:50

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold	Ana-	Prep	{---Test---	Batch	Lab
			Detect	Time	lyst	Date	Time	Note
			Time	Number	Number	Number	Number	Analyst's
			Number	Batch	Number	Number	Number	Note

GC/MS FOR SEMIVOLATILE ORGANICS screen A TKW 05/28/94 06/08/94 08:00 6842

Surr: NITROBENZENE-d5	ppm	screen						
Surr: 2-FLUOROBIPHENYL		92% A						
Surr: 2,4,6-TRIBROMOPHENOL		91% A						
Cmpd: 1,2,4-TRICHLOROBENZENE		50% A						
Cmpd: 1,2-DICHLOROBENZENE	ND	ND	0.01					
Cmpd: 1,3-DICHLOROBENZENE	ND	ND	0.01					
Cmpd: 1,4-DICHLOROBENZENE	ND	ND	0.01					
Cmpd: 2,3-DIMETHYLPHENOL	ND	ND	0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	ND	0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	ND	0.01					
Cmpd: 2,4-DICHLOROPHENOL	ND	ND	0.01					
Cmpd: 2,4-DINITROPHENOL	ND	ND	0.01					
Cmpd: 2,4-DINITROTOLUENE	ND	ND	0.01					
Cmpd: 2,6-DINITROTOLUENE	ND	ND	0.01					
Cmpd: 2-CHLORONAPHTHALENE	ND	ND	0.01					
Cmpd: 2-CHLOROPHENOL	ND	ND	0.01					
Cmpd: 2-METHYLNAPHTHALENE	ND	ND	0.01					
Cmpd: 2-METHYLPHENOL	ND	ND	0.01					
Cmpd: 2-NITROANILINE	ND	ND	0.01					
Cmpd: 2-NITROPHENOL	ND	ND	0.01					
Cmpd: 3,3-DICHLOROBENZIDINE	ND	ND	0.01					
Cmpd: 3-NITROANILINE	ND	ND	0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	ND	0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	ND	0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	ND	0.01					

Note: Note Description
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

EPS Analytical Services, Inc.
 5360 I-55 North
 S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 12

Lab #: 15369.00 **Client Ref #: SB10 001**
Sample Description
SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/25/94
Coll. Ending Time: 13:50

Receipt Date: 05/26/94
sample Type: GRAB
sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
Cmpd: 4-CHLORANILINE		ND							
Cmpd: 4-CHLOROPHENYL PHENYL ETHER		ND							
Cmpd: 4-METHYLPHENOL		ND							
Cmpd: 4-NITROANILINE		ND							
Cmpd: 4-NITROPHENOL		ND							
Cmpd: ACENAPHTHENE		962							
Cmpd: ACENAPHTHYLENE		ND							
Cmpd: ANTHRACENE		10499							
Cmpd: BENZO(a)ANTHRACENE		ND							
Cmpd: BENZO(a)PYRENE		ND							
Cmpd: BENZO(b)FLUORANTHENE		ND							
Cmpd: BENZO(g,h,i)PERYLENE		ND							
Cmpd: BENZO(k)FLUORANTHENE		ND							
Cmpd: BENZOIC ACID		ND							
Cmpd: BENZYL ALCOHOL		ND							
Cmpd: bis(2-CHLOROETHOXY) METHANE		ND							
Cmpd: bis(2-CHLOROETHYL) ETHER		ND							
Cmpd: bis(2-CHLOROISOPROPYL) ETHER		ND							
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE		ND							
Cmpd: BUTYL BENZYL PHTHALATE		ND							
Cmpd: CHRYSENE		ND							
Cmpd: DI-N-BUTYLPHTHALATE		ND							
Cmpd: DI-N-OCTYL PHTHALATE		ND							
Cmpd: DIBENZ(a,h)ANTHRACENE		ND							
Cmpd: DIBENZOFLURAN		ND							
Cmpd: DIETHYLPHTHALATE		ND							
Cmpd: DIETHYLPHTHALATE		ND							

ND **NOT DETECTED**

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 13

Lab #: 15369.00 Client Ref #: SB10 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/25/94
 Coll. Ending Time: 13:50

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
Compd: DIMETHYL PHTHALATE	ND	0.01						
Compd: FLUORANTHENE	5034	0.01						
Compd: FLUORENE	772	0.01						
Compd: HEXACHLOROBENZENE	ND	0.01						
Compd: HEXACHLOROBUTADIENE	ND	0.01						
Compd: HEXACHLOROCYCLOPENTADIENE	ND	0.01						
Compd: HEXACHLOROETHANE	ND	0.01						
Compd: INDENO(1,2,3-cd)PYRENE	ND	0.01						
Compd: ISOPHORONE	ND	0.01						
Compd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01						
Compd: N-NITROSDIPHENYLAMINE	ND	0.01						
Compd: NAPHTHALENE	4607	0.01						
Compd: NITROBENZENE	ND	0.01						
Compd: PENTACHLOROPHENOL	ND	0.01						
Compd: PHERANTHRENE	ND	0.01						
Compd: PHENOL	ND	0.01						
Compd: PYRENE	2752	0.01						

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

Report #: 5199
 Date: 06/14/94
 Page #: 14

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Lab #: 15370.00 Client Ref #: SB10 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 14:05
 Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-	Prep	{---Test---	Batch	Lab
			Detect Time	lyst	Date	Time	Note
						Number	Analyt's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	08:00 5842
Surr: NITROBENZENE-d5		788 A					
Surr: 2-FLUOROBIPHENYL		598 A					
Surr: 2,4,6-TRIBROMOPHENOL		568 A					
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01					
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01					
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROTOLUENE	ND	0.01					
Cmpd: 2,6-DINITROTOLUENE	ND	0.01					
Cmpd: 2-CELORONAPHTHALENE	ND	0.01					
Cmpd: 2-CELOROPHENOL	ND	0.01					
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01					
Cmpd: 2-METHYLPHENOL	ND	0.01					
Cmpd: 2-NITROANILINE	ND	0.01					
Cmpd: 2-NITROPHENOL	ND	0.01					
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01					
Cmpd: 3-NITROANILINE	ND	0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01					

Note: Requirements set by method were met. Note: Description NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 15

Lab #: 15370.00 Client Ref #: SB10 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 14:05

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prap	Date	Date	Time	Batch	Lab	Note	Analyst's Note
Capd: 4-CHLOROANILINE	ND	0.01									
Capd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01									
Capd: 4-METHYLPHENOL	ND	0.01									
Capd: 4-NITROANILINE	ND	0.01									
Capd: 4-NITROPHENOL	ND	0.01									
Capd: ACENAPHTHENE	ND	0.01									
Capd: ACENAPHTHYLENE	ND	0.01									
Capd: ANTHRACENE	ND	0.01									
Capd: BENZO(a)ANTHRACENE	ND	0.01									
Capd: BENZO(a)PYRENE	ND	0.01									
Capd: BENZO(b)FLUORANTHENE	ND	0.01									
Capd: BENZO(g,h,i)PERYLENE	ND	0.01									
Capd: BENZO(k)FLUORANTHENE	ND	0.01									
Capd: BENZOIC ACID	ND	43.48									
Capd: BENZYL ALCOHOL	ND	0.01									
Capd: bis(2-CHLOROETHOXY) METHANE	ND	0.01									
Capd: bis(2-CHLOROETHYL) ETHER	ND	0.01									
Capd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01									
Capd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01									
Capd: BUTYL BENZYL PHTHALATE	ND	0.01									
Capd: CHRYSENE	ND	0.01									
Capd: DI-N-BUTYLPHthalate	ND	0.01									
Capd: DI-N-OCTYL PHTHALATE	ND	0.01									
Capd: DIBENZ(a,h)ANTHRACENE	ND	0.01									
Capd: DIBENSOFURAN	ND	0.01									
Capd: DIETHYLPHthalate	ND	0.01									

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 16

Lab #: 15370.00 Client Ref #: SB10 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 14:05

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Test	Batch	Lab	Note
			Detect Time	lyst	Date	Time	Number	Analyst's	Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01							
Cmpd: FLUORANTHENE	ND	0.01							
Cmpd: FLUORENE	ND	0.01							
Cmpd: HEXACHLOROBENZENE	ND	0.01							
Cmpd: HEXACHLOROBUTADIENE	ND	0.01							
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01							
Cmpd: HEXACHLOROETHANE	ND	0.01							
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01							
Cmpd: ISOPHORONE	ND	0.01							
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01							
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01							
Cmpd: NAPHTHALENE	ND	0.01							
Cmpd: NITROBENZENE	ND	0.01							
Cmpd: PENTACHLOROPHENOL	ND	0.01							
Cmpd: PHENANTHRENE	ND	0.01							
Cmpd: PHENOL	ND	0.01							
Cmpd: PYRENE	ND	0.01							

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 17

Lab #: 15371.00 **Client Ref #:** SB3 004
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 14:50

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-	Prep	Date	Time	Batch	Lab	Note
			Detect Time	lyst	Date	Time	Number		Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	08:00	6842	
Surr: NITROBENZENE-d5		55% A							
Surr: 2-FLUOROBIPHENYL		62% A							
Surr: 2,4,6-TRIBROMOPHENOL		76% A							
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01							
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01							
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01							
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01							
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01							
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01							
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01							
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01							
Cmpd: 2,4-DINITROPHENOL	ND	0.01							
Cmpd: 2,4-DINITROTOLUENE	ND	0.01							
Cmpd: 2,6-DINITROTOLUENE	ND	0.01							
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01							
Cmpd: 2-CHLOROPHENOL	ND	0.01							
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01							
Cmpd: 2-METHYLPHENOL	ND	0.01							
Cmpd: 2-NITROANILINE	ND	0.01							
Cmpd: 2-NITROPHENOL	ND	0.01							
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01							
Cmpd: 3-NITROANILINE	ND	0.01							
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01							
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01							
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01							

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 18
Lab #: 15371.00 Client Ref #: SB3 004 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:50 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab	Note
			Detect	Time	Test	Number	Number	Analyst's	Note
Capt: 4-CHLOROANILINE	ND	0.01							
Capt: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01							
Capt: 4-METHYLPHENOL	ND	0.01							
Capt: 4-NITROANILINE	ND	0.01							
Capt: 4-NITROPHENOL	ND	0.01							
Capt: ACENAPHTHENE	ND	0.01							
Capt: ACENAPHTHYLENE	ND	0.01							
Capt: ANTRACENE	ND	0.01							
Capt: BENZO(a)ANTHRACENE	ND	0.01							
Capt: BENZO(a)PYRENE	ND	0.01							
Capt: BENZO(b)FLUORANTHENE	ND	0.01							
Capt: BENZO(g,h,i)PERYLENE	ND	0.01							
Capt: BENZO(k)FLUORANTHENE	ND	0.01							
Capt: BENZOIC ACID	ND	0.01							
Capt: BENZYL ALCOHOL	ND	0.01							
Capt: bis(2-CHLOROETHOXY) METHANE	ND	0.01							
Capt: bis(2-CHLOROETHYL) ETHER	ND	0.01							
Capt: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01							
Capt: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01							
Capt: BUTYL BENZYL PHTHALATE	ND	0.01							
Capt: CHRYSENE	ND	0.01							
Capt: DI-N-BUTYLPHTHALATE	ND	0.01							
Capt: DI-N-OCTYL PHTHALATE	ND	0.01							
Capt: DIBENZ(a,h)ANTHRACENE	ND	0.01							
Capt: DIMENOFURAN	ND	0.01							
Capt: DIETHYLPHTHALATE	ND	0.01							

Note: ~~Note Description~~ Note: ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 19

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Lab #: 15371.00 Client Ref #: SB3 004 Receipt Date: 05/26/94
 Sample Description Sample Type: GRAB
 SOIL Coll. Ending Date: 05/24/94 Sample Matrix: SOIL
 Coll. Ending Time: 14:50

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep Date	Test Date	Batch Time	Lab Number	Note	Analyte's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01							
Cmpd: FLUORANTHENE	ND	0.01							
Cmpd: FLUORENE	ND	0.01							
Cmpd: HEXACHLOROBENZENE	ND	0.01							
Cmpd: HEXACHLOROBUTADIENE	ND	0.01							
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01							
Cmpd: HEXACHLOROETHANE	ND	0.01							
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01							
Cmpd: ISOPHORONE	ND	0.01							
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01							
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.01							
Cmpd: NAPHTHALENE	ND	0.01							
Cmpd: NITROBENZENE	ND	0.01							
Cmpd: PENTACHLOROPHENOL	ND	0.01							
Cmpd: PERMANENTHENE	ND	0.01							
Cmpd: PERMOL	ND	0.01							
Cmpd: PYRENE	ND	0.01							

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 20

Lab #: 15372.00 **Client Ref #:** SB3 002
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 14:50

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold	Ana-	Prep	{	Test	}	Batch	Lab
			Detect	Time	lyst	Date	Date	Time	Number	Note

GC/MS FOR SEMIVOLATILE ORGANICS screen A TKW 05/28/94 06/08/94 08:00 6842

SUFF: NITROBENZENE-d5	PPM	screen								
SUFF: 2-FLUOROBIPHENYL		648 A								
SUFF: 2,4,6-TRIBROMOPHENOL		908 A								
SUFF: 1,2,4-TRICHLOROBENZENE		908 A								
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01							
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01							
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01							
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01							
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01							
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01							
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01							
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01							
Cmpd: 2,4-DINITROPHENOL		ND	0.01							
Cmpd: 2,4-DINITROTOLUENE		ND	0.01							
Cmpd: 2,6-DINITROTOLUENE		ND	0.01							
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01							
Cmpd: 2-CHLOROPHENOL		ND	0.01							
Cmpd: 2-METHYLNAPHTHALENE		ND	0.01							
Cmpd: 2-METHYLPHENOL		ND	0.01							
Cmpd: 2-NITROANILINE		ND	0.01							
Cmpd: 2-NITROPHENOL		ND	0.01							
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01							
Cmpd: 3-NITROANILINE		ND	0.01							
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01							
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01							
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND	0.01							

Note Note Description ND Note Description ND NOT DETECTED
A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 21
Lab #: 15372.00 Client Ref #: SB3 002 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:50 Receipt Date: 05/26/94 sample type: GRAB sample Matrix: SOIL		

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab	Test		Note
								Detect Time	lyst	
Capd: 4-CHLOROANILINE	ND	0.01								
Capd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01								
Capd: 4-METHYLPHENOL	ND	0.01								
Capd: 4-NITROANILINE	ND	0.01								
Capd: 4-NITROPHENOL	ND	0.01								
Capd: ACENAPHTHENE	ND	0.01								
Capd: ACENAPHTHYLENE	ND	0.01								
Capd: ANTHRACENE	ND	0.01								
Capd: BENZO(a)ANTHRACENE	ND	0.01								
Capd: BENZO(a)PYRENE	ND	0.01								
Capd: BENZO(b)FLUORANTHRENE	ND	0.01								
Capd: BENZO(g,h,i)PERYLENE	ND	0.01								
Capd: BENZO(k)FLUORANTHRENE	ND	0.01								
Capd: BENZOIC ACID	ND	0.01								
Capd: BENZYL ALCOHOL	ND	0.01								
Capd: bis(2-CHLOROETHOXY) METHANE	ND	0.01								
Capd: bis(2-CHLOROTHYL) ETHER	ND	0.01								
Capd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01								
Capd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01								
Capd: BUTYL BENZYL PHTHALATE	ND	0.01								
Capd: CHRISSENE	ND	0.01								
Capd: DI-N-BUTYLPHTHALATE	ND	0.01								
Capd: DI-N-OCTYL PHTHALATE	ND	0.01								
Capd: DIMEN(a,h)ANTHRACENE	ND	0.01								
Capd: DIMESOFURAN	ND	0.01								
Capd: DIETHYLPHTHALATE	ND	0.01								

Note: Note Description

ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>Report #: 5199 Date: 06/14/94 Page #: 22</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>
<p>Lab #: 15372.00 Client Ref #: SB3 002</p>		<p>Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL</p>	
<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 14:50</p>			

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
Capd: DIMETHYL PHTHALATE	ND	0.01							
Capd: FLUORANTHENE	ND	0.01							
Capd: FLUORENE	ND	0.01							
Capd: HEXACHLOROBENZENE	ND	0.01							
Capd: HEXACHLOROBUTADIENE	ND	0.01							
Capd: HEXACHLOROCYCLOPENTADIENE	ND	0.01							
Capd: HEXACHLOROTHANE	ND	0.01							
Capd: INDENO(1,2,3-cd)PYRENE	ND	0.01							
Capd: ISOPHORONE	ND	0.01							
Capd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01							
Capd: N-NITROSODIPHENYLAMINE	ND	0.01							
Capd: NAPHTHALENE	1390	0.01							
Capd: NITROBENZENE	ND	0.01							
Capd: PENTACHLOROPHENOL	ND	0.01							
Capd: PHENANTHRENE	31.12	0.01							
Capd: PHENOL	ND	0.01							
Capd: PYRENE	ND	0.01							

<p>Note Note Description</p>	<p>Note Note Description</p>
<p>ND NOT DETECTED</p>	

Analytical Report

E EPS Analytical Services, Inc. 601/956-1400 Office Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 23

Lab #: 15373.00 Client Ref #: SB5 001 Receipt Date: 05/26/94
 Sample Description Sample Type: GRAB
 SOIL Coll. Ending Date: 05/24/94 Sample Matrix: SOIL
 Coll. Ending Time: 17:00

Analyte	Units	Amount	screen	Lat of Hold Ana-	Prep	Date	Time	Batch	Lab
				Detect Time	lyst	Date	Number	Number	Note
				screen A	TXW	05/28/94	05/08/94	08:00	6842
GC/MS FOR SEMIVOLATILE ORGANICS	PPM								
SUKK: NITROBENZENE-d5		788 A							
SUKK: 2-FLUOROBIPHENYL		608 A							
SUKK: 2,4,6-TRIBROMOPHENOL		818 A							
Capd: 1,2,4-TRICHLOROBENZENE	ND		0.01						
Capd: 1,2-DICHLOROBENZENE	ND		0.01						
Capd: 1,3-DICHLOROBENZENE	ND		0.01						
Capd: 1,4-DICHLOROBENZENE	ND		0.01						
Capd: 2,3-DIMETHYLPHENOL	ND		0.01						
Capd: 2,4,5-TRICHLOROPHENOL	ND		0.01						
Capd: 2,4,6-TRICHLOROPHENOL	ND		0.01						
Capd: 2,4-DICHLOROPHENOL	ND		0.01						
Capd: 2,4-DINITROPHENOL	ND		0.01						
Capd: 2,4-DINITROTOLUENE	ND		0.01						
Capd: 2,6-DINITROTOLUENE	ND		0.01						
Capd: 2-CHLORONAPHTHALENE	ND		0.01						
Capd: 2-CHLOROPHENOL	ND		0.01						
Capd: 2-METHYLNAPHTHALENE	ND		0.01						
Capd: 2-METHYLPHENOL	ND		0.01						
Capd: 2-NITROANILINE	ND		0.01						
Capd: 2-NITROPHENOL	ND		0.01						
Capd: 3,3-DICHLOROBENZIDINE	ND		0.01						
Capd: 3-NITROANILINE	ND		0.01						
Capd: 4,6-DINITRO-2-METHYLPHENOL	ND		0.01						
Capd: 4-BROMOPHENYL PHENYL ETHER	ND		0.01						
Capd: 4-CHLORO-3-METHYLPHENOL	ND		0.01						

Note: Note Description ND NOT DETECTED
 A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 24
Lab #: 15373.00 Client Ref #: SB5 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 17:00 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Lmt of Hold	Ana- Detect	Time	lyst	Prep	Date	Test	Batch	Lab	Note
Cmpd: 4-CHLOROANILINE	ND	0.01										
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01										
Cmpd: 4-METHYLPHENOL	ND	0.01										
Cmpd: 4-NITROANILINE	ND	0.01										
Cmpd: 4-NITROPHENOL	ND	0.01										
Cmpd: ACENAPHTHENE	27.84	0.01										
Cmpd: ACENAPHTHYLENE	ND	0.01										
Cmpd: ANTHRACENE	196894	0.01										
Cmpd: BENZO(a)ANTHRACENE	ND	0.01										
Cmpd: BENZO(a)PYRENE	ND	0.01										
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01										
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01										
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01										
Cmpd: BENZOIC ACID	ND	0.01										
Cmpd: BENZYL ALCOHOL	ND	0.01										
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01										
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01										
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01										
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01										
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01										
Cmpd: CHRYSENE	ND	0.01										
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01										
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01										
Cmpd: DIBENS(a,h)ANTHRACENE	ND	0.01										
Cmpd: DIBENSOFURAN	ND	0.01										
Cmpd: DIETHYL PHTHALATE	ND	0.01										

~~Note~~ --- ~~Note Description~~ --- ~~Note~~ --- ~~Note Description~~

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. **QA/QC:** COLEMAN, J **Report #:** 5199
P 5360 I-55 North **Manager:** JOHNSTON, H **Date:** 06/14/94
S Jackson, MS 39211 **Facil ID:** **Page #:** 25

Lab #: 15373.00 **Client Ref #:** SB5 001 **Receipt Date:** 05/26/94
Sample Description: **Sample Type:** GRAB
SOIL **Sample Matrix:** SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
Capd: DIMETHYL PHTHALATE	ND	0.01							
Capd: FLUORANTHENE	368	0.01							
Capd: FLUORENE	47.49	0.01							
Capd: HEXACHLOROBENZENE	ND	0.01							
Capd: HEXACHLOROBUTADIENE	ND	0.01							
Capd: HEXACHLOROCYCLOPENTADIENE	ND	0.01							
Capd: HEXACHLOROETHANE	ND	0.01							
Capd: INDENO(1,2,3-cd)PYRENE	ND	0.01							
Capd: ISOPHORONE	ND	0.01							
Capd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01							
Capd: N-NITROSO-DIPHENYLAMINE	ND	0.01							
Capd: NAPHTHALENE	ND	0.01							
Capd: NITROBENZENE	ND	0.01							
Capd: PESTACHLOROPHENOL	ND	0.01							
Capd: PERMANTHRENE	ND	0.01							
Capd: PHTHOL	ND	0.01							
Capd: PYRENE	ND	0.01							

~~Note~~ ~~Note Description~~ ~~Note~~ ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 26

Lab #: 15374.00 **Client Ref #:** SB3 003
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
coll. Ending Date: 05/24/94
Coll. Ending Time: 15:05

Receipt Date: 05/26/94
sample Type: GRAB
sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	Time	Time	Number	Note Analyst's Note
			lyst	Method	Date		

GC/MS FOR SEMIVOLATILE ORGANICS

Surr: NITROBENZENE-d5		screen	screen A	TKW	05/28/94	06/08/94	08:00	6842	
Surr: 2-FLUOROBIPHENYL		668 A							
Surr: 2,4,6-TRIBROMOPHENOL		468 A							
Surr: 1,2,4-TRICHLOROBENZENE		558 A							
Cmpd: 1,2,4-TRICHLOROBENZENE		ND							0.01
Cmpd: 1,2-DICHLOROBENZENE		ND							0.01
Cmpd: 1,3-DICHLOROBENZENE		ND							0.01
Cmpd: 1,4-DICHLOROBENZENE		ND							0.01
Cmpd: 2,3-DIMETHYLPHENOL		ND							0.01
Cmpd: 2,4,5-TRICHLOROPHENOL		ND							0.01
Cmpd: 2,4,6-TRICHLOROPHENOL		ND							0.01
Cmpd: 2,4-DICHLOROPHENOL		ND							0.01
Cmpd: 2,4-DINITROPHENOL		ND							0.01
Cmpd: 2,4-DINITROTOLUENE		ND							0.01
Cmpd: 2,6-DINITROTOLUENE		ND							0.01
Cmpd: 2-CHLORONAPHTHALENE		ND							0.01
Cmpd: 2-CHLOROPHENOL		ND							0.01
Cmpd: 2-METHYLNAPHTHALENE		ND							0.01
Cmpd: 2-METHYLPHENOL		ND							0.01
Cmpd: 2-NITROANILINE		ND							0.01
Cmpd: 2-NITROPHENOL		ND							0.01
Cmpd: 3,3-DICHLOROBENZIDINE		ND							0.01
Cmpd: 3-NITROANILINE		ND							0.01
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND							0.01
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND							0.01
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND							0.01

Note: Note Description

A Requirements set by method were met.

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 27
Lab #: 15374.00 Client Ref #: SB3 003 Sample Description SOIL		Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 15:05 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Int of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note
			Detect Time	lyst Date	Date		Time Number
Cmpd: 4-CHLOROANILINE	ND	0.01				
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01				
Cmpd: 4-METHYLPHENOL	ND	0.01				
Cmpd: 4-NITROANILINE	ND	0.01				
Cmpd: 4-NITROPHENOL	ND	0.01				
Cmpd: ACENAPHTHENE	ND	0.02				
Cmpd: ACENAPHTYLENE	ND	0.01				
Cmpd: ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)PYRENE	ND	0.01				
Cmpd: BENZO(b)FLUORANTHRENE	ND	0.01				
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01				
Cmpd: BENZO(k)FLUORANTHRENE	ND	0.01				
Cmpd: BENZOIC ACID	ND	0.01				
Cmpd: BENZYL ALCOHOL	ND	0.01				
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01				
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01				
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01				
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01				
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01				
Cmpd: CHRYSENE	ND	0.01				
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01				
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01				
Cmpd: DIBENZO(a,b)ANTHRACENE	ND	0.01				
Cmpd: DIBENZOFORAN	ND	0.01				
Cmpd: DIETHYLPHTHALATE	ND	0.01				

Note---Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 28

Lab #: 15374.00 **Client Ref #:** SB3 003
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 15:05

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Detct Time	lyet	Prep Date	Date	Time	Batch Number	Lab	Note	Analyt's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01									
Cmpd: FLUORANTHRENE	ND	0.01									
Cmpd: FLUORENE	ND	0.01									
Cmpd: HEXACHLOROBENZENE	ND	0.01									
Cmpd: HEXACHLOROBUTADIENE	ND	0.01									
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01									
Cmpd: HEXACHLOROSTYRENE	ND	0.01									
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01									
Cmpd: ISOPHORONE	ND	0.01									
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01									
Cmpd: N-NITROSODIPHENYLAINE	ND	0.01									
Cmpd: NAPHTHALENE	ND	0.01									
Cmpd: NITROBENZENE	ND	0.01									
Cmpd: PENTACHLOROPHENOL	ND	0.01									
Cmpd: PHEMANTHERENE	ND	0.01									
Cmpd: PHEWOL	ND	0.01									
Cmpd: PYRENE	ND	0.01									

Note ~~Note Description~~ ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 29

Lab #: 15375.00 **Client Ref #:** SB4 001
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/24/94
Coll. Ending Time: 15:50

Receipt Date: 05/26/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Screen	Screen A	TKW	05/28/94	06/08/94	08:00	6842	Batch	Lab	Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS													
Surr: NITROBENZENE-d5	PPM	598 A											
Surr: 2-FLUOROBIPHENYL		648 A											
Surr: 2,4,6-TRIBROMOPHENOL		598 A											
Compd: 1,2,4-TRICHLOROBENZENE		ND		0.01									
Compd: 1,2-DICHLOROBENZENE		ND		0.01									
Compd: 1,3-DICHLOROBENZENE		ND		0.01									
Compd: 1,4-DICHLOROBENZENE		ND		0.01									
Compd: 2,3-DIMETHYLPHENOL		ND		0.01									
Compd: 2,4,5-TRICHLOROPHENOL		ND		0.01									
Compd: 2,4,6-TRICHLOROPHENOL		ND		0.01									
Compd: 2,4-DICHLOROPHENOL		ND		0.01									
Compd: 2,4-DINITROPHENOL		ND		0.01									
Compd: 2,4-DINITROVOLUENE		ND		0.01									
Compd: 2,6-DINITROVOLUENE		ND		0.01									
Compd: 2-CHLORONAPHTHALENE		ND		0.01									
Compd: 2-CHLOROPHENOL		ND		0.01									
Compd: 2-METHYLNAPHTHALENE		21778		0.01									
Compd: 2-METHYLPHENOL		ND		0.01									
Compd: 2-NITROANILINE		ND		0.01									
Compd: 2-NITROPHENOL		ND		0.01									
Compd: 3,3-DICHLOROBENZENEDINE		ND		0.01									
Compd: 3-NITROANILINE		ND		0.01									
Compd: 4,6-DINITRO-2-METHYLPHENOL		ND		0.01									
Compd: 4-BROMOPHENYL PHENYL ETHER		ND		0.01									
Compd: 4-CHLORO-3-METHYLPHENOL		ND		0.01									

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 30

Lab #: 15375.00 Client Ref #: SB4 001
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/24/94
 Coll. Ending Time: 15:50

Receipt Date: 05/26/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lat of Hold Ana-	Prep	Date	Batch	Lab	Note
			Detect Time	lyst	Date	Time	Number	Analyst's Note
Capt: 4-CHLORANILINE	ND	0.01						
Capt: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Capt: 4-METHYLPHENOL	ND	0.01						
Capt: 4-NITROANILINE	ND	0.01						
Capt: 4-NITROPHENOL	ND	0.01						
Capt: ACENAPHTHENE	4396	0.01						
Capt: ACENAPHTHYLENE	ND	0.01						
Capt: ANTHRACENE	284781	0.01						
Capt: BENZO(a)ANTHRACENE	ND	0.01						
Capt: BENZO(a)PYRENE	ND	0.01						
Capt: BENZO(b)FLUORANTHENE	ND	0.01						
Capt: BENZO(g,h,i)PERYLENE	ND	0.01						
Capt: BENZO(k)FLUORANTHENE	ND	0.01						
Capt: BENZOIC ACID	ND	0.01						
Capt: BENZYL ALCOHOL	ND	0.01						
Capt: bis(2-CHLOROETHOXY) METHANE	ND	0.01						
Capt: bis(2-CHLOROETHYL) ETHER	ND	0.01						
Capt: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Capt: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01						
Capt: BUTYL BENZYL PHTHALATE	ND	0.01						
Capt: CHRYSENE	ND	0.01						
Capt: DI-n-BUTYLPHTHALATE	ND	0.01						
Capt: DI-n-OCTYL PHTHALATE	ND	0.01						
Capt: DIBENZ(a,b)ANTHRACENE	ND	0.01						
Capt: DIBENZOPIRAN	ND	0.01						
Capt: DIETHYLPHTHALATE	ND	0.01						

Note: ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5199 Date: 06/14/94 Page #: 31
Lab #: 15375.00 Client Ref #: SB4 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/24/94 Coll. Ending Time: 15:50 Receipt Date: 05/26/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Detect Time	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
Compd: DIMETHYL PHTHALATE	ND	0.01						
Compd: FLUORANTHENE	33566	0.01						
Compd: FLOORENE	4529	0.01						
Compd: HEXACHLOROBENZENE	ND	0.01						
Compd: HEXACHLOROBUTADIENE	ND	0.01						
Compd: HEXACHLOROCYCLOPENTADIENE	ND	0.01						
Compd: HEXACHLOROETHANE	ND	0.01						
Compd: INDENO(1,2,3-cd)PYRENE	ND	0.01						
Compd: ISOPHORONE	ND	0.01						
Compd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01						
Compd: N-NITROSODIPHENYLAMINE	ND	0.01						
Compd: NAPHTHALENE	250882	0.01						
Compd: NITROBENZENE	ND	0.01						
Compd: PESTACHLOROPHENOL	ND	0.01						
Compd: PERMANTHRENE	1998	0.01						
Compd: PHENOL	ND	0.01						
Compd: PYRENE	ND	0.01						

Note —Note Description	Note —Note Description
ND	NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 32

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
 Units: PPM
 Analyst: TENNIE WHITE

Preparation Date: 05/28/94
 Test Began Date & Time: 06/02/94 @ 08:00
 Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803
 Book/Page: 4/32

Screen Compound Amount/Limit of Detection:	Sample		Replicate		Matrix Spike		Mix & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Log Number:	15349		15349		15349		15349		BLANK	
Sample Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
Sample Type:	GRAB		GRAB		GRAB		GRAB		GRAB	
Surr: NITROBENZENE-d5	964		794		0.500		764		984	
Surr: 2-FLUOROBIPHENYL	704		854		0.500		694		734	
Surr: 2,4,6-TRIBROMOPHENOL	834		664		0.500		914		654	
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01	ND	0.01	1.00		574		ND	0.01
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01	ND	0.01	1.00		744		ND	0.01
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01	ND	0.01	1.00		914		ND	0.01
Cmpd: 2,4-DINITROPHENOL	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2,4-DINITROTOLUENE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2,6-DINITROTOLUENE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2-CHLOROPHENOL	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2-METHYLPHENOL	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2-NITROANILINE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 2-NITROPHENOL	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01	ND	0.01	1.00		604		ND	0.01
Cmpd: 3-NITROANILINE	ND	0.01	ND	0.01	0		04		ND	0.01
Cmpd: 3-NITROPHENOL	ND	0.01	ND	0.01	0		04		ND	0.01

ND NOT DETECTED

Note: Note Description

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. 601/956-1400 Office QA/QC: COLEMAN, J Report #: 5199
P 5360 I-55 North 601/956-0513 Fax Manager: JOHNSTON, H Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 33

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS Preparation Date: 05/28/94 Batch Number: 6803
Units: ppm Test Began Date & Time: 06/02/94 @ 08:00 Book/Page: 4/32
Analyst: TENNIE WHITE Test Ended Date & Time: 06/08/94 @ 15:50

	Sample		Replicate		Matrix Spike		Mtx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Capd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: 4-CHLORO-3-METHYLPHENOL	ND	0.01	ND	0.01	1.00	0.01	80%	0.01	ND	0.01
Capd: 4-CHLOROANILINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: 4-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: 4-NITROANILINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: 4-NITROPHENOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: ACENAPHTHENE	ND	0.01	ND	0.01	1.00	0.01	79%	0.01	ND	0.01
Capd: ACENAPHTYLENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: BENZO(a)PYRENE	ND	0.01	ND	0.01	1.00	0.01	68%	0.01	ND	0.01
Capd: BENZO(b)FLORANTHENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: BENZO(g,h,i)PERYLENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: BENZO(k)FLORANTHENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: BENZOIC ACID	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: BENZYL ALCOHOL	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: bis(2-CHLOROETHOXY) METHANE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: bis(2-CHLOROETHYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: bis(2-ETHYLEXYL)PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: BUTYL BENZYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: CERYSENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: DI-M-BUTYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Capd: DI-M-OCTYL PHTHALATE	ND	0.01	ND	0.01	1.00	0.01	78%	0.01	ND	0.01

Note—Note Description **Note**—Note Description
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 34

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
 Units: PPM
 Analyst: TENNIE WHITE

Preparation Date: 05/28/94
 Test Began Date & Time: 06/02/94 @ 08:00
 Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6803
 Book/Page: 4/32

	Sample		Replicate		Matrix Spike		Mtx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: DIBENZOFLURAN	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: DIETHYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: FLUORANTHENE	ND	0.01	ND	0.01	1.00	0.01	84%	0.01	ND	0.01
Cmpd: FLUORENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: HEXACHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: HEXACHLOROBUTADIENE	ND	0.01	ND	0.01	1.00	0.01	80%	0.01	ND	0.01
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: HEXACHLOROTERANE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: ISOPHORONE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: M-NITROSO-DI-N-PROPYLAMINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: M-NITROSODIPHENYLAMINE	ND	0.01	ND	0.01	1.00	0.01	84%	0.01	ND	0.01
Cmpd: NAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: NITROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: PENTACHLOROPHENOL	ND	0.01	ND	0.01	1.00	0.01	57%	0.01	ND	0.01
Cmpd: PHTHALTERENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cmpd: PHENOL	ND	0.01	ND	0.01	1.00	0.01	56%	0.01	ND	0.01
Cmpd: PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Quality Control Summary Notes:									A	

Note: Note Description
 A Requirements set by method were met. ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 35

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
Units: ppm
Analyst: TENNIE WHITE

Preparation Date: 05/28/94
Test Began Date & Time: 06/02/94 @ 08:00
Test Ended Date & Time: 06/08/94 @ 08:00

Batch Number: 6842
Book/Page: 4/55

	Sample		Replicate		Matrix Spikes		Mtx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Log Number:	15370		15370		15370		15370		15370	
Sample Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
Sample Type:	GRAB		GRAB		GRAB		GRAB		GRAB	
Screen Compound Amount/Limit of Detection:										
Surr: NITROBENZENE-d5	78%	0.01	ND	0.01	0.500	0.01	80%	0.01	64%	0.01
Surr: 2-FLUOROBIPHENYL	59%	0.01	ND	0.01	0.500	0.01	72%	0.01	91%	0.01
Surr: 2,4,6-TRIBROMOPHENOL	56%	0.01	76%		0.500		72%		51%	
Compd: 1,2,4-TRICHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 1,2-DICHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 1,3-DICHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 1,4-DICHLOROBENZENE	ND	0.01	ND	0.01	0.50	0.01	50%	0.01	ND	0.01
Compd: 2,3-DIMETHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2,4,5-TRICHLOROPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2,4,6-TRICHLOROPHENOL	ND	0.01	ND	0.01	0.50	0.01	50%	0.01	ND	0.01
Compd: 2,4-DICHLOROPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2,4-DINITROPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2,4-DINITROTOLUENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2,6-DINITROTOLUENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2-CELORONAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2-CELOROPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2-METHYLNAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2-METHYLPHENOL	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2-NITROANILINE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 2-NITROPHENOL	ND	0.01	ND	0.01	0.50	0.01	59%	0.01	ND	0.01
Compd: 3,3-DICHLOROBENZIDINE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01
Compd: 3-NITROANILINE	ND	0.01	ND	0.01	0	0.01	0%	0.01	ND	0.01

Note: ND = NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5199
Date: 06/14/94
Page #: 36

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Units: PPM

Analyst: TENNIE WHITE

Preparation Date: 05/28/94

Test Began Date & Time: 06/02/94 @ 08:00

Test Ended Date & Time: 06/08/94 @ 08:00

Batch Number: 6842

Book/Page: 4/55

Compd:	Sample		Replicate		Matrix Spike		Htx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Compd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: 4-CHLORO-3-METHYLPHENOL	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: 4-CHLOROBENZENE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: 4-METHYLPHENOL	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: 4-NITROANILINE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: 4-NITROPHENOL	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: ACENAPHTHENE	ND	0.01	ND	0.01	0	0.50	83%	0.01	ND	0.01
Compd: ACENAPHTYLENE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: ANTHRACENE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: BENZO(a)PYRENE	ND	0.01	ND	0.01	0	0.50	59%	0.01	ND	0.01
Compd: BENZO(b)FLUORANTHENE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: BENZO(g,h,i)PERYLENE	43.48	0.01	42.80	0.01	0	0	0%	0.01	ND	0.01
Compd: BENZO(k)FLUORANTHENE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: BENZOIC ACID	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: BENZYL ALCOHOL	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: bis(2-CHLOROETHOXY) METHANE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: bis(2-CHLOROETHYL) ETHER	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: BUTYL BENZYL PHTHALATE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: CHRYSENE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: DI-N-BUTYL PHTHALATE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: DI-N-OCTYL PHTHALATE	ND	0.01	ND	0.01	0	0	0%	0.01	ND	0.01
Compd: DI-N-DECYL PHTHALATE	ND	0.01	ND	0.01	0	0.50	94%	0.01	ND	0.01

Note: Note Description

ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. 601/956-1400 Office
P 5360 I-55 North 601/956-0513 Fax
S Jackson, MS 39211

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5199
 Date: 06/14/94
 Page #: 37

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Units: ppm

Analyst: TENNIE WHITE

Preparation Date: 05/28/94

Test Began Date & Time: 06/02/94 @ 08:00

Test Ended Date & Time: 06/08/94 @ 08:00

Batch Number: 6842

Book/Page: 4/55

	Sample		Replicate		Matrix Spike		Mtx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: DIBENZOFURAN	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: DIETHYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: FLUORANTHENE	ND	0.01	ND	0.01	0.50	0.01	0	0	ND	0.01
Cmpd: FLUORENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: HEXACHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: HEXACHLOROBUTADIENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01	ND	0.01	0.50	0.01	52%	52%	ND	0.01
Cmpd: HEXACHLOROTHANE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: INDERO(1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: ISOPHORONE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: N-NITROSDIPHENYLAMINE	ND	0.01	ND	0.01	0.50	0.01	52%	52%	ND	0.01
Cmpd: NAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: NITROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: PENTACHLOROPHENOL	ND	0.01	ND	0.01	0.50	0.01	59%	59%	ND	0.01
Cmpd: PHENANTHRENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Cmpd: PHENOL	ND	0.01	ND	0.01	0.50	0.01	68%	68%	ND	0.01
Cmpd: PYRENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
Quality Control Summary Notes:										

Note: Note Description

A Requirements set by method were met.

ND NOT DETECTED

A

Quality Control / Quality Assurance Summary

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: <i>James A. Collins</i> Manager: <i>David Edward</i> Facil ID:</p>	<p>Report #: 5224 Date: 06/14/94 Page #: 1</p>
<p>Acct #: 0051 Client: ENVIRONMENTAL PROTECTION SYSTEMS - ENG. Address: 5360 I-55 NORTH City: JACKSON, MS 39211- Contact: SCHARINE KIRCHOFF Phone: 601/956-1400 Fax: 601/956-2365</p>	<p>Contract Descrip: VAN SLYKE-HATTIESBURG,MS ANALYSIS Project Location: VAN SLYKE-HTSBRG,MS Contract Number : 1.V7101.002 Contract PO: Expiration Date: 01/01/95</p>		
<p>Analyte</p>	<p>Method</p>	<p>GC/MS FOR SEMIVOLATILE ORGANICS</p>	<p>SW846 METHOD 8270</p>
<p>GC/MS FOR SEMIVOLATILE ORGANICS</p>	<p>SW846 METHOD 8270</p>	<p>Surrogate Recovery</p>	<p>Mtx Spk Recovery</p>
<p>A</p>	<p>A</p>	<p>A</p>	<p>A</p>
<p>Blank</p>	<p>Blank</p>	<p>Blank</p>	<p>Blank</p>
<p>A</p>	<p>A</p>	<p>A</p>	<p>A</p>
<p>Batch Number</p>	<p>Batch Number</p>	<p>Batch Number</p>	<p>Batch Number</p>
<p>6842</p>	<p>6842</p>	<p>6842</p>	<p>6842</p>

---Note---Note Description

A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 2
Lab #: 15628.00 Client Ref #: SB14 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 13:40 Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	screen	Lmt of Hold Ana- Prep (---Test---) Batch Lab							
				Detect Time	lyst Date	Date	Time	Number	Note	Analyst's Note	
GC/MS FOR SEMIVOLATILE ORGANICS	PPM			screen A	TKW	05/28/94	06/08/94	08:00	6842		
SUFF: NITROBENZENE-d5		644 A									
SUFF: 2-FLUOROBIPHENYL		644 A									
SUFF: 2,4,6-TRIBROMOPHENOL		894 A									
Capt: 1,2,4-TRICHLOROBENZENE		ND		0.01							
Capt: 1,2-DICHLOROBENZENE		ND		0.01							
Capt: 1,3-DICHLOROBENZENE		ND		0.01							
Capt: 1,4-DICHLOROBENZENE		ND		0.01							
Capt: 2,3-DIMETHYLPHENOL		ND		0.01							
Capt: 2,4,5-TRICHLOROPHENOL		ND		0.01							
Capt: 2,4,6-TRICHLOROPHENOL		ND		0.01							
Capt: 2,4-DICHLOROPHENOL		ND		0.01							
Capt: 2,4-DINITROPHENOL		ND		0.01							
Capt: 2,4-DINITROTOLUENE		ND		0.01							
Capt: 2,6-DINITROTOLUENE		ND		0.01							
Capt: 2-CHLOROMAPHTHALENE		ND		0.01							
Capt: 2-CHLOROPHENOL		ND		0.01							
Capt: 2-METHYLAPHTHALENE		ND		0.01							
Capt: 2-METHYLPHENOL		ND		0.01							
Capt: 2-NITROANILINE		ND		0.01							
Capt: 2-NITROPHENOL		ND		0.01							
Capt: 3,3-DICHLOROBENZIDINE		ND		0.01							
Capt: 3-NITROANILINE		ND		0.01							
Capt: 4,6-DINITRO-2-METHYLPHENOL		ND		0.01							
Capt: 4-BROMOPHENYL PHENYL ETHER		ND		0.01							
Capt: 4-CHLORO-3-METHYLPHENOL		ND		0.01							

Note --- **Note Description**
 ND NOT DETECTED

A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 3
Lab #: 15628.00 Client Ref #: SB14 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF coll. Ending Date: 05/26/94 coll. Ending Time: 13:40 Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Int of Hold Ana-			Batch	Lab
			Detect Time	l yst	Date		
Cmpd: 4-CHLORANILINE	ND	0.01					
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-METHYLPHENOL	ND	0.01					
Cmpd: 4-NITROANILINE	ND	0.01					
Cmpd: 4-NITROPHENOL	ND	0.01					
Cmpd: ACENAPHTHENE	ND	0.01					
Cmpd: ACENAPHTHYLENE	ND	0.01					
Cmpd: ANTRACENE	ND	0.01					
Cmpd: BENZO(a)ANTHRACENE	ND	0.01					
Cmpd: BENZO(a)PYRENE	ND	0.01					
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01					
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01					
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01					
Cmpd: BENZOIC ACID	ND	0.01					
Cmpd: BENZYL ALCOHOL	ND	0.01					
Cmpd: bis(2-CHLOROPHTOXY) METHANE	ND	0.01					
Cmpd: bis(2-CHLOROTHYL) ETHER	ND	0.01					
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01					
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01					
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01					
Cmpd: CHRYSENE	ND	0.01					
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01					
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01					
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01					
Cmpd: DIBENZOFURAN	ND	0.01					
Cmpd: DIETHYL PHTHALATE	ND	0.01					

Note—Note Description

Note—Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 4
Lab #: 15628.00 Client Ref #: SB14 001 Sample Description SOIL	sample collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 13:40	Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Amount	Units	Lat of Hold Ana- Detect Time	Prep l yst	Date	Test Date	Batch Time	Lab Number	Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND		0.01							
Cmpd: FLUORANTHENE	ND		0.01							
Cmpd: FLUORENE	ND		0.01							
Cmpd: HEXACHLOROBENZENE	ND		0.01							
Cmpd: HEXACHLOROBUTADIENE	ND		0.01							
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND		0.01							
Cmpd: HEXACHLOROTHANE	ND		0.01							
Cmpd: INDENO(1,2,3-cd)PYRENE	ND		0.01							
Cmpd: ISOPHORONE	ND		0.01							
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND		0.01							
Cmpd: N-NITRODIPHENYLAMINE	ND		0.01							
Cmpd: NAPHTHALENE	ND		0.01							
Cmpd: NITROBENZENE	ND		0.01							
Cmpd: PENTACHLOROPHENOL	ND		0.01							
Cmpd: PHEMANTERENE	ND		0.01							
Cmpd: PHENOL	ND		0.01							
Cmpd: PYRENE	ND		0.01							

Note—Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5224
Date: 06/14/94
Page #: 5

Lab #: 15629.00 **Client Ref #:** SB12 001
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/26/94
Coll. Ending Time: 10:50
Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	screen	screen A	TKW	05/28/94	06/08/94	08:00	6842	Batch	Lab	Note	Analyt's Note
CC/MS FOR SEMIVOLATILE ORGANICS	PPM												
SUITE NITROBENZENE-d5		648 A											
SUITE 2-FLUOROBIPHENYL		604 A											
SUITE 2,4,6-TRIBROMOPHENOL		504 A											
Capt: 1,2,4-TRICHLOROBENZENE		ND	0.01										
Capt: 1,2-DICHLOROBENZENE		ND	0.01										
Capt: 1,3-DICHLOROBENZENE		ND	0.01										
Capt: 1,4-DICHLOROBENZENE		ND	0.01										
Capt: 2,3-DIMETHYLPHENOL		ND	0.01										
Capt: 2,4,5-TRICHLOROPHENOL		ND	0.01										
Capt: 2,4,6-TRICHLOROPHENOL		ND	0.01										
Capt: 2,4-DICHLOROPHENOL		ND	0.01										
Capt: 2,4-DINITROPHENOL		ND	0.01										
Capt: 2,4-DINITROTOLUENE		ND	0.01										
Capt: 2,6-DINITROTOLUENE		ND	0.01										
Capt: 2-CHLORONAPHTHALENE		ND	0.01										
Capt: 2-CHLOROPHENOL		ND	0.01										
Capt: 2-METHYLNAPHTHALENE		1055	0.01										
Capt: 2-METHYLPHENOL		ND	0.01										
Capt: 2-NITROANILINE		ND	0.01										
Capt: 2-NITROPHENOL		ND	0.01										
Capt: 3,3-DICHLOROBENZIDINE		ND	0.01										
Capt: 3-NITROANILINE		ND	0.01										
Capt: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01										
Capt: 4-BROMOPHENYL PHENYL ETHER		ND	0.01										
Capt: 4-CHLORO-3-METHYLPHENOL		ND	0.01										

Note—Note Description
A Requirements set by method were met.

Note—Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
 601/956-0513 Fax

Report #: 5224
Date: 06/14/94
Page #: 6

Lab #: 15629.00 **Client Ref #:** SB12 001
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/26/94
Coll. Ending Time: 10:50
Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Time	Lab Number	Note Analyst's Note
Cmpd: 4-CHLORANILINE	ND	0.01						
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Cmpd: 4-METHYLPHENOL	ND	0.01						
Cmpd: 4-NITROANILINE	ND	0.01						
Cmpd: 4-NITROPHENOL	ND	0.01						
Cmpd: ACENAPHTHENE	ND	0.01						
Cmpd: ACENAPHTYLENE	ND	0.01						
Cmpd: ANTHRACENE	86752	0.01						
Cmpd: BENZO(a)ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)PYRENE	ND	0.01						
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01						
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01						
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01						
Cmpd: BENZOIC ACID	ND	0.01						
Cmpd: BENZYL ALCOHOL	ND	0.01						
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01						
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01						
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01						
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01						
Cmpd: CHRYSENE	ND	0.01						
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01						
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01						
Cmpd: DIMENS(a,b)ANTHRACENE	ND	0.01						
Cmpd: DIMENSOFURAN	ND	0.01						
Cmpd: DIETHYLPHTHALATE	ND	0.01						

~~Note~~ ~~Note Description~~ ~~Note~~ ~~Note Description~~

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5224
Date: 06/14/94
Page #: 7

Lab #: 15629.00 **Client Ref #:** SB12 001
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/26/94
Coll. Ending Time: 10:50
Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	{	Test	}	Batch	Lab	Note	Analyst's Note
			lyst	Date	Date	Time	Number				
Capd: DIMETHYL PHTHALATE	ND	0.01									
Capd: FLUORANTHENE	2133	0.01									
Capd: FLUORENE	ND	0.01									
Capd: HEXACHLOROBENZENE	ND	0.01									
Capd: HEXACHLOROBUTADIENE	ND	0.01									
Capd: HEXACHLOROCYCLOPENTADIENE	ND	0.01									
Capd: HEXACHLOROTHANE	ND	0.01									
Capd: INDENO(1,2,3-cd)PYRENE	ND	0.01									
Capd: ISOPHORONE	ND	0.01									
Capd: M-NITROSO-DI-N-PROPYLAMINE	ND	0.01									
Capd: N-NITROSODIPHENYLAMINE	ND	0.01									
Capd: NAPHTHALENE	12573	0.01									
Capd: NITROBENZENE	ND	0.01									
Capd: PENTACHLOROPHENOL	ND	0.01									
Capd: PHENANTHRENE	ND	0.01									
Capd: PHENOL	ND	0.01									
Capd: PYRENE	ND	0.01									

~~Note~~ ~~Note Description~~ ~~Note~~ ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 Fax

Report #: 5224
Date: 06/14/94
Page #: 8

Lab #: 15630.00 Client Ref #: SB13 002
Sample Description
SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/26/94
Coll. Ending Time: 11:40

Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-	Prep	Date	Batch	Lab
			Detect Time	l yst	Date	Time	Note
			screen A	TKW	05/28/94	06/08/94	08:00 6842
GC/MS FOR SEMIVOLATILE ORGANICS							
SUFF: NITROBENZENE-d5	Ppm	screen	78% A				
SUFF: 2-FLUOROBIPHENYL			78% A				
SUFF: 2,4,6-TRIBROMOPHENOL			60% A				
Capd: 1,2,4-TRICHLOROBENZENE		ND	0.01				
Capd: 1,2-DICHLOROBENZENE		ND	0.01				
Capd: 1,3-DICHLOROBENZENE		ND	0.01				
Capd: 1,4-DICHLOROBENZENE		ND	0.01				
Capd: 2,3-DIMETHYLPHENOL		ND	0.01				
Capd: 2,4,5-TRICHLOROPHENOL		ND	0.01				
Capd: 2,4,6-TRICHLOROPHENOL		ND	0.01				
Capd: 2,4-DICHLOROPHENOL		ND	0.01				
Capd: 2,4-DINITROPHENOL		ND	0.01				
Capd: 2,4-DINITROTOLUENE		ND	0.01				
Capd: 2,6-DINITROTOLUENE		ND	0.01				
Capd: 2-CHLORONAPHTHALENE		ND	0.01				
Capd: 2-CHLOROPHENOL		ND	0.01				
Capd: 2-METHYLNAPHTHALENE		ND	0.01				
Capd: 2-METHYLPHENOL		ND	0.01				
Capd: 2-NITROANILINE		ND	0.01				
Capd: 2-NITROPHENOL		ND	0.01				
Capd: 3,3-DICHLOROBENZIDINE		ND	0.01				
Capd: 3-NITROANILINE		ND	0.01				
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01				
Capd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01				
Capd: 4-CHLORO-3-METHYLPHENOL		ND	0.01				

Note—Note Description
A Requirements set by method were met.

Note—Note Description
ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax
 Facil ID:

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H

Report #: 5224
 Date: 06/14/94
 Page #: 9

Lab #: 15630.00 Client Ref #: SB13 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 11:40

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab
			Detect Time	l yst	Test	Number	Number	Note
Compd: 4-CHLORANILINE	ND	0.01						
Compd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Compd: 4-METHYLPHENOL	ND	0.01						
Compd: 4-NITROANILINE	ND	0.01						
Compd: 4-NITROPHENOL	ND	0.01						
Compd: ACENAPHTHENE	ND	0.01						
Compd: ACENAPHTHYLENE	ND	0.01						
Compd: ANTHRACENE	ND	0.01						
Compd: BENZO(a)ANTHRACENE	ND	0.01						
Compd: BENZO(a)PYRENE	ND	0.01						
Compd: BENZO(b)FLUORANTHENE	ND	0.01						
Compd: BENZO(g,h,i)PERYLENE	ND	0.01						
Compd: BENZO(k)FLUORANTHENE	ND	0.01						
Compd: BENZOIC ACID	ND	0.01						
Compd: BENZYL ALCOHOL	ND	0.01						
Compd: bis(2-CHLOROETHOXY) METHANE	ND	0.01						
Compd: bis(2-CHLOROETHYL) ETHER	ND	0.01						
Compd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Compd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01						
Compd: BUTYL BENZYL PHTHALATE	ND	0.01						
Compd: CHRYSENE	ND	0.01						
Compd: DI-N-BUTYL PHTHALATE	ND	0.01						
Compd: DI-N-OCTYL PHTHALATE	ND	0.01						
Compd: DIENZO(e,h)ANTHRACENE	ND	0.01						
Compd: DIMENSOFURAN	ND	0.01						
Compd: DIETHYL PHTHALATE	ND	0.01						

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 10
Lab #: 15630.00 Client Ref #: SB13 002 Sample Description SOIL	Sample Collected by: S KIRCHOFF coll. Ending Date: 05/26/94 coll. Ending Time: 11:40	Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-	Detect Time lyst	Prep Date	Date	Batch	Lab	Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND	0.01								
Cmpd: FLUORANTHENE	ND	0.01								
Cmpd: FLUORENE	ND	0.01								
Cmpd: HEXACHLOROBENZENE	ND	0.01								
Cmpd: HEXACHLOROBUTADIENE	ND	0.01								
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01								
Cmpd: HEXACHLOROETHANE	ND	0.01								
Cmpd: INDESO(1,2,3-cd)PYRENE	ND	0.01								
Cmpd: ISOPHORONE	ND	0.01								
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01								
Cmpd: N-NITROSODIPHENTYLAMINE	ND	0.01								
Cmpd: NAPHTHALENE	ND	0.01								
Cmpd: NITROBENZENE	ND	0.01								
Cmpd: PENTACHLOROPHENOL	ND	0.01								
Cmpd: PHENANTHRENE	ND	0.01								
Cmpd: PHENOL	ND	0.01								
Cmpd: PYRENE	ND	0.01								

~~Note~~ ~~Note Description~~ ~~Note~~ ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5224
 Date: 06/14/94
 Page #: 11

Lab #: 15631.00 Client Ref #: WPS 001

Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 08:50

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lat of Hold Ana-	Prep	Date	Time	Batch	Lab	Notes
			Detect <td>Time <td>Date <td>Time <td>Number <td>Analyst's <td>Note</td> </td></td></td></td></td>	Time <td>Date <td>Time <td>Number <td>Analyst's <td>Note</td> </td></td></td></td>	Date <td>Time <td>Number <td>Analyst's <td>Note</td> </td></td></td>	Time <td>Number <td>Analyst's <td>Note</td> </td></td>	Number <td>Analyst's <td>Note</td> </td>	Analyst's <td>Note</td>	Note
GC/MS FOR SEMI-VOLATILE ORGANICS	ppm	screen	TKW	05/28/94	06/08/94	08:00	6842		
Surf: NITROBENZENE-d5		804 A							
Surf: 2-FLUOROBIPHENYL		724 A							
Surf: 2,4,6-TRISOPHENOL		584 A							
Capt: 1,2,4-TRICHLOROBENZENE		ND							
Capt: 1,2-DICHLOROBENZENE		ND							
Capt: 1,3-DICHLOROBENZENE		ND							
Capt: 1,4-DICHLOROBENZENE		ND							
Capt: 2,3-DIMETHYLPHENOL		ND							
Capt: 2,4,5-TRICHLOROPHENOL		ND							
Capt: 2,4,6-TRICHLOROPHENOL		ND							
Capt: 2,4-DICHLOROPHENOL		ND							
Capt: 2,4-DINITROPHENOL		ND							
Capt: 2,4-DINITROTOLUENE		ND							
Capt: 2,6-DINITROTOLUENE		ND							
Capt: 2-CHLORONAPHTHALENE		ND							
Capt: 2-CHLOROPHENOL		ND							
Capt: 2-METHYLNAPHTHALENE		ND							
Capt: 2-METHYLPHENOL		ND							
Capt: 2-NITROANILINE		ND							
Capt: 2-NITROPHENOL		ND							
Capt: 3,3-DICHLOROBENZIDINE		ND							
Capt: 3-NITROANILINE		ND							
Capt: 4,6-DINITRO-2-METHYLPHENOL		ND							
Capt: 4-BROMOPHENYL PHENYL ETHER		ND							
Capt: 4-CHLORO-3-METHYLPHENOL		ND							

Note: Note Description

A Requirements set by method were met.

ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5224 Date: 06/14/94 Page #: 12</p>
<p>Lab #: 15631.00 Client Ref #: WPS 001 Sample Description SOIL</p>	<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 08:50</p>		
<p>Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL</p>			

Analyte	Units	Amount	Lmt of Hold	Ana- Prep	Date	Time	Batch	Lab	Note
			Detect	Time	lyst	Date	Time	Number	Analyt's Note
Cmpd: 4-CHLOROANILINE	ND	0.01							
Cmpd: 4-CHLOROPHENYL PERNYL ETHER	ND	0.01							
Cmpd: 4-METHYLPHENOL	ND	0.01							
Cmpd: 4-NITROANILINE	ND	0.01							
Cmpd: 4-NITROPHENOL	ND	0.01							
Cmpd: ACENAPHTHENE	ND	0.01							
Cmpd: ACENAPHTHYLENE	ND	0.01							
Cmpd: ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)PYRENE	ND	0.01							
Cmpd: BENZO(b)FLUORANTHRENE	ND	0.01							
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01							
Cmpd: BENZO(k)FLUORANTHRENE	ND	0.01							
Cmpd: BENZOIC ACID	ND	0.01							
Cmpd: BENZYL ALCOHOL	ND	0.01							
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01							
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01							
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01							
Cmpd: bis(2-ETHYLENYL)PHTHALATE	ND	0.01							
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01							
Cmpd: CERYSENE	ND	0.01							
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01							
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01							
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01							
Cmpd: DIBENZOFURAN	ND	0.01							
Cmpd: DIETHYL PHTHALATE	ND	0.01							

Note: ND NOT DETECTED
 Note: Note Description

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>Report #: 5224 Date: 06/14/94 Page #: 13</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>
<p>Lab #: 15631.00 Client Ref #: WPS 001 Sample Description SOIL</p>		<p>Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL</p>	

Analyte	Units	Amount	Iamt of Hold Ans- Prep			Batch	Lab
			Detect	Time	l yst			Date	Time	Number	Note	Analyst's
Capt: DIMETHYL PHTHALATE	ND	0.01					
Capt: FLUORANTHENE	3099	0.01					
Capt: FLUORENE	ND	0.01					
Capt: HEXACHLOROBENZENE	ND	0.01					
Capt: HEXACHLOROBUTADIENE	ND	0.01					
Capt: HEXACHLOROCYCLOPENTADIENE	ND	0.01					
Capt: HEXACHLOROETHANE	ND	0.01					
Capt: INDENO(1,2,3-cd)PYRENE	ND	0.01					
Capt: ISOPHORONE	ND	0.01					
Capt: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01					
Capt: N-NITROSODIPRENTYLAMINE	ND	0.01					
Capt: NAPHTHALENE	ND	0.01					
Capt: NITROBENZENE	ND	0.01					
Capt: PENTACHLOROPHENOL	ND	0.01					
Capt: PHENANTHRENE	94.29	0.01					
Capt: PHENOL	ND	0.01					
Capt: PYRENE	932	0.01					

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5224
 Date: 06/14/94
 Page #: 14

Lab #: 15632.00 Client Ref #: SB13 004
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 12:10
 Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	screen	Lmt of Hold Ana-	Prep	Date	Time	Batch	Lab	Note
				Detect Time	lyst	Date	Number			Analyt's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm		screen	TKW	05/28/94	06/08/94	08:00	6842		
SUIT: NITROBENZENE-d5		87% A								
SUIT: 2-FLUOROBIPHENYL		80% A								
SUIT: 2,4,6-TRIBROMOPHENOL		72% A								
Capd: 1,2,4-TRICHLOROBENZENE		ND	0.01							
Capd: 1,2-DICHLOROBENZENE		ND	0.01							
Capd: 1,3-DICHLOROBENZENE		ND	0.01							
Capd: 1,4-DICHLOROBENZENE		ND	0.01							
Capd: 2,3-DIMETHYLPHENOL		ND	0.01							
Capd: 2,4,5-TRICHLOROPHENOL		ND	0.01							
Capd: 2,4,6-TRICHLOROPHENOL		ND	0.01							
Capd: 2,4-DICHLOROPHENOL		ND	0.01							
Capd: 2,4-DINITROPHENOL		ND	0.01							
Capd: 2,4-DINITROTOLUENE		ND	0.01							
Capd: 2,6-DINITROTOLUENE		ND	0.01							
Capd: 2-CHLORONAPHTHALENE		ND	0.01							
Capd: 2-CHLOROPHENOL		ND	0.01							
Capd: 2-METHYLNAPHTHALENE		ND	0.01							
Capd: 2-METHYLPHENOL		ND	0.01							
Capd: 2-NITROANILINE		ND	0.01							
Capd: 2-NITROPHENOL		ND	0.01							
Capd: 3,3-DICHLOROBENZIDINE		ND	0.01							
Capd: 3-NITROANILINE		ND	0.01							
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01							
Capd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01							
Capd: 4-CHLORO-3-METHYLPHENOL		ND	0.01							

Note: Note Description

A Requirements set by method were met.

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5224
Date: 06/14/94
Page #: 15

Lab #: 15632.00 **Client Ref #:** SB13 004
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/26/94
Coll. Ending Time: 12:10
Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Batch	Lab	Note
			Detect Time	(---Test---	Time	Number	Analyst's	Note
			lyst	Date			Note	
Cmpd: 4-CHLOROANILINE	ND	0.01						
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01						
Cmpd: 4-METHYLPHENOL	ND	0.01						
Cmpd: 4-NITROANILINE	ND	0.01						
Cmpd: 4-NITROPHENOL	ND	0.01						
Cmpd: ACENAPHTHENE	ND	0.01						
Cmpd: ACENAPHTHYLENE	ND	0.01						
Cmpd: ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)ANTHRACENE	ND	0.01						
Cmpd: BENZO(a)PYRENE	ND	0.01						
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01						
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01						
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01						
Cmpd: BENZOIC ACID	ND	0.01						
Cmpd: BENZYL ALCOHOL	ND	0.01						
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01						
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01						
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01						
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01						
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01						
Cmpd: CHRYSENE	ND	0.01						
Cmpd: DI-n-BUTYL PHTHALATE	ND	0.01						
Cmpd: DI-n-OCTYL PHTHALATE	ND	0.01						
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01						
Cmpd: DIBENZOFORAN	ND	0.01						
Cmpd: DIETHYL PHTHALATE	ND	0.01						

Note---Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
 P 5360 I-55 North
 S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5224
 Date: 06/14/94
 Page #: 16

Lab #: 15632.00 Client Ref #: SB13 004
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 12:10

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep l yst	Date	Batch {-----Test-----}	Time	Number	Lab	Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND		0.01								
Cmpd: FLUORANTHENE	ND		0.01								
Cmpd: FLUORENE	ND		0.01								
Cmpd: HEXACHLOROBENZENE	ND		0.01								
Cmpd: HEXACHLOROBUTADIENE	ND		0.01								
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND		0.01								
Cmpd: HEXACHLOROTHANE	ND		0.01								
Cmpd: INDENO(1,2,3-cd)PYRENE	ND		0.01								
Cmpd: ISOPHORONE	ND		0.01								
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND		0.01								
Cmpd: N-NITROSODIPHENYLAMINE	ND		0.01								
Cmpd: NAPHTHALENE	ND		0.01								
Cmpd: NITROBENZENE	ND		0.01								
Cmpd: PENTACHLOROPHENOL	ND		0.01								
Cmpd: PHSANTHERENE	ND		0.01								
Cmpd: PHENOL	ND		0.01								
Cmpd: PYRENE	ND		0.01								

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5224
Date: 06/14/94
Page #: 17

Lab #: 15633.00 **Client Ref #:** SB14 003
Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/26/94
Coll. Ending Time: 14:05
Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Date	Time	Batch	Lab	Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	PPM	screen	screen A								
Surr: NITROBENZENE-d5		918 A									
Surr: 2-FLUOROBIPHENYL		918 A									
Surr: 2,4,6-TRIBROMOPHENOL		918 A									
Capd: 1,2,4-TRICHLOROBENZENE		ND									
Capd: 1,2-DICHLOROBENZENE		ND									
Capd: 1,3-DICHLOROBENZENE		ND									
Capd: 1,4-DICHLOROBENZENE		ND									
Capd: 2,3-DIMETHYLPHENOL		ND									
Capd: 2,4,5-TRICHLOROPHENOL		ND									
Capd: 2,4,6-TRICHLOROPHENOL		ND									
Capd: 2,4-DICHLOROPHENOL		ND									
Capd: 2,4-DINITROPHENOL		ND									
Capd: 2,4-DINITROVOLUENE		ND									
Capd: 2,6-DINITROVOLUENE		ND									
Capd: 2-CHLORONAPHTHALENE		ND									
Capd: 2-CHLOROPHENOL		ND									
Capd: 2-METHYLNAPHTHALENE		ND									
Capd: 2-METHYLPHENOL		ND									
Capd: 2-NITROANILINE		ND									
Capd: 2-NITROPHENOL		ND									
Capd: 3,3-DICHLOROBENZIDINE		ND									
Capd: 3-NITROANILINE		ND									
Capd: 4,6-DINITRO-2-METHYLPHENOL		ND									
Capd: 4-BROMOPHENYL PHENYL ETHER		ND									
Capd: 4-CHLORO-3-METHYLPHENOL		ND									

Note --- **Note Description**
 A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5224
 Date: 06/14/94
 Page #: 18

Lab #: 15633.00 Client Ref #: SB14 003
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 14:05
 Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Batch	Lab
			Detect Time	Date	Time	Note
			lyst	Date	Number	Analyst's Note
Capd: 4-CHLOROANILINE	ND	0.01				
Capd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01				
Capd: 4-METHYLPHENOL	ND	0.01				
Capd: 4-NITROANILINE	ND	0.01				
Capd: 4-NITROPHENOL	ND	0.01				
Capd: ACENAPHTHENE	ND	0.01				
Capd: ACENAPHTHYLENE	ND	0.01				
Capd: ANTRACENE	ND	0.01				
Capd: BENZO(a)ANTHRACENE	ND	0.01				
Capd: BENZO(a)PYRENE	ND	0.01				
Capd: BENZO(b)FLUORANTHENE	ND	0.01				
Capd: BENZO(g,h,i)PERYLENE	ND	0.01				
Capd: BENZO(k)FLUORANTHENE	ND	0.01				
Capd: BENZOIC ACID	ND	0.01				
Capd: BENZYL ALCOHOL	ND	0.01				
Capd: bis(2-CHLOROETHOXY) METHANE	ND	0.01				
Capd: bis(2-CHLOROETHYL) ETHER	ND	0.01				
Capd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01				
Capd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01				
Capd: BUTYL BENZYL PHTHALATE	ND	0.01				
Capd: CHRYSENE	ND	0.01				
Capd: DI-N-BUTYLPHTHALATE	ND	0.01				
Capd: DI-N-OCTYL PHTHALATE	ND	0.01				
Capd: DIBENZ(a,h)ANTHRACENE	ND	0.01				
Capd: DIBENZOFOURAN	ND	0.01				
Capd: DIETHYLPHTHALATE	ND	0.01				

Note: ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5224 Date: 06/14/94 Page #: 19</p>
<p>Lab #: 15633.00 Client Ref #: SB14 003</p>	<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 14:05</p>		
<p>Sample Description SOIL</p>		<p>Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL</p>	

Analyte	Units	Amount	Lat of Hold	Ans- Prep	Date	{---Test---	Batch	Lab	Note	Analyst's Note
Compd: DIMETHYL PHTHALATE	ND	0.01								
Compd: FLUORANTHENE	ND	0.01								
Compd: FLUORENE	ND	0.01								
Compd: HEXACHLOROBENZENE	ND	0.01								
Compd: HEXACHLOROBUTADIENE	ND	0.01								
Compd: HEXACHLOROCYCLOPENTADIENE	ND	0.01								
Compd: HEXACHLOROTHANE	ND	0.01								
Compd: INDENO(1,2,3-cd)PYRENE	ND	0.01								
Compd: ISOPHORONE	ND	0.01								
Compd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01								
Compd: N-NITROSODIPHENYLAMINE	ND	0.01								
Compd: NAPHTHALENE	ND	0.01								
Compd: NITROBENZENE	ND	0.01								
Compd: PENTACHLOROPHENOL	ND	0.01								
Compd: PHENANTHRENE	ND	0.01								
Compd: PHENOL	ND	0.01								
Compd: PYRENE	ND	0.01								

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5224
 Date: 06/14/94
 Page #: 20

Lab #: 15634.00 Client Ref #: SB14 002

Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 13:55

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Time	Lab Number	Note	Analyst's Note
GC/MS FOR SEMI-VOLATILE ORGANICS	ppm	screen							
SUZZ: NITROBENZENE-d5		94± A							
SUZZ: 2-FLUOROBIPHENYL		93± A							
SUZZ: 2,4,6-TRIBROMOPHENOL		90± A							
Compd: 1,2,4-TRICHLOROBENZENE		ND						0.01	
Compd: 1,2-DICHLOROBENZENE		ND						0.01	
Compd: 1,3-DICHLOROBENZENE		ND						0.01	
Compd: 1,4-DICHLOROBENZENE		ND						0.01	
Compd: 2,3-DIMETHYLPHENOL		ND						0.01	
Compd: 2,4,5-TRICHLOROPHENOL		ND						0.01	
Compd: 2,4,6-TRICHLOROPHENOL		ND						0.01	
Compd: 2,4-DICHLOROPHENOL		ND						0.01	
Compd: 2,4-DINITROPHENOL		ND						0.01	
Compd: 2,4-DINITROTOLUENE		ND						0.01	
Compd: 2,6-DINITROTOLUENE		ND						0.01	
Compd: 2-CHLORONAPHTHALENE		ND						0.01	
Compd: 2-CHLOROPHENOL		ND						0.01	
Compd: 2-METHYLNAPHTHALENE		ND						0.01	
Compd: 2-METHYLPHENOL		ND						0.01	
Compd: 2-NITROANILINE		ND						0.01	
Compd: 2-NITROPHENOL		ND						0.01	
Compd: 3,3-DICHLOROBENZIDINE		ND						0.01	
Compd: 3-NITROANILINE		ND						0.01	
Compd: 4,6-DINITRO-2-METHYLPHENOL		ND						0.01	
Compd: 4-BROMOPHENYL PHENYL ETHER		ND						0.01	
Compd: 4-CHLORO-3-METHYLPHENOL		ND						0.01	

Note: Note Description

A Requirements set by method were met.

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5224
Date: 06/14/94
Page #: 21

Lab #: 15634.00 **Client Ref #:** SB14 002
Sample Description
 SOIL

Sample collected by: S KIRCHOFF
coll. Ending Date: 05/26/94
coll. Ending Time: 13:55

Receipt Date: 05/28/94
Sample type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana-			Batch	Lab
			Detect Time	l yst	Date		
Cmpd: 4-CHLOROANILINE	ND	0.01					
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-METHYLPHENOL	ND	0.01					
Cmpd: 4-NITROANILINE	ND	0.01					
Cmpd: 4-NITROPHENOL	ND	0.01					
Cmpd: ACENAPHTHENE	ND	0.01					
Cmpd: ACENAPHTHYLENE	ND	0.01					
Cmpd: ANTHRACENE	ND	0.01					
Cmpd: BENZO(a)ANTHRACENE	ND	0.01					
Cmpd: BENZO(a)PYRENE	ND	0.01					
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01					
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01					
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01					
Cmpd: BENZOIC ACID	ND	0.01					
Cmpd: BENZYL ALCOHOL	ND	0.01					
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01					
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01					
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01					
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01					
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01					
Cmpd: CHRYSENE	ND	0.01					
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01					
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01					
Cmpd: DIBENZO(a,h)ANTHRACENE	ND	0.01					
Cmpd: DIBENZO(FURAN)	ND	0.01					
Cmpd: DIETHYL PHTHALATE	ND	0.01					

Note—Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5224
 Date: 06/14/94
 Page #: 22

Lab #: 15634.00 Client Ref #: SB14 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 13:55

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Date	Date	Time	Batch	Lab	Note	Analyst's Note
Compd: DIMETHYL PHTHALATE		ND									
Compd: FLUORANTHENE		ND									
Compd: FLUORENE		ND									
Compd: HEXACHLOROBENZENE		ND									
Compd: HEXACHLOROBUTADIENE		ND									
Compd: HEXACHLOROCYCLOPENTADIENE		ND									
Compd: HEXACHLOROTRANE		ND									
Compd: INDENO(1,2,3-cd)PYRENE		ND									
Compd: ISOPHORONE		ND									
Compd: N-NITROSO-DI-N-PROPYLAMINE		ND									
Compd: N-NITROSODIPENTYLAMINE		ND									
Compd: NAPHTHALENE		ND									
Compd: NITROBENZENE		ND									
Compd: PENTACHLOROPHENOL		ND									
Compd: PERMANTERENE		ND									
Compd: PHEMOL		ND									
Compd: PYRENE		ND									

Note: Note Description
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 23
Lab #: 15635.00 Client Ref #: SB14 004 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 14:20	Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	amt of Hold Ana-	Prep	Date	Date	Time	Batch	Lab	Note
			Detect Time	l yst	Test	Number	Number	Number	Number	Number
GC/MS FOR SEMIVOLATILE ORGANICS		screen	screen A	TKW	05/28/94	06/08/94	08:00	6842		
SURT: NITROBENZENE-d5	ppm	92% A								
SURT: 2-FLUOROBIPHENYL		78% A								
SURT: 2,4,6-TRIBROMOPHENOL		83% A								
Cmpd: 1,2,4-TRICHLOROBENZENE		ND								
Cmpd: 1,2-DICHLOROBENZENE		ND								
Cmpd: 1,3-DICHLOROBENZENE		ND								
Cmpd: 1,4-DICHLOROBENZENE		ND								
Cmpd: 2,3-DIMETHYLPHENOL		ND								
Cmpd: 2,4,5-TRICHLOROPHENOL		ND								
Cmpd: 2,4,6-TRICHLOROPHENOL		ND								
Cmpd: 2,4-DICHLOROPHENOL		ND								
Cmpd: 2,4-DINITROPHENOL		ND								
Cmpd: 2,4-DINITROTOLUENE		ND								
Cmpd: 2,6-DINITROTOLUENE		ND								
Cmpd: 2-CHLORONAPHTHALENE		ND								
Cmpd: 2-CHLOROPHENOL		ND								
Cmpd: 2-METHYLNAPHTHALENE		ND								
Cmpd: 2-METHYLPHENOL		ND								
Cmpd: 2-NITROANILINE		ND								
Cmpd: 2-NITROPHENOL		ND								
Cmpd: 3,3-DICHLOROBENZIDINE		ND								
Cmpd: 3-NITROANILINE		ND								
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND								
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND								
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND								

Note—Note Description
A Requirements set by method were met. **ND** NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 24
Lab #: 15635.00 Client Ref #: SB14 004 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 14:20	Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Detect	Time	Prep	Date	Test	Batch	Lab	Note	Analyst's Note
Compd: 4-CHLORANILINE	ND	0.01									
Compd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01									
Compd: 4-METHYLPHENOL	ND	0.01									
Compd: 4-NITROANILINE	ND	0.01									
Compd: 4-NITROPHENOL	ND	0.01									
Compd: ACENAPHTHENE	ND	0.01									
Compd: ACENAPHTHYLENE	ND	0.01									
Compd: ANTHRACENE	ND	0.01									
Compd: BENZO(a)ANTHRACENE	ND	0.01									
Compd: BENZO(a)PYRENE	ND	0.01									
Compd: BENZO(b)FLUORANTHENE	ND	0.01									
Compd: BENZO(g,h,i)PERYLENE	ND	0.01									
Compd: BENZO(k)FLUORANTHENE	ND	0.01									
Compd: BENZOIC ACID	ND	0.01									
Compd: BENZYL ALCOHOL	ND	0.01									
Compd: bis(2-CHLOROETHOXY) METHANE	ND	0.01									
Compd: bis(2-CHLOROETHYL) ETHER	ND	0.01									
Compd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01									
Compd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01									
Compd: BUTYL BENZYL PHTHALATE	ND	0.01									
Compd: CHRYSENE	ND	0.01									
Compd: DI-N-BUTYL PHTHALATE	ND	0.01									
Compd: DI-N-OCTYL PHTHALATE	ND	0.01									
Compd: DIBENZO(a,b)ANTHRACENE	ND	0.01									
Compd: DIBENZOFURAN	ND	0.01									
Compd: DIFETHYL PHTHALATE	ND	0.01									

Note: ~~Note Description~~ Note: ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5224
 Date: 06/14/94
 Page #: 25

Lab #: 15635.00 Client Ref #: SB14 004

Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 14:20

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Prep (---Test---)			Batch	Lab	Note	Analyst's Note
			Detect	Time	Date					Number
Compd: DIMETHYL PHTHALATE		ND	0.01						
Compd: FLUORANTHENE		ND	0.01						
Compd: FLUORENE		ND	0.01						
Compd: HEXACHLOROBENZENE		ND	0.01						
Compd: HEXACHLOROBUTADIENE		ND	0.01						
Compd: HEXACHLOROCYCLOPENTADIENE		ND	0.01						
Compd: HEXACHLOROTHANE		ND	0.01						
Compd: INDENO(1,2,3-cd)PYRENE		ND	0.01						
Compd: ISOPHTHORENE		ND	0.01						
Compd: N-NITROSO-DI-N-PROPYLAMINE		ND	0.01						
Compd: N-NITRODIPHENYLAMINE		ND	0.01						
Compd: NAPHTHALENE		ND	0.01						
Compd: NITROBENZENE		ND	0.01						
Compd: PENTACHLOROPHENOL		ND	0.01						
Compd: PERMANTHENE		ND	0.01						
Compd: PHENOL		ND	0.01						
Compd: PYRENE		ND	0.01						

Note: Note Description
 ND NOT DETECTED

Note: Note Description

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 26
Lab #: 15635.10 Client Ref #: SB13 003 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 11:55 Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep Date	Test Date	Batch Number	Lab Note	Analyt's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	08:00	6842
SUEX: NITROBENZENE-d5		59± A						
SUEX: 2-FLUOROBIPHENYL		59± A						
SUEX: 2,4,6-TRIBROMOPHENOL		58± A						
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01					
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01					
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01					
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01					
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01					
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01					
Cmpd: 2,4-DINITROPHENOL		ND	0.01					
Cmpd: 2,4-DINITROTOLUENE		ND	0.01					
Cmpd: 2,6-DINITROTOLUENE		ND	0.01					
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01					
Cmpd: 2-CHLOROPHENOL		ND	0.01					
Cmpd: 2-METHYLNAPHTHALENE		ND	0.01					
Cmpd: 2-METHYLPHENOL		ND	0.01					
Cmpd: 2-NITROANILINE		ND	0.01					
Cmpd: 2-NITROPHENOL		ND	0.01					
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01					
Cmpd: 3-NITROANILINE		ND	0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND	0.01					

Note --- **Note Description**
 ND NOT DETECTED

A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 27
Lab #: 15635.10 Client Ref #: SB13 003 Sample Description SOIL	sample collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 11:55 Receipt Date: 05/28/94 sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Lmt of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note
			Detect Time	l yst Date	Date		Time Number
Cmpd: 4-CHLOROANILINE	ND	0.01				
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01				
Cmpd: 4-METHYLPHENOL	ND	0.01				
Cmpd: 4-NITROANILINE	ND	0.01				
Cmpd: 4-NITROPHENOL	ND	0.01				
Cmpd: ACENAPHTHENE	ND	0.01				
Cmpd: ACENAPHTHYLENE	ND	0.01				
Cmpd: ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)ANTHRACENE	ND	0.01				
Cmpd: BENZO(a)PYRENE	ND	0.01				
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01				
Cmpd: BENZO(g,h,i)PERYLENE	ND	0.01				
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01				
Cmpd: BENZOIC ACID	ND	0.01				
Cmpd: BENZYL ALCOHOL	ND	0.01				
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND	0.01				
Cmpd: bis(2-CHLOROETHYL) ETHER	ND	0.01				
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01				
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01				
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01				
Cmpd: CRYSENE	ND	0.01				
Cmpd: DI-N-BUTYLPHTHALATE	ND	0.01				
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01				
Cmpd: DIBENZ(a,h)ANTHRACENE	ND	0.01				
Cmpd: DIBENZOFRAN	ND	0.01				
Cmpd: DIETHYLPHTHALATE	ND	0.01				

~~Note~~---Note Description
 ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5224 Date: 06/14/94 Page #: 28</p>
<p>Lab #: 15635.10 Client Ref #: SB13 003 Sample Description SOIL</p>	<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 11:55</p>	<p>Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL</p>

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Time Number	Lab Note	Analyst's Note
Cmpd: DIMETHYL PHTHALATE	ND		0.01					
Cmpd: FLUORANTHENE	ND		0.01					
Cmpd: FLUORENE	ND		0.01					
Cmpd: HEXACHLOROBENZIENE	ND		0.01					
Cmpd: HEXACHLOROBUTADIENE	ND		0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND		0.01					
Cmpd: HEXACHLOROETHANE	ND		0.01					
Cmpd: INDENO(1,2,3-cd)PYRENE	ND		0.01					
Cmpd: ISOPHORONE	ND		0.01					
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND		0.01					
Cmpd: N-NITROSODIPHENYLAMINE	ND		0.01					
Cmpd: NAPHTHALENE	ND		0.01					
Cmpd: NITROBENZENE	ND		0.01					
Cmpd: PENTACHLOROPHENOL	ND		0.01					
Cmpd: PHENANTHRENE	ND		0.01					
Cmpd: PHENOL	ND		0.01					
Cmpd: PYRENE	ND		0.01					

Note --- Note Description --- Note --- Note Description

ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5224 Date: 06/14/94 Page #: 29</p>
<p>Lab #: 15636.00 Client Ref #: SB13 001</p>		<p>Receipt Date: 05/28/94 sample Type: GRAB sample Matrix: SOIL</p>	
<p>Sample Description SOIL</p>			
<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 11:30</p>			

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time	Prep Date	Test Date	Batch Time	Lab Note
GC/MS FOR SEMIVOLATILE ORGANICS	PPM	screen	screen A	JKW	05/28/94	06/08/94	08100 6842
Surr: NITROBENZENE-d5		59% A					
Surr: 2-FLUOROBIPHENYL		97% A					
Surr: 2,4,6-TRIBROMOPHENOL		96% A					
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01					
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01					
Cmpd: 1,4-DICHLOROBENZENE	ND	0.01					
Cmpd: 2,3-DIMETHYLPHENOL	ND	0.01					
Cmpd: 2,4,5-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DICHLOROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROPHENOL	ND	0.01					
Cmpd: 2,4-DINITROTOLUENE	ND	0.01					
Cmpd: 2,6-DINITROTOLUENE	ND	0.01					
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01					
Cmpd: 2-CHLOROPHENOL	ND	0.01					
Cmpd: 2-METHYLNAPHTHALENE	ND	0.01					
Cmpd: 2-METHYLPHENOL	ND	0.01					
Cmpd: 2-NITROANILINE	ND	0.01					
Cmpd: 2-NITROPHENOL	ND	0.01					
Cmpd: 3,3-DICHLOROBENZIDINE	ND	0.01					
Cmpd: 3-NITROANILINE	ND	0.01					
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01					

Note: Note Description ND NOT DETECTED

A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5224
Date: 06/14/94
Page #: 30

Lab #: 15636.00 **Client Ref #:** SB13 001
Sample Description
 SOIL

sample Collected by: S KIRCHOFF
coll. Ending Date: 05/26/94
coll. Ending Time: 11:30

Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: SOIL

Analyte	Units	Amount	Det	Time	Prep	Date	Test	Batch	Lab	Note	Analyst's Note
Capd: 4-CHLOROANILINE	ND	0.01									
Capd: 4-CELOPHENYL PHENYL ETHER	ND	0.01									
Capd: 4-METHYLPHENOL	ND	0.01									
Capd: 4-NITROANILINE	ND	0.01									
Capd: 4-NITROPHENOL	ND	0.01									
Capd: ACENAPHTHENE	ND	0.01									
Capd: ACENAPHTHYLENE	ND	0.01									
Capd: ANTHRACENE	888	0.01									
Capd: BENZO(a)ANTHRACENE	ND	0.01									
Capd: BENZO(a)PYRENE	ND	0.01									
Capd: BENZO(b)FLUORANTHENE	ND	0.01									
Capd: BENZO(g,h,i)PERYLENE	ND	0.01									
Capd: BENZO(k)FLUORANTHENE	ND	0.01									
Capd: BENZOIC ACID	ND	0.01									
Capd: BENZYL ALCOHOL	ND	0.01									
Capd: bis(2-CHLOROETHOXY) METHANE	ND	0.01									
Capd: bis(2-CHLOROETHYL) ETHER	ND	0.01									
Capd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01									
Capd: bis(2-ETHYLENYL)PHTHALATE	ND	0.01									
Capd: BUTYL BENZYL PHTHALATE	ND	0.01									
Capd: CRYSENE	ND	0.01									
Capd: DI-N-BUTYLPHTHALATE	ND	0.01									
Capd: DI-N-OCTYL PHTHALATE	ND	0.01									
Capd: DIMETH(a,b)ANTHRACENE	ND	0.01									
Capd: DIMETHOFURAN	ND	0.01									
Capd: DIETHYLPHTHALATE	ND	0.01									

Note ~~---~~ **Note Description**

Note ~~---~~ **Note Description**

ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. 601/956-1400 Office QA/QC: COLEMAN, J Report #: 5224
P 5360 I-55 North 601/956-0513 Fax Manager: JOHNSTON, H Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 32

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS Batch Number: 6842
Units: ppm Test Began Date & Time: 05/28/94 @ 08:00 Book/Page: 4/55
Analyst: TENNIE WHITE Test Ended Date & Time: 06/08/94 @ 08:00

Log Number:	{---Sample---		{---Replicate---		{---Matrix Spike---		{---Mix & Recovery---		{---Blank---	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
15370	SOIL	15370	SOIL	15370	SOIL	15370	SOIL	15370	SOIL	BLANK
784	GRAB	934	GRAB	0.500	GRAB	804	GRAB	804	GRAB	SOIL
594		834		0.500		724		724		GRAB
564		764		0.500		724		724		GRAB
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0.50	504	0.01	504	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0.50	504	0.01	504	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0.50	594	0.01	594	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND
ND	0.01	ND	0.01	0	0	04	0.01	04	0.01	ND

Screen Compound Amount/Limit of Detection:
 SUET: NITROBENZENE-d5
 SUET: 2-FLUOROBIPHENYL
 SUET: 2,4,6-TRIBROMOPHENOL
 Capd: 1,2,4-TRICHLOROBENZENE
 Capd: 1,2-DICHLOROBENZENE
 Capd: 1,3-DICHLOROBENZENE
 Capd: 1,4-DICHLOROBENZENE
 Capd: 2,3-DIMETHYLPHENOL
 Capd: 2,4,5-TRICHLOROPHENOL
 Capd: 2,4,6-TRICHLOROPHENOL
 Capd: 2,4-DICHLOROPHENOL
 Capd: 2,4-DINITROPHENOL
 Capd: 2,4-DINITROTOLUENE
 Capd: 2,6-DINITROTOLUENE
 Capd: 2-CHLORONAPHTHALENE
 Capd: 2-CHLOROPHENOL
 Capd: 2-METHYLNAPHTHALENE
 Capd: 2-METHYLPHENOL
 Capd: 2-NITROANILINE
 Capd: 2-NITROPHENOL
 Capd: 3,3-DICHLOROBENZIDINE
 Capd: 3-NITROANILINE

Note: ND NOT DETECTED
 Note: ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 Fax

Report #: 5224
Date: 06/14/94
Page #: 33

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Units: ppm
Analyst: TENNIE WHITE

Preparation Date: 05/28/94
Test Began Date & Time: 06/02/94 @ 08:00
Test Ended Date & Time: 06/08/94 @ 08:00

Batch Number: 6842
Book/Page: 4/55

Compd:	{---Sample---		{---Replicate---		{---Matrix Spike---		{---Htx & Recovery---		{---Blank---	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Compd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: 4-CHLORO-3-METHYLPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: 4-CHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: 4-METHYLPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: 4-NITROANILINE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: 4-NITROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: ACENAPHTHENE	ND	0.01	ND	0.01	0		83%		ND	0.01
Compd: ACENAPHTHYLENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: ANTHRACENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: BENZO(a)PYRENE	ND	0.01	ND	0.01	0		59%		ND	0.01
Compd: BENZO(b)FLUORANTHENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: BENZO(g,h,i)PERYLENE	43.48	0.01	42.80	0.01	0		0%		ND	0.01
Compd: BENZO(k)FLUORANTHENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: BENZOIC ACID	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: BENZYL ALCOHOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: bis(2-CHLOROETHOXY) METHANE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: bis(2-CHLOROETHYL) ETHER	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: BUTYL BENZYL PHTHALATE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: CERYSENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: DI-n-BUTYL PHTHALATE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: DI-n-OCTYL PHTHALATE	ND	0.01	ND	0.01	0		0%		ND	0.01
Compd: DI-n-DECYL PHTHALATE	ND	0.01	ND	0.01	0		94%		ND	0.01

Note---**Note Description**
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5224 Date: 06/14/94 Page #: 34	Batch Number: 6842 Book/Page: 4/55
Analyte: GC/MS FOR SEMIVOLATILE ORGANICS Units: ppm Analyst: TENNIE WHITE		Preparation Date: 05/28/94 Test Began Date & Time: 06/02/94 @ 08:00 Test Ended Date & Time: 06/08/94 @ 08:00	

	Sample		Replicate		Matrix Spike		MtX & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Cupd: DIBENZ(a,h)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: DIMENOFURAN	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: DIETHYLPHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0.0	0.01	0.0	0.01	ND	0.01
Cupd: FLUORANTHENE	ND	0.01	ND	0.01	0.50	0.01	0.50	0.01	ND	0.01
Cupd: FLUORENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: HEXACHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: HEXACHLOROBUTADIENE	ND	0.01	ND	0.01	0.50	0.01	0.50	0.01	ND	0.01
Cupd: HEXACHLOROCYCLOPENTADIENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: HEXACHLOROETHANE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: INDBENO(1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: ISOPHORONE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: N-NITROSO-DI-N-PROPYLAMINE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: N-NITROSO-DIPHENYLAMINE	ND	0.01	ND	0.01	0.50	0.01	0.50	0.01	ND	0.01
Cupd: NAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: NITROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: PENTACHLOROPHENOL	ND	0.01	ND	0.01	0.50	0.01	0.50	0.01	ND	0.01
Cupd: PHENANTHRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Cupd: PHENOL	ND	0.01	ND	0.01	0.50	0.01	0.50	0.01	ND	0.01
Cupd: PYRENE	ND	0.01	ND	0.01	0	0.01	0	0.01	ND	0.01
Quality Control Summary Notes:										
A Requirements set by method were met.										
Note: Note Description: ND NOT DETECTED										

Quality Control / Quality Assurance Summary

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC:
 Manager: *James A. Johnson*
 Facil ID: *James A. Johnson*

Report #: 5226
 Date: 06/14/94
 Page #: 1

Acct #: 0051
 Client: ENVIRONMENTAL PROTECTION SYSTEMS - ENG.
 Address: 5360 I-55 NORTH
 City: JACKSON, MS 39211-
 Contact: SCHARINE KIRCHOFF
 Phone: 601/956-1400 Fax: 601/956-2365

Contract Descrip: VAN SLYKE-HATTIESBURG, MS ANALYSIS
 Project Location: VAN SLYKE-HTSBERG, MS
 Contract Number : 1.V7101.002
 Contract PO:
 Expiration Date: 01/01/95

Analyte	Method	Holding Time	Surrogate Recovery	Mtx Spk Recovery	Blank	Batch Number
BASE/NEUTRALS AND ACIDS	EPA METHOD 625	A	A	A	A	6801
GC/MS FOR SEMI-VOLATILE ORGANICS	SW846 METHOD 8270	A	A	A	A	6842

Note: Note Description

A Requirements set by method were met.

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5226 Date: 06/14/94 Page #: 2</p>
<p>Lab #: 15637.00 Client Ref #: WPN 002</p>	<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 08:45</p>	<p>Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL</p>
<p>Sample Description SOIL</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	

Analyte	Units	Amount	Screen A	TKW	05/28/94	06/08/94	08:00	6842	Batch	Lab	Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS	ppm	screen	screen A	TKW	05/28/94	06/08/94	08:00	6842				
SURT: NITROBENZENE-d5		834 A										
SURT: 2-FLUOROBIPHENYL		834 A										
SURT: 2,4,6-TRIBROMOPHENOL		804 A										
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01									
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01									
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01									
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01									
Cmpd: 2,3-DIMETHYLPHENOL		ND	0.01									
Cmpd: 2,4,5-TRICHLOROPHENOL		ND	0.01									
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01									
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01									
Cmpd: 2,4-DINITROPHENOL		ND	0.01									
Cmpd: 2,4-DINITROTOLUENE		ND	0.01									
Cmpd: 2,6-DINITROTOLUENE		ND	0.01									
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01									
Cmpd: 2-CHLOROPHENOL		ND	0.01									
Cmpd: 2-METHYLNAPHTHALENE		ND	0.01									
Cmpd: 2-METHYLPHENOL		ND	0.01									
Cmpd: 2-NITROANILINE		ND	0.01									
Cmpd: 2-NITROPHENOL		ND	0.01									
Cmpd: 3,3-DICHLOROBENZIDINE		ND	0.01									
Cmpd: 3-NITROANILINE		ND	0.01									
Cmpd: 4,6-DINITRO-2-METHYLPHENOL		ND	0.01									
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01									
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND	0.01									

Note: Note Description
 A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5226
 Date: 06/14/94
 Page #: 3

Lab #: 15637.00 Client Ref #: NPN 002
 Sample Description
 SOIL

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/26/94
 Coll. Ending Time: 08:45

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: SOIL

Analyte	Units	Amount	Int of Hold Ana- Prep (---Test---) Batch Lab		
			Detect Time	Date	Note
Compd: 4-CHLORANILINE	ND	0.01			
Compd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01			
Compd: 4-METHYLPHENOL	ND	0.01			
Compd: 4-NITROANILINE	ND	0.01			
Compd: 4-NITROPHENOL	ND	0.01			
Compd: ACENAPHTHENE	ND	0.01			
Compd: ACENAPHTHYLENE	ND	0.01			
Compd: ANTHRACENE	ND	0.01			
Compd: BENZO(a)ANTHRACENE	ND	0.01			
Compd: BENZO(a)PYRENE	ND	0.01			
Compd: BENZO(b)FLUORANTHENE	ND	0.01			
Compd: BENZO(g,h,i)PERYLENE	ND	0.01			
Compd: BENZO(k)FLUORANTHENE	ND	0.01			
Compd: BENZOIC ACID	ND	0.01			
Compd: BENZYL ALCOHOL	ND	0.01			
Compd: bis(2-CHLOROETHOXY) METHANE	ND	0.01			
Compd: bis(2-CHLOROSTYLYL) ETHER	ND	0.01			
Compd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01			
Compd: bis(2-STYLYL)PHTHALATE	ND	0.01			
Compd: BUTYL BENZYL PHTHALATE	ND	0.01			
Compd: CERYSENE	ND	0.01			
Compd: DI-N-BUTYL PHTHALATE	ND	0.01			
Compd: DI-N-OCTYL PHTHALATE	ND	0.01			
Compd: DIBENZ(a,h)ANTHRACENE	ND	0.01			
Compd: DIMENOFURAN	ND	0.01			
Compd: DIETHYL PHTHALATE	ND	0.01			

Note: Note Description

ND NOT DETECTED

Analytical Report

S EPS Analytical Services, Inc. 5360 I-55 North Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5226 Date: 06/14/94 Page #: 4
Lab #: 15637.00 Client Ref #: WPN 002 Sample Description SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 08:45 Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Int of Hold Ana-	Prep	Date	Batch	Lab	Note
Cmpd: DIMETHYL PHTHALATE	ND							
Cmpd: FLUORANTHENE	233							
Cmpd: FLUORENE	ND							
Cmpd: HEXACHLOROBENSENE	ND							
Cmpd: HEXACHLOROBUTADIENE	ND							
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND							
Cmpd: HEXACHLOROTHANE	ND							
Cmpd: INDENO(1,2,3-cd)PYRENE	ND							
Cmpd: ISOPHTHORENE	ND							
Cmpd: N-NITROSO-DI-N-PROPYLAMINE	ND							
Cmpd: N-NITRODIPHENYLAMINE	ND							
Cmpd: NAPHTHALENE	ND							
Cmpd: NITROBENSENE	ND							
Cmpd: PENTACHLOROPHENOL	ND							
Cmpd: PHENANTHRENE	ND							
Cmpd: PHENOL	ND							
Cmpd: PYRENE	ND							

Note	Note Description
ND	NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5226 Date: 06/14/94 Page #: 5
Lab #: 15638.00 Client Ref #: SB11 001 Sample Description SOIL	sample collected by: S KIRCHOFF coll. Ending Date: 05/26/94 coll. Ending Time: 10:30	Receipt Date: 05/28/94 sample type: GRAB sample Matrix: SOIL

Analyte	Units	Amount	Lim of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
GC/MS FOR SEMIVOLATILE ORGANICS								
Surr: NITROBENZENE-d5		601 A	screen					
Surr: 2-FLUOROBIPHENYL		524 A						
Surr: 2,4,6-TRISBROMOPHENOL		534 A						
Compd: 1,2,4-TRICHLOROBENZENE		ND						
Compd: 1,2-DICHLOROBENZENE		ND						
Compd: 1,3-DICHLOROBENZENE		ND						
Compd: 1,4-DICHLOROBENZENE		ND						
Compd: 2,3-DIMETHYLPHENOL		ND						
Compd: 2,4,5-TRICHLOROPHENOL		ND						
Compd: 2,4,6-TRICHLOROPHENOL		ND						
Compd: 2,4-DICHLOROPHENOL		ND						
Compd: 2,4-DINITROPHENOL		ND						
Compd: 2,4-DINITROTOLUENE		ND						
Compd: 2,6-DINITROTOLUENE		ND						
Compd: 2-CHLORONAPHTHALENE		ND						
Compd: 2-CHLOROPHENOL		ND						
Compd: 2-METHYLNAPHTHALENE		ND						
Compd: 2-METHYLPHENOL		ND						
Compd: 2-NITROANILINE		ND						
Compd: 2-NITROPHENOL		ND						
Compd: 3,3-DICHLOROBENZIDINE		ND						
Compd: 3-NITROANILINE		ND						
Compd: 4,6-DINITRO-2-METHYLPHENOL		ND						
Compd: 4-BROMOPHENYL PHENYL ETHER		ND						
Compd: 4-CHLORO-3-METHYLPHENOL		ND						

Note: Note Description ND NOT DETECTED
 A Requirements set by method were met.

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5226 Date: 06/14/94 Page #: 6
Lab #: 15638.00 Client Ref #: SB11 001 Sample Description: SOIL	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/26/94 Coll. Ending Time: 10:30	Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL

Analyte	Units	Amount	Detect	Time	l yst	Prep	Date	Test	Batch	Lab	Note	Analyst's Note
Cmpd: 4-CHLORANILINE	ND		0.01									
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND		0.01									
Cmpd: 4-METHYLPHENOL	ND		0.01									
Cmpd: 4-NITROANILINE	ND		0.01									
Cmpd: 4-NITROPHENOL	ND		0.01									
Cmpd: ACENAPHTHENE	ND		0.01									
Cmpd: ACENAPHTHYLENE	ND		0.01									
Cmpd: ANTHRACENE	47362		0.01									
Cmpd: BENZO(a)ANTHRACENE	ND		0.01									
Cmpd: BENZO(a)PYRENE	ND		0.01									
Cmpd: BENZO(b)FLUORANTHENE	ND		0.01									
Cmpd: BENZO(g,h,i)PERYLENE	ND		0.01									
Cmpd: BENZO(k)FLUORANTHENE	ND		0.01									
Cmpd: BENZOIC ACID	ND		0.01									
Cmpd: BENZYL ALCOHOL	ND		0.01									
Cmpd: bis(2-CHLOROETHOXY) METHANE	ND		0.01									
Cmpd: bis(2-CHLOROETHYL) ETHER	ND		0.01									
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND		0.01									
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND		0.01									
Cmpd: BUTYL BENZYL PHTHALATE	ND		0.01									
Cmpd: CHRYSENE	939		0.01									
Cmpd: DI-N-BUTYL PHTHALATE	ND		0.01									
Cmpd: DI-N-OCTYL PHTHALATE	ND		0.01									
Cmpd: DIBENZ(a,b)ANTHRACENE	ND		0.01									
Cmpd: DIBENZOFURAN	ND		0.01									
Cmpd: DIETHYL PHTHALATE	ND		0.01									

~~Note~~ ~~Note Description~~ ~~Note Description~~
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5226 Date: 06/14/94 Page #: 7
Lab #: 15638.00 Client Ref #: SB11 001 Sample Description SOIL	Sample Collected by: S KIRCHOFF coll. Ending Date: 05/26/94 coll. Ending Time: 10:30 Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: SOIL	

Analyte	Units	Amount	Amt of Hold Ans- Detect Time lyst	Prep Date	Test Date	Batch Time Number	Lab Note	Analyst's Note
Compd: DIMETHYL TEREPHTHALATE	ND	0.01						
Compd: FLUORANTHENE	5331	0.01						
Compd: FLUORENE	ND	0.01						
Compd: HEXACHLOROBENZENE	ND	0.01						
Compd: HEXACHLOROBUTADIENE	ND	0.01						
Compd: HEXACHLOROCYCLOPENTADIENE	ND	0.01						
Compd: HEXACHLOROTRANE	ND	0.01						
Compd: INDIENO(1,2,3-cd)PYRENE	ND	0.01						
Compd: ISOPHORONE	ND	0.01						
Compd: M-NITROSO-DI-N-PROPYLAMINE	ND	0.01						
Compd: M-NITROSDIPHENYLAMINE	ND	0.01						
Compd: NAPHTHALENE	ND	0.01						
Compd: NITROBENZENE	ND	0.01						
Compd: PENTACHLOROPHENOL	ND	0.01						
Compd: PHERANTHRENE	ND	0.01						
Compd: PHEROL	ND	0.01						
Compd: PYRENE	2361	0.01						

Note---Note Description

ND NOT DETECTED

APPENDIX J

LABORATORY REPORTS FOR GROUNDWATER SAMPLES

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5226
 Date: 06/14/94
 Page #: 8

Lab #: 15639.00 Client Ref #: MW2 001
 Sample Description
 WATER

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/27/94
 Coll. Ending Time: 10:45

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: WATER

Analyte	Units	Amount	Detct Time	Prep		Batch	Lab	Note
				Date	Time			
BASE/NEUTRALS AND ACIDS		screen	screen A	TRW	05/26/94	06/08/94	15:50	6801
Suff: 2-FLUOROBIPHENYL	ppm	70% A						
Suff: 2,4,6-TRIBROMOPHENOL		70% A						
Cmpd: 1,2,4-TRICHLOROBENZENE	ND		0.01					
Cmpd: 1,2-DICHLOROBENZENE	ND		0.01					
Cmpd: 1,3-DICHLOROBENZENE	ND		0.01					
Cmpd: 1,4-DICHLOROBENZENE	ND		0.01					
Cmpd: 2,4,6-TRICHLOROPHENOL	ND		0.01					
Cmpd: 2,4-DICHLOROPHENOL	ND		0.01					
Cmpd: 2,4-DIMETHYLPHENOL	ND		0.01					
Cmpd: 2,4-DINITROPHENOL	ND		0.01					
Cmpd: 2,4-DINITROTOLUENE	ND		0.01					
Cmpd: 2,6-DINITROTOLUENE	ND		0.01					
Cmpd: 2-CHLORONAPHTHALENE	ND		0.01					
Cmpd: 2-CHLOROPHENOL	ND		0.01					
Cmpd: 2-METHYL-4,6-DINITROPHENOL	ND		0.01					
Cmpd: 2-NITROPHENOL	ND		0.01					
Cmpd: 3,3'-DICHLOROBENZIDINE	ND		0.01					
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND		0.01					
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND		0.01					
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND		0.01					
Cmpd: 4-NITROPHENOL	ND		0.01					
Cmpd: ACENAPHTHENE	ND		0.02					
Cmpd: ACENAPHTYLENE	ND		0.04					
Cmpd: ANTHRACENE	ND		0.03					
Cmpd: BENZIDINE	ND		0.05					

Note: Note Description
 A Requirements set by method were met.
 ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc. 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5226 Date: 06/14/94 Page #: 9
--	--	---

Lab #: 15639.00 Client Ref #: MW2 001 Sample Description WATER	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/27/94 Coll. Ending Time: 10:45 Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: WATER
--	---

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
Cmpd: BENZO(a)ANTHRACENE	ND	0.01							
Cmpd: BENZO(a)PYRENE	ND	0.01							
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01							
Cmpd: BENZO(ghi)PERYLENE	ND	0.02							
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01							
Cmpd: BENZYL BUTYL PHTHALATE	ND	0.01							
Cmpd: BIS(2-CHLOROETHOXY)METHANE	ND	0.03							
Cmpd: BIS(2-CHLOROETHYL) ETHER	ND	0.01							
Cmpd: BIS(2-CHLOROISOPROPYL) ETHER	ND	0.03							
Cmpd: BIS(2-ETHYLHEXYL)PHTHALATE	ND	0.01							
Cmpd: CHRYSENE	ND	0.01							
Cmpd: DI-n-BUTYL PHTHALATE	ND	0.01							
Cmpd: DI-n-OCTYL PHTHALATE	ND	0.01							
Cmpd: DIBENZO(a,h)ANTHRACENE	ND	0.01							
Cmpd: DIETHYL PHTHALATE	ND	0.01							
Cmpd: DIMETHYL PHTHALATE	ND	0.01							
Cmpd: FLUORANTHENE	ND	0.01							
Cmpd: FLUORENE	ND	0.01							
Cmpd: HEXACHLOROBENZENE	ND	0.01							
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.01							
Cmpd: HEXACHLOROCYCLOHEPTADIENE	ND	0.05							
Cmpd: HEXACHLOROTHANE	ND	0.01							
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01							
Cmpd: ISOPHTHORENE	ND	0.01							
Cmpd: N-NITROSODI-n-PROPYLAMINE	ND	0.01							
Cmpd: N-NITROSODIMETHYLAMINE	ND	0.01							

Note: NOT DETECTED	Note: NOT DETECTED
--------------------	--------------------

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5226
 Date: 06/14/94
 Page #: 10

Lab #: 15639.00 Client Ref #: MW2 001

Sample Description
 WATER

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/27/94
 Coll. Ending Time: 10:45

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: WATER

Analyte	Units	Amount	Limt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
Cmpd: N-NITROSODIPHENYLAMINE		ND	0.05						
Cmpd: NAPHTHALENE		216	0.01						
Cmpd: NITROBENZENE		ND	0.01						
Cmpd: PENTACHLOROPHENOL		ND	0.01						
Cmpd: PHEMANTHRENE		ND	0.01						
Cmpd: PHENOL		2.87	0.01						
Cmpd: PYRENE		ND	0.01						

Note: Note Description
 ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5226 Date: 06/14/94 Page #: 11</p>
<p>Lab #: 15640.00 Client Ref #: MW1 001</p> <p>Sample Description WATER</p>	<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/27/94 Coll. Ending Time: 10:00</p> <p>Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: WATER</p>	

Analyte	Units	Amount	screen	Lat of Hold Ana- Prep {---Test---} Batch Lab		
				Detect	Time	Note
BASE/NEUTRALS AND ACIDS	ppm	screen	TKW	05/26/94	06/08/94	15:50 6802
Surr: 2-FLUOROBIPHENYL		784 A				
Surr: 2,4,6-TRIBROMOPHENOL		604 A				
Capd: 1,2,4-TRICHLOROBENZENE	ND		0.01			
Capd: 1,2-DICHLOROBENZENE	ND		0.01			
Capd: 1,3-DICHLOROBENZENE	ND		0.01			
Capd: 1,4-DICHLOROBENZENE	ND		0.01			
Capd: 2,4,6-TRICHLOROPHENOL	ND		0.01			
Capd: 2,4-DICHLOROPHENOL	ND		0.01			
Capd: 2,4-DIMETHYLPHENOL	ND		0.01			
Capd: 2,4-DINITROPHENOL	ND		0.01			
Capd: 2,4-DINITROTOLUENE	ND		0.01			
Capd: 2,6-DINITROTOLUENE	ND		0.01			
Capd: 2-CHLORONAPHTHALENE	ND		0.01			
Capd: 2-CELOPHENOL	ND		0.01			
Capd: 2-METHYL-4,6-DINITROPHENOL	ND		0.01			
Capd: 2-NITROPHENOL	ND		0.01			
Capd: 3,3'-DICHLOROBENZIDINE	ND		0.01			
Capd: 4-BROMOPHENYL PHENYL ETHER	ND		0.01			
Capd: 4-CHLORO-3-METHYLPHENOL	ND		0.01			
Capd: 4-CELOPHENYL PHENYL ETHER	ND		0.01			
Capd: 4-NITROPHENOL	ND		0.01			
Capd: ACENAPHTHENE	ND		0.02			
Capd: ACENAPHTYLENE	ND		0.04			
Capd: ANTHRACENE	ND		0.03			
Capd: BENZIDINE	ND		0.05			

Note --- **Note Description**
 A Requirements set by method were met. ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5226 Date: 06/14/94 Page #: 12</p>
<p>Lab #: 15640.00 Client Ref #: MW1 001</p>	<p>Sample Collected by: S KIRCHOFF coll. Ending Date: 05/27/94 coll. Ending Time: 10:00</p>	
<p>Sample Description WATER</p>		
<p>Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: WATER</p>		

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Test	Batch	Lab
			Detect Time lyst	Date	Date	Time Number	Note Analyst's Note
Cmpd: BENZO(a)ANTHRACENE	ND	0.01					
Cmpd: BENZO(a)PYRENE	ND	0.01					
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01					
Cmpd: BENZO(ghi)PERYLENE	ND	0.02					
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01					
Cmpd: BENZYL BUTYL PHTHALATE	ND	0.01					
Cmpd: BIS(2-CHLOROETHOXY)METHANE	ND	0.01					
Cmpd: BIS(2-CHLOROETHYL) ETHER	ND	0.01					
Cmpd: BIS(2-CHLOROISOPROPYL)ETHER	ND	0.01					
Cmpd: BIS(2-ETHYLHEXYL)PHTHALATE	ND	0.01					
Cmpd: CHRYSENE	ND	0.01					
Cmpd: DI-n-BUTYL PHTHALATE	ND	0.01					
Cmpd: DI-n-OCTYL PHTHALATE	ND	0.01					
Cmpd: DIBENZO(a,h)ANTHRACENE	ND	0.01					
Cmpd: DIETHYL PHTHALATE	ND	0.01					
Cmpd: DIMETHYL PHTHALATE	ND	0.01					
Cmpd: FLUORANTHENE	ND	0.01					
Cmpd: FLORENE	ND	0.01					
Cmpd: HEXACHLOROBENZENE	ND	0.01					
Cmpd: HEXACHLOROCYCLOHEPTADIENE	ND	0.01					
Cmpd: HEXACHLOROCYCLOPENTADIENE	ND	0.05					
Cmpd: HEXACHLOROTHANE	ND	0.01					
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01					
Cmpd: ISOPHORONE	ND	0.01					
Cmpd: N-NITROSODI-n-PROPYLAMINE	ND	0.01					
Cmpd: N-NITROSODIMETHYLAMINE	ND	0.05					

Note: NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5226 Date: 06/14/94 Page #: 13</p>
<p>Lab #: 15640.00 Client Ref #: MW1 001 Sample Description WATER</p>	<p>sample Collected by: S KIRCHOFF Coll. Ending Date: 05/27/94 Coll. Ending Time: 10:00</p>	<p>Receipt Date: 05/28/94 sample Type: GRAB sample Matrix: WATER</p>

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Time Number	Lab Note Analyst's Note
Compd: N-NITROSODIPHENYLAMINE	ND	0.05					
Compd: NAPHTHALENE	123	0.01					
Compd: NITROBENZENE	ND	0.01					
Compd: PENTACHLOROPHENOL	ND	0.01					
Compd: PHENANTHRENE	ND	0.01					
Compd: PHENOL	ND	0.01					
Compd: PYRENE	ND	0.01					

ND	Note Description	Note Description
ND	NOT DETECTED	

Analytical Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5226 Date: 06/14/94 Page #: 14
Lab #: 15641.00 Client Ref #: MW3 001 Sample Description WATER	Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/27/94 Coll. Ending Time: 08:35	Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: WATER

Analyte	Units	Amount	Lmt of Hold Ana-	Prep	Test	Batch	Lab
			Detect Time	lyst	Date	Time	Note
			screen A	TKW	05/26/94	06/08/94	15:50 6801
BASE/NEUTRALS AND ACIDS							
SUIT: 2-FLUOROBIPHENYL	ppm	screen	988 A				
SUIT: 2,4,6-TRIBROMOPHENOL			974 A				
Compd: 1,2,4-TRICHLOROBENZENE		ND	0.01				
Compd: 1,2-DICHLOROBENZENE		ND	0.01				
Compd: 1,3-DICHLOROBENZENE		ND	0.01				
Compd: 1,4-DICHLOROBENZENE		ND	0.01				
Compd: 2,4,6-TRICHLOROPHENOL		ND	0.01				
Compd: 2,4-DICHLOROPHENOL		ND	0.01				
Compd: 2,4-DIMETHYLPHENOL		63.36	0.01				
Compd: 2,4-DINITROPHENOL		ND	0.01				
Compd: 2,4-DINITROTOLUENE		ND	0.01				
Compd: 2,6-DINITROTOLUENE		ND	0.01				
Compd: 2-CHLORONAPHTHALENE		ND	0.01				
Compd: 2-CHLOROPHENOL		ND	0.01				
Compd: 2-METHYL-4,6-DINITROPHENOL		ND	0.01				
Compd: 2-NITROPHENOL		ND	0.01				
Compd: 3,3'-DICHLOROBENZIDINE		ND	0.01				
Compd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01				
Compd: 4-CHLORO-3-METHYLPHENOL		ND	0.01				
Compd: 4-CHLOROPHENYL PHENYL ETHER		ND	0.01				
Compd: 4-NITROPHENOL		ND	0.01				
Compd: ACENAPHTHENE		ND	0.02				
Compd: ACENAPHTYLENE		ND	0.04				
Compd: ANTHRACENE		ND	0.03				
Compd: BENZIDINE		ND	0.05				

Note—Note Description
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5226
 Date: 06/14/94
 Page #: 15

Lab #: 15641.00 Client Ref #: MW3 001

Sample Description
 WATER

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/27/94
 Coll. Ending Time: 08:35

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: WATER

Analyte	Units	Amount	Lmt of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab	Note	Analyst's Note
Capt: BENZO(a)ANTHRACENE	ND	0.01							
Capt: BENZO(a)PYRENE	ND	0.01							
Capt: BENZO(b)FLUORANTHENE	ND	0.01							
Capt: BENZO(g,h,i)PERYLENE	ND	0.02							
Capt: BENZO(k)FLUORANTHENE	ND	0.01							
Capt: BENZYL BUTYL PHTHALATE	ND	0.01							
Capt: BIS(2-CHLOROETHOXY)METHANE	ND	0.01							
Capt: BIS(2-CHLOROETHYL) ETHER	ND	0.01							
Capt: BIS(2-CHLOROISOPROPYL) ETHER	ND	0.01							
Capt: BIS(2-ETHYLHEXYL)PHTHALATE	ND	0.01							
Capt: CHRYSENE	ND	0.01							
Capt: DI-n-BUTYL PHTHALATE	ND	0.01							
Capt: DI-n-OCTYL PHTHALATE	ND	0.01							
Capt: DIBENZO(a,h)ANTHRACENE	ND	0.01							
Capt: DIMETHYL PHTHALATE	ND	0.01							
Capt: DIMETHYL PHTHALATE	ND	0.01							
Capt: FLUORANTHENE	ND	0.01							
Capt: FLUORENE	ND	0.01							
Capt: HEXACHLOROBENZENE	ND	0.01							
Capt: HEXACHLOROBUTADIENE	ND	0.01							
Capt: HEXACHLOROCYCLOPENTADIENE	ND	0.05							
Capt: HEXACHLOROTRANE	ND	0.01							
Capt: INDENO(1,2,3-cd)PYRENE	ND	0.01							
Capt: ISOPHORONE	ND	0.01							
Capt: N-NITROSODI-n-PROPYLAMINE	ND	0.01							
Capt: N-NITROSODIMETHYLAMINE	ND	0.01							
ND	ND	0.05							

Note: Note Description
 ND NOT DETECTED

Analytical Report

<p>E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211</p>	<p>601/956-1400 Office 601/956-0513 Fax</p>	<p>QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:</p>	<p>Report #: 5226 Date: 06/14/94 Page #: 16</p>
<p>Lab #: 15641.00 Client Ref #: MW3 001 Sample Description WATER</p>	<p>Sample Collected by: S KIRCHOFF Coll. Ending Date: 05/27/94 Coll. Ending Time: 08:35</p>		
<p>Receipt Date: 05/28/94 Sample Type: GRAB Sample Matrix: WATER</p>			

Analyte	Units	Amount	Int of Hold Ana- Detect Time lyst	Prep Date	Test Date	Batch Number	Lab Note	Analyst's Note
Cmpd: N-NITROSODIPHENYLAMINE	ND	0.05						
Cmpd: NAPHTHALENE	443	0.01						
Cmpd: NITROBENZENE	ND	0.01						
Cmpd: PENTACHLOROPHENOL	ND	0.01						
Cmpd: PHENANTHRENE	ND	0.01						
Cmpd: PHENOL	ND	0.01						
Cmpd: PYRENE	ND	0.01						

<p>ND NOT DETECTED</p>	<p>NOT DETECTED</p>
------------------------	---------------------

Analytical Report

Report #: 5226
Date: 06/14/94
Page #: 17

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

601/956-1400 Office
601/956-0513 Fax

Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: WATER

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/27/94
Coll. Ending Time: 13:00

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

Lab #: 15642.00 Client Ref #: MW4 001
Sample Description
WATER

Analyte	Units	Amount	screen	screen A	TKW	05/26/94	06/08/94	15:50	6801	Batch	Lab	Note	Analyst's Note
BASE/NEUTRALS AND ACIDS													
SURT: 2-FLUOROBIPHENYL	PPM	screen	588 A										
SURT: 2,4,6-TRIBROMOPHENOL		531 A											
Cmpd: 1,2,4-TRICHLOROBENZENE		ND	0.01										
Cmpd: 1,2-DICHLOROBENZENE		ND	0.01										
Cmpd: 1,3-DICHLOROBENZENE		ND	0.01										
Cmpd: 1,4-DICHLOROBENZENE		ND	0.01										
Cmpd: 2,4,6-TRICHLOROPHENOL		ND	0.01										
Cmpd: 2,4-DICHLOROPHENOL		ND	0.01										
Cmpd: 2,4-DIMETHYLPHENOL		ND	0.01										
Cmpd: 2,4-DINITROPHENOL		ND	0.01										
Cmpd: 2,4-DINITROTOLUENE		ND	0.01										
Cmpd: 2,6-DINITROTOLUENE		ND	0.01										
Cmpd: 2-CHLORONAPHTHALENE		ND	0.01										
Cmpd: 2-CHLOROPHENOL		ND	0.01										
Cmpd: 2-METHYL-4,6-DINITROPHENOL		ND	0.01										
Cmpd: 2-NITROPHENOL		ND	0.01										
Cmpd: 3,3'-DICHLOROBENZIDINE		ND	0.01										
Cmpd: 4-BROMOPHENYL PHENYL ETHER		ND	0.01										
Cmpd: 4-CHLORO-3-METHYLPHENOL		ND	0.01										
Cmpd: 4-CHLOROPHENYL PHENYL ETHER		ND	0.01										
Cmpd: 4-NITROPHENOL		ND	0.01										
Cmpd: ACENAPHTHENE		ND	0.02										
Cmpd: ACENAPHTYLENE		ND	0.04										
Cmpd: ANTHRACENE		ND	0.03										
Cmpd: BENZIDINE		ND	0.05										

Note: Note Description
A Requirements set by method were met. ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5226
 Date: 06/14/94
 Page #: 18

Lab #: 15642.00 Client Ref #: MW4 001

Sample Description
 WATER

Sample Collected by: S KIRCHOFF
 Coll. Ending Date: 05/27/94
 Coll. Ending Time: 13:00

Receipt Date: 05/28/94
 Sample Type: GRAB
 Sample Matrix: WATER

Analyte	Units	Amount	Int of Hold Ana- Prep			Batch	Lab
			Detect	Time	lyst		
Cmpd: BENS(a)ANTHRACENE	ND	0.01					
Cmpd: BENS(a)PYRENE	ND	0.01					
Cmpd: BENS(b)FLUORANTHENE	ND	0.01					
Cmpd: BENS(ghi)PERYLENE	ND	0.02					
Cmpd: BENS(k)FLUORANTHENE	ND	0.01					
Cmpd: BENYL BUTYL PHTHALATE	ND	0.01					
Cmpd: BIS(2-CHLOROPHOXY)METHANE	ND	0.01					
Cmpd: BIS(2-CHLOROSTY) ETHER	ND	0.01					
Cmpd: BIS(2-CHLOROISOPROPYL) ETHER	ND	0.01					
Cmpd: BIS(2-ETHYHEXYL)PHTHALATE	ND	0.01					
Cmpd: CHRISENE	ND	0.01					
Cmpd: DI-2-BUTYL PHTHALATE	ND	0.01					
Cmpd: DI-2-OCTYL PHTHALATE	ND	0.01					
Cmpd: DIBENS(a,b)ANTHRACENE	ND	0.01					
Cmpd: DIETHYL PHTHALATE	ND	0.01					
Cmpd: DIMETHYL PHTHALATE	ND	0.01					
Cmpd: FLUORANTHENE	ND	0.01					
Cmpd: FLUORENE	ND	0.01					
Cmpd: HEKACHLOROBENE	ND	0.01					
Cmpd: HEKACHLOROBUTADIENE	ND	0.01					
Cmpd: HEKACHLOROCYCLOPENTADIENE	ND	0.05					
Cmpd: HEKACHLOROTHANE	ND	0.01					
Cmpd: INDENO(1,2,3-cd)PYRENE	ND	0.01					
Cmpd: ISOPHORONE	ND	0.01					
Cmpd: N-NITROSODI-N-PROPYLAMINE	ND	0.01					
Cmpd: N-NITROSODIMETHYLAMINE	ND	0.05					

Note: Note Description

ND NOT DETECTED

Analytical Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5226
Date: 06/14/94
Page #: 19

Lab #: 15642.00 **Client Ref #:** MW4 001
Sample Description:
 WATER

Sample Collected by: S KIRCHOFF
Coll. Ending Date: 05/27/94
Coll. Ending Time: 13:00

Receipt Date: 05/28/94
Sample Type: GRAB
Sample Matrix: WATER

Analyte	Units	Amount	Lmt of Hold Ana- Prep (---Test---) Batch Lab			Note Analyst's Note
			Detect Time	l yst	Date		Time Number
Compd: N-NITRODIPHENYLAMINE	ND	0.05				
Compd: NAPHTHALENE	ND	0.01				
Compd: NITROBENZENE	ND	0.01				
Compd: PENTACHLOROPHENOL	ND	0.01				
Compd: PERMANENTHERENE	ND	0.01				
Compd: PHENOL	ND	0.01				
Compd: PYRENE	ND	0.01				

Note ~~Note Description~~
 ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. P 5360 I-55 North S Jackson, MS 39211	601/956-1400 Office 601/956-0513 Fax	QA/QC: COLEMAN, J Manager: JOHNSTON, H Facil ID:	Report #: 5226 Date: 06/14/94 Page #: 20
Analyte: BASE/NEUTRALS AND ACIDS Units: ppm Analyst: TENNIE WHITE		Preparation Date: 05/26/94 Test Began Date & Time: 06/02/94 @ 06:08 Test Ended Date & Time: 06/08/94 @ 15:50	
		Batch Number: 6801 Book/Page: 4/70	

Log Number:	Sample		Replicate		Matrix Spike		Mix & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Screen Compound Amount/Limit of Detection:										
SUIT: 2-FLUOROBIPHENYL	92%		60%		0.500		53%		100%	
SUIT: 2,4,6-TRIBROMOPHENOL	91%		49%		0.500		90%		100%	
Cmpd: 1,2,4-TRICHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 1,2-DICHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 1,3-DICHLOROBENZENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 1,4-DICHLOROBENZENE	0.33	0.01	0.17	0.01	1.00		130%		ND	0.01
Cmpd: 2,4,6-TRICHLOROPHENOL	0.33	0.01	0.26	0.01	1.00		110%		ND	0.01
Cmpd: 2,4-DICHLOROPHENOL	0.24	0.01	0.25	0.01	1.00		120%		ND	0.01
Cmpd: 2,4-DIMETHYLPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4-DINITROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,4-DINITROTOLUENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2,6-DINITROTOLUENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-CHLORONAPHTHALENE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-CHLOROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-METHYL-4,6-DINITROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 2-NITROPHENOL	0.33	0.01	0.21	0.01	1.00		102%		ND	0.01
Cmpd: 3,3'-DICHLOROBENZIDINE	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 4-CHLORO-3-METHYLPHENOL	0.24	0.01	0.33	0.01	1.00		69%		ND	0.01
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: 4-NITROPHENOL	ND	0.01	ND	0.01	0		0%		ND	0.01
Cmpd: ACENAPHTHENE	0.23	0.02	0.40	0.02	1.00		77%		ND	0.02

Note: NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

601/956-1400 Office
 601/956-0513 Fax

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5226
 Date: 06/14/94
 Page #: 21

Analyte: BASE/NEUTRALS AND ACIDS

Units: ppm

Analyst: TENNIE WHITE

Preparation Date: 05/26/94

Test Began Date & Time: 06/02/94 @ 06:08

Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6801

Book/Page: 4/70

Cmpd:	Sample		Replicate		Matrix Spike		Htx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
ACENAPHTHYLENE	ND	0.04	ND	0.04	0	0.04	0	0	ND	0.04
ANTHRACENE	ND	0.03	ND	0.03	0	0.03	0	0	ND	0.03
BENZIDINE	ND	0.05	ND	0.05	0	0.05	0	0	ND	0.05
BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
BENZO(a)PYRENE	0.53	0.01	0.23	0.01	1.00	0.01	53%	53%	ND	0.01
BENZO(b)FLUORANTHENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
BENZO(ghi)PERYLENE	ND	0.02	ND	0.02	0	0.02	0	0	ND	0.02
BENZO(k)FLUORANTHENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
BENYL BUTYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
BIS(2-CHLOROETHOXY)METHANE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
BIS(2-CHLOROETHYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
BIS(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
BIS(2-ETHYHEXYL) PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
CHRYSENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
DI-n-BUTYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
DI-n-OCTYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
DIBENZO(a,h)ANTHRACENE	0.76	0.01	0.20	0.01	1.00	0.01	32%	32%	ND	0.01
DIBENZO(a,h)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
DIBENZO(a,h)ANTHRACENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
FLUORANTHENE	0.26	0.01	0.34	0.01	1.00	0.01	37%	37%	ND	0.01
FLUORENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
HEXACHLOROBENZENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
HEXACHLOROBUTADIENE	0.44	0.01	0.32	0.01	1.00	0.01	49%	49%	ND	0.01
HEXACHLOROCYCLOPENTADIENE	ND	0.05	ND	0.05	0	0.05	0	0	ND	0.05
HEXACHLOROTHANE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01
INDENO(1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0	0.01	0	0	ND	0.01

Note: Note Description

ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. 601/956-1400 Office QA/QC: COLEMAN, J Report #: 5226
P 5360 I-55 North 601/956-0513 Fax Manager: JOHNSTON, H Date: 06/14/94
S Jackson, MS 39211 Facil ID: Page #: 22

Analyte: BASE/NEUTRALS AND ACIDS
Units: ppm
Analyst: TENNIE WHITE

Preparation Date: 05/26/94
Test Began Date & Time: 06/02/94 @ 06:08
Test Ended Date & Time: 06/08/94 @ 15:50

Batch Number: 6801
Book/Page: 4/70

	({---Sample---})		({---Replicate---})		({---Matrix Spike---})		({---Htz & Recovery---})		({---Blank---})	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Compd: ISOPHORONE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: N-NITROSODI-n-PROPYLAMINE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: N-NITROSODIMETHYLAMINE	ND	0.05	ND	0.05	0	0.05	0%	ND	ND	0.05
Compd: N-NITROSODIPHENYLAMINE	0.47	0.05	0.51	0.05	1.00	0.05	34%	ND	ND	0.05
Compd: NAPHTHALENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: NITROBENZENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: PENTACHLOROPHENOL	0.36	0.01	0.20	0.01	1.00	0.01	36%	ND	ND	0.01
Compd: PHENANTHRENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01
Compd: PHENOL	0.27	0.01	0.46	0.01	1.00	0.01	85%	ND	ND	0.01
Compd: PYRENE	ND	0.01	ND	0.01	0	0.01	0%	ND	ND	0.01

Quality Control Summary Notes:

Note---Note Description **Note**---Note Description
A Requirements set by method were met. **ND** NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5226
Date: 06/14/94
Page #: 23

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS

Units: ppm

Analyst: TENNIE WHITE

Preparation Date: 05/28/94

Test Began Date & Time: 06/02/94 @ 08:00

Test Ended Date & Time: 06/08/94 @ 08:00

Batch Number: 6842

Book/Page: 4/55

Log Number:	Sample Matrix:	Sample Type:	Screen Compound Amount/Limit of Detection:	Sample		Replicate		Matrix Spike		Nrx & Recovery		Blank	
				Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
15370	SOIL	GRAB		15370	0.500	15370	0.500	15370	0.500	15370	0.500	15370	0.500
784	SOIL	GRAB		934	0.500	804	0.500	804	0.500	804	0.500	804	0.500
594	SOIL	GRAB		834	0.500	724	0.500	724	0.500	724	0.500	724	0.500
564	SOIL	GRAB		764	0.500	724	0.500	724	0.500	724	0.500	724	0.500
Surri: NITROBENZENE-d5				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Surri: 2-FLUOROBIPHENYL				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Surri: 2,4,6-TRIBROMOPHENOL				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 1,2,4-TRICHLOROBENZENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 1,2-DICHLOROBENZENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 1,3-DICHLOROBENZENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 1,4-DICHLOROBENZENE				ND	0.01	ND	0.01	504	0.01	504	0.01	ND	0.01
Compd: 2,3-DIMETHYLPHENOL				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2,4,5-TRICHLOROPHENOL				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2,4,6-TRICHLOROPHENOL				ND	0.01	ND	0.01	504	0.01	504	0.01	ND	0.01
Compd: 2,4-DICHLOROPHENOL				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2,4-DINITROPHENOL				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2,4-DINITROTOLUENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2,6-DINITROTOLUENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2-CHLORONAPHTHALENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2-CHLOROPHENOL				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2-METHYLNAPHTHALENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2-METHYLPHENOL				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2-NITRONAPHTHLENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 2-NITROPHENOL				ND	0.01	ND	0.01	594	0.01	594	0.01	ND	0.01
Compd: 3,3-DICHLOROBENZIDINE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01
Compd: 3-NITRONAPHTHLENE				ND	0.01	ND	0.01	04	0.01	04	0.01	ND	0.01

Note: ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc.
P 5360 I-55 North
S Jackson, MS 39211

QA/QC: COLEMAN, J
Manager: JOHNSTON, H
Facil ID:

Report #: 5226
Date: 06/14/94
Page #: 24

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
Units: ppm
Analyst: TENNIE WHITE

Preparation Date: 05/28/94
Test Began Date & Time: 06/02/94 @ 08:00
Test Ended Date & Time: 06/08/94 @ 08:00

Batch Number: 6842
Book/Page: 4/55

	Sample		Replicate		Matrix Spike		Ntx & Recovery		Blank	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Cmpd: 4,6-DINITRO-2-METHYLPHENOL	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: 4-BROMOPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: 4-CHLORO-3-METHYLPHENOL	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: 4-CHLORANILINE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: 4-CHLOROPHENYL PHENYL ETHER	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: 4-METHYLPHENOL	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: 4-NITROANILINE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: 4-NITROPHENOL	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: ACENAPHTHENE	ND	0.01	ND	0.01	0.50		83‡		ND	0.01
Cmpd: ACENAPHTYLENE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: ANTHRACENE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: BENZO(a)ANTHRACENE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: BENZO(a)PYRENE	ND	0.01	ND	0.01	0.50		59‡		ND	0.01
Cmpd: BENZO(b)FLUORANTHENE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: BENZO(g,h,i)PERYLENE	43.48	0.01	42.80	0.01	0		0†		ND	0.01
Cmpd: BENZO(k)FLUORANTHENE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: BENZOIC ACID	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: BENZYL ALCOHOL	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: bis(2-CHLOROPHENOXY) METHANE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: bis(2-CHLOROPHENYL) ETHER	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: bis(2-CHLOROISOPROPYL) ETHER	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: bis(2-ETHYLHEXYL)PHTHALATE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: BUTYL BENZYL PHTHALATE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: CHRYSENE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: DI-N-BUTYL PHTHALATE	ND	0.01	ND	0.01	0		0†		ND	0.01
Cmpd: DI-N-OCTYL PHTHALATE	ND	0.01	ND	0.01	0		0†		ND	0.01
	ND	0.01	ND	0.01	0.50		94‡		ND	0.01

Note: Note Description

ND NOT DETECTED

Quality Control / Quality Assurance Report

E EPS Analytical Services, Inc. 601/956-1400 Office
 P 5360 I-55 North 601/956-0513 Fax
 S Jackson, MS 39211

QA/QC: COLEMAN, J
 Manager: JOHNSTON, H
 Facil ID:

Report #: 5226
 Date: 06/14/94
 Page #: 25

Analyte: GC/MS FOR SEMIVOLATILE ORGANICS
 Units: ppm
 Analyst: TENNIE WHITE

Preparation Date: 05/28/94
 Test Began Date & Time: 06/02/94 @ 08:00
 Test Ended Date & Time: 06/08/94 @ 08:00

Batch Number: 6842
 Book/Page: 4/55

Compd:	{---Sample---		{---Replicate---		{---Matrix Spike---		{---Htx & Recovery---		{---Blank---	
	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD	Amount	LOD
Compd: DIBENZ(a,h)ANTHRACENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: DIBENZOFURAN	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: DIETHYLPHTHALATE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: DIMETHYL PHTHALATE	ND	0.01	ND	0.01	0.01		0.01		ND	0.01
Compd: FLUORANTHENE	ND	0.01	ND	0.01	0.50		0.01		ND	0.01
Compd: FLUORENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: HEXACHLOROBENZENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: HEXACHLOROBUTADIENE	ND	0.01	ND	0.01	0.50		0.01		ND	0.01
Compd: HEXACHLOROCYCLOPENTADIENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: HEXACHLOROETHANE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: INDENO(1,2,3-cd)PYRENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: ISOPHORONE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: M-NITROSO-DI-N-PROPYLAMINE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: M-NITROSODIPHENYLAMINE	ND	0.01	ND	0.01	0.50		0.01		ND	0.01
Compd: NAPHTHALENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: NITROBENZENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: PENTACHLOROPHENOL	ND	0.01	ND	0.01	0.50		0.01		ND	0.01
Compd: PHEMANTERENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Compd: PHENOL	ND	0.01	ND	0.01	0.50		0.01		ND	0.01
Compd: PYRENE	ND	0.01	ND	0.01	0		0.01		ND	0.01
Quality Control Summary Notes:										
A Requirements set by method were met.										
Note: Note Description										
ND NOT DETECTED										