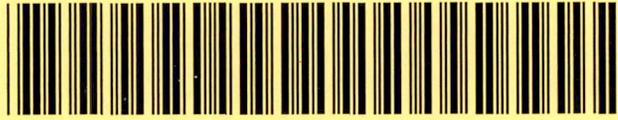


1125IHSSF2074



DocumentID NONCD0002796

Site Name BRENNTAG SOUTHEAST

DocumentType Site Assessment Rpt (SAR)

RptSegment 1

DocDate 2/6/2002

DocRcvd 2/20/2007

Box SF2074

AccessLevel PUBLIC

Division WASTE MANAGEMENT

Section SUPERFUND

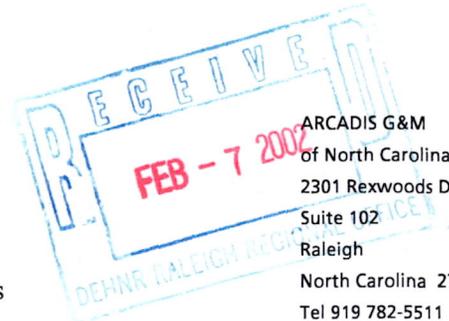
Program IHS (IHS)

DocCat FACILITY



Infrastructure, buildings, environment, communications

Mr. Jay Zimmerman
Environmental Regional Supervisor
North Carolina Department of Environment and Natural Resources
Raleigh Regional Office
Division of Water Quality, Groundwater Section
3800 Barrett Drive, Suite 101
Raleigh, North Carolina 27609



ARCADIS G&M
of North Carolina, Inc.
2301 Rexwoods Drive
Suite 102
Raleigh
North Carolina 27607
Tel 919 782-5511
Fax 919 782-5905

ENVIRONMENTAL

Subject:

Soil and Groundwater Assessment Report, Brenntag Southeast Facility (Former Worth Chemical Facility), 2418 East Pettigrew Street, Durham, North Carolina.

Dear Mr. Zimmerman:

Enclosed is a copy of the Soil and Groundwater Assessment Report prepared for the Brenntag Southeast Facility (Former Worth Chemical Facility) located at the above-referenced address. This report documents the results of soil and groundwater assessment activities that were performed at the site from August through October 2001. The assessment activities included the collection of soil samples from 23 Geoprobe borings and 3 hand auger borings, installation and sampling of 5 permanent monitor wells, collection of multiple rounds of water level measurements and performance of insitu aquifer tests.

If you have any questions regarding the information presented in the report, please contact me at (919) 782-5511.

Sincerely,

ARCADIS G&M of North Carolina, Inc.

Raleigh,
February 6, 2002

Contact:
James E. Shilliday, III

Extension:
246

James E. Shilliday, III, L.G.
Senior Scientist/Investigation Services Department Manager

Copies: Bruce Biehl (Brenntag Southeast)

SOIL AND GROUNDWATER ASSESSMENT REPORT

Brenntag Southeast Facility
(Former Worth Chemical Facility)
2418 East Pettigrew Street
Durham, North Carolina



February 2002

PREPARED FOR

Brenntag Southeast, Inc.

ARCADIS

SOIL AND GROUNDWATER
ASSESSMENT REPORT

Brenntag Southeast Facility
(Former Worth Chemical Facility)
2418 East Pettigrew Street
Durham, North Carolina

Prepared for:
Brenntag Southeast, Inc.

Prepared by:
ARCADIS G&M of North Carolina, Inc.
2301 Rexwoods Drive
Suite 102
Raleigh
North Carolina 27607
Tel 919 782-5511
Fax 919 782-5905

Our Ref.:
NC101047.0001

Date:
February 2002

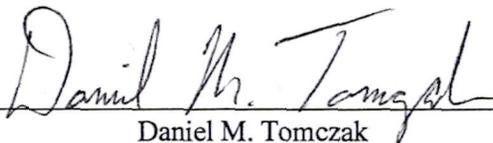
This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. Any dissemination, distribution, or copying of this document is strictly prohibited.

ARCADIS

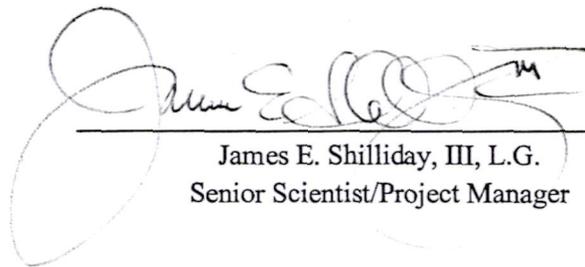
SOIL AND GROUNDWATER ASSESSMENT REPORT
BRENNTAG SOUTHEAST FACILITY
(FORMER WORTH CHEMICAL FACILITY)
2418 EAST PETTIGREW STREET
DURHAM, NORTH CAROLINA

February 2002

Prepared by ARCADIS G&M of North Carolina, Inc.


Daniel M. Tomczak
Staff Scientist/Project Geologist




James E. Shilliday, III, L.G.
Senior Scientist/Project Manager



1. INTRODUCTION	1-1
1.1 Site Background	1-1
1.2 Environmental History	1-2
2. SITE ASSESSMENT PROGRAM	2-1
2.1 Soil Investigation	2-1
2.1.1 Soil Sample Collection Using Direct Push Technology	2-1
2.1.2 Soil Sample Collection Using Hand Augers	2-2
2.2 Groundwater Investigation	2-3
2.2.1 Monitor Well Installation	2-3
2.2.2 Monitor Well Development	2-4
2.2.3 Water Level Measurements	2-4
2.2.4 Groundwater Sample Collection	2-4
2.2.5 Aquifer Tests	2-5
2.3 Site Survey	2-6
3. HYDROGEOLOGY	3-1
3.1 Regional Geology and Hydrogeology	3-1
3.2 Site Specific Geology	3-2
3.3 GROUNDWATER FLOW SYSTEM	3-3
3.3.1 Groundwater Flow Direction	3-3
3.3.2 Hydraulic Gradients	3-3
3.3.3 Hydraulic Properties	3-4
3.3.4 Groundwater Flow Velocity	3-4
4. INVESTIGATION RESULTS FOR SOIL AND GROUNDWATER	4-1
4.1 Soil Sample Analytical Results	4-1
4.2 Identified Areas with Impacted Soil	4-3

4.3	Groundwater Sample Field Parameters and Analytical Results	4-4
4.3.1	Groundwater Parameters	4-4
4.3.2	Groundwater Analytical Results	4-4
5.	DATA REVIEW AND VALIDATION	5-1
5.1	Field Quality Assurance Components	5-1
5.2	Laboratory Quality Assurance Components	5-1
5.2.1	Volatile Organic Compounds (USEPA Method 8260)	5-2
5.2.2	Semi-Volatile Organic Compounds (USEPA Method 8260)	5-3
5.2.3	Total Petroleum Hydrocarbons (TPH) Modified Method 8015	5-3
6.	SUMMARY	6-1
7.	REFERENCES	7-1

Tables

2-1.	Monitor Well Construction Details.
3-1.	Water-Level Elevations in Monitor Wells, October 12 and 16, 2001.
4-1.	Soil Sample Organic Vapor Concentrations in Parts Per Million, August 22 and 23, 2001, Soil Sampling Event.
4-2.	Summary of Soil Sample Analytical Results, August 22 and 23, 2001, Soil Sampling Event.
4-3.	Summary of Groundwater Sample Field Parameters Collected from Monitor Wells on October 12, 2001.
4-4.	Summary of Groundwater Sample Analytical Results, October 12, 2001, Sampling Event.

Figures

1-1.	Site Location.
1-2.	Site Layout.
2-1.	Soil Boring and Monitor Well Locations.

- 3-1. Geological Cross-Section A-A'.
- 3-2. Geological Cross Section B-B'.
- 3-3. Groundwater Potentiometric Surface of the Shallow Zone – October 12, 2001.
- 4-1. Tetrachloroethene (PCE) Concentrations ($\mu\text{g}/\text{kg}$) in Soil Samples, August 22-23, 2001 Sampling Event.
- 4-2. Trichloroethene (TCE) Concentrations ($\mu\text{g}/\text{kg}$) in Soil Samples, August 22-23, 2001 Sampling Event.
- 4-3. Chloroform Concentrations ($\mu\text{g}/\text{kg}$) in Soil Samples, August 22-23, 2001 Sampling Event.
- 4-4. Acetone Concentrations ($\mu\text{g}/\text{kg}$) in Soil Samples, August 22-23, 2001 Sampling Event.
- 4-5. Total Petroleum Hydrocarbons (TPH) – Diesel (mg/kg) in Soil Samples, August 22-23, 2001 Sampling Event.
- 4-6. Tetrachloroethene (PCE) Isoconcentration ($\mu\text{g}/\text{L}$) Contour Map in Groundwater, October 12, 2001.
- 4-7. Trichloroethene (TCE) Isoconcentration ($\mu\text{g}/\text{L}$) Contour Map in Groundwater, October 12, 2001.
- 4-8. Chloroform Isoconcentration ($\mu\text{g}/\text{L}$) Contour Map in Groundwater, October 12, 2001.

Appendices

- A. Soil Lithologic Logs.
- B. Monitor Well Construction Logs.
- C. Slug-Test Data Plots.
- D. Soil Analytical Reports.
- E. Groundwater Analytical Reports.

1. INTRODUCTION

ARCADIS G&M of North Carolina, Inc. (ARCADIS G&M) has prepared this report on behalf of Brenntag Southeast, Inc. (Brenntag). This report documents soil and groundwater assessment activities performed from August through October 2001 at the former Worth Chemical facility, 2418 East Pettigrew Street, Durham, North Carolina. The site location is shown on a topographic map on Figure 1-1, and the site layout is shown on Figure 1-2.

The purpose of the soil and groundwater assessment activities was to evaluate the extent of impacted soil and groundwater associated with the past activities at the former Worth Chemical facility. Information obtained from previous assessment activities (NCDHR, 1989; Aquaterra, 1989; Versar, 1994) was used to assist in determining the number and locations of soil sampling points and permanent monitor wells required for delineation of the impacted groundwater plume. Delineation of impacts to soil and groundwater is necessary in order to satisfy the North Carolina Department of Environment and Natural Resources' (NCDENR) requirements for a Comprehensive Site Assessment (CSA) (NCDENR, 2000).

1.1 Site Background

The former Worth Chemical facility has three main buildings that were primarily used as warehouses and storage buildings (Figure 1-2). The north warehouse contained two sections that were used mainly for storage of chemical materials, while the south warehouse contained offices, a loading dock and material storage areas. A smaller storage building on the west side of the site was also used for storage of chemical materials. In addition to the main buildings, the site cover consists of coarse gravel within the parking areas, small concrete pads, railroad tracks, concrete paving between the warehouses, and grass along the southeast portion of the site.

The site originally operated as a prefabricated mobile home manufacturing plant (NCDHR, 1989). Since 1966 various small chemical companies have occupied the facility. From 1966 to 1969 the facility was operated by Cardinal Chemical, followed by Scichemco from 1969 to 1972, then by Amore Chemical from 1972 to 1975, and finally by Worth Chemical beginning in 1975 (Versar, 1994). Worth Chemical operated the facility until September 4, 2001, at which time Brenntag took over ownership of the facility.

Introduction

Beginning in 1966, the facility operations primarily consisted of chemical repackaging and/or chemical storage. During the operation by Amore Chemical, the facility was used for repackaging bulk chemicals and solvent recycling of ethanol and some chlorinated solvents (Aquaterra, 1989). The main products distributed from the Amore Chemical facility included chlorinated solvents, various aromatic compounds, caustic soda, and hydrochloric acid (Versar, 1994). Railcar and tanker trucks were used to transport the chemical materials. Soon after Worth Chemical began operation of the facility in 1975, formulating and drumming of bulk chemicals was stopped and the facility was primarily used as a warehouse and distribution center (Versar, 1994). However, Worth Chemical continued to perform adhesive/cleaner formulation in small batches (165 gallons) on an as needed basis through the mid-1990's using alcohols and methyl ethyl ketone (Aquaterra, 1989 and Versar, 1994).

A solvent recovery distillation unit was in operation at the facility from approximately 1974 (Amore Chemical) to 1981 (Worth Chemical). The solvent recovery operation recovered spent solvents, including ethanol, methanol, tetrachloroethene and trichloroethene, for a battery company (Aquaterra, 1989).

Bulk storage tanks used by Amore Chemical were formerly located on an elevated platform on the west side of the small storage building (Aquaterra, 1989). Two 500-gallon underground storage tanks (USTs) were also reported to be located in the gravel parking lot area near the site exit gate. The two USTs were used to store diesel fuel and were removed around 1987. In addition, a diesel above ground storage tank (AST) that fueled the warehouse boiler had previously been located near the west end of the north warehouse (Versar, 1994).

1.2 Environmental History

In March 1989, the North Carolina Department of Human Resources (NCDHR), Division of Health Service conducted a site visit and inspection and soil sampling at the Worth Chemical facility. Organic and inorganic analyses were conducted on the soil samples collected from various locations around the site. The constituents acetone, toluene, tetrachloroethene, trichloroethene, 1,1-dichloroethane, 1,1,1-trichloroethane, and hexachlorobenzene were reported in the soil samples collected by NCDHR, with acetone concentrations being reported as high as 115,000 milligrams per kilogram ($\mu\text{g}/\text{kg}$) (NCDHR, 1989). Worth Chemical conducted laboratory analysis on three split soil samples and reported the constituents acetone, tetrachloroethene, trichloroethene, chloroform and methylene chloride. Elevated concentrations of

Introduction

copper, lead, and mercury were also reported in a soil sample collected east of the distillation pad.

In addition, Aquaterra Consultants conducted an environmental site assessment of the Worth Chemical facility in 1989. The site assessment report included discussion on site ownership and history, environmental setting, chemical waste types, and an evaluation of the laboratory data reported by NCDHR. The report recommended no further action for the site.

In September 1994, C. Johnson Environmental and Versar, Inc. conducted a site investigation at the Worth Chemical facility to evaluate the extent of contamination in the soils that had been identified during the previous investigations. Sixteen volatile organic compounds (VOCs) were reported in the soil samples collected by Versar including: acetone, benzene, 2-butanone (MEK), 1,1-dichloroethene, methylene chloride, ethylbenzene, 4-methyl-2-pentanone (MIBK), tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, xylenes, chloroform, 1,1,2-trichloroethane, carbon tetrachloride and 1,2-dichloropropane. The highest concentrations of VOCs at the site were reported within the vicinity of the former distillation area and the storm drain and associated drainage ditch outside the property. In addition, total petroleum hydrocarbons (TPH) as diesel were reported in a soil sample collected near a diesel AST in the northwest corner of the site. The report concluded that the highest concentrations of contaminants were identified in the surface or near surface soils and that vertical migration of the contaminants would be limited due to the low permeability soils and bedrock at the site.

2. SITE ASSESSMENT PROGRAM

The field activities conducted by ARCADIS G&M as part of this sampling program for the former Worth Chemical facility included: installation and sampling of 23 Geoprobe soil borings and 3 hand auger soil borings; installation and sampling of 5 permanent monitor wells around the facility; and aquifer slug tests in the newly installed monitor wells. The following sections discuss the methodologies utilized for each portion of the field investigation.

2.1 Soil Investigation

The purpose of the soil investigation was to delineate the horizontal and vertical extent of the contamination in the soils at the former Worth Chemical facility.

2.1.1 Soil Sample Collection Using Direct Push Technology

Information presented in previous investigation reports (NCDHR, 1989; Aquaterra, 1989; Versar, 1994) indicated that soils at the site contained VOCs and diesel petroleum hydrocarbons. A soil investigation was conducted by ARCADIS G&M to confirm these findings and further delineate the lateral and vertical extent of impacted soil at the site. ARCADIS G&M contracted Regional Probing Services of Raleigh, North Carolina, a licensed drilling company in the State of North Carolina, to advance Direct Push Technology (DPT) borings using a truck mounted Geoprobe®.

On August 22 and 23, 2001, 23 DPT borings were advanced at locations surrounding the former Worth Chemical facility (Figure 2-1). Lithologic logs were prepared for the 23 DPT borings using information collected in the field and are presented in Appendix A. Continuous soil cores were collected from each boring to the depth at which Geoprobe refusal occurred. Geoprobe refusal at the site ranged from 4 feet below land surface (ft bls) at GP-19 to 10 ft bls at GP-20. Soil samples from each boring were placed in air-tight plastic bags for headspace measurements using a MiniRAE 2000 photoionization detector (PID) with an 11.7 eV lamp. One sample from each boring was selected for laboratory analysis from the interval with the highest PID measurements, or from the 2 to 4 ft bls interval if PID measurements did not indicate soil impacts at depth. All soil samples selected for laboratory analysis were collected from above the water table. Soil samples for laboratory analysis were collected at two depths from borings GP-9 (1-3 ft bls and 4-6 ft bls) and GP-14 (0.5-2 ft bls and 4-5.5 ft bls) and at one depth from each of the other borings. The soil samples designated for laboratory analysis (GP-1 through GP-23) were collected using two (2) Encore® samplers provided by the laboratory, packed on ice in a

cooler, and shipped via overnight delivery to Pace Analytical Services in Huntersville, North Carolina.

A completed chain-of-custody record was provided with each cooler containing samples to maintain a record of personnel that had contact with the samples. The soil samples were analyzed for VOCs using U.S. Environmental Protection Agency (USEPA) Method 8260 or total petroleum hydrocarbons-diesel (TPH-D) using USEPA Method 3550/8015. The results of the headspace measurements and laboratory analytical testing are presented in Section 4-1.

2.1.2 Soil Sample Collection Using Hand Augers

To investigate the extent of contamination in areas at the facility that could not be accessed by the Geoprobe, three (3) soil borings were sampled using hand augers. Two borings were sampled beneath the elevated bulk storage tank platform and one boring at a storm water pipe drain. The locations of the borings are shown on Figure 2-1. Prior to sampling, ARCADIS G&M contracted Penhall-Lipscomb Concrete Coring to core through the elevated concrete platform at the two locations with a concrete coring drill.

On August 23, 2001, following the coring activities, sampling commenced at the two platform locations (HA-1 and HA-2) and the storm water pipe drain (HA-3) to evaluate the extent of impacted soils. Lithologic logs were prepared for the three hand auger borings using information collected in the field and are presented in Appendix A. Soil samples were collected from each boring at 1-foot intervals down to auger refusal using a decontaminated stainless steel hand auger. Auger refusal ranged from 3 ft bls at location HA-3 to 4.5 feet below the surface of the concrete platform at location HA-1. The soil samples were placed in air-tight plastic bags and headspace measurements were collected from the soil samples using the MiniRAE 2000 PID. Soil samples were collected from each boring for laboratory analysis at depths with the highest PID measurements. The soil samples designated for laboratory analysis were collected using two (2) Encore[®] samplers provided by the laboratory, packed on ice in a cooler, and shipped via overnight delivery to Pace Analytical Services. The results of the headspace measurements and laboratory analytical testing are discussed in Section 4.1.

A completed chain-of-custody record was provided with each cooler containing samples to maintain a record of personnel that had contact with the samples. The soil samples were analyzed for VOCs using USEPA Method 8260.

2.2 Groundwater Investigation

The purpose of the groundwater investigation was to evaluate groundwater flow direction at the site and to determine the extent of VOC contamination in the groundwater at the site. The analytical data from the soil sampling activities were used to assist in selecting locations for the five permanent monitor wells.

2.2.1 Monitor Well Installation

A total of five shallow monitor wells (MW-1 through MW-5) were installed as part of the groundwater assessment program to further define the horizontal extent of impacted groundwater at the site. The monitor wells were installed from October 3 through 4, 2001. The locations of the monitor wells are shown on Figure 2-1. Monitor-well construction details, including installation date, total depth, screened interval, and relative top-of-casing elevation, are listed in Table 2-1.

All of the monitor wells were installed in specific areas to quantify groundwater quality and groundwater flow direction at the site. The drilling and well installation activities were conducted by Geologic Exploration, a North Carolina licensed well driller, from Statesville, North Carolina, under the supervision of an ARCADIS G&M geologist and in accordance with Well Construction Standards provided in North Carolina Administrative Code 15A Subchapter 2C Section .0100. Well-construction records and lithologic logs were prepared for the five monitor wells using information collected in the field and are presented in Appendix B.

Due to the shallow depth to bedrock at the site, the boreholes for the monitor wells were drilled using an air hammer drilling rig. All drilling equipment was steam-cleaned prior to use. Nominal 8-inch-diameter boreholes were drilled to depths ranging from 25 to 30 ft bls for the shallow wells (MW-1 through MW-5), and the PVC wells were constructed inside the boreholes. To characterize the geology of the site, samples of the drill cuttings were collected from the borings at 5-foot intervals. Each soil sample was described by a qualified ARCADIS G&M representative for lithology and appearance.

All shallow monitor wells were constructed of 2-inch-diameter, threaded, schedule 40 PVC screen and riser. Ten-slot (0.010-inch) screen was selected due to the clay and silt content of the soil. The wells were constructed with 20 feet of screen and 5 to 10 feet of riser. After the screen and casing were installed, a silica sand filter pack was placed in the annular space between the well screen and borehole wall. The fine silica sand filter pack was placed around the screen from the base to approximately 2 feet above the screen top. Bentonite pellets were then placed on top of the filter pack to form a seal approximately 2

to 3 feet thick. After hydration of the bentonite pellets, the well was grouted to within a few inches of the ground surface. A water-tight, locking, expansion cap was installed on top of the 2-inch-diameter casing, and a steel, manhole-type, protective cover and concrete pad were installed slightly above grade over the top of each monitor well.

2.2.2 Monitor Well Development

Residual clay, silt, and fine sands which collected in the silica sand filter packs and bottoms of the monitor wells were removed by developing the wells. Development was performed by removing water and solids from the wells using dedicated disposable polyethylene bailers. All purge water generated during development of the monitor wells was containerized in 55-gallon drums during field activities.

The monitor wells were developed until the purge water was relatively sand-free and clear or until the wells were bailed dry. Approximately 1.5 gallons to 15 gallons of water were removed from shallow monitor wells MW-1 through MW-5 during development. This quantity of water equates to approximately 4 to 7 well volumes for the monitor wells. A limited amount of water was removed from wells MW-3 and MW-5 because the wells recharged very slowly after being purged of one well volume.

2.2.3 Water Level Measurements

Depth-to-water measurements from top of casing were collected from the monitor-wells at the former Worth Chemical site on October 12 and 16, 2001. Water-level measurements were collected with an electric water-level probe, which was decontaminated prior to inserting into each well. Water-level measurements were converted to water-level elevations using the relative top-of-casing elevation survey data. Groundwater flow direction is discussed in Section 3.3.

2.2.4 Groundwater Sample Collection

Groundwater samples were collected from monitor wells MW-1 through MW-5 on October 12 and 16, 2001. Groundwater sampling was conducted in accordance with ARCADIS G&M standard quality assurance protocols. Prior to sample collection, each monitor well was purged with a dedicated polypropylene bailer. Purge water was collected at each well and then containerized in a 55-gallon drum. Field measurements of groundwater pH, specific conductance, and temperature were recorded using portable meters during the monitor well purging. This information was recorded on a water-sampling form prior to collection of the groundwater sample designated for laboratory analysis. The results of the field tests for these groundwater parameters are discussed in

Section 4.3.1. The portable meters were calibrated daily prior to use in accordance with manufacturer's specifications.

Groundwater samples were collected after field parameters were stable over consecutive readings and at least three well volumes were removed. Once collected, groundwater samples were placed in appropriately labeled containers, packed on ice in coolers, and shipped via overnight delivery to Pace Analytical Services for analysis. The groundwater samples remained in the presence of an ARCADIS G&M project representative until delivery to the Federal Express office. A chain-of-custody record was used to maintain a record of personnel that had contact with the samples.

Groundwater samples collected from monitor wells MW-1 through MW-5 were submitted for analysis of VOCs and semi-volatile organic compounds (SVOCs) using USEPA Methods 8260 and 8270, respectively. The groundwater sample analytical results for the monitor well sampling event are discussed in Section 4.3.2.

2.2.5 Aquifer Tests

In-situ aquifer tests (slug tests) were conducted at the site on October 23 and 25, 2001. Slug tests were conducted on shallow monitor wells MW-1, MW-2 and MW-4 to determine the average hydraulic conductivity for the surficial aquifer at the site. The limited amount of water within monitor wells MW-3 and MW-5 prevented slug tests from being conducted on the two wells.

The slug tests were conducted by installing a pressure transducer into the test well approximately 5 feet below the water level. The transducer was connected to a Hermit™ data logger, which was programmed to record water-level measurements at logarithmic intervals. The data logger was activated so that it would begin recording water-level measurements. Within seconds of its activation, a solid cylinder (slug) of known volume was lowered into the test well, creating an instantaneous, positive change in the water level. The rate at which the water level recovered back to static conditions was recorded as test 0 (slug-in data). Once the water level recovered, test 0 was stopped. The data logger was then programmed to begin recording data for test 1. The data logger was activated, and the slug was immediately removed from the well, creating an instantaneous, negative change in the water level. The water-level recovery rate also was recorded for this test (slug-out data), and then the transducer was removed from the well. The transducer and cable were decontaminated with a soapy water solution prior to installation into the next test well.

The data collected during the slug tests were downloaded and analyzed using AQTESOLV™. Hydraulic conductivity values were calculated using this software program. The results of the slug tests are discussed in Section 3.3.3.

2.3 Site Survey

ARCADIS G&M contracted Combined Surveying Resources (a registered surveyor) from Raleigh, North Carolina, to survey the site including the locations of the monitor wells and soil borings, building corners, concrete pavement and pads, railroad tracks, edges of pavement for surrounding streets, fence lines, light poles and overhead power lines, storm water drains and culverts. Following collection of the above-referenced survey information, Combined Surveying Resources generated a base map for the site. This base map was utilized to generate the figures presented in this report.

In addition, a water-level measuring point (top of casing) was established at each of the monitor wells, and the elevation of that measuring point was determined to within ± 0.05 ft relative to an arbitrary point at the site of 100 feet.

3. HYDROGEOLOGY

3.1 Regional Geology and Hydrogeology

The site is located in the north-central part of North Carolina in the Piedmont Physiographic Province. Specifically, the site is located within an area of the Piedmont known as the Deep River Triassic Basin (U.S. Geological Survey [USGS], 1966). The Deep River Triassic Basin consists of three interconnected sub-basins. The northern most of the sub-basins is the Durham sub-basin and the site occurs within this sub-basin. The Triassic basin formed as a result of downfaulting of the bedrock and subsequent deposition of sediments that eroded away from higher elevations.

The shallow subsurface materials in the vicinity of the site are composed primarily of clays, silts, and saprolite. The saprolite in this case is a soft, decomposed rock formed in place through chemical weathering of sedimentary rocks. The saprolite, which becomes more competent and less saprolitic with increasing depth, is underlain by sedimentary rocks of the Triassic Basin (USGS, 1966). Specifically, the Triassic bedrock unit occurring beneath the site is described as maroon to gray, arkosic sandstones, siltstones, shales and fanglomerates that has been intruded by diabasic dikes of Triassic age (USGS, 1966). Bedrock west of the Triassic unit is part of the Carolina Slate Belt and described as metamorphosed dacitic and rhyolitic flows and tuffs, light gray to greenish-gray, interbedded with mafic and intermediate metavolcanic rock and mudstone. Also occurring east of the Triassic unit are late Precambrian to late Cambrian intrusive, metamorphosed granitic rocks, described as well-foliated and containing hornblende (North Carolina Geologic Survey, [NCGS], 1985).

According to Heath (1980) and LeGrand (1988), the hydrogeologic system which exists in the Piedmont possesses unique features in comparison to most other groundwater regions. Groundwater in the site area generally occurs in joints, fractures, and bedding planes of the bedrock units. The active groundwater flow within the bedrock units is limited to fracture flow. The aerial and vertical distribution and interconnection of these fractures is limited. For instance, fractures typically decrease both in width of opening and in frequency with depth. As a result, active groundwater circulation or flow within fractured rocks in the Piedmont is relatively shallow, primarily limited to the upper 250 feet of bedrock. In addition, the bedrock units generally have very low storage capacity for groundwater.

Most of the water flowing in these fractures is derived from vertical leakage from the saprolitic soils and the "unfractured" matrix rock. The regolith or saprolite overlying the bedrock forms a shallow aquifer system which is the principal storage reservoir and

provides a very local source for domestic drinking water. Groundwater movement within this shallow aquifer reservoir is predominantly vertical, intergranular flow.

The groundwater basins developed in this Piedmont system exhibit shallow flow paths and are not aerially extensive. These basins mimic surface-water basins. That is, topographic high points such as ridges and hill tops form drainage basin boundaries and divides which groundwater does not flow across. The topographic highs, located on upland ridges, act as the principal area of groundwater recharge. Perennial streambeds represent another basin boundary, as they represent discharge areas where groundwater flows to the surface as diffuse seepage or springs. Shallow, local groundwater flow paths develop, efficiently moving recharge from hill tops to close-by permanent streams and other surface water bodies.

The interaction of these unique features within the Piedmont develops a series of shallow, aerially small, flow systems which are almost congruent with the surface-water drainage basins (LeGrand, 1988). Each groundwater basin, like the surface-water drainage basin, is separated from adjacent basins. The water table develops in the saprolite in response to precipitation recharge and forms a subdued expression of the local topography. (LeGrand, 1988).

3.2 Site Specific Geology

Soil underlying the site consists primarily of silt (50 to 70 percent) with variable amounts of clay (20 to 40 percent) and minor amounts of fine to medium grained quartz sand (0 to 20 percent). The uppermost lithologic unit consisted of unconsolidated reddish brown, light gray, and light brown silty clays to very fine grained sandy silts. The surficial soils grade into saprolitic or weathered bedrock material at depths ranging from 6 to 10 ft bls as determined by Geoprobe refusal. The weathered bedrock material was composed of sandy silt and clay. The weathered bedrock material transitioned into a slightly weathered more competent bedrock material at depths ranging from 15 to 20 ft bls. This slightly weathered bedrock unit consisted primarily of sandy silt to silty sand ranging in color from reddish brown to light brown and included partially weathered rock consisting of sandstone and siltstone. The sand fraction associated with this third unit also consisted of very fine grained quartz.

The weathered bedrock material at the site was very tight, and the boreholes for the monitor wells MW-3 and MW-5 were initially dry. Groundwater recharged into the boreholes for these two wells at a slow rate requiring several days to fully recharge to static conditions. The boreholes associated with monitor wells MW-1, MW-2, and MW-4 appear to have intersected more highly fractured portions of the weathered bedrock unit based on

the fact that the boreholes associated with those three wells filled with water either during or soon after the drilling process. These wells recovered relatively quickly after development. The groundwater recharge information for the five monitor wells indicates that although the lithology remains relatively consistent across the site, the hydrogeologic characteristics of the bedrock unit vary considerably depending on the degree of fracturing in a specific area.

Two geologic cross-sections were created using the lithologic information from the Geoprobe and monitor-well borings. The cross-sections are presented in Figures 3-1 and 3-2. Water-level data collected during the October 12, 2001, groundwater sampling event are included on the cross sections. Cross-section A to A' extends across the site from northwest to southeast and includes lithologic information from monitor wells MW-1, MW-4 and MW-5. Cross-section B to B' extends from the southwest-central portion of the site to the northeast and includes lithologic information from monitor wells MW-3 and MW-2.

3.3 GROUNDWATER FLOW SYSTEM

3.3.1 Groundwater Flow Direction

Water-level measurement data collected from each of the monitor wells on October 12 and 16, 2001, are presented in Table 3-1. The depth-to-water measurements and the converted relative water-level elevations are both listed on the table. The water level elevations in the five monitor wells are consistent between the two measurement dates. The water-level elevation data from the October 12, 2001, measurement event were used to construct the water-level contour map presented in Figure 3-3.

Based on the information presented on Figure 3-3, groundwater in the shallow portion of the saprolite/weathered bedrock hydrogeologic unit flows across the site from the north/northeast to the south/southwest/southeast and generally follows the land surface topography.

3.3.2 Hydraulic Gradients

The horizontal hydraulic gradient in the upper portion of the saprolite/weathered bedrock hydrogeologic unit across the site ranges from approximately 0.054 feet per foot (ft/ft) between wells MW-2/MW-5 to 0.098 ft/ft between monitor wells MW-1/MW-3, with an average hydraulic gradient of 0.076 ft/ft. Based upon the hydraulic information provided by the monitor wells at the site, larger gradients are observed within the vicinity of monitor well MW-3 as compared to other areas of the site.

3.3.3 Hydraulic Properties

In-situ aquifer tests (slug tests) were performed on monitor wells MW-1, MW-2 and MW-4 to obtain estimates of the hydraulic conductivity for the saprolite/weathered bedrock hydrogeologic unit. Analysis of the slug-test data using the AQTESOLV™ software program provided hydraulic conductivity values of 2.436×10^{-4} centimeters per second (cm/sec) and 9.998×10^{-5} cm/sec for monitor wells MW-4 and MW-2, respectively. An error occurred with the slug-out data from monitor well MW-1 and the hydraulic conductivity value for that slug test could not be determined.

The average hydraulic conductivity for these wells was 1.718×10^{-4} cm/sec (0.49 ft/day). Graphical plots of the water-level displacement data versus time were generated for each of these monitor wells and are presented in Appendix C.

3.3.4 Groundwater Flow Velocity

Groundwater flow in the upper portion of the saprolite/weathered bedrock hydrogeologic unit at the site, as determined from the water-level elevation data collected on October 12, 2001, is toward the south/southwest/southeast. An estimated average hydraulic gradient was calculated to be approximately 0.076 ft/ft. The average interstitial groundwater flow velocity for the saprolite/bedrock aquifer can be determined using a form of the Darcy equation as follows:

$$V = \frac{K}{Ne} \left(\frac{dh}{dl} \right)$$

where:

V = groundwater flow velocity

K = hydraulic conductivity

$\frac{dh}{dl}$ = groundwater gradient

Ne = effective porosity (assumed to be 15 percent for the saprolite/weathered bedrock hydrogeologic unit)

substituting values determined by ARCADIS G&M:

$$K = 0.49 \text{ ft/day}$$

$$\frac{dh}{dl} = 0.076 \text{ ft/ft}$$

then $V = \frac{0.49 \text{ ft/day} (0.076 \text{ ft/ft})}{.15}$

$$V = 0.25 \text{ ft/day} = 91 \text{ ft/year}$$

Inhomogeneities in the aquifer could lead to higher or lower localized rates of flow.

4. INVESTIGATION RESULTS FOR SOIL AND GROUNDWATER

4.1 Soil Sample Analytical Results

On August 22 through 23, 2001, soil samples were collected from 26 boring locations around the former Worth Chemical facility (GP-1 through GP-23 and HA-1 through HA-3). Headspace measurements were collected for each of the soil cores at 1 to 2 foot intervals using a PID. The headspace readings for the samples ranged from 0.0 parts per million (ppm) to >9999 ppm, and are summarized on Table 4-1. The headspace measurements were used to determine which samples would be submitted for laboratory analysis of VOCs and SVOCs. At least one sample per boring (generally the sample exhibiting the highest headspace measurement) was submitted for laboratory analysis. Two samples were selected for laboratory analysis from borings GP-9 and GP-14 to assist in delineating the vertical extent of soil contamination. A total of 28 soil samples were submitted for laboratory analysis. A summary of the VOC and SVOC laboratory analytical data for the soil samples is presented in Table 4-2. Laboratory data reports are presented in Appendix D.

The laboratory data reports indicate that tetrachloroethene (PCE) was detected in 16 soil samples, ranging in concentration from 14 micrograms per kilogram ($\mu\text{g}/\text{kg}$) at GP-19 to 140,000 $\mu\text{g}/\text{kg}$ at GP-17. A summary of the PCE concentrations detected in the soil samples is provided on Figure 4-1. In all 16 soil samples, PCE concentrations exceeded the soil-to-groundwater maximum allowable soil contaminant concentration (MSCC) of 7.4 $\mu\text{g}/\text{kg}$ as established by the NCDENR Groundwater Section (NCDENR, 2000a). The soil-to-groundwater MSCC is a risk-based corrective action level based on protecting groundwater that may be impacted by contaminants leaching from the soil. Relatively high concentrations of PCE were also detected in soil samples from borings GP-14 (1,300 $\mu\text{g}/\text{kg}$), GP-15 (1,700 $\mu\text{g}/\text{kg}$), GP-20 (1,700 $\mu\text{g}/\text{kg}$), GP-22 (1,900 $\mu\text{g}/\text{kg}$) and HA-3 (7,300 $\mu\text{g}/\text{kg}$).

Trichloroethene (TCE) was reported in 15 soil samples, ranging in concentration from 6.2 $\mu\text{g}/\text{kg}$ at GP-9 to 50,000 $\mu\text{g}/\text{kg}$ at GP-17. A summary of TCE concentrations in soil samples is provided on Figure 4-2. Relatively high concentrations of TCE were also reported in soil samples GP-14 (1,600 $\mu\text{g}/\text{kg}$), GP-15 (4,100 $\mu\text{g}/\text{kg}$), GP-22 (2,800 $\mu\text{g}/\text{kg}$) and HA-3 (9,800 $\mu\text{g}/\text{kg}$). Of the 15 soil samples in which TCE was detected, 12 of the samples contained concentrations of TCE above the soil-to-groundwater MSCC of 18.3 $\mu\text{g}/\text{kg}$.

Chloroform was only detected in 3 soil samples, ranging in concentration from 31 $\mu\text{g}/\text{kg}$ in GP-10 to 1,100 $\mu\text{g}/\text{kg}$ in GP-20. All three samples contained chloroform above the soil-to-

groundwater MSCC of 1.01 µg/kg. A summary of chloroform concentrations in soil samples is provided on Figure 4-3.

Acetone was detected in 7 soil samples, ranging in concentration from 100 µg/kg in GP-14 to 2,000 µg/kg in GP-10. A summary of acetone concentrations detected in soil samples is provided on Figure 4-4. The concentrations of acetone detected in all seven samples were below the soil-to-groundwater MSCC of 2,810 µg/kg.

Other chlorinated constituents were reported in elevated concentrations in the soil samples. Vinyl chloride and cis-1,2-dichloroethene (cis-1,2-DCE) were both reported as high as 220 µg/kg and 1,600 µg/kg, respectively, in sample GP-22. 1,1,1-Trichloroethane (1,1,1-TCA) and 1,1-dichloroethene (1,1-DCE) were both reported as high as 14,000 µg/kg and 3,600 µg/kg, respectively, in sample HA-3. Maximum concentrations of vinyl chloride, cis-1,2-DCE, 1,1,1-TCA and 1,1-DCE in samples GP-22 and HA-3 were all above their respective soil-to-groundwater MSCC values of 0.0952 µg/kg, 350 µg/kg, 1,670 µg/kg and 44.5 µg/kg. In addition, 2-butanone (MEK) and 4-methyl-2-pentanone (MIBK) were both reported in 4 soil samples, with the highest concentrations of 850 µg/kg and 1,300 µg/kg, respectively, being reported in sample GP-10. Of the 4 samples that reported MEK, only sample GP-10 reported above the soil-to-groundwater MSCC of 690 µg/kg. None of the samples that reported MIBK were above the soil-to-groundwater MSCC of 2,280 µg/kg.

Toluene, xylenes and naphthalene were also detected in a range of concentrations in samples collected around the site. Toluene was reported in 9 samples, ranging in concentrations from 11 µg/kg in GP-9 to 7,100 µg/kg in GP-14; xylenes were reported in 7 samples, ranging in concentrations from 14 µg/kg in HA-1 to 7,400 µg/kg in GP-17; naphthalene was reported in 5 samples, ranging in concentrations from 16 µg/kg in GP-20 to 32 µg/kg in GP-23.

In addition, soil samples were collected to determine if any subsurface contamination is present in the vicinity of former diesel above ground and underground storage tanks at the site. Concentrations of total petroleum hydrocarbons-diesel (TPH-D) from GP-2, GP-3 and GP-11 were reported at 9.2, 11 and 69 mg/kg, respectively. A summary of the TPH-D concentrations detected in soil samples is provided on Figure 4-5. Samples GP-3 and GP-11 reported TPH-D levels above the soil clean-up action level of 10 mg/kg as established by the NCDENR UST Section (NCDENR, 2000). Soil samples from GP-2, GP-3 and GP-11 were not collected for VOC analysis.

4.2 Identified Areas with Impacted Soil

Based upon the soil investigation conducted during August 22 and 23, 2001, approximately five general areas at the Worth Chemical facility appear to have impacted soil. The five areas are as follows: (1) railroad track area adjacent to the southeast warehouse (GP-15, GP-16, GP-17, and GP-23), (2) the concrete pavement area between the storage building and the northeast warehouse (GP-9 and GP-10), (3) the area beneath the storage building (GP-14), (4) the area around the concrete pad east of the southeast warehouse (GP-20 and GP-22), and (5) the storm water drain outfall outside the fence near the southwest portion of the site (HA-3). The lateral extent and general locations of contaminants and the range of constituents and concentrations may be indicative of more than one release at the site. Based on the headspace measurements and the laboratory data, the impacts to the soil appear to be greatest near the surface (in the range of 0 to 4 ft bls) and decrease with depth. This would be consistent with surface spills.

Soils collected from the railroad track area adjacent to the southeast warehouse (GP-15, GP-16, GP-17 and GP-23) reported PCE ranging in concentration from 220 to 140,000 $\mu\text{g}/\text{kg}$ and TCE concentrations as high as 50,000 $\mu\text{g}/\text{kg}$. The railroad track area, specifically within the vicinity of sampling location GP-17, represents the worst-case scenario for impacts of PCE and TCE to soils at the site.

Soils collected from the concrete pavement area between the storage building and the northeast warehouse (GP-9 and GP-10) contained PCE concentrations as high as 170 $\mu\text{g}/\text{kg}$, TCE as high as 420 $\mu\text{g}/\text{kg}$, chloroform as high as 31 $\mu\text{g}/\text{kg}$, and acetone as high as 2,000 $\mu\text{g}/\text{kg}$. The highest concentrations of the four constituents within this area were all reported in the soil sample collected from GP-10. The concrete pavement area, specifically near location GP-10, represents the worst-case scenario for impacts of acetone to soils at the site. In addition, vertical impacts to soil were noted in samples from boring GP-9 with acetone concentrations increasing from 390 $\mu\text{g}/\text{kg}$ at 1 to 3 ft bls to 570 $\mu\text{g}/\text{kg}$ at 4 to 6 ft bls.

Soil samples collected from beneath the storage building (sample GP-14) reported PCE concentrations at 1,300 $\mu\text{g}/\text{kg}$, TCE at 1,600 $\mu\text{g}/\text{kg}$, methylene chloride at 1,600 $\mu\text{g}/\text{kg}$, toluene at 7,100 $\mu\text{g}/\text{kg}$, and xylenes at 2,980 $\mu\text{g}/\text{kg}$. The area beneath the storage building (GP-14) represents the worst-case scenario for impacts of methylene chloride and toluene to soils at the site. The analytical data for samples collected from GP-14 indicate that the concentrations of VOCs in that area decrease with depth as evidenced by PCE concentrations ranging from 1,300 $\mu\text{g}/\text{kg}$ at 0.5 to 2 ft bls to 34 $\mu\text{g}/\text{kg}$ at 4 to 5.5 ft bls.

Soils collected within the vicinity of the concrete pad east of the southeast warehouse (GP-20, GP-21 and GP-22) reported PCE concentrations as high as 1,900 µg/kg, TCE as high as 2,800 µg/kg, chloroform as high as 1,100 µg/kg, and cis-1,2-DCE as high as 1,600 µg/kg. The area within the vicinity of the concrete pad represents the worst-case scenario for impacts of chloroform (GP-20) and cis-1,2-DCE (GP-22) to soils at the site.

Soils collected at the storm water drain outfall outside the fence near the southwest portion of the site (HA-3) reported PCE concentrations at 7,300 µg/kg, TCE at 9,800 µg/kg, 1,1,1-TCA at 14,000 µg/kg, and 1,1-DCE at 3,600 µg/kg. The area near the storm water drain outfall (HA-3) represents the worst-case scenario for impacts of 1,1,1-TCA and 1,1-DCE to soils at the site.

4.3 Groundwater Sample Field Parameters and Analytical Results

The groundwater investigation activities conducted at the former Worth Chemical site included sampling events on October 12 and 16, 2001. Laboratory analytical reports for the groundwater sampling events are presented in Appendix E. Results of the groundwater investigation at the former Worth Chemical site are discussed below.

4.3.1 Groundwater Parameters

Prior to sampling the monitor wells, groundwater was analyzed for pH, specific conductance, and temperature using portable meters. The field measurements, which were recorded prior to sampling each well, are presented in Table 4-3. The temperature, pH, and specific conductance measurements recorded during the October 12, 2001, sampling event ranged from 19.0 to 20.5 degrees Celsius, 6.09 to 7.46, and 338 to 1,142 microohms per centimeter (umhos/cm), respectively.

4.3.2 Groundwater Analytical Results

The groundwater samples collected by ARCADIS G&M from monitor wells MW-1 through MW-5 during the October 2001 sampling events were analyzed for VOCs and SVOCs using USEPA Method 8260 and 8270, respectively. The analytical results for the sampling events are summarized in Table 4-4. Reported concentrations that exceed the 15A North Carolina Administrative Code (NCAC) 2L Groundwater Standards (NCDENR, 1998) are indicated by an enclosed shaded box.

Laboratory analytical results for the groundwater samples collected from MW-1 on October 12 and 16, 2001, indicated that no VOCs or SVOCs were detected above laboratory reporting limits. Therefore, monitor well MW-1 provides appropriate

background information for evaluating groundwater characteristics in a nonimpacted area. Laboratory analytical results for the groundwater samples collected from monitor wells MW-2 through MW-5 on October 12 and 16, 2001, indicated that 26 VOCs and 1 SVOC were detected above laboratory reporting limits (Table 4-4). Of the 27 detected constituents in the groundwater samples, acetone, benzene, carbon tetrachloride, chloroform, 1,2-dichloroethane (1,2-DCA), 1,1-DCE, cis-1,2-DCE, trans-1,2-dichloroethene (trans-1,2-DCE), 1,2-dichloropropane (1,2-DCP), ethylbenzene, 4-methyl-2-pentanone, methylene chloride, PCE, toluene, 1,1,2-trichloroethane (1,1,2-TCA), TCE, vinyl chloride and xylenes were detected above their respective 15A NCAC 2L Groundwater Standards.

Trichloroethene (TCE) concentrations in the four wells (MW-2 through MW-5) ranged from 2,700 µg/L in MW-5 to 110,000 µg/L in MW-2, as compared to the 2L Groundwater Standard of 2.8 µg/L. PCE concentrations in the four wells ranged from 570 µg/L in MW-3 to 6,800 µg/L in MW-2, as compared to the 2L Groundwater Standard of 0.7 µg/L. Cis-1,2-Dichloroethene (cis-1,2-DCE) was reported above the 2L Groundwater Standard of 70 µg/L in the wells MW-2, MW-4 and MW-5, ranging in concentrations from 80,000 µg/L, 52,000 µg/L and 200 µg/L, respectively. Vinyl chloride was only reported in well MW-2 at the concentration 47 µg/L, as compared to the 2L Groundwater Standard of 0.015 µg/L. Chloroform concentrations in the four wells ranged from 34 µg/L in MW-2 to 3,400 µg/L in MW-5, as compared to the 2L Groundwater Standard of 0.19 µg/L. Toluene was only reported above the 2L Groundwater Standard (1,000 µg/L) in well MW-2 at the concentration of 6,500 µg/L, while xylenes were reported above the 2L Groundwater Standard (530 µg/L) in wells MW-2 and MW-4 at the concentrations of 19,400 µg/L and 1,390 µg/L, respectively.

Groundwater isoconcentration contour maps for PCE, TCE, and chloroform are presented as Figures 4-6, 4-7, and 4-8, respectively. The PCE and TCE isoconcentration maps (Figures 4-6 and 4-7) indicate that the groundwater is most impacted in the vicinity of well MW-2. Downgradient wells MW-3, MW-4 and MW-5 are also impacted, but to a lesser extent than well MW-2. Concentration gradients of PCE and TCE (Figures 4-6 and 4-7) indicate that the groundwater plume is migrating both south and southeast across the site. However, higher concentrations of PCE in the downgradient well MW-5 (1,400 µg/L) as compared to the more upgradient well MW-4 (1,100 µg/L) might indicate a separate source in the vicinity of well MW-5. In addition, concentration gradients of PCE and TCE indicate that the plume is migrating offsite, possibly towards U.S. Highway 147 (Durham Freeway).

The chloroform isoconcentration contour map indicates that two groundwater impact areas may be present at the site (Figure 4-8). Chloroform concentrations in the downgradient

ARCADIS

Soil and Groundwater Assessment Report

Investigation Results for Soil and Groundwater

well MW-5 (3,400 µg/L) represent the worst-case scenario for impact of chloroform to groundwater at the site. Chloroform was also reported in the upgradient wells MW-2, MW-3 and MW-4 (ranging in concentration from 34 to 560 µg/L), but at lower concentrations than in MW-5. Therefore, the high concentration of chloroform in the downgradient well MW-5 appears to indicate that a second release area may exist in the vicinity of the concrete pad of the former distillation unit.

5. DATA REVIEW AND VALIDATION

The purpose of this section is to provide an evaluation of the laboratory analytical data for the completeness of data package deliverables (Reporting Level II) for Pace Analytical Laboratories, Inc. (Pace) Projects No. 9225565, 9226925, and 9227038. The groundwater, soil, and associated QC sample data were validated following the rules set forth in the Functional Guidelines for Evaluating Organic Analyses (USEPA, 1994). Additionally, all field data were reviewed to verify the completion of required documentation.

5.1 Field Quality Assurance Components

All field activities were appropriately documented on groundwater and soil sampling logs.

The soil and associated QC samples collected on August 22 and 23, 2001, were analyzed for VOCs (USEPA Method 8260) and TPH – Diesel (Modified USEPA Method 8015). No trip blank samples for VOCs were submitted with the soil samples. All containers were appropriately labeled, stored in sample containers on ice, and sent via an overnight courier to Pace in Huntersville, North Carolina. All samples were forwarded to Pace with chain-of-custody forms. Copies of these forms are attached to the analytical reports included in Appendix D.

The groundwater and associated QC samples collected on October 12 and 16, 2001, also were analyzed for VOCs (USEPA Method 8260) and SVOCs (USEPA Method 8270). Trip blank sample “Trip Blank” accompanied the groundwater samples. All samples were forwarded to Pace with chain-of-custody forms. Copies of these forms are attached to the analytical reports included in Appendix E.

5.2 Laboratory Quality Assurance Components

All soil and groundwater samples collected on August 22 and 23, 2001 and October 12 and 16, 2001, respectively, were received by Pace in good condition and were analyzed within the required holding time periods. Deviations from QC standards are discussed below. With the exception of the deviations reported herein, all sample QC parameters were within established control limits. The attached data are valid and usable within the confines of this review.

5.2.1 Volatile Organic Compounds (USEPA Method 8260)

5.2.1.1 Soil Data

For the soil analyses, the required quantitation limits were reported. Three samples (GP-17 [1X, 50X, and 500X], GP-22 [1X and 50X], and HA-3 [1X, 50X, and 100X]) were analyzed at multiple dilutions and the analytes requiring a secondary dilution were qualified as "D". For samples GP-10, GP-14 (.5-2), GP-15, GP-17, GP-20, GP-22, GP-23, HA-3, GP-14 (4-5.5), and GP-9 (4-6) several analyte concentrations exceeded the instrument upper calibration range and were qualified as estimated "J." No VOCs were detected in the associated QC blank samples.

Surrogate recoveries for the following samples GP-1, GP-3, GP-4, GP-5, GP-6, GP-7, GP-8, GP-9 (1-3), GP-10, GP-12, GP-13, GP-14 (.5-2), GP-15, GP-16, GP-17 (1X dilution), and HA-3 (1X dilution) were outside acceptance criteria. The affected analytes in the associated runs were, therefore, qualified as estimated, "J." All diluted analytical run surrogate recoveries, however, were within established control limits. Additionally, several laboratory QC samples associated with the non-diluted analytical runs had surrogate recoveries that were outside of control limits but were not qualified.

The laboratory control sample (LCS) recoveries and matrix spike (MS)/matrix spike duplicate (MSD) (samples GP-1 and GP-21) recoveries and relative percent differences (RPDs) were within established control QC limits with the following exceptions. Several LCS recoveries were outside QC limits. The associated sample data, however, were not qualified because the analytes were not detected in the field samples. The laboratory duplicate sample (GP-4) criteria (RPD) were not met for several analytes associated with this analysis. The data for these analytes for all samples in this batch, therefore, were qualified as estimated, "J." No other deviations resulting in data qualification were noted.

The VOC soil sample data are valid and usable within the confines of this review.

5.2.1.2 Groundwater Data

For the water analyses, the required quantitation limits were reported. Three samples (MW-2 [1X, 100X, and 2000X], MW-3 [1X and 1000X], and MW-4 [1X, 100X, and 1000X]) were analyzed at multiple dilutions and the analytes requiring a secondary dilution were qualified as "D". For samples MW-2, MW-3, and MW-4, several analyte concentrations exceeded the instrument upper calibration range and were qualified as estimated "J." Sample MW-4 had several analytes detected at concentrations below the

reporting limit (RL). The data for these analytes, therefore, were qualified as estimated, "J." No VOCs were detected in the QC blank samples.

For samples MW-2 (1X dilution), MW-3 (1X dilution), and MW-4 (1X dilution) several surrogate recoveries were outside established control limits. The affected analytes in the associated analytical runs were, therefore, qualified as estimated, "J." All diluted run surrogate recoveries, however, were within control limits. Additionally, several laboratory QC samples associated with the non-diluted analytical runs had surrogate recoveries that were outside of control limits but were not qualified.

The LCS recoveries and MS/MSD recoveries and RPDs were within established control QC limits with the following exceptions. Several LCS recoveries were outside QC limits. The associated sample data, however, were not qualified because the analytes were not detected in the field samples. No other deviations resulting in data qualification were noted.

The VOC groundwater sample data are valid and usable within the confines of this review.

5.2.2 Semi-Volatile Organic Compounds (USEPA Method 8260)

The required quantitation limits were reported. No SVOCs were detected in the associated QC blank sample.

The surrogate recoveries, and LCS/LCS duplicate (LCSD) recoveries and RPDs were within the control limits with the following exceptions. Samples MW-1, MW-2, and MW-4 had surrogate recoveries that were outside control limits. Because only one base/neutral fraction surrogate had a recovery below the lower control limit in sample MW-1 no action was required. However, samples MW-2 and MW-4 had acid fraction surrogate recoveries below 10 percent. The acid fraction data for these two samples, therefore, were qualified as estimated "J" if detected and rejected/unusable "R" if non-detected. No other deviations resulting in data qualification were noted.

The SVOC groundwater sample data are valid and usable within the confines of this review.

5.2.3 Total Petroleum Hydrocarbons (TPH) Modified Method 8015

The required quantitation limits were reported. No analytes were detected in the associated QC blank sample. The LCS recoveries and MS/MSD recoveries and RPDs

ARCADIS

**Soil and Groundwater
Assessment Report**

**Data Review and
Validation**

were within the control limits. All laboratory duplicate sample criteria were met. No deviations resulting in data qualification were noted.

The TPH soil sample data are valid and usable within the confines of this review.

6. SUMMARY

Soil and groundwater assessment field activities were performed during August through October 2001 at the former Worth Chemical site in Durham, North Carolina. The purpose of the assessment activities was to collect data that would allow for the initial delineation of impacted media resulting from previous operations at the site and to assist with the development of a CSA. The findings of this investigation can be summarized as follows:

- The site is located in the Piedmont Physiographic Province and specifically within the Triassic Basin. Soil underlying the site consists primarily of silt (50 to 70 percent) with variable amounts of clay (20 to 40 percent) and minor amounts of fine to medium grained quartz sand (0 to 20 percent). Drilling activities conducted at the site penetrated to a depth of approximately 30 ft bls and three lithologic units were encountered during the drilling activities. The uppermost lithologic unit consisted of unconsolidated reddish brown, light gray, and light brown silty clays to very fine grained sandy silts. The surficial soils graded into saprolitic or weathered bedrock material at depths ranging from 6 to 10 ft bls as determined by Geoprobe refusal. The weathered bedrock material consisted of sandy silt and clay. The weathered bedrock material transitioned into a slightly weathered more competent bedrock material at depths ranging from 15 to 20 ft bls. This slightly weathered bedrock unit consisted primarily of sandy silt to silty sand ranging in color from reddish brown to light brown and included partially weathered rock consisting of sandstone and siltstone. The weathered bedrock material at the site was very tight, and the boreholes for monitor wells MW-3 and MW-5 were initially dry. Groundwater recharged into the boreholes for these two wells at a slow rate requiring several days to fully recharge to static conditions. The boreholes associated with monitor wells MW-1, MW-2, and MW-4 intersected more highly fractured sections of the weathered bedrock unit and the boreholes of those wells filled with water either during or soon after the drilling process.
- Water-level measurements were collected from 5 newly installed monitor wells on October 12 and 16, 2001. Groundwater in the surficial hydrogeologic unit flows south and southeast across the site. The average hydraulic gradient across the site during the October 12, 2001, sampling event was approximately 0.076 feet per feet. However, larger gradients were observed within the vicinity of monitor well MW-3 as compared to other areas of the site. The average interstitial groundwater flow velocity for the saprolite/bedrock aquifer at the site was calculated to be approximately 0.25 ft/day (91 ft/year).

Summary

- Soil samples were collected and field screened from a total of 26 boring locations around the Worth Chemical site on August 22 through 23, 2001, to identify and delineate the source area(s) for VOC constituents. OVM headspace measurements collected on the soil samples ranged from 0.0 ppm to >9,999 ppm. Twenty-eight (28) soil samples were selected and submitted for laboratory analysis. Laboratory data indicated that the primary constituents of concern detected in the soil samples were PCE and TCE. The PCE concentrations ranged from below detection to 140,000 µg/kg, while the TCE concentrations ranged from below detection to 50,000 µg/kg. The detected PCE and TCE concentrations exceeded the MSCC values of 7.42 and 18.3 µg/kg, respectively, for contaminants leaching from soil to groundwater as stipulated by the NCDENR Groundwater Section.
- Laboratory analytical results for the groundwater samples collected from site monitor wells MW-1 through MW-5 on October 12 and 16, 2001, indicated that the following constituents were detected above their respective 15A NCAC 2L Groundwater Standards: acetone, benzene, carbon tetrachloride, chloroform, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, 1,2-DCP, ethylbenzene, 4-methyl-2-pentanone, methylene chloride, PCE, toluene, 1,1,2-TCA, TCE, vinyl chloride and xylenes. TCE was the most highly concentrated VOC constituent in the groundwater with concentrations reported as high as 110,000 µg/L. In addition, PCE and chloroform concentrations in groundwater ranged from <5.0 µg/L to 6,800 µg/L and <5.0 to 3,400 µg/L, respectively.
- PCE and TCE isoconcentration contour maps indicate that the area of greatest groundwater impact is within the vicinity of monitor well MW-2. Concentration gradients of PCE and TCE indicate that the groundwater plume is migrating both south and southeast across the site. However, the chloroform isoconcentration contour map indicates that the area of impacted groundwater in the vicinity of well MW-5 may potentially be associated with a second source separate from the impact near MW-2. Chloroform concentrations in the downgradient well MW-5 (3,400 µg/L) represent the worst-case scenario for impacts of chloroform to groundwater at the site as compared to the upgradient wells MW-2, MW-3 and MW-4. In addition, concentration gradients of PCE, TCE and chloroform indicate that the plume is migrating offsite towards U.S. Highway 147 (Durham Freeway).

7. REFERENCES

- Aquaterra, 1989. Environmental Site Audit Report, Worth Chemical Corporation, Durham, North Carolina.
- North Carolina Department of Environment and Natural Resources (NCDENR), 2000. Groundwater Section Guidelines For the Investigation and Remediation of Soils and Groundwater - Volume II. July.
- North Carolina Department of Environment and Natural Resources (NCDENR), 1998. North Carolina and Administrative Code, Title 15A, Subchapter 2L, *Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina*.
- North Carolina Department of Human Resources, Division of Health Services, 1989. Site Sampling Visit Trip Report, Worth Chemical Corporation, Durham, North Carolina. March 23.
- North Carolina Department of Water Resources, Division of Ground Water, 1966. Geology and Groundwater in the Durham Area, North Carolina. By George L. Bain and J.D. Thomas. Groundwater Bulletin Number 7. May.
- North Carolina Geological Survey (NCGS), 1985. Geologic Map of North Carolina. Department of Natural Resources & Community Development.
- Versar, Inc, 1994. Environmental Investigation Report, Worth Chemical Corporation, 2418 Pettigrew Street, Durham, North Carolina. November 3.



ARCADIS

**Soil and Groundwater
Assessment Report**

TABLES

Table 2-1. Summary of Monitor-Well Construction Details, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

Monitor Well	Date of Installation	Measuring Point Elevation * (Top of Casing) (ft msl)	Well Casing Diameter (inches)	Total Depth (ft bls)	Screened Interval (ft bls)
MW-1	10/3/2001	99.80	2	25.0	5.0-25.0
MW-2	10/3/2001	97.21	2	28.5	8.5-28.5
MW-3	10/3/2001	96.67	2	30.0	10.0-30.0
MW-4	10/4/2001	95.33	2	29.0	9.0-29.0
MW-5	10/4/2001	91.44	2	27.5	7.5-27.5

ft msl Feet above mean sea level.

* Elevations were measured relative to an arbitrary point of 100 feet above mean sea level

ft bls Feet below land surface.

ARCADIS

Table 3-1. Water-Level Elevations in Monitor Wells, October 12 and 16, 2001, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

Well Number	TOC Elevation * (ft msl)	October 12, 2001		October 16, 2001	
		Depth to Water (ft)	Water level Elevation * (ft msl)	Depth to Water (ft)	Water level Elevation * (ft msl)
MW-1	99.80	10.32	89.48	10.49	89.31
MW-2	97.21	14.46	82.75	14.93	82.28
MW-3	96.67	26.72	69.95	26.81	69.86
MW-4	95.33	14.29	81.04	14.51	80.82
MW-5	91.44	25.22	66.22	25.12	66.32

* Elevations were measured relative to an arbitrary point of 100 feet above mean sea level

ARCADIS

Table 4-1. Soil Sample Organic Vapor Concentrations in Parts Per Million, August 22 and 23, 2001, Soil Sampling Event, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

Soil Boring	Depth Below Land Surface (ft)								
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9
GP-1			0.0		0.0				0.0
GP-2			0.4						0.0
GP-3			0.0		0.0				
GP-4			5.1		3.3		0.0		
GP-5			0.0		0.0				
GP-6			0.0		0.0				
GP-7			0.0		0.0				
GP-8			1.1		0.8				
GP-9		686		509	890				
GP-10			845		805				
GP-11			4.6		0.0				
GP-12			0.0		0.0				
GP-13			39.2		0.7				
GP-14	2,671		529		1,013		625	142	
GP-15			817		729		409		
GP-16		3.4			5.7				
GP-17			794		364				
GP-18			0.0		0.0				
GP-19		0.0							
GP-20			2,364		1428				124
GP-21			3,841			>9,999			
GP-22			36.3			0.0			
GP-23			416		73.6			375	
HA-1		0.0	0.0		0.5				
HA-2		0.0	0.0	0.0					
HA-3	6.3	1,428	3,621						

Indicates submittal for laboratory analysis.

Note: The organic vapor concentrations were measured in the field with an organic vapor meter (11.7 eV lamp).

ARCADIS

Table 4-2. Summary of Soil Sample Analytical Results, August 22 and 23, 2001, Soil Sampling Event, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

Sample Location: Laboratory ID: Depth Interval (ft bls): Date Sampled:		GP1	GP2	GP3	GP4	GP5	GP6
		921781142	921781159	921781167	921781217	921781225	921781233
		2.5-4.0	2.0-3.5	2.0-4.0	2.0-4.0	2.0-4.0	2.0-4.0
		8/23/2001	8/23/2001	8/23/2001	8/22/2001	8/22/2001	8/22/2001
Constituents	Soil-to-Groundwater MSCC						
Volatile Organics (ug/kg) USEPA Methods 8260							
Acetone	2,810	<95 J ¹	NS	NS	<130 J ¹	<120 J ¹	<110 J ¹
Benzene	5.6	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
2-Butanone (MEK)	690	<95 J ¹	NS	NS	<130 J ¹	<120 J ¹	<110 J ¹
Carbon Tetrachloride	2.7	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Chlorobenzene	438	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Chloroform	1.01	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
2-Chlorotoluene		<4.8 J ^{1,3}	NS	NS	200 J ^{1,3}	<6.1 J ^{1,3}	<5.7 J ^{1,3}
4-Chlorotoluene		<4.8 J ¹	NS	NS	21 J ¹	<6.1 J ¹	<5.7 J ¹
1,2-Dichlorobenzene	7,270	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,4-Dichlorobenzene	1,240	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,1-Dichloroethane	3,820	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,2-Dichloroethane	1.84	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,1-Dichloroethene	44.5	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
cis-1,2-Dichloroethene	350	<4.8 J ^{1,3}	NS	NS	9.6 J ^{1,3}	<6.1 J ^{1,3}	<5.7 J ^{1,3}
trans-1,2-Dichloroethene	380	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,2-Dichloropropane	2.88	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Ethylbenzene	241	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Isopropylbenzene		<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
4-Methyl-2-Pentanone (MIBK)	2,280	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Methylene Chloride	22	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Naphthalene	585	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
n-Propylbenzene		<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,1,1,2-Tetrachloroethane		<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,1,2,2-Tetrachloroethane	0.953	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Tetrachloroethene	7.42	<4.8 J ^{1,3}	NS	NS	29 J ^{1,3}	<6.1 J ^{1,3}	<5.7 J ^{1,3}
Toluene	7,270	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,2,3-Trichlorobenzene		<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,2,4-Trichlorobenzene	2,610	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,1,1-Trichloroethane	1,670	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,1,2-Trichloroethane	3.34	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Trichloroethene	18.3	<4.8 J ^{1,3}	NS	NS	47 J ^{1,3}	<6.1 J ^{1,3}	<5.7 J ^{1,3}
Trichlorofluoromethane	31,500	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,2,4-Trimethylbenzene	8,000	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
1,3,5-Trimethylbenzene	7,000	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
Vinyl Chloride	0.0952	<9.5 J ¹	NS	NS	<13 J ¹	<12 J ¹	<11 J ¹
m&p-Xylene	4,960	<9.5 J ¹	NS	NS	<13 J ¹	<12 J ¹	<11 J ¹
o-Xylene	4,960	<4.8 J ¹	NS	NS	<6.6 J ¹	<6.1 J ¹	<5.7 J ¹
TPH-Diesel (mg/kg) USEPA Methods 8015							
	10	NS	9.2	11	NS	NS	NS
Percent Solids (%)							
		88.1	83.6	86.4	77.7	90.6	84.8

Table 4-2. Summary of Soil Sample Analytical Results, August 22 and 23, 2001, Soil Sampling Event, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

		Sample Location:	GP7	GP8	GP9	GP9	GP10	GP11
		Laboratory ID:	921781241	921781258	921781266	921781456	921781274	921781282
		Depth Interval (ft bls):	2.0-4.0	2.0-4.0	1.0-3.0	4.0-6.0	2.0-4.0	2.0-4.0
		Date Sampled:	8/22/2001	8/22/2001	8/22/2001	8/22/2001	8/22/2001	8/22/2001
Constituents	Soil-to-Groundwater MSCC							
Volatile Organics (ug/kg)								
USEPA Methods 8260								
Acetone	2,810	<110 J ¹	<110 J ¹	390 J ¹	570 J ²	2,000 J ^{1,2}	NS	
Benzene	5.6	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
2-Butanone (MEK)	690	<110 J ¹	<110 J ¹	310 J ¹	460	850 J ^{1,2}	NS	
Carbon Tetrachloride	2.7	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	6.4 J ¹	NS	
Chlorobenzene	438	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
Chloroform	1.01	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	31 J ¹	NS	
2-Chlorotoluene		<5.5 J ^{1,3}	<5.3 J ^{1,3}	<5.6 J ^{1,3}	<4.5	<5.7 J ^{1,3}	NS	
4-Chlorotoluene		<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,2-Dichlorobenzene	7,270	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	36 J ¹	NS	
1,4-Dichlorobenzene	1,240	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,1-Dichloroethane	3,820	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,2-Dichloroethane	1.84	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,1-Dichloroethene	44.5	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	5.0	<5.7 J ¹	NS	
cis-1,2-Dichloroethene	350	<5.5 J ^{1,3}	21 J ^{1,3}	11 J ^{1,3}	5.7	78 J ^{1,3}	NS	
trans-1,2-Dichloroethene	380	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,2-Dichloropropane	2.88	<5.5 J ¹	5.4 J ¹	<5.6 J ¹	<4.5	8.6 J ¹	NS	
Ethylbenzene	241	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	9.3 J ¹	NS	
Isopropylbenzene		<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
4-Methyl-2-Pentanone (MIBK)	2,280	<5.5 J ¹	<5.3 J ¹	120 J ¹	460 J ²	1,300 J ¹	NS	
Methylene Chloride	22	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	11 J ¹	NS	
Naphthalene	585	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
n-Propylbenzene		<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,1,1,2-Tetrachloroethane		<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,1,2,2-Tetrachloroethane	0.953	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	6.1 J ¹	NS	
Tetrachloroethene	7.42	<5.5 J ^{1,3}	<5.3 J ^{1,3}	48 J ^{1,3}	<4.5	170 J ^{1,3}	NS	
Toluene	7,270	<5.5 J ¹	<5.3 J ¹	11 J ¹	<4.5	78 J ¹	NS	
1,2,3-Trichlorobenzene		<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,2,4-Trichlorobenzene	2,610	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,1,1-Trichloroethane	1,670	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,1,2-Trichloroethane	3.34	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
Trichloroethene	18.3	<5.5 J ^{1,3}	<5.3 J ^{1,3}	21 J ^{1,3}	6.2	420 J ^{1,3}	NS	
Trichlorofluoromethane	31,500	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,2,4-Trimethylbenzene	8,000	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
1,3,5-Trimethylbenzene	7,000	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	<5.7 J ¹	NS	
Vinyl Chloride	0.0952	<11 J ¹	<11 J ¹	<11 J ¹	<9.0	<11 J ¹	NS	
m&p-Xylene	4,960	<11 J ¹	<11 J ¹	<11 J ¹	<9.0	32 J ¹	NS	
o-Xylene	4,960	<5.5 J ¹	<5.3 J ¹	<5.6 J ¹	<4.5	17 J ¹	NS	
TPH-Diesel (mg/kg)								
USEPA Methods 8015								
	10	NS	NS	NS	NS	NS	69	
Percent Solids (%)								
		87.1	83.3	84.5	87.5	82.0	88.1	

ARCADIS

Table 4-2. Summary of Soil Sample Analytical Results, August 22 and 23, 2001, Soil Sampling Event, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

		Sample Location:	GP12	GP13	GP14	GP14	GP15	GP16
		Laboratory ID:	921781290	921781308	921781316	921781449	921781324	921781332
		Depth Interval (ft bls):	2.0-3.5	2.0-4.0	0.5-2.0	4.0-5.5	2.0-4.0	1.0-3.0
		Date Sampled:	8/22/2001	8/22/2001	8/22/2001	8/22/2001	8/22/2001	8/22/2001
Constituents	Soil-to-Groundwater							
USEPA Methods 8260	MSCC							
Acetone	2,810	<100 J ¹	<120 J ¹	170 J ¹	100	230 J ¹	<120 J ¹	
Benzene	5.6	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	55 J ¹	<5.8 J ¹	
2-Butanone (MEK)	690	<100 J ¹	<120 J ¹	<100 J ¹	<85	160 J ¹	<120 J ¹	
Carbon Tetrachloride	2.7	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	6.1 J ¹	
Chlorobenzene	438	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
Chloroform	1.01	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
2-Chlorotoluene		<5.0 J ^{1,3}	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
4-Chlorotoluene		<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,2-Dichlorobenzene	7,270	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,4-Dichlorobenzene	1,240	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,1-Dichloroethane	3,820	<5.0 J ¹	<5.1 J ¹	37 J ¹	<4.2	13 J ¹	<5.8 J ¹	
1,2-Dichloroethane	1.84	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,1-Dichloroethene	44.5	<5.0 J ¹	6.0 J ¹	33 J ¹	<4.2	71 J ¹	31 J ¹	
cis-1,2-Dichloroethene	350	<5.0 J ^{1,3}	<5.1 J ¹	390 J ^{1,2}	20	250 J ^{1,2}	35 J ¹	
trans-1,2-Dichloroethene	380	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,2-Dichloropropane	2.88	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
Ethylbenzene	241	<5.0 J ¹	<5.1 J ¹	770 J ¹	15	310 J ^{1,2}	<5.8 J ¹	
Isopropylbenzene		<5.0 J ¹	<5.1 J ¹	21 J ¹	<4.2	<5.2	<5.8 J ¹	
4-Methyl-2-Pentanone (MIBK)	2,280	<5.0 J ¹	<5.8 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
Methylene Chloride	22	<5.0 J ¹	<5.1 J ¹	1,600 J ^{1,2}	230 J ¹	<5.2	<5.8 J ¹	
Naphthalene	585	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	25 J ¹	<5.8 J ¹	
n-Propylbenzene		<5.0 J ¹	<5.1 J ¹	8.8 J ¹	<4.2	<5.2	<5.8 J ¹	
1,1,1,2-Tetrachloroethane		<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,1,1,2,2-Tetrachloroethane	0.953	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
Tetrachloroethene	7.42	<5.0 J ^{1,3}	20 J ¹	1,300 J ^{1,2}	34	1,700 J ^{1,2}	590 J ¹	
Toluene	7,270	<5.0 J ¹	<5.1 J ¹	7,100 J ^{1,2}	470 J ²	85 J ¹	<5.8 J ¹	
1,2,3-Trichlorobenzene		<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,2,4-Trichlorobenzene	2,610	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,1,1-Trichloroethane	1,670	<5.0 J ¹	<5.1 J ¹	55 J ¹	<4.2	22 J ¹	7.6 J ¹	
1,1,2-Trichloroethane	3.34	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
Trichloroethene	18.3	<5.0 J ^{1,3}	<5.1 J ¹	1,600 J ^{1,2}	29	4,100 J ^{1,2}	130 J ¹	
Trichlorofluoromethane	31,500	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,2,4-Trimethylbenzene	8,000	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
1,3,5-Trimethylbenzene	7,000	<5.0 J ¹	<5.1 J ¹	<5.2 J ¹	<4.2	<5.2	<5.8 J ¹	
Vinyl Chloride	0.0952	<10 J ¹	<10 J ¹	14 J ¹	<8.5	<10	<12 J ¹	
m&p-Xylene	4,960	<10 J ¹	<10 J ¹	2,200 J ^{1,2}	73	800 J ^{1,2}	<12 J ¹	
o-Xylene	4,960	<5.0 J ¹	<5.1 J ¹	780 J ^{1,2}	18	490 J ^{1,2}	<5.8 J ¹	
TPH-Diesel (mg/kg)								
USEPA Methods 8015	10	NS	NS	NS	NS	NS	NS	
Percent Solids (%)								
		91.0	86.0	83.6	87.8	84.6	82.1	

ARCADIS

Table 4-2. Summary of Soil Sample Analytical Results, August 22 and 23, 2001, Soil Sampling Event, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

	Sample Location:	GP17	GP18	GP19	GP20	GP21	GP22
	Laboratory ID:	921781340	921781357	921781365	921781373	921781381	921781399
	Depth Interval (ft bls):	2.0-4.0	2.0-4.0	1.0-3.0	2.0-4.0	5.0-6.0	2.0-4.0
	Date Sampled:	8/22/2001	8/22/2001	8/22/2001	8/23/2001	8/23/2001	8/23/2001
Constituents	Soil-to-Groundwater						
Volatile Organics (ug/kg)	MSCC						
USEPA Methods 8260							
Acetone	2,810	<120	<120	<110	900 J ²	<100	<6,700
Benzene	5.6	<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
2-Butanone (MEK)	690	<120	<120	<110	<110	<100	<130
Carbon Tetrachloride	2.7	<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
Chlorobenzene	438	7.6 J ¹	<6.1	<5.3	<5.0	<5.2	<6.7
Chloroform	1.01	<6.1	<6.1	<5.3	1,100	<5.2	710 J ²
2-Chlorotoluene		<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
4-Chlorotoluene		<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
1,2-Dichlorobenzene	7,270	<6.1	<6.1	<5.3	19	<5.2	<6.7
1,4-Dichlorobenzene	1,240	<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
1,1-Dichloroethane	3,820	<6.1	<6.1	<5.3	<5.0	<5.2	170
1,2-Dichloroethane	1.84	<6.1	<6.1	<5.3	<5.0	<5.2	7.1
1,1-Dichloroethene	44.5	92 J ¹	<6.1	<5.3	6.4	<5.2	330 J ²
cis-1,2-Dichloroethene	350	190 J ¹	<6.1	<5.3	<5.0	<5.2	1,600 D
trans-1,2-Dichloroethene	380	<6.1	<6.1	<5.3	<5.0	<5.2	22
1,2-Dichloropropane	2.88	<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
Ethylbenzene	241	1,500 D	<6.1	<5.3	<5.0	<5.2	<6.7
Isopropylbenzene		7.8 J ¹	<6.1	<5.3	<5.0	<5.2	<6.7
4-Methyl-2-Pentanone (MIBK)	2,280	<6.1	<6.1	<5.3	<5.7	<5.2	310
Methylene Chloride	22	<6.1	<6.1	<5.3	<5.0	<5.2	2,100 D
Naphthalene	585	<6.1	<6.1	<5.3	16	<5.2	<6.7
n-Propylbenzene		<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
1,1,1,2-Tetrachloroethane		9.4 J ¹	<6.1	<5.3	<5.0	<5.2	<6.7
1,1,1,2,2-Tetrachloroethane	0.953	<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
Tetrachloroethene	7.42	140,000 D J ²	<6.1	<5.3	1,700 J ²	32	1,900 J ²
Toluene	7,270	130 J ¹	<6.1	<5.3	170	<5.2	180
1,2,3-Trichlorobenzene		<6.1	<6.1	<5.3	<5.0	<5.2	<6.7
1,2,4-Trichlorobenzene	2,610	<6.1	<6.1	<5.3	550 J ²	<5.2	<6.7
1,1,1-Trichloroethane	1,670	27 J ¹	<6.1	<5.3	14	<5.2	<6.7
1,1,2-Trichloroethane	3.34	48 J ¹	<6.1	<5.3	<5.0	<5.2	14
Trichloroethene	18.3	50,000 D	<6.1	<5.3	13	6.9	2,800 J ²
Trichlorofluoromethane	31,500	<6.1	<6.1	<5.3	<5.0	<5.2	38
1,2,4-Trimethylbenzene	8,000	<6.1	<6.1	<5.3	13	<5.2	<6.7
1,3,5-Trimethylbenzene	7,000	<6.1	<6.1	<5.3	5.1	<5.2	<6.7
Vinyl Chloride	0.0952	<12	<12	<11	<10	<10	220
m&p-Xylene	4,960	4,900 D	<12	<11	<10	<10	<13
o-Xylene	4,960	2,500 D	<6.1	<5.3	<5.0	<5.2	<6.7
TPH-Diesel (mg/kg)							
USEPA Methods 8015	10	NS	NS	NS	NS	NS	NS
Percent Solids (%)							
		82.1	79.1	88.9	87.2	91.2	74.9

Table 4-2. Summary of Soil Sample Analytical Results, August 22 and 23, 2001, Soil Sampling Event, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

	Sample Location:	GP23	HA-1	HA-2	HA-3
	Laboratory ID:	921781407	921781415	921781423	921781431
	Depth Interval (ft bls):	2.5-4.0	3.5-4.5	1.0-2.0	2.0-3.0
	Date Sampled:	8/23/2001	8/23/2001	8/23/2001	8/23/2001
Constituents	Soil-to-Groundwater MISC				
Volatile Organics (ug/kg)					
USEPA Methods 8260					
Acetone	2,810	<120	<120	<110	<6,300 J ¹
Benzene	5.6	<5.8	<5.8	<5.7	<6.3 J ¹
2-Butanone (MEK)	690	<120	<120	<110	<130 J ¹
Carbon Tetrachloride	2.7	<5.8	<5.8	<5.7	<6.3 J ¹
Chlorobenzene	438	<5.8	<5.8	<5.7	<6.3 J ¹
Chloroform	1.01	<5.8	<5.8	<5.7	<6.3 J ¹
2-Chlorotoluene		<5.8	<5.8	<5.7	56 J ¹
4-Chlorotoluene		<5.8	<5.8	<5.7	13 J ¹
1,2-Dichlorobenzene	7,270	<5.8	<5.8	<5.7	160 J ¹
1,4-Dichlorobenzene	1,240	<5.8	<5.8	<5.7	27 J ¹
1,1-Dichloroethane	3,820	<5.8	<5.8	<5.7	110 J ¹
1,2-Dichloroethane	1.84	<5.8	<5.8	<5.7	<6.3 J ¹
1,1-Dichloroethene	44.5	<5.8	<5.8	<5.7	3,600 J ^{1,2}
cis-1,2-Dichloroethene	350	<5.8	22	<5.7	150 J ¹
trans-1,2-Dichloroethene	380	<5.8	<5.8	<5.7	<6.3 J ¹
1,2-Dichloropropane	2.88	<5.8	<5.8	<5.7	<6.3 J ¹
Ethylbenzene	241	<5.8	<5.8	<5.7	73 J ¹
Isopropylbenzene		<5.8	<5.8	<5.7	<6.3 J ¹
4-Methyl-2-Pentanone (MIBK)	2,280	<5.8	<5.8	<5.7	<6.3 J ¹
Methylene Chloride	22	<5.8	<5.8	<5.7	<6.3 J ¹
Naphthalene	585	32	<5.8	20	19 J ¹
n-Propylbenzene		<5.8	<5.8	<5.7	<6.3 J ¹
1,1,1,2-Tetrachloroethane		<5.8	<5.8	<5.7	<6.3 J ¹
1,1,2,2-Tetrachloroethane	0.953	<5.8	<5.8	<5.7	<6.3 J ¹
Tetrachloroethene	7.42	220	68	<5.7	7,300 J ¹
Toluene	7,270	<5.8	<5.8	<5.7	3,600 J ^{1,2}
1,2,3-Trichlorobenzene		37	<5.8	<5.7	<6.3 J ¹
1,2,4-Trichlorobenzene	2,610	350 J ²	<5.8	<5.7	20 J ¹
1,1,1-Trichloroethane	1,670	<5.8	<5.8	<5.7	14,000 D
1,1,2-Trichloroethane	3.34	<5.8	<5.8	<5.7	<6.3 J ¹
Trichloroethene	18.3	15	80	<5.7	9,800 D
Trichlorofluoromethane	31,500	<5.8	<5.8	<5.7	<6.3 J ¹
1,2,4-Trimethylbenzene	8,000	<5.8	<5.8	<5.7	27 J ¹
1,3,5-Trimethylbenzene	7,000	<5.8	<5.8	<5.7	7.5 J ¹
Vinyl Chloride	0.0952	<12	<12	<11	<13 J ¹
m&p-Xylene	4,960	<12	<12	<11	220 J ¹
o-Xylene	4,960	<5.8	14	<5.7	63 J ¹
TPH-Diesel (mg/kg)					
USEPA Methods 8015	10	NS	NS	NS	NS
Percent Solids (%)		84.3	80.7	81.0	79.0

ARCADIS

Table 4-2. Summary of Soil Sample Analytical Results, August 22 and 23, 2001, Soil Sampling Event, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

ug/kg	Micrograms per kilogram on a dry weight basis.
mg/kg	Milligrams per kilogram on a dry weight basis.
170	Concentration of constituent.
NS	Not sampled.
MSCC	Maximum Soil Contaminant Concentration.
TPH	Total Petroleum Hydrocarbons.
230	Concentration of constituent exceeds the respective Soil-to-Groundwater MSCC.
D	Sample was run at a diluted level.
J	Constituent concentration is qualified as estimated.
1	Surrogate recovery was outside of QC acceptance limits.
2	Instrument calibration was exceeded.
3	Sample duplicate RPD was outside acceptance limits.

ARCADIS

Table 4-3. Summary of Groundwater Sample Field Parameters Collected from Monitor Wells on October 12, 2001, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina

Monitor Well	Date of Sampling	pH	Conductivity (uS/cm)	Temperature °C
MW-1	10/12/2001	7.46	724	20.5
MW-2	10/12/2001	6.36	889	19.8
MW-3	10/12/2001	6.09	338	19.0
MW-4	10/12/2001	6.98	804	20.5
MW-5	10/12/2001	6.95	1,142	19.8

uS/cm Microsiemens per centimeter.

°C Degrees Celcius.

ARCADIS

Table 4-4. Summary of Groundwater Sample Analytical Results, October 12, 2001, Sampling Event, Brenntag Southeast Facility (Former Worth Chemical Facility), Durham, North Carolina.

		Sample Location:	MW-1	MW-2	MW-3	MW-4	MW-5
		Laboratory ID:	921871638	921871646	921871653	921871661	921871679
		Date Sampled:	10/12/2001	10/12/2001	10/12/2001	10/12/2001	10/12/2001
Constituents	NCAC 2L Standard						
Volatile Organics (ug/L) USEPA Method 8260							
Acetone	700	<100	<10,000	920 J ^{1,2}	<100	270	
Benzene	1.0	<5.0	110 J ^{1,2}	<5.0	220 J ^{1,D}	6.2	
Carbon Tetrachloride	0.3	<5.0	<5.0	100 J ²	260 J ^{1,D}	<5.0	
Chloroform	0.19	<5.0	560 D	34 J ²	210 J ^{1,2}	3,400 D	
1,2-Dichlorobenzene	620	<5.0	17 J ²	<5.0	<5.0	<5.0	
1,1-Dichloroethane	700	<5.0	110 J ²	8.1 J ²	53 J ²	69	
1,2-Dichloroethane	0.38	<5.0	20 J ²	<5.0	12 J ²	16	
1,1-Dichloroethene	7.0	<5.0	920 D	270 J ^{1,2}	590 D	360 D	
cis-1,2-Dichloroethene	70	<5.0	80,000 D	37 J ²	52,000 D	200	
trans-1,2-Dichloroethene	70	<5.0	230 J ^{1,2}	<5.0	81 J ²	5.0	
1,2-Dichloropropane	0.56	<5.0	1,200 D	<5.0	470 J ^{1,D}	<5.0	
Ethylbenzene	29	<5.0	3,800 D	<5.0	<5.0	<5.0	
Isopropylbenzene	70 *	<5.0	60 J ²	<5.0	25 J ²	<5.0	
4-Methyl-2-Pentanone (MIBK)	NA	<50	5,000 D	<50	<50	<50	
Methylene Chloride	5.0	<5.0	530 D	96 J ²	12 J ²	630 D	
Naphthalene	21	<5.0	15 J ²	5.7 J ²	<5.0	<5.0	
n-Propylbenzene	70 *	<5.0	11 J ²	<5.0	<5.0	<5.0	
Tetrachloroethene	0.7	<5.0	6,800 D	570 J ^{1,2}	1,100 D	1,400 D	
Toluene	1,000	<5.0	6,500 D	21 J ²	210 J ^{1,2}	75	
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	19	
1,1,2-Trichloroethane	NA	<5.0	190 J ²	11 J ²	170 J ^{1,2}	49	
Trichloroethene	2.8	<5.0	110,000 D	22,000 D	96,000 D	2,700 D	
1,2,4-Trimethylbenzene	350 *	<5.0	33 J ²	<5.0	<5.0	<5.0	
1,3,5-Trimethylbenzene	350 *	<5.0	35 J ²	<5.0	<5.0	<5.0	
Vinyl Chloride	0.015	<10	47 J ²	<10	<10	<10	
m&p-Xylene	530	<10	14,000 D	<10	190 J ²	<10	
o-Xylene	530	<5.0	5,400 D	<5.0	1,200 J ^{1,D}	<5.0	
Semi-Volatile Organics (ug/L) USEPA Method 8270							
3&4-Methylphenol (m-&p-Cresol)	35	<12	23 J ²	<11	<10 [R ²]	<11	

ug/L Micrograms per liter.
 170 Detected Constituent concentration.
 NA No standard.
 [] Concentration exceeded NCAC 2L Standard.
 * Interim maximum allowable concentration.

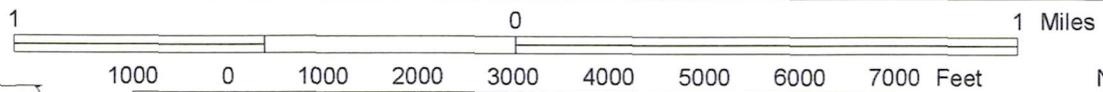
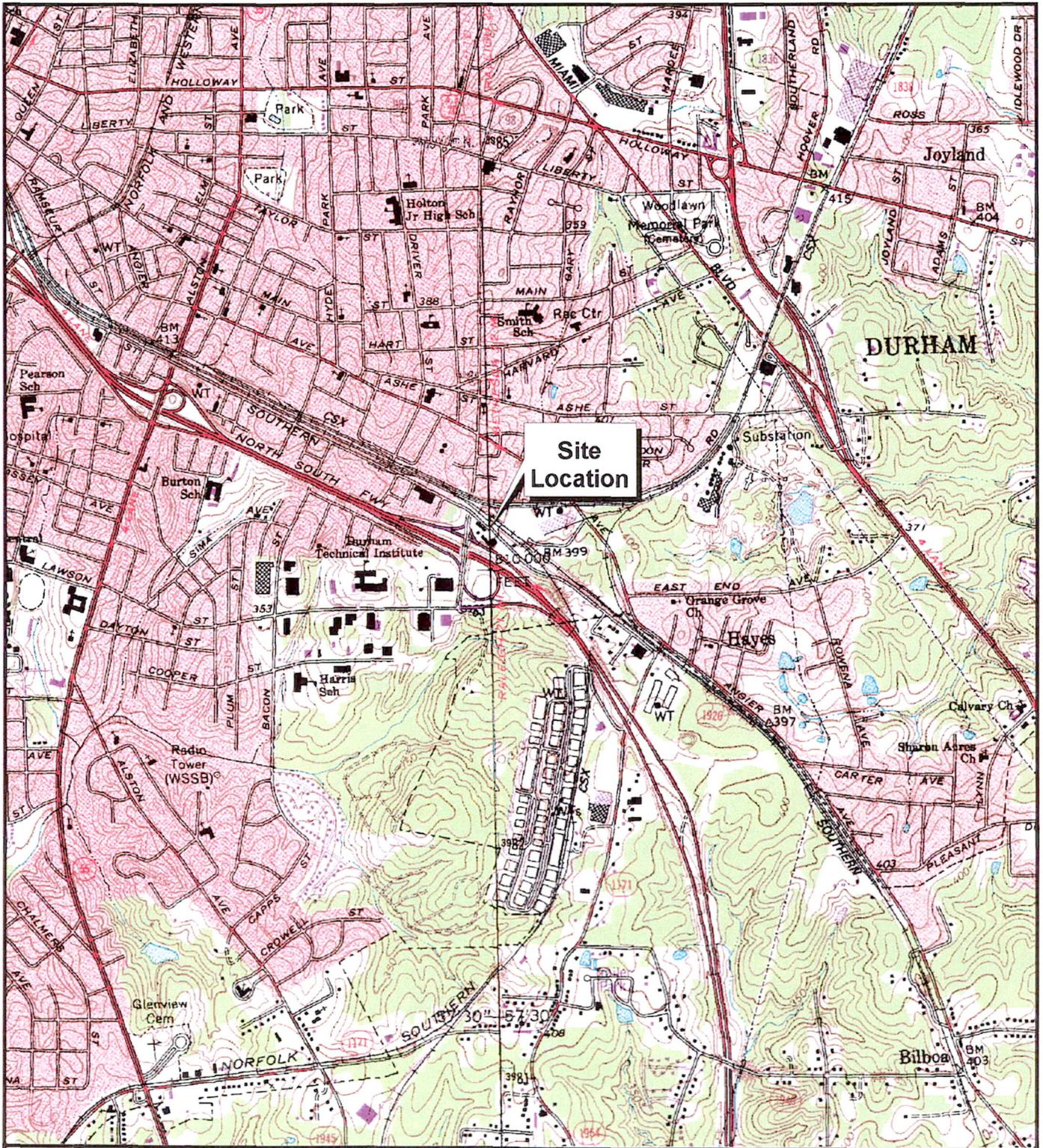
J Constituent concentration is qualified as estimated.
 D Constituent concentration was quantitated using a secondary dilution.
 R Constituent concentration is qualified as rejected/unusable.
 1 Constituent concentration exceeds the instrument calibration range.
 2 Surrogate recovery was outside of QC acceptance limits.
 3 Constituent detected below the reporting limit.



ARCADIS

**Soil and Groundwater
Assessment Report**

FIGURES



SCALE 1:24000
 CONTOUR INTERVAL 10 FEET
 SE & SW Durham - U.S.G.S. 7.5 Minute Series



PREPARED BY
ARCADIS G&M
 2301 Rexwoods Drive
 Suite 102, Raleigh, NC 27607
 Tel: 919/782-5511 Fax: 919/782-5905
 of North Carolina, Inc.

PROJECT MANAGER:
 J. Shilliday

DRAFTER:
 K. Brothers

PROJECT NUMBER:
 NC101047.0001

NOTES:

DRAWING:

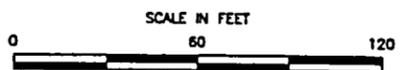
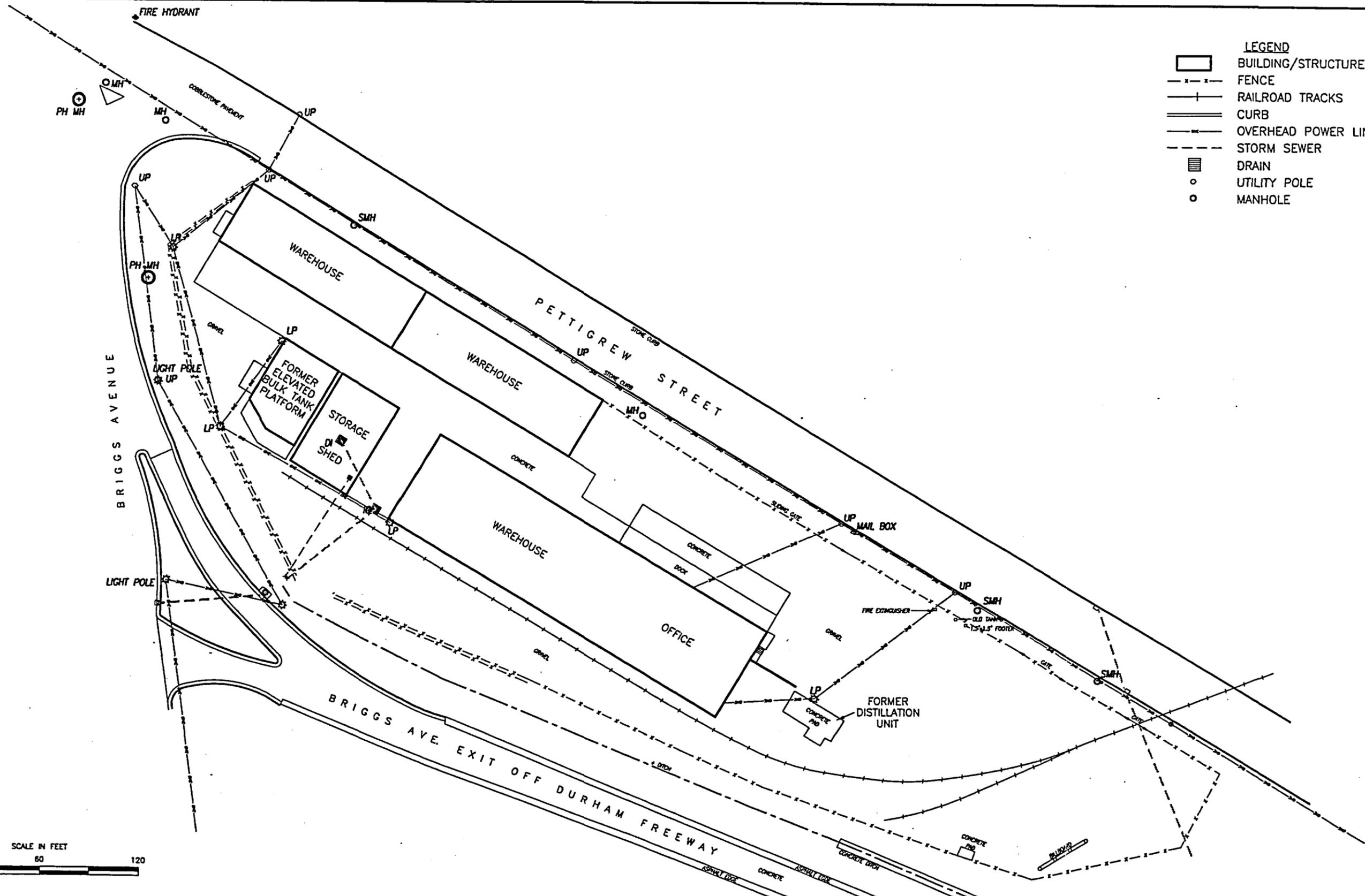
DATE:
 25JAN2002

Site Location
 Brenntag Southeast Facility
 (Former Worth Chemical)
 Durham, North Carolina

FIGURE:
1-1



- LEGEND**
- BUILDING/STRUCTURE
 - FENCE
 - RAILROAD TRACKS
 - CURB
 - OVERHEAD POWER LINE
 - STORM SEWER
 - DRAIN
 - UTILITY POLE
 - MANHOLE



ARCADIS G&M

2301 Rexwoods Drive
Suite 102 RALEIGH, NC 27607
Tel: 919/782-5511 Fax: 919/782-5905

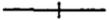
of North Carolina, Inc.

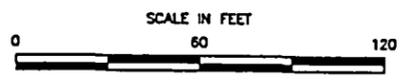
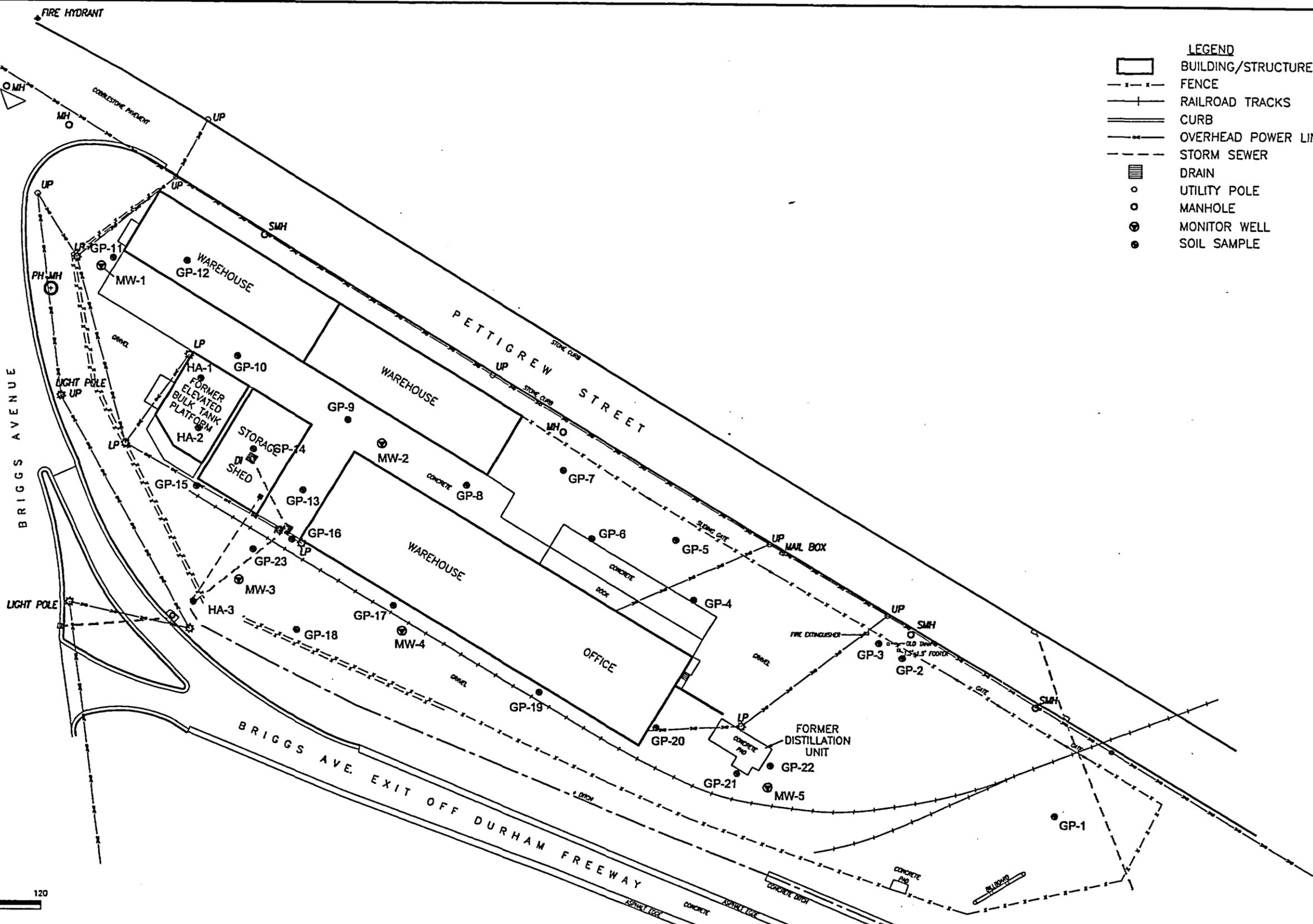
PRJT MANAGER: J. SHILLIDAY	CHECKED BY: D. TOMCZAK	DRAFTER: A. NORTON
NOTES: 1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001.		
DRAWING: WORTH CHEM-SITE		
DATE: 30NOV01		

PROJECT NUMBER: NC101047.0001
BRENNTAG SOUTHEAST FACILITY (FORMER WORTH CHEMICAL FACILITY) DURHAM, NORTH CAROLINA

SITE LAYOUT

FIGURE:
1-2

- LEGEND**
-  BUILDING/STRUCTURE
 -  FENCE
 -  RAILROAD TRACKS
 -  CURB
 -  OVERHEAD POWER LINE
 -  STORM SEWER
 -  DRAIN
 -  UTILITY POLE
 -  MANHOLE
 -  MONITOR WELL
 -  SOIL SAMPLE



ARCADIS G&M
 2301 Rexwoods Drive
 Suite 102 RALEIGH, NC 27607
 Tel: 919/782-5511 Fax: 919/782-5905

of North Carolina, Inc.

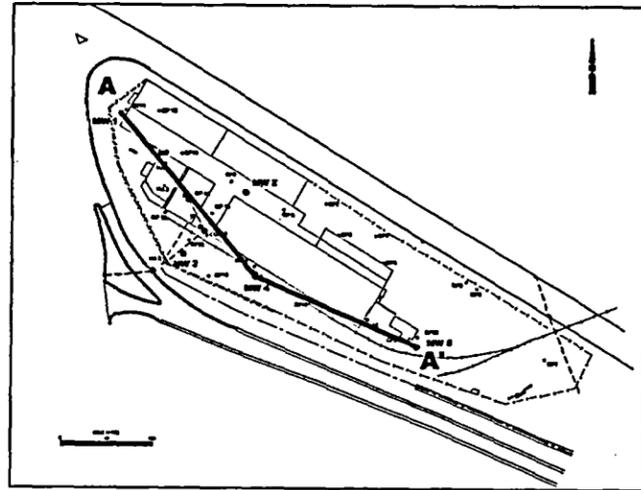
PRJT MANAGER: J. SHILLDAY	CHECKED BY: D. TOMCZAK	DRAFTER: A. NORTON
NOTES: 1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001.		
DRAWING: WORTH CHEM-SITE		
DATE: 30NOV01		

PROJECT NUMBER: NC101047.0001

**BRENTAG SOUTHEAST FACILITY
 (FORMER WORTH CHEMICAL FACILITY)
 DURHAM, NORTH CAROLINA**

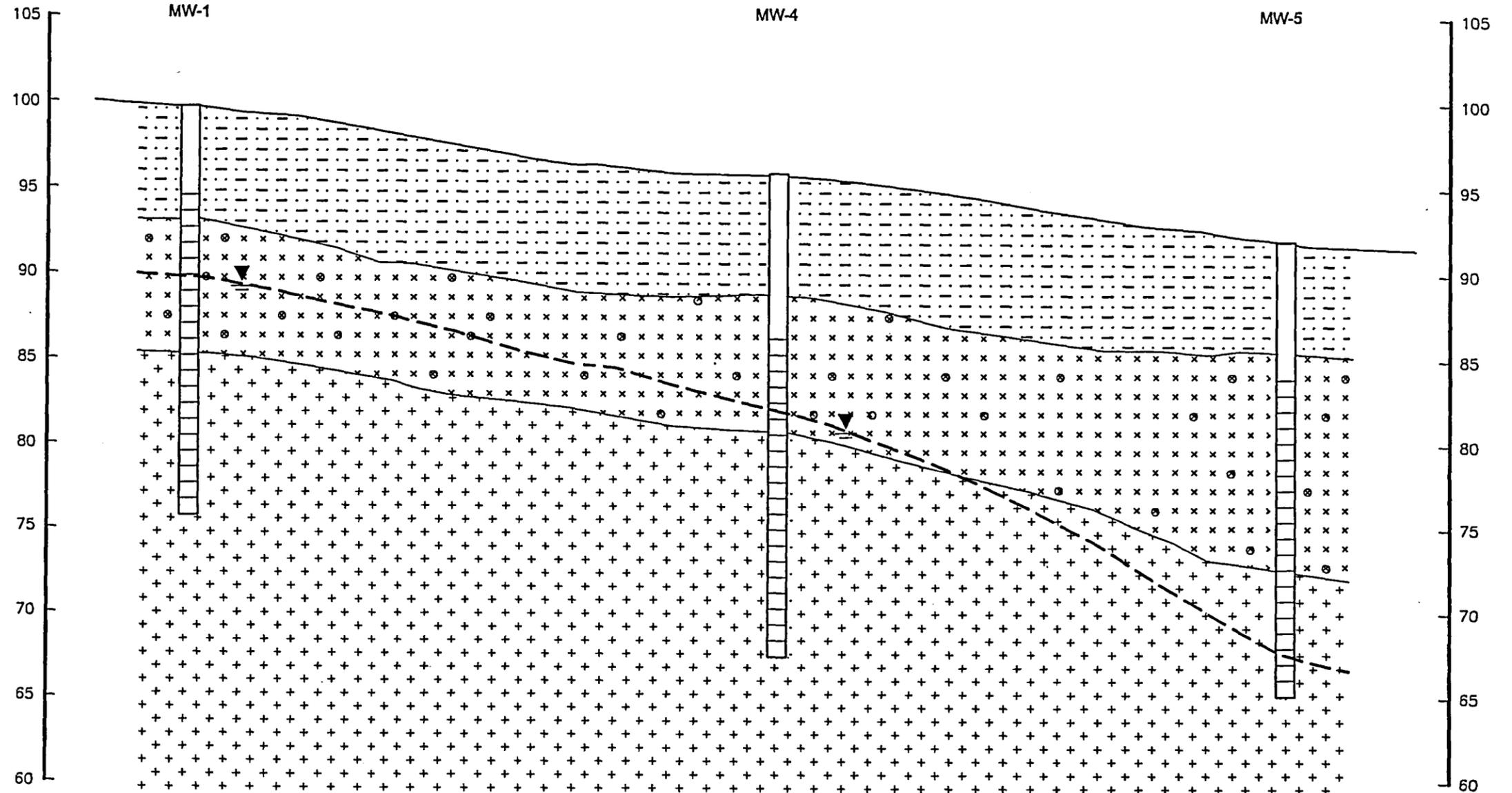
**SOIL BORING & MONITOR WELL
 LOCATIONS**

FIGURE:
2-1



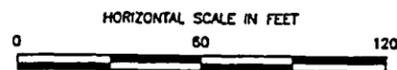
A

A'



LEGEND

- SILT (50-70%), CLAY (20-40%)
SAND (10-15%); BROWN TO ORANGE, DRY.
- WEATHERED BEDROCK; DARK BROWN TO RED.
- SLIGHTLY WEATHERED BEDROCK; BROWN, RED AND GRAY.
- WELL CASING
- WELL SCREEN
- POTENTIOMETRIC SURFACE



ARCADIS G&M



2301 Rexwoods Drive
Suite 102 RALEIGH, NC 27607
Tel: 919/782-5511 Fax: 919/782-5905

of North Carolina, Inc.

PRJCT MANAGER:
J. SHILLIDAY

CHECKED BY:
D. TOMCZAK

DRAFTER:
A. NORTON

PROJECT NUMBER: NC101047.0001.00005

NOTES:

1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001.

DRAWING:

A-A

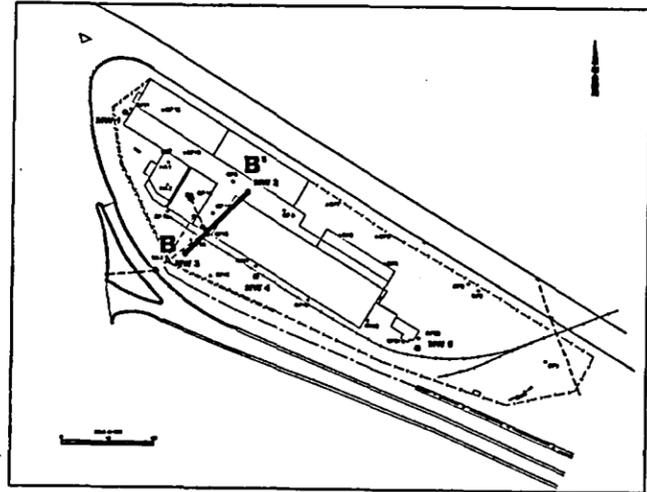
DATE:
26NOV01

BRENNTAG SOUTHEAST FACILITY
(FORMER WORTH CHEMICAL FACILITY)
DURHAM, NORTH CAROLINA

GEOLOGICAL
CROSS-SECTION A - A'

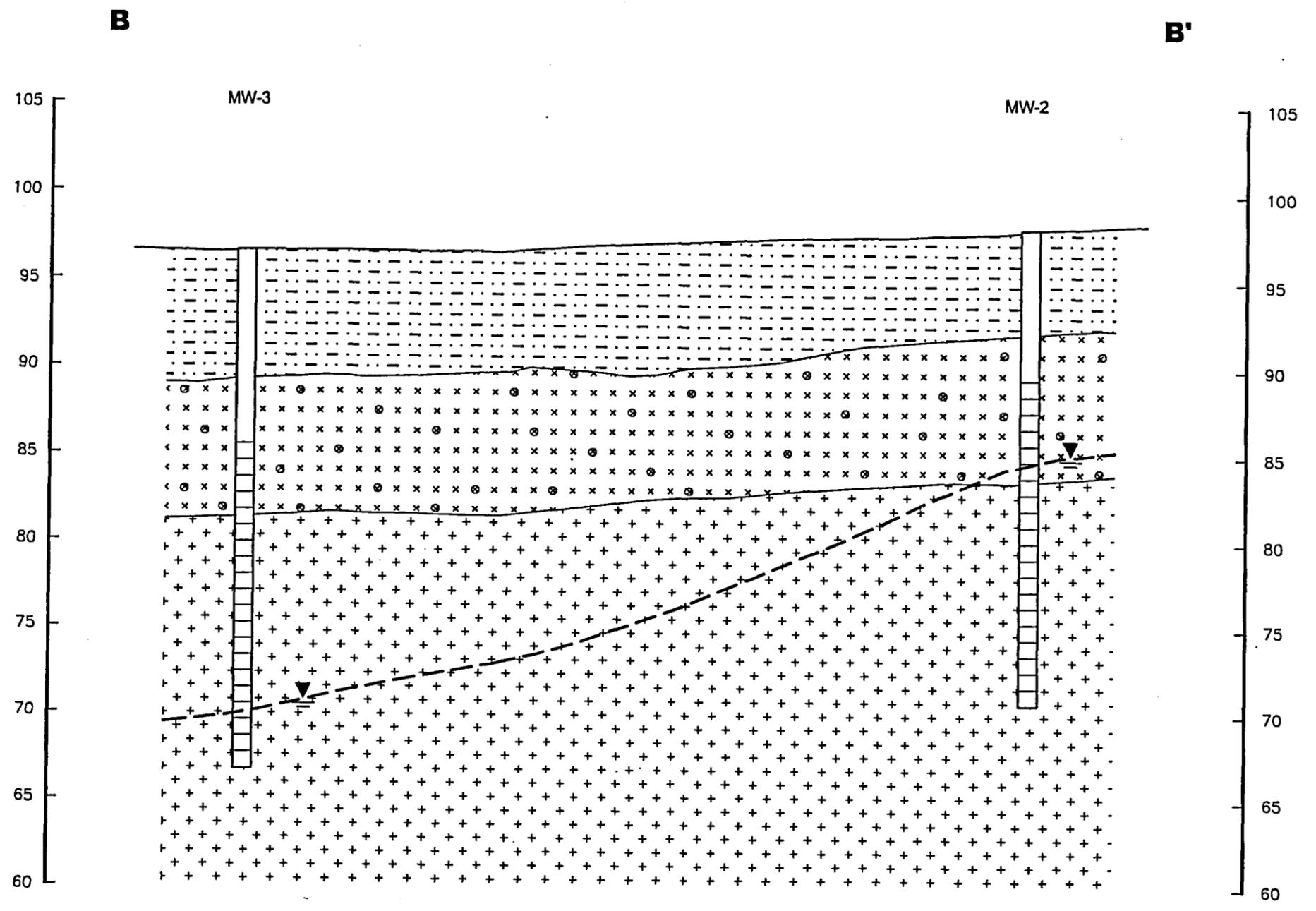
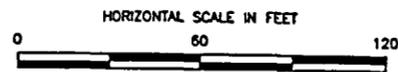
FIGURE:

3-1



LEGEND

- SILT (50-70%), CLAY (20-40%)
SAND (10-15%); BROWN TO ORANGE, DRY.
- WEATHERED BEDROCK; DARK BROWN TO RED.
- SLIGHTLY WEATHERED BEDROCK; BROWN, RED AND GRAY.
- WELL CASING
- WELL SCREEN
- POTENTIOMETRIC SURFACE



ARCADIS G&M



2301 Rexwoods Drive
Suite 102 RALEIGH, NC 27607
Tel: 919/782-5511 Fax: 919/782-5905

of North Carolina, Inc.

PRJT MANAGER:
J. SHILLIDAY

CHECKED BY:
D. TOMCZAK

DRAFTER:
A. NORTON

PROJECT NUMBER: NC101047.0001.00005

NOTES:
1. BASE MAP DEVELOPED BY COMBINED SURVEYING
RESOURCES ON OCTOBER 30, 2001.

DRAWING:

B-B

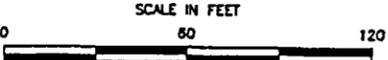
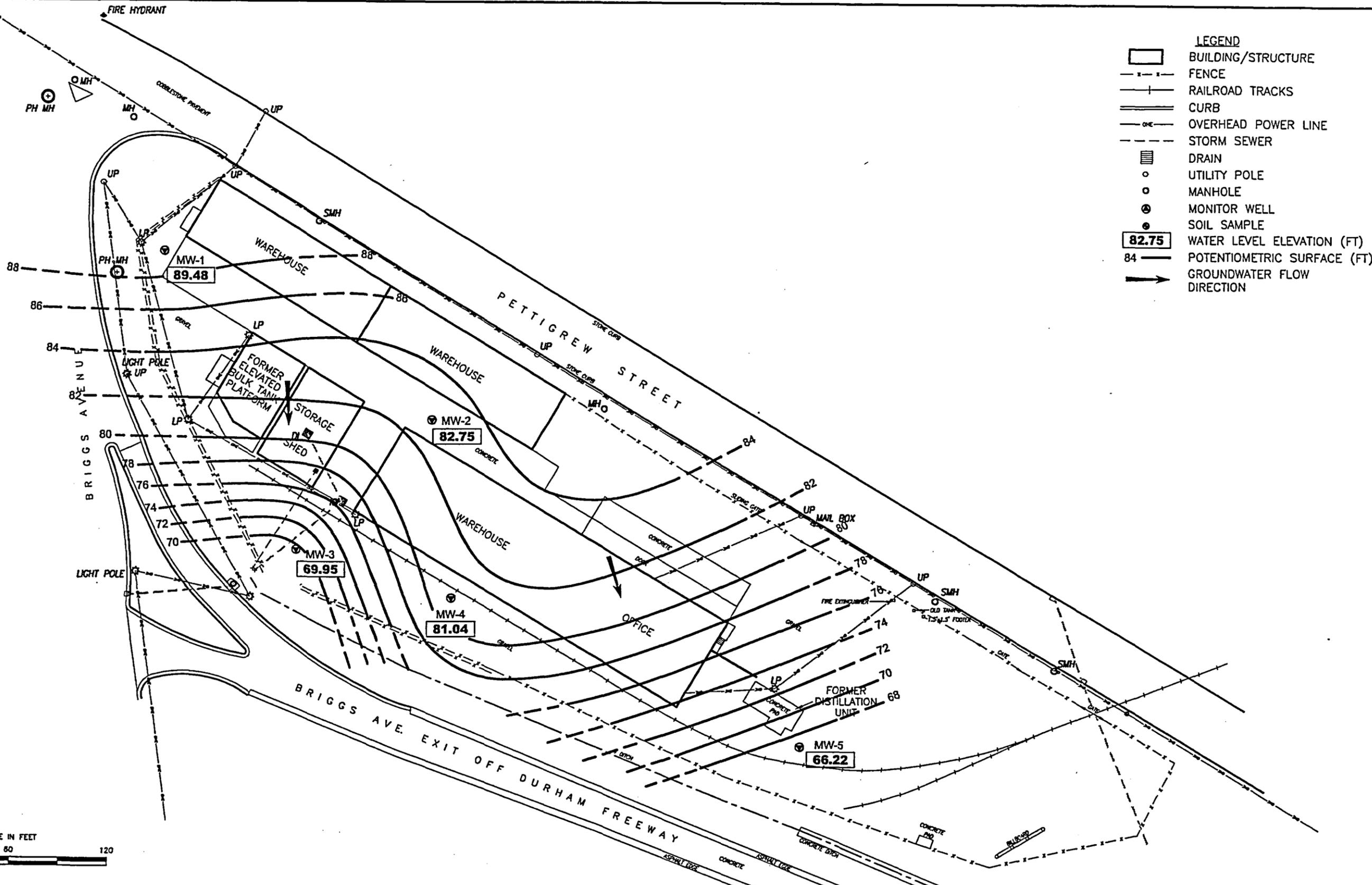
DATE:
26NOV01

BRENNTAG SOUTHEAST FACILITY
(FORMER WORTH CHEMICAL FACILITY)
DURHAM, NORTH CAROLINA

**GEOLOGICAL
CROSS-SECTION B - B'**

FIGURE:

3-2



ARCADIS G&M



2301 Rexwoods Drive
Suite 102 RALEIGH, NC 27607
Tel: 919/782-5511 Fax: 919/782-5905

of North Carolina, Inc.

PRJT MANAGER:
J. SHILLIDAY

CHECKED BY:
D. TOMCZAK

DRAFTER:
A. NORTON

PROJECT NUMBER: NC101047.0001

NOTES:
1. BASE MAP DEVELOPED BY COMBINED SURVEYING
RESOURCES ON OCTOBER 30, 2001.

DRAWING:
WORTH CHEM-SITE
DATE:
20NOV01

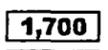
BRENTAG SOUTHEAST FACILITY
(FORMER WORTH CHEMICAL FACILITY)
DURHAM, NORTH CAROLINA

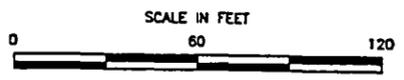
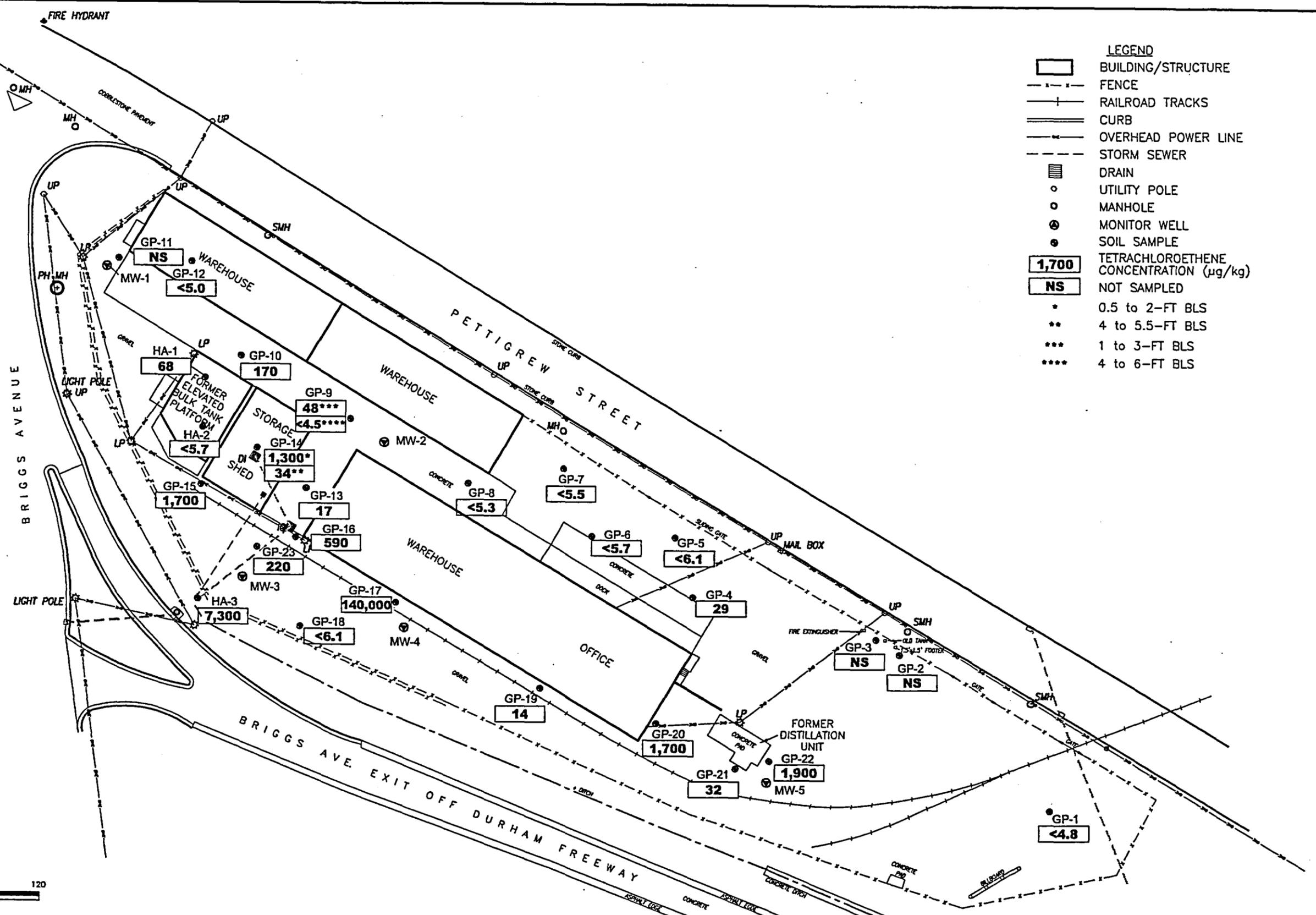
GROUNDWATER POTENTIOMETRIC SURFACE
OF THE SHALLOW ZONE - OCTOBER 12, 2001

FIGURE:

3-3

LEGEND

-  BUILDING/STRUCTURE
-  FENCE
-  RAILROAD TRACKS
-  CURB
-  OVERHEAD POWER LINE
-  STORM SEWER
-  DRAIN
-  UTILITY POLE
-  MANHOLE
-  MONITOR WELL
-  SOIL SAMPLE
-  TETRACHLOROETHENE CONCENTRATION (µg/kg)
-  NOT SAMPLED
- 
 - 0.5 to 2-FT BLS
 - 4 to 5.5-FT BLS
 - 1 to 3-FT BLS
 - 4 to 6-FT BLS



ARCADIS G&M
 2301 Rexwoods Drive
 Suite 102 RALEIGH, NC 27607
 Tel: 919/782-5511 Fax: 919/782-5905

of North Carolina, Inc.

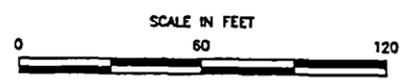
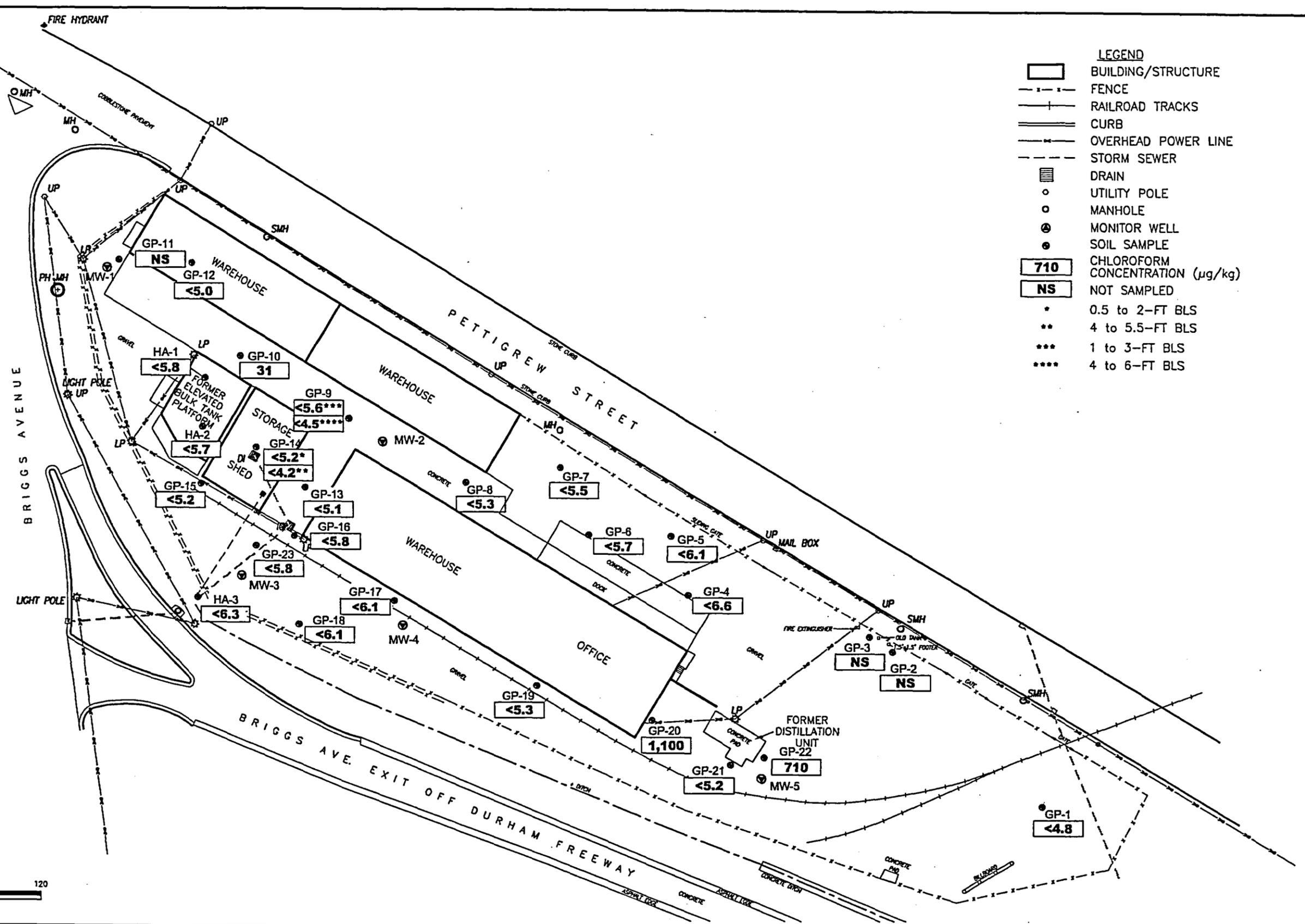
PRJ T MANAGER: J. SHILLIDAY	CHECKED BY: D. TOMCZAK	DRAFTER: A. NORTON	PROJECT NUMBER: NC101047.0001
NOTES: 1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001. 2. THE SOIL-TO-GROUNDWATER MAXIMUM SOIL CONTAMINANT CONCENTRATION FOR TETRACHLOROETHENE IS 7.42 µg/kg (NCDENR, 2000)		DRAWING: WORTH CHEM-SITE	DATE: 26NOV01

BRENNTAG SOUTHEAST FACILITY
 (FORMER WORTH CHEMICAL FACILITY)
 DURHAM, NORTH CAROLINA

**TETRACHLOROETHENE (PCE)
 CONCENTRATIONS (µg/kg) IN SOIL SAMPLES
 AUGUST 22 & 23, 2001
 SAMPLING EVENT**

FIGURE:
4-1

- LEGEND**
- BUILDING/STRUCTURE
 - FENCE
 - RAILROAD TRACKS
 - CURB
 - OVERHEAD POWER LINE
 - STORM SEWER
 - DRAIN
 - UTILITY POLE
 - MANHOLE
 - MONITOR WELL
 - SOIL SAMPLE
 - 710** CHLOROFORM CONCENTRATION ($\mu\text{g}/\text{kg}$)
 - NS** NOT SAMPLED
 - \bullet 0.5 to 2-FT BLS
 - $\bullet\bullet$ 4 to 5.5-FT BLS
 - $\bullet\bullet\bullet$ 1 to 3-FT BLS
 - $\bullet\bullet\bullet\bullet$ 4 to 6-FT BLS



ARCADIS G&M
 of North Carolina, Inc.
 2301 Rexwoods Drive
 Suite 102 RALEIGH, NC 27607
 Tel: 919/782-5511 Fax: 919/782-5905

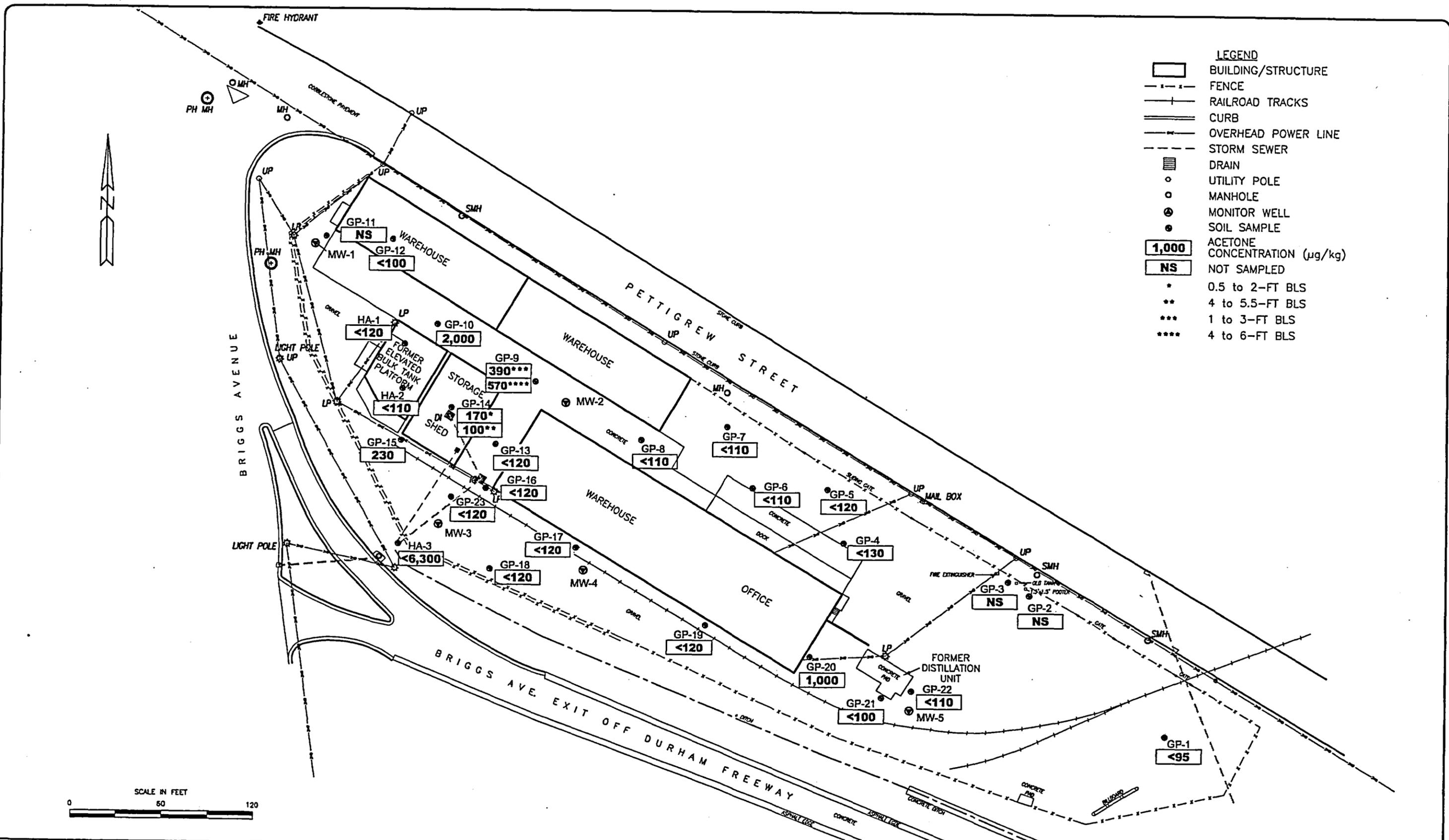
PRJ. MGR: J. SHILLIDAY
 CHECKED BY: D. TOMCZAK
 DRAFTER: A. NORTON
 PROJECT NUMBER: NC101047.0001
 DRAWING: WORTH CHEM-SITE
 DATE: 26NOV01

NOTES:
 1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001.
 2. THE SOIL-TO-GROUNDWATER MAXIMUM SOIL CONTAMINANT CONCENTRATION FOR CHLOROFORM IS 1.01 $\mu\text{g}/\text{kg}$ (NCDENR, 2000)

BRENTAG SOUTHEAST FACILITY
 (FORMER WORTH CHEMICAL FACILITY)
 DURHAM, NORTH CAROLINA

CHLOROFORM CONCENTRATIONS ($\mu\text{g}/\text{kg}$)
 IN SOIL SAMPLES
 AUGUST 22 & 23, 2001
 SAMPLING EVENT

FIGURE:
4-3



ARCADIS G&M
 2301 Rexwoods Drive
 Suite 102 RALEIGH, NC 27607
 Tel: 919/782-5511 Fax: 919/782-5905

of North Carolina, Inc.

PRJT MANAGER: J. SHILLIDAY
 CHECKED BY: D. TOMCZAK
 DRAFTER: A. NORTON
 PROJECT NUMBER: NC101047.0001

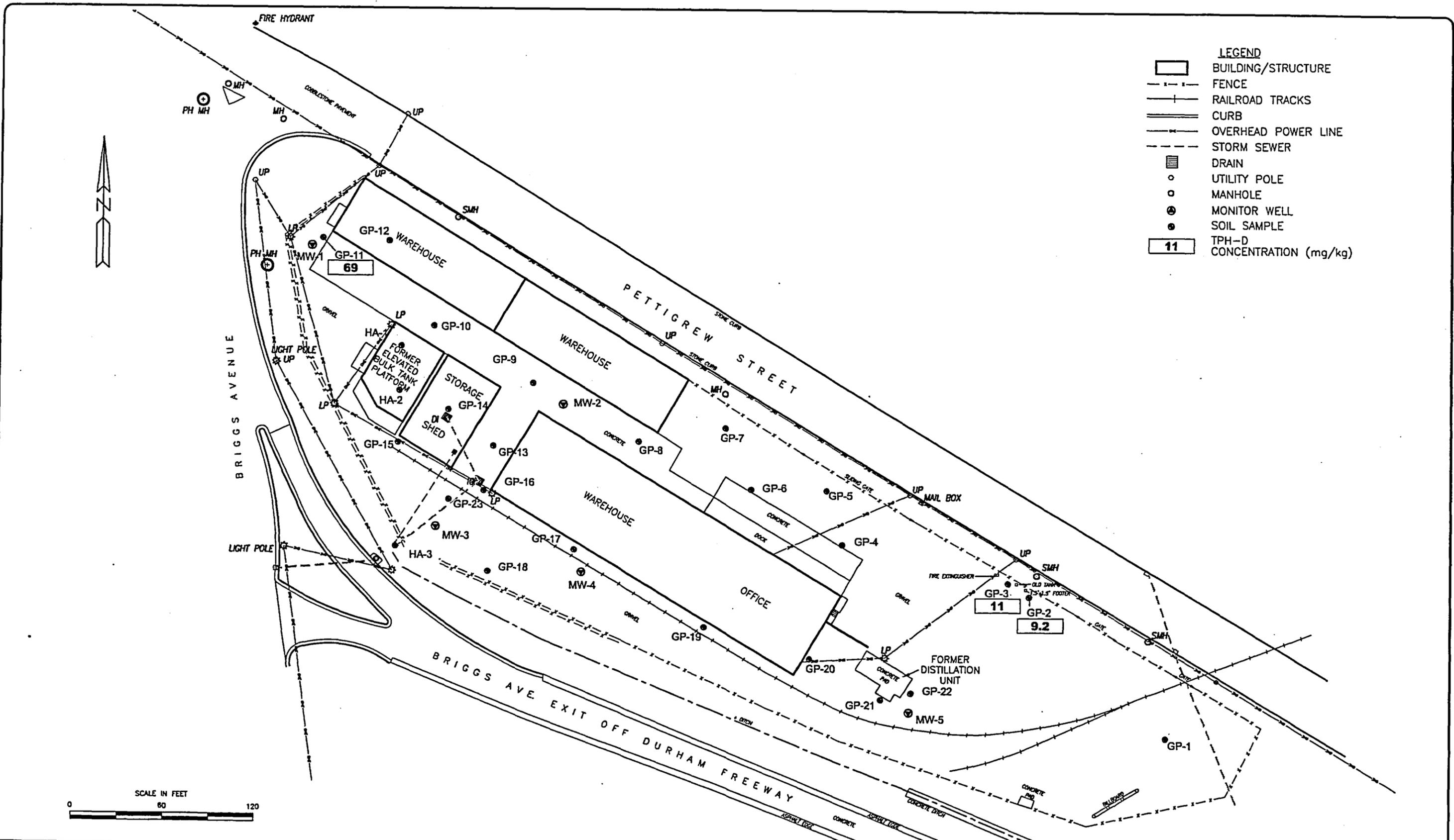
NOTE:
 1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001. (NCDENR, 2000)
 2. THE SOIL-TO-GROUNDWATER MAXIMUM SOIL CONTAMINANT CONCENTRATION FOR ACETONE IS 2,810 μg/kg

DRAWING: WORTH CHEM-SITE
 DATE: 26NOV01

BRENNTAG SOUTHEAST FACILITY
 (FORMER WORTH CHEMICAL FACILITY)
 DURHAM, NORTH CAROLINA

ACETONE CONCENTRATIONS (μg/kg) IN SOIL SAMPLES
 AUGUST 22 & 23, 2001
 SAMPLING EVENT

FIGURE:
 4-4



LEGEND

[Rectangle]	BUILDING/STRUCTURE
[Dashed line]	FENCE
[Double line]	RAILROAD TRACKS
[Single line]	CURB
[Line with cross-ticks]	OVERHEAD POWER LINE
[Dashed line]	STORM SEWER
[Hatched box]	DRAIN
[Circle]	UTILITY POLE
[Circle with cross]	MANHOLE
[Circle with dot]	MONITOR WELL
[Circle]	SOIL SAMPLE
[Box with 11]	TPH-D CONCENTRATION (mg/kg)

ARCADIS G&M
 2301 Rexwoods Drive
 Suite 102 RALEIGH, NC 27607
 Tel: 919/782-5511 Fax: 919/782-5905

of North Carolina, Inc.

PRJT MANAGER:
J. SHILLIDAY

CHECKED BY:
D. TOMCZAK

DRAFTER:
A. NORTON

PROJECT NUMBER: NC101047.0001

NOTE:
 1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001.
 2. GP-2, GP-3 & GP-11 WERE THE ONLY LOCATIONS SAMPLED FOR TPH-D DURING THE AUGUST 22-23, 2001 SAMPLING EVENT.
 3. TPH ACTION LEVEL IS 10 mg/kg (NCDENR, 2000)

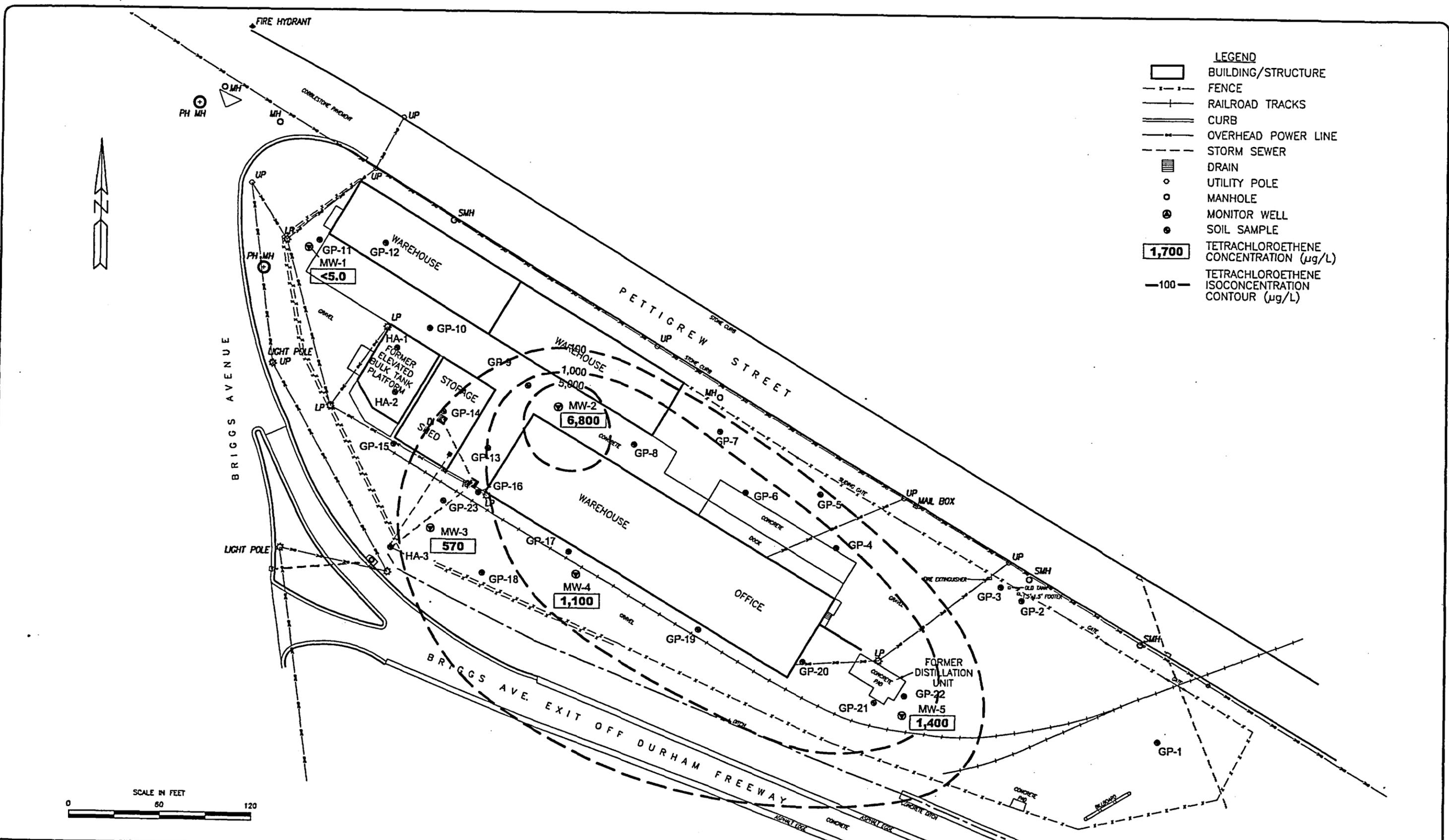
DRAWING:
WORTH CHEM-SITE

DATE:
26NOV01

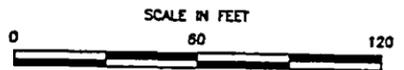
BRENTAG SOUTHEAST FACILITY
 (FORMER WORTH CHEMICAL FACILITY)
 DURHAM, NORTH CAROLINA

TOTAL PETROLEUM HYDROCARBONS (TPH)-
 DIESEL (mg/kg) IN SOIL SAMPLES
 AUGUST 22 & 23, 2001
 SAMPLING EVENT

FIGURE:
 4-5



- LEGEND**
- BUILDING/STRUCTURE
 - - - - - FENCE
 - +—+— RAILROAD TRACKS
 - ==== CURB
 - +—+— OVERHEAD POWER LINE
 - - - - - STORM SEWER
 - ▨ DRAIN
 - UTILITY POLE
 - MANHOLE
 - ⊙ MONITOR WELL
 - SOIL SAMPLE
 - 1,700 TETRACHLOROETHENE CONCENTRATION (µg/L)
 - 100— TETRACHLOROETHENE ISOCONCENTRATION CONTOUR (µg/L)



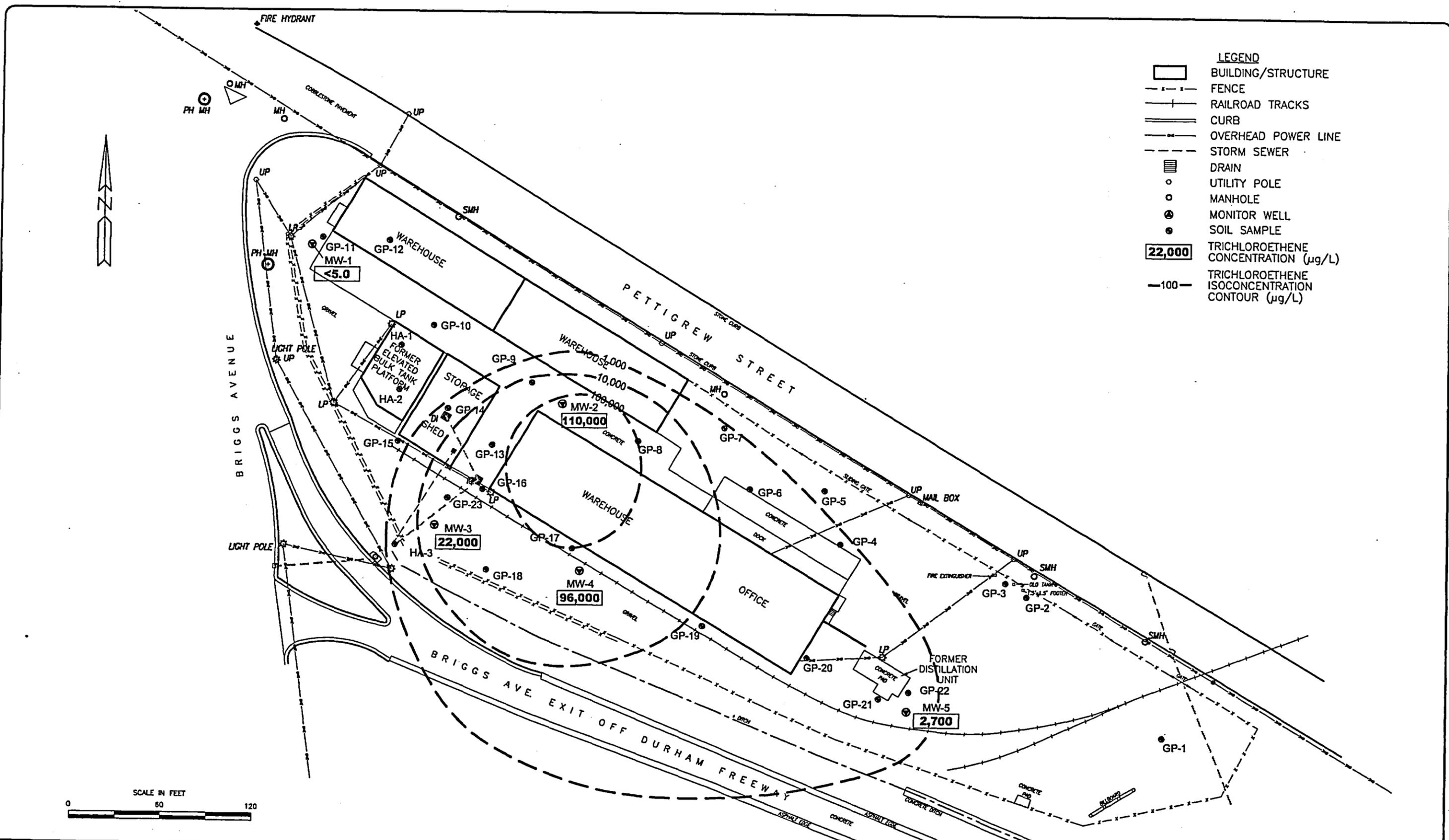
ARCADIS G&M
 2301 Rexwoods Drive
 Suite 102 RALEIGH, NC 27607
 Tels: 919/782-5511 Fax: 919/782-5905
 of North Carolina, Inc.

PRJ. MANAGER: J. SHILLIDAY	CHECKED BY: D. TOMCZAK	DRAFTER: A. NORTON
NOTE: 1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001. 2. NORTH CAROLINA 2L GROUNDWATER STANDARD FOR TETRACHLOROETHENE IS 0.7 (µg/L)		
DRAWING: WORTH CHEM-SITE		DATE: 26NOV01

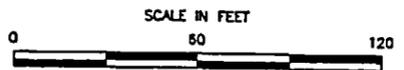
PROJECT NUMBER: NC101047.0001
 BRENNTAG SOUTHEAST FACILITY
 (FORMER WORTH CHEMICAL FACILITY)
 DURHAM, NORTH CAROLINA

**TETRACHLOROETHENE (PCE)
 ISOCONCENTRATION (µg/L)
 CONTOUR MAP IN GROUNDWATER
 OCTOBER 12, 2001**

FIGURE:
4-6



- LEGEND**
- BUILDING/STRUCTURE
 - - - - - FENCE
 - +—+— RAILROAD TRACKS
 - ==== CURB
 - x—x— OVERHEAD POWER LINE
 - - - - - STORM SEWER
 - ▨ DRAIN
 - UTILITY POLE
 - MANHOLE
 - ⊙ MONITOR WELL
 - SOIL SAMPLE
 - 22,000 TRICHLOROETHENE CONCENTRATION (µg/L)
 - 100- TRICHLOROETHENE ISOCONCENTRATION CONTOUR (µg/L)



ARCADIS G&M
 2301 Rexwoods Drive
 Suite 102 RALEIGH, NC 27607
 Tel: 919/782-5511 Fax: 919/782-5905
 of North Carolina, Inc.

PRJ. MGR: J. SHILLIDAY
 CHECKED BY: D. TOMCZAK
 DRAFTER: A. NORTON
 PROJECT NUMBER: NC101047.0001

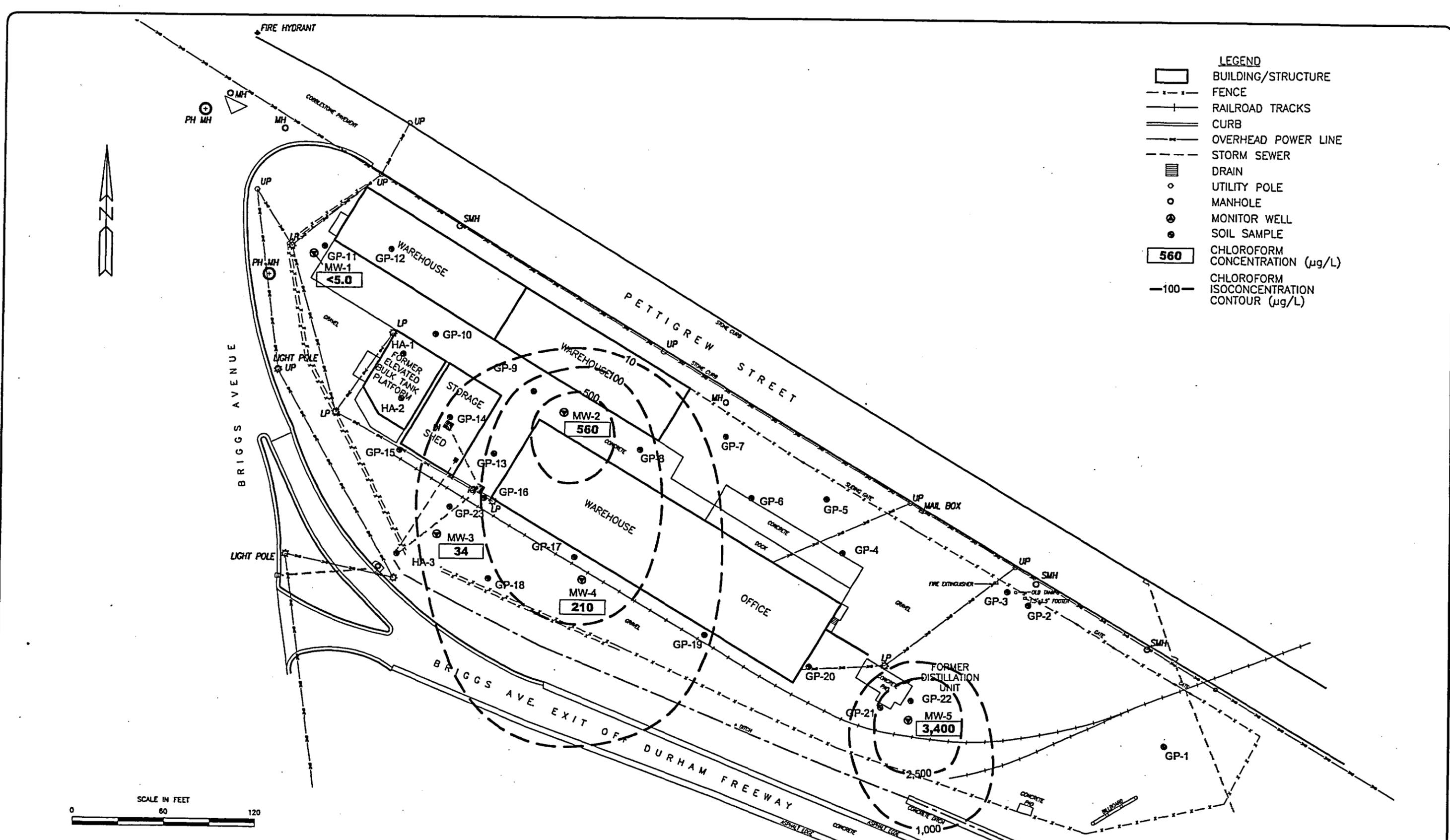
NOTE:
 1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001.
 2. NORTH CAROLINA 2L GROUNDWATER STANDARD FOR TRICHLOROETHENE IS 2.8 (µg/L)

DRAWING: WORTH CHEM-SITE
 DATE: 26NOV01

BRENNTAG SOUTHEAST FACILITY
 (FORMER WORTH CHEMICAL FACILITY)
 DURHAM, NORTH CAROLINA

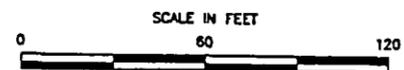
**TRICHLOROETHENE (TCE)
 ISOCONCENTRATION (µg/L)
 CONTOUR MAP IN GROUNDWATER
 OCTOBER 12, 2001**

FIGURE:
4-7



LEGEND

	BUILDING/STRUCTURE
	FENCE
	RAILROAD TRACKS
	CURB
	OVERHEAD POWER LINE
	STORM SEWER
	DRAIN
	UTILITY POLE
	MANHOLE
	MONITOR WELL
	SOIL SAMPLE
	CHLOROFORM CONCENTRATION (µg/L)
	CHLOROFORM ISOCONCENTRATION CONTOUR (µg/L)



ARCADIS G&M

2301 Rexwoods Drive
Suite 102 RALEIGH, NC 27607
Tel: 919/782-5511 Fax: 919/782-5905

of North Carolina, Inc.

PRJT MANAGER:
J. SHILLIDAY

CHECKED BY:
D. TOMCZAK

DRAFTER:
A. NORTON

PROJECT NUMBER: NC101047.0001

NOTE:
1. BASE MAP DEVELOPED BY COMBINED SURVEYING RESOURCES ON OCTOBER 30, 2001.
2. NORTH CAROLINA 2L GROUNDWATER STANDARD FOR CHLOROFORM IS 0.19 (µg/L)

DRAWING:
WORTH CHEM-SITE
DATE:
26NOV01

BRENTAG SOUTHEAST FACILITY
(FORMER WORTH CHEMICAL FACILITY)
DURHAM, NORTH CAROLINA

CHLOROFORM
ISOCONCENTRATION (µg/L)
CONTOUR MAP IN GROUNDWATER
OCTOBER 12, 2001

FIGURE:
4-8



ARCADIS

**Soil and Groundwater
Assessment Report**

APPENDIX A

Soil Lithologic Logs

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-1

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>9 ft</u>
-------------------------------------	--------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	9:30	VOCs
2	4 - 8	2 ft - 2 ft		None
3	8 - 9	1 ft - 0 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-2.5	Gray brown fine-to-medium sand and gravel; organics
2.5-4	Dark brown fine sandy silty clay; moist
4-6	Tan gray mottled fine silty clay; stiff
6-7	Gray red brown fine silty clayey saprolite; stiff
7-9	Gray red brown fine silty saprolite; stiff

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-2

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>9 ft</u>
-------------------------------------	--------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	9:58	TPH - Diesel
2	4 - 8	2 ft - 2 ft		None
3	8 - 9	1 ft - 0 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Black brown fine-to-medium silty clayey sand with gravel; trace of organics
1-3	Brown black fine-to-medium silty clayey sand
3-4	Tan fine silty clay; trace of sand
4-6	Gray tan mottled fine silty clay; stiff
6-7	Gray red brown fine silty saprolite
7-9	Red brown fine silty saprolite

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-3

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>9 ft</u>
-------------------------------------	--------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	10:23	TPH - Diesel
2	4 - 8	2 ft - 2 ft		None
3	8 - 9	1 ft - 0 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Brown black fine-to-medium silty clayey sand with gravel; organics
1-2	Dark brown fine-to-medium silty clayey sand; trace of gravel
2-4	Dark brown fine-to-medium sandy clayey silt
4-6	Gray tan fine silty clay; stiff
6-7	Red brown fine silty saprolite
7-9	Gray red brown fine silty saprolite

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-4

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	9:25	VOCs
2	4 - 6.5	2 ft - 0.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Black gray fine-to-coarse sand with gravel
1-2	Orange gray fine-to-medium sandy silty clay; trace of gravel
2-4	Brown gray mottled fine silty clay; tight; dry
4-6	Gray brown fine silty saprolite; trace of clay; dry
6-6.5	Dark brown fine silty saprolite; dry

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-5

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	9:55	VOCs
2	4 - 6.5	2 ft - 0.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Gray black fine-to-coarse gravel with sand
1-2	Brown orange fine silty clay
2-4	Brown mottled fine silty saprolite; dry; stiff
4-6.5	Brown fine silty saprolite; dry

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-6

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>7 ft</u>
-------------------------------------	--------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	10:19	VOCs
2	4 - 7	2 ft - 1 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Black gray fin-to-coarse gravel with sand
1-2	Brown mottled fine-to-medium sandy silty clay; stiff; dry
2-4	Gray mottled fine silty clay; stiff
4-7	Brown orange fine silty saprolite

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-7

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	10:42	VOCs
2	4 - 6.5	2 ft - 0.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Black gray fine-to-coarse gravel with sand
1-2	Brown mottled fine-to-medium sandy silty clay; stiff
2-4	Brown orange fine silty saprolite; dry
4-5	Gray fine silty saprolite; dry
5-6.5	Gray orange fine silty saprolite; dry

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-8

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>7 ft</u>
-------------------------------------	--------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	11:15	VOCs
2	4 - 6.5	2 ft - 1 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Concrete slab
0.5-1	Gray gravel with sand
1-4	Gray mottled fine silty clay; stiff; dry
4-6	Gray brown fine silty saprolite; dry
6-7	Red brown fine silty saprolite with partially weathered rock; dry; Triassic

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-9

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	11:50	VOCs
2	4 - 6.5	2 ft - 0.5 ft	11:50	VOCs

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Concrete slab
0.5-1	Brown mottled fine-to-medium sandy silty clay; stiff
1-3	Gray brown fine silty saprolite; stiff
3-4	Dark brown fine silty saprolite; stiff; Triassic
4-6	Dark brown fine silty saprolite; stiff; Triassic
6-6.5	Dark brown fine silty saprolite with partially weathered rock; Triassic

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-10

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	14:14	VOCs
2	4 - 6.5	2 ft - 0.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Concrete slab
0.5-1.5	Brown mottled fine silty clay; stiff
1.5-4	Red brown mottled fine silty saprolite; trace of clay; stiff
4-6.5	Red brown gray fine silty saprolite; stiff; Triassic

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-11

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	14:42	TPH-Diesel
2	4 - 6.5	2 ft - 0.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Black brown fine-to-medium silty clayey sand with organics
0.5-1	Brown orange mottled fine silty clay; stiff
1-4	Red brown mottled fine silty saprolite; stiff
4-6.5	Red brown fine silty saprolite; black oxidized bands; stiff; Triassic

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-12

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>4.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	15:02	VOCs
2	4 - 4.5	0.5 ft - 0 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Concrete slab
0.5-1	Gray fine-to-coarse gravel with sand
1-2	Brown gray fine silty clay; stiff
2-3.5	Red brown fine silty saprolite; stiff; Triassic
3.5-4.5	Dark brown fine silty saprolite; stiff; Triassic

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-13

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	15:23	VOCs
2	4 - 6.5	2 ft - 2 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Concrete slab
0.5-1	Gray fine-to-coarse gravel with sand
1-4	Red brown mottled fine silty saprolite; stiff
4-6.5	Gray brown mottled fine silty saprolite; stiff

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-14

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>8 ft</u>
-------------------------------------	--------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	15:50	VOCs
2	4 - 8	2 ft - 2 ft	15:50	VOCs

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Concrete slab
0.5-2	Tan gray fine silty clay fill; stiff
2-4	Gray red brown fine silty saprolite; stiff
4-5.5	Gray pink fine silty saprolite; stiff
5.5-7	Red brown fine silty saprolite; black oxidized bands; stiff
7-8	Red brown fine silty saprolite; black oxidized bands; stiff

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-15

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>7 ft</u>
-------------------------------------	--------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	17:02	VOCs
2	4 - 7	2 ft - 1 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Black fine-to-medium silty clayey sand; trace of gravel; organics
1-2	Brown mottled fine silty clay; stiff
2-4	Gray red brown fine silty saprolite; stiff
4-5.5	Gray dark brown fine silty saprolite; stiff
5.5-7	Dark brown fine silty saprolite; stiff

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-16

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>5.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	16.42	VOCs
2	4 - 5.5	1.5 ft - 0 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Black fine-to-medium silty clayey sand; organics
1-3	Gray mottled fine silty clay; stiff
3-4	Gray red brown fine silty clay; stiff
4-5.5	Gray pink fine silty saprolite; stiff; dry

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-17

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	17:23	VOCs
2	4 - 6.5	2 ft - 0.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Black fine-to-medium silty clayey sand; trace of gravel; organics
1-2	Brown mottled fine silty clay; stiff
2-4	Gray red brown fine silty saprolite; stiff; dry
4-6.5	Dark brown fine silty saprolite; stiff; dry

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/22/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-18

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	18:00	VOCs
2	4 - 6.5	2 ft - 0.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Black fine-to-medium silty clayey sand; trace of gravel; organics
1-2	Tan mottled fine silty clay; stiff
2-4	Gray tan fine silty clay; trace of sand; stiff
4-6.5	Red brown gray fine silty saprolite; stiff

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-20

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>10 ft</u>
-------------------------------------	---------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	8:35	VOCs
2	4 - 8	2 ft - 2 ft		None
3	8 - 10	2 ft - 0 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Tan gray fine-to-coarse sand with gravel; organics
1-2	Tan mottled fine silty clay; trace of sand; stiff
2-4	Gray mottled fine silty clay; stiff
4-5.5	Gray mottled fine silty clay; stiff
5.5-7	Red brown fine silty saprolite; stiff
7-8.5	Red brown fine clayey silty saprolite; stiff
8.5-10	Gray fine clayey saprolite; very stiff

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-21

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6 ft</u>
-------------------------------------	--------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft		None
2	4 - 6	2 ft - 0 ft	8:15	VOCs

Soil Characterization:

Depth (ft bls)	Description
0-2	Gray coarse gravel with sand
2-4	Tan mottled fine-to-medium silty clayey sand fill; trace of gravel
4-5	Gray mottled fine silty saprolite; trace of clay; stiff
5-6	Gray red brown fine silty saprolite; stiff

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-22

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>6.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	8:55	VOCs
2	4 - 6.5	2 ft - 0.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-1	Brown fine-to-medium sand with gravel
1-2	Dark brown fine-to-medium silty clayey sand with gravel
2-4	Gray brown fine silty clay; trace of sand; stiff
4-5	Gray red brown fine silty clayey saprolite; moist; trace of sand
5-6.5	Tan gray fine-to-medium sandy saprolite

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID GP-23

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>7.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	11:15	VOCs
2	4 - 7.5	2 ft - 1.5 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Gray tan fine-to-medium silty clayey sand with gravel; organics
0.5-2	Gray tan fine sandy silty clay; stiff
2-4	Gray red brown fine silty clayey saprolite
4-6	Gray tan pink fine silty saprolite
6-7.5	Red brown fine silty saprolite

Remarks: _____

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID HA-1

Geoprobe™ Contractor: hand auger

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>4.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 4	2 ft - 2 ft	11:55	VOCs
2	4 - 4.5	0.5 ft - 0 ft		None

Soil Characterization:

Depth (ft bls)	Description
0-0.5	Concrete slab
0.5-1	Void/air space
1-2	Dark brown tan fine-to-medium sandy silty clay
2-3.5	Tan orange fine-to-medium sandy silty clay
3.5-4.5	Gray orange fine silty clay; stiff

Remarks: A hole was cored through the concrete slab and the soil sample was collected beneath the slab.

Sampling Personnel D. Tomczak

SAMPLE/CORE LOG

ARCADIS G&M Project No. NC101047.0001

Date 8/23/01

Site Location Former Worth Chemical, Durham, North Carolina

Sample ID HA-2

Geoprobe™ Contractor: Regional Probing Services

Soil Boring Data:

Top of Surface Elevation <u>N/A</u>	Total Boring Depth <u>3.5 ft</u>
-------------------------------------	----------------------------------

Sampling Data:

Interval No.	Interval (ft bls)	Core Recovery	Time Sampled	Laboratory Analyses
1	0 - 3.5	2 ft - 1.5 ft	12:15	VOCs

Soil Characterization:

Depth (ft bls)	Description
0-1	Concrete slab
1-2	Gray red brown fine-to-medium sandy silty clay
2-3	Orange tan fine-to-medium silty clayey sand
3-3.5	Orange tan fine-to-medum silty clayey sand

Remarks: A hole was cored through the concrete slab and the soil sample was collected beneath the slab.

Sampling Personnel D. Tomczak



ARCADIS

**Soil and Groundwater
Assessment Report**

APPENDIX B

**Monitor Well
Construction Logs**

WELL CONSTRUCTION RECORD

North Carolina – Department of Environmental and Natural Resources – Division of Water Quality – Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) MIKE MCCONAHEY CERTIFICATION # 2402

WELL CONTRACTOR COMPANY NAME GEOLOGIC EXPLORATION, INC. PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# _____ ASSOCIATED WQ PERMIT# _____
(if applicable) (if applicable)

1. WELL USE (Check Applicable Box): Residential Municipal/Public Industrial Agricultural
Monitoring Recovery Heat Pump Water Injection Other If Other, list Use _____

2. WELL LOCATION:
Nearest Town: DURHAM County DURHAM
2418 EAST PETTIGREW STREET
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
 Ridge Slope Valley Flat
(check appropriate box)
Latitude/longitude of well location _____

3. OWNER: BRENTAG SOUTHEAST, INC.
Address 2000 EAST PETTIGREW STREET
(Street or Route No.)
DURHAM NC 27703
City or Town State Zip Code
()
Area Code – Phone Number _____

(degrees/minutes/seconds)
Latitude/longitude source: GPS Topographic map
(check box)

DEPTH		DRILLING LOG
From	To	Formation Description
0.0	1.0	CONCRETE / GRAVEL
1.0	4.0	YELLOW CLAY
4.0	13.0	RED CLAY / MUDSTONE
13.0	25.0	MUDSTONE

4. DATE DRILLED 10-03-01
5. TOTAL DEPTH: 25.0 FEET
6. DOES WELL REPLACE EXISTING WELL? YES NO
7. STATIC WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)

8. TOP OF CASING IS 0.0 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.

9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A

11. DISINFECTION: Type N/A Amount _____
12. CASING: _____
Wall Thickness _____

From	To	Depth	Diameter	or Weight/Ft.	Material
From <u>0.0</u>	To <u>5.0</u>	Ft.	<u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
From _____	To _____	Ft.	_____	_____	_____
From _____	To _____	Ft.	_____	_____	_____

From	To	Depth	Material	Method
From <u>0.0</u>	To <u>1.0</u>	Ft.	<u>Portland Bentonite</u>	<u>Slurry</u>
From _____	To _____	Ft.	_____	_____

From	To	Depth	Diameter	Slot Size	Material
From <u>5.0</u>	To <u>25.0</u>	Ft.	<u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
From _____	To _____	Ft.	_____	_____	_____

From	To	Depth	Size	Material
From <u>3.0</u>	To <u>25.0</u>	Ft.	<u>20-40</u>	<u>FINE SILICA SAND</u>
From _____	To _____	Ft.	_____	_____

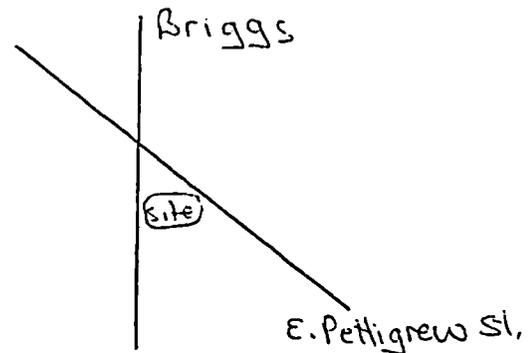
16. REMARKS: MW-1 BENTONITE SEAL FROM 1.0 TO 3.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Mike McConahey
SIGNATURE OF PERSON CONSTRUCTING THE WELL

10/15/01
DATE

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads, incuded the road numbers and common road names.



WELL CONSTRUCTION RECORD

North Carolina – Department of Environmental and Natural Resources – Division of Water Quality – Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) MIKE MCCONAHEY CERTIFICATION # 2402

WELL CONTRACTOR COMPANY NAME GEOLOGIC EXPLORATION, INC. PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# _____ ASSOCIATED WQ PERMIT# _____
(if applicable) (if applicable)

1. WELL USE (Check Applicable Box): Residential Municipal/Public Industrial Agricultural
Monitoring Recovery Heat Pump Water Injection Other If Other, list Use _____

2. WELL LOCATION:
- Nearest Town: DURHAM County DURHAM
2418 EAST PETTIGREW STREET
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
 Ridge Slope Valley Flat
(check appropriate box)
Latitude/longitude of well location _____

3. OWNER: BRENNTAG SOUTHEAST, INC.
Address 2000 EAST PETTIGREW STREET
(Street or Route No.)
DURHAM NC 27703
City or Town State Zip Code
()
Area Code - Phone Number _____

(degrees/minutes/seconds)
Latitude/longitude source: GPS Topographic map
(check box)

DEPTH		DRILLING LOG
From	To	Formation Description
0.0	1.0	CONCRETE / GRAVEL
1.0	4.0	YELLOW CLAY
4.0	13.0	RED CLAY / MUDSTONE
13.0	30.0	MUDSTONE

4. DATE DRILLED 10-03-01

5. TOTAL DEPTH: 28.5 FEET

6. DOES WELL REPLACE EXISTING WELL? YES NO

7. STATIC WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)

8. TOP OF CASING IS 0.0 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.

9. YIELD (gpm): N/A METHOD OF TEST N/A

10. WATER ZONES (depth): N/A

11. DISINFECTION: Type N/A Amount _____

12. CASING: Wall Thickness

From	To	Depth	Diameter	or Weight/Ft.	Material
0.0	8.5	Ft.	2 INCH	SCH 40	PVC

13. Grout: Depth Material Method

From	To	Depth	Material	Method
0.0	4.5	Ft.	Portland Bentonite	Slurry

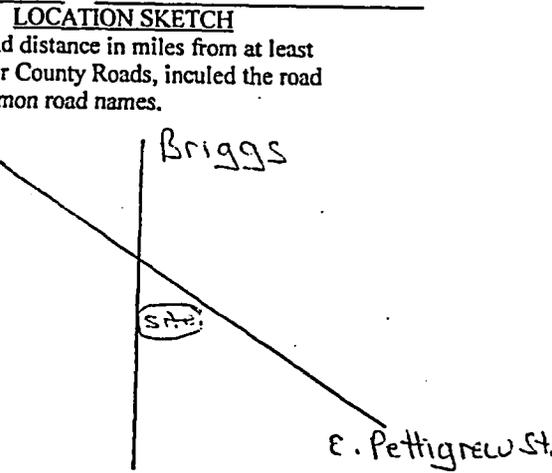
14. SCREEN: Depth Diameter Slot Size Material

From	To	Depth	Diameter	Slot Size	Material
8.5	28.5	Ft.	2.0 in.	.010 in.	PVC

15. SAND/GRAVEL PACK: Depth Size Material

From	To	Depth	Size	Material
6.5	28.5	Ft.	20-40	FINE SILICA SAND

16. REMARKS: MW-2 BENTONITE SEAL FROM 4.5 TO 6.5 FEET



I DO HEARBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Mike McConey
SIGNATURE OF PERSON CONSTRUCTING THE WELL

11/15/01
DATE

WELL CONSTRUCTION RECORD

North Carolina – Department of Environmental and Natural Resources – Division of Water Quality – Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) MIKE MCCONAHEY CERTIFICATION # 2402

WELL CONTRACTOR COMPANY NAME GEOLOGIC EXPLORATION, INC. PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# _____ ASSOCIATED WQ PERMIT# _____
(if applicable) (if applicable)

1. WELL USE (Check Applicable Box): Residential Municipal/Public Industrial Agricultural
Monitoring Recovery Heat Pump Water Injection Other If Other, list Use _____

2. WELL LOCATION:
Nearest Town: DURHAM County DURHAM
2418 EAST PETTIGREW STREET
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
 Ridge Slope Valley Flat
(check appropriate box)
Latitude/longitude of well location

3. OWNER: BRENTAG SOUTHEAST, INC.
Address 2000 EAST PETTIGREW STREET
(Street or Route No.)
DURHAM NC 27703
City or Town State Zip Code
()
Area Code - Phone Number _____

(degrees/minutes/seconds)
Latitude/longitude source: GPS Topographic map
(check box)

DEPTH		DRILLING LOG
From	To	Formation Description
0.0	1.0	CONCRETE / GRAVEL
1.0	4.0	YELLOW CLAY
4.0	13.0	RED CLAY / MUDSTONE
13.0	30.0	MUDSTONE

4. DATE DRILLED 10-04-01

5. TOTAL DEPTH: 29.0 FEET

6. DOES WELL REPLACE EXISTING WELL? YES NO

7. STATIC WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)

8. TOP OF CASING IS 0.0 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.

9. YIELD (gpm): N/A METHOD OF TEST N/A

10. WATER ZONES (depth): N/A

11. DISINFECTION: Type N/A Amount _____

12. CASING: Wall Thickness

From	To	Depth	Diameter or Weight/Ft.	Material
From	To	9.0	2 INCH	SCH 40
From	To			PVC
From	To			

13. Grout: Material Method

From	To	Depth	Material	Method
From	To	5.0	Portland Bentonite	Slurry
From	To			

14. SCREEN: Diameter Slot Size Material

From	To	Depth	Diameter	Slot Size	Material
From	To	29.0	2.0 in.	.010 in.	PVC
From	To				

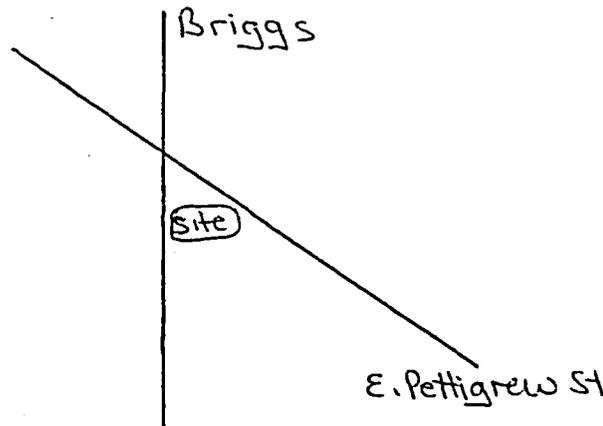
15. SAND/GRAVEL PACK: Size Material

From	To	Depth	Size	Material
From	To	29.0	20-40	FINE SILICA SAND
From	To			

16. REMARKS: MW-4 BENTONITE SEAL FROM 5.0 TO 7.0 FEET

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads, incuded the road numbers and common road names.



I DO HERBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Mike McConey
SIGNATURE OF PERSON CONSTRUCTING THE WELL

11/15/01
DATE

WELL CONSTRUCTION RECORD

North Carolina – Department of Environmental and Natural Resources – Division of Water Quality – Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) MIKE MCCONAHEY CERTIFICATION # 2402

WELL CONTRACTOR COMPANY NAME GEOLOGIC EXPLORATION, INC. PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# _____ ASSOCIATED WQ PERMIT# _____
(if applicable) (if applicable)

1. WELL USE (Check Applicable Box): Residential Municipal/Public Industrial Agricultural
Monitoring Recovery Heat Pump Water Injection Other If Other, list Use _____

2. WELL LOCATION:
Nearest Town: DURHAM County DURHAM
2418 EAST PETTIGREW STREET
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
 Ridge Slope Valley Flat
(check appropriate box)
Latitude/longitude of well location _____

3. OWNER: BRENNTAG SOUTHEAST, INC.
Address 2000 EAST PETTIGREW STREET
(Street or Route No.)

(degrees/minutes/seconds)
Latitude/longitude source: GPS Topographic map
(check box)

DURHAM NC 27703
City or Town State Zip Code
()
Area Code – Phone Number _____

DEPTH		DRILLING LOG
From	To	Formation Description
0.0	1.0	CONCRETE / GRAVEL
1.0	4.0	YELLOW CLAY
4.0	13.0	RED CLAY / MUDSTONE
13.0	30.0	MUDSTONE

4. DATE DRILLED 10-04-01

5. TOTAL DEPTH: 29.0 FEET

6. DOES WELL REPLACE EXISTING WELL? YES NO

7. STATIC WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)

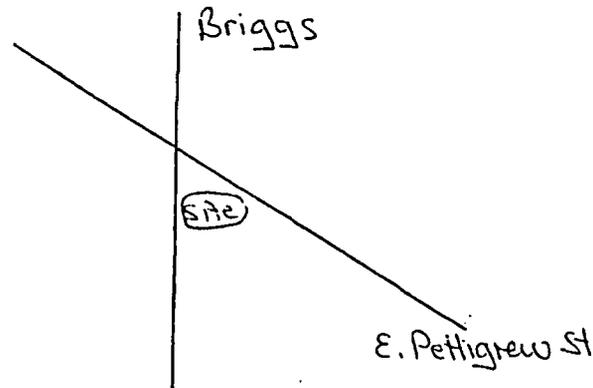
8. TOP OF CASING IS 0.0 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.

9. YIELD (gpm): N/A METHOD OF TEST N/A

10. WATER ZONES (depth): N/A

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads, inculed the road numbers and common road names.



11. DISINFECTION: Type N/A Amount _____

12. CASING: Wall Thickness

From	Depth	To	Diameter	or Weight/Ft.	Material
0.0	9.0	Ft.	2 INCH	SCH 40	PVC

13. Grout: Depth Material Method

From	Depth	To	Material	Method
0.0	5.0	Ft.	Portland Bentonite	Slurry

14. SCREEN: Depth Diameter Slot Size Material

From	Depth	To	Diameter	Slot Size	Material
9.0	29.0	Ft.	2.0 in.	.010 in.	PVC

15. SAND/GRAVEL PACK: Depth Size Material

From	Depth	To	Size	Material
7.0	29.0	Ft.	20-40	FINE SILICA SAND

16. REMARKS: MW-3 BENTONITE SEAL FROM 5.0 TO 7.0 FEET

I DO HEARBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Mike McConey
SIGNATURE OF PERSON CONSTRUCTING THE WELL

11/15/01
DATE

WELL CONSTRUCTION RECORD

RECEIVED
NOV 19 2001
ARCADIS
of North Carolina, Inc.
Raleigh, NC

North Carolina -- Department of Environmental and Natural Resources -- Division of Water Quality -- Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) MIKE MCCONAHEY CERTIFICATION NUMBER _____

WELL CONTRACTOR COMPANY NAME GEOLOGIC EXPLORATION, INC. PHONE # (704) 872-7836

STATE WELL CONSTRUCTION PERMIT# _____ ASSOCIATED WQ PERMIT# _____
(if applicable) (if applicable)

1. WELL USE (Check Applicable Box): Residential Municipal/Public Industrial Agricultural
Monitoring Recovery Heat Pump Water Injection Other If Other, list Use _____

2. WELL LOCATION:
Nearest Town: DURHAM County DURHAM
2418 EAST PETTIGREW STREET
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
 Ridge Slope Valley Flat
(check appropriate box)
Latitude/longitude of well location _____

3. OWNER: BRENTAG SOUTHEAST, INC.
Address 2000 EAST PETTIGREW STREET
(Street or Route No.)
DURHAM NC 27703
City or Town State Zip Code
()
Area Code - Phone Number _____

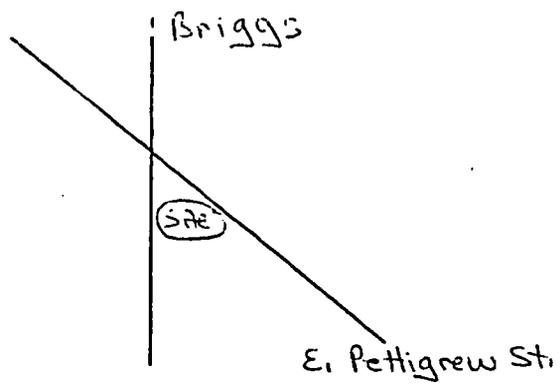
(degrees/minutes/seconds)
Latitude/longitude source: GPS Topographic map
(check box)

DEPTH		DRILLING LOG
From	To	Formation Description
0.0	1.0	CONCRETE / GRAVEL
1.0	4.0	YELLOW CLAY
4.0	13.0	RED CLAY / MUDSTONE
13.0	29.0	MUDSTONE

4. DATE DRILLED 10-04-01
5. TOTAL DEPTH: 27.0 FEET
6. DOES WELL REPLACE EXISTING WELL? YES NO
7. STATIC WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 0.0 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads, include the road numbers and common road names.



11. DISINFECTION: Type N/A Amount _____
12. CASING: _____

From	To	Depth	Wall Thickness		Material
			Diameter	or Weight/Ft.	
0.0	7.0	Ft.	2 INCH	SCH 40	PVC

13. Grout: _____

From	To	Depth	Material	Method
0.0	3.0	Ft.	Portland Bentonite	Slurry

14. SCREEN: _____

From	To	Depth	Diameter	Slot Size	Material
7.0	27.0	Ft.	2.0 in.	.010 in.	PVC

15. SAND/GRAVEL PACK: _____

From	To	Depth	Size	Material
5.0	27.0	Ft.	20-40	FINE SILICA SAND

16. REMARKS: MW-5 BENTONITE SEAL FROM 3.0 TO 5.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Mike McConahey
SIGNATURE OF PERSON CONSTRUCTING THE WELL

11/15/01
DATE

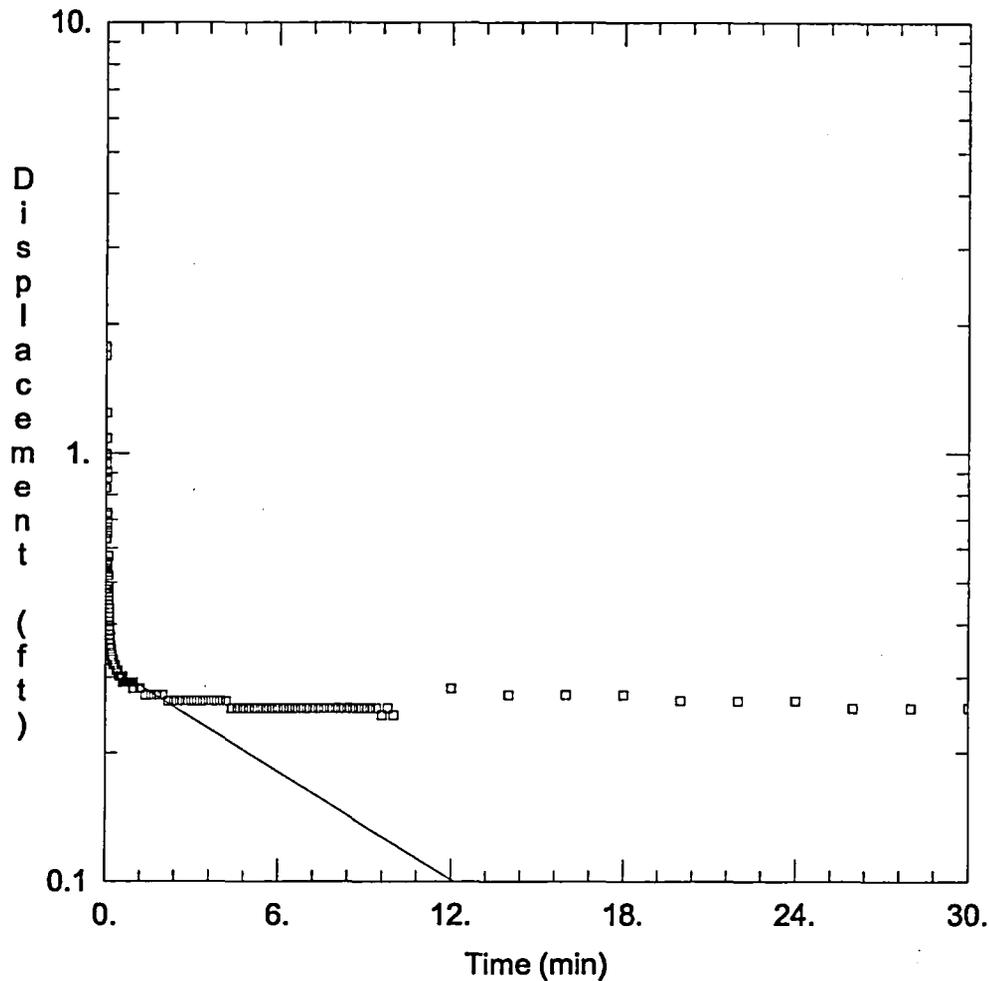


ARCADIS

**Soil and Groundwater
Assessment Report**

APPENDIX C

Slug Test Data Plots



WELL TEST ANALYSIS

Data Set: G:\Env\Worth Chemical\Durham Facility\Slugdata\mw-2out.aqt
 Date: 12/12/01 Time: 15:54:35

PROJECT INFORMATION

Company: ARCADIS G&M, Inc.
 Client: Brenntag Southeast - Worth
 Project: NC101047.0001
 Test Location: Durham, NC
 Test Well: MW-2 Slug Out
 Test Date: 10/23/01

AQUIFER DATA

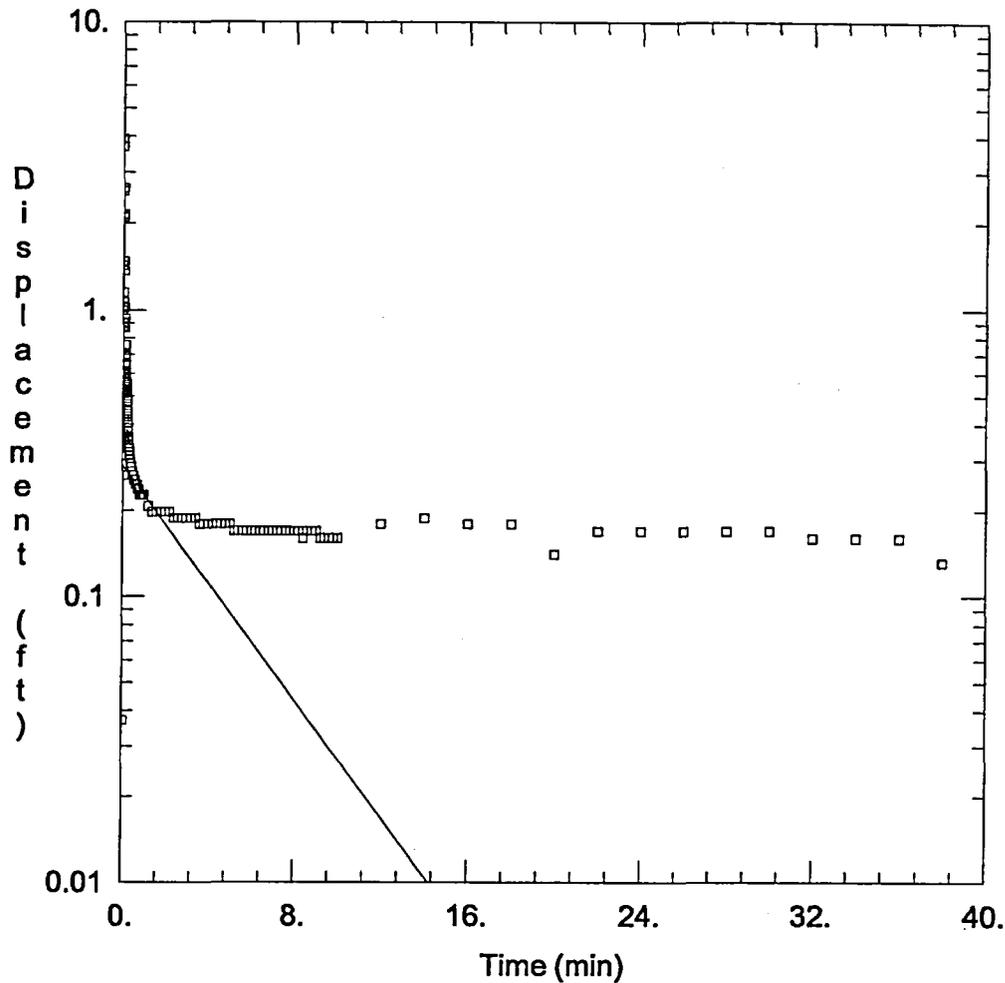
Saturated Thickness: 15.35 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2)

Initial Displacement: 1. ft Water Column Height: 15.35 ft
 Casing Radius: 0.083 ft Wellbore Radius: 0.33 ft
 Screen Length: 20. ft Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 K = 9.998E-05 cm/sec γ_0 = 0.3231 ft



WELL TEST ANALYSIS

Data Set: G:\Env\Worth Chemical\Durham Facility\Slugdata\mw-4out.aqt
 Date: 12/12/01 Time: 15:55:00

PROJECT INFORMATION

Company: ARCADIS G&M, Inc.
 Client: Brenntag Southeast - Worth
 Project: NC101047.0001
 Test Location: Durham, NC
 Test Well: MW-4
 Test Date: 10/25/01

AQUIFER DATA

Saturated Thickness: 15.56 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-4 Slugout)

Initial Displacement: 1. ft Water Column Height: 15.56 ft
 Casing Radius: 0.083 ft Wellbore Radius: 0.33 ft
 Screen Length: 20. ft Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 K = 0.0002436 cm/sec $y_0 =$ 0.287 ft

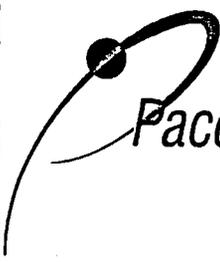


ARCADIS

**Soil and Groundwater
Assessment Report**

APPENDIX D

Soil Analytical Reports



Pace Analytical™

www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078

Phone: 704.875.9092
Fax: 704.875.9091

December 11, 2001

Mr. Jim Shilliday
ARCADIS Geraghty & Miller
2301 Rexwoods Dr.
Suite 200
Raleigh, NC 27607

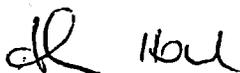
RE: Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Dear Mr. Shilliday:

Enclosed are the analytical results for sample(s) received by the laboratory on August 24, 2001. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,



Sherri Howard
Sherri.Howard@pacelabs.com
Project Manager

Enclosures

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



CASE NARRATIVE

RECEIVED

DEC 12 2001

ARCADIS Geraghty & Miller

Client: ARCADIS

Project #: 9225565

GC/MS Volatiles

- **Hold Time:** All samples were analyzed within holding times by SW846 Method 8260B.
- **Tune / Calibration:** For each day of analysis, the BFB tunes were compliant and the initial calibration was verified with a continuing calibration standard. The calibration check compounds, system performance check compounds, internal standard areas and retention times all met method QC requirements, prior to sample analysis.
- **Method Blanks:** The method blank(s) did not contain any analytes above the reporting limits.
- **Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD):** All recoveries and relative percent differences (RPDs) for the LCS(s) were within control limits.

Exception: The LCS associated with samples 921781142, 921781217, 921781225, 921781233, 921781241, 921781258, 921781266, 921781274, and 921781290 had low recoveries for dichlorodifluoromethane, 2,2-dichloropropane, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene.

The LCS associated with samples 9217481308, 921781316, 921781324, 921781332, 921781340, 921781357, 921781365, and 921781373 had low recoveries for chloromethane, dichlorodifluoromethane, 2,2-dichloropropane, and methyl-tert-butyl ether.

The LCSs and LCSD associated with QC Batch 46080 had low recoveries for benzene, bromomethane, dichlorodifluoromethane, 2,2-dichloropropane and methyl-tert-butyl ether. The LCSs and LCSD exhibited high recoveries for chloroethane and 1,1-dichloroethene; however, the compound was not detected in the associated samples.

The LCS associated with sample 921781456 had high recovery for naphthalene. This compound was not found in the sample.

- **Matrix Spikes (MS):** A matrix spike was analyzed on samples 921781142 and 921781381. All percent recoveries were within control limits.
- **Sample Duplicate:** Duplicate analysis was performed on samples 921781217 and 921779344. Sample 9217793444 was from another client. All RPDs were within acceptance criteria.

Exceptions: 2-Chlorotoluene, cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene did not meet acceptance criteria for sample 921781217.

- **Surrogate Recoveries:** All surrogate recoveries were within method control limits.

Exceptions: 1,2-Dichloroethane-d4 was outside of acceptance criteria (low recovery) for sample(s) GP-1 (2.5-4FT) (921781142), GP-4 (2-4FT) (921781217), GP-5 (2-4FT) (921781225), GP-6 (2-4FT) (921781233), GP-7 (2-4FT) (921781241), GP-8 (2-4FT) (921781258), GP-9 (2-4FT) (921781266), GP-10 (2-4FT) (921781274), GP-12 (2-3.5FT) (921781290) GP-13 (2-4FT) (921781308), GP-16 (1-3FT) (921781332), the matrix spike on sample 921781142, the sample duplicate for sample 921781217, and the LCS for QC Batch 46006.

The recovery for toluene-d8 was low in sample(s) GP-14 (0.5-2FT) (921781316) and high in sample(s) GP-15 (2-4FT) (921781324), GP-17 (2-4FT) (921781340), and HA-3 (2-3FT) (921781431).

The recovery for dibromofluoromethane was low in sample(s) HA-3 (2-3FT) (921781431).

Samples GP-22 (2-4FT) (92181399) and HA-3 (2-3FT) (921781431) required dilutions to obtain acceptable results for some compounds. The surrogate recoveries from the diluted analyses were within acceptance criteria.

Additional Comments:

Several compounds, acetone, 2-butanone (MEK) and 4-methyl-2-pentanone (MIBK), were added to the compound list after analysis of the samples. Although this may seem like a simple process, it is not. All data previously reported must be reentered into the laboratory information management system (LIMS). In some instances, the data in the original report was entered incorrectly and in other instances the results were entered incorrectly when adding the additional compounds. The results that changed between the original report and the reissued report are listed below along with applicable notes to help you in discerning any affects these errors may have had on you.

Sample ID	Compound	Original	Reissued	Correct	Notes
921781308	1,1-dichloroethene	5.3 µg/Kg	6.0 µg/Kg	6.0 µg/Kg	In the original report, the amount of sample used for analysis had been entered incorrectly.
	Tetrachloroethane	17 µg/Kg	20 µg/Kg	20 µg/Kg	In the original report, the amount of sample used for analysis had been entered incorrectly.
921781365	Tetrachloroethene	14 µg/Kg	< 5.3 µg/Kg	14 µg/Kg	In reviewing the data, the original results are the results that should be reported.
921781373	Acetone	—	1000 µg/Kg	900 µg/Kg	In the reissued report, the amount of sample used for analysis had been

Sample ID	Compound	Original	Reissued	Correct	Notes
					entered incorrectly.
921781373	Chloroform	1100 µg/Kg	1300 µg/Kg	1100 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	1,2-Dichlorobenzene	19 µg/Kg	22 µg/Kg	19 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	1,1-Dichloroethene	6.4 µg/Kg	7.3 µg/Kg	6.4 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	Naphthalene	16 µg/Kg	18 µg/Kg	16 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	Tetrachloroethene	1700 µg/Kg	1900 µg/Kg	1700 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	Toluene	1700 µg/Kg	1900 µg/Kg	1700 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	1,2,4-Trichlorobenzene	550 µg/Kg	630 µg/Kg	550 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	1,1,1-Trichloroethane	14 µg/Kg	16 µg/Kg	14 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	Trichloroethene	13 µg/Kg	15 µg/Kg	13 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.

921781373	1,2,4-Trimethylbenzene	13 µg/Kg	15 µg/Kg	13 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
	1,3,5-Trimethylbenzene	5.1 µg/Kg	5.8 µg/Kg	5.1 µg/Kg	In the reissued report, the amount of sample used for analysis had been entered incorrectly.
921781399	Methylene chloride	1000 µg/Kg (Results from 1X dilution)	2100 µg/Kg (Results from 50X dilution)	2100 µg/Kg	Original results should have been reported from the 50X dilution.
921781431	Methylene chloride	< 6.3 µg/Kg (Results from 1X dilution)	1700 µg/Kg (Results from 50X dilution)	< 6.3 µg/Kg	In reviewing the data, the results from the 1X run are the results that should be reported.
921781456	1,1-Dichloroethene	< 4.5 µg/Kg	5.0 µg/Kg	5.0 µg/Kg	The data validator made an error in calling this compound non-detect in the original report.

Diluted sample runs were not performed on the same day as the 1X run. The 50X analysis was performed on September 6, 2001 and the 100X run was performed on September 7, 2001. The LCSs analyzed on September 6 and 7, 2001 had acceptable results.

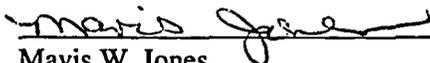
The laboratory used the surrogate limits from the method, which are supplied as guidance until in-house limits are generated. We are in the process of generating in-house limits. The method limits are as follows:

Surrogate Compound	Soil/Sediment Limits (% Recovery)
Dibromofluoromethane	80-120
1,2-Dichloroethane-d4	80-120
Toluene-d8	81-117
4-Bromofluorobenzene	74-121

With regard to your question about why some compounds are not reported for the method blank, I will attempt to explain how our LIMS system operates. When a batch is initially set up, the LIMS system links the method blank to the requested analyses for samples in that batch. If at a later date, additional compounds are added, the system is not able to go back and establish a link to the additional compounds. Therefore, any compounds that were added after the analysis had already completed will not be included in the report. With regards to the sample duplicate, the reported results are dependent on which sample was duplicated and the analysis requested for that sample. One of the samples used for duplication with this project was an Arcadis sample. When the additional compounds were added, the analyst inadvertently overlooked adding the additional compounds to the sample duplicate. At this point, the way that our LIMS system operates, we would have to reenter all results for the sample duplicate plus all samples that were associated with this particular sample duplicate in order for the additional compounds to be included in the data report. I reviewed the results from the sample duplicate, and the results for acetone, MEK, and MIBK for the sample duplicate of 921781217 would be reported as ND.

QC results in the data report are associated with the undiluted sample runs.

This data package has been reviewed for quality and completeness and has been approved for release.


Mavis W. Jones
Quality Assurance Officer

ARCADIS Geraghty & Miller
2301 Rexwoods Dr.
Suite 200
Raleigh, NC 27607

Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Attn: Mr. Jim Shilliday
Phone: (919)782-5511

Solid results are reported on a dry weight basis

Lab Sample No: 921781142 Project Sample Number: 9225565-001 Date Collected: 08/23/01 09:30
Client Sample ID: GP-1 (2.5-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	11.9	%		0.9	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level Prep/Method: EPA 8260 / EPA 8260

Compound	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	95.	0.8	08/27/01 13:01	RPJ 67-64-1		
Benzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 71-43-2		
Bromobenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 108-86-1		
Bromochloromethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 74-97-5		
Bromodichloromethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 75-27-4		
Bromoform	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 75-25-2		
Bromomethane	ND	ug/kg	9.5	0.8	08/27/01 13:01	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/kg	95.	0.8	08/27/01 13:01	RPJ 78-93-3		
n-Butylbenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 56-23-5		
Chlorobenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 108-90-7		
Chloroethane	ND	ug/kg	9.5	0.8	08/27/01 13:01	RPJ 75-00-3		
Chloroform	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 67-66-3		
Chloromethane	ND	ug/kg	9.5	0.8	08/27/01 13:01	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 96-12-8		
Dibromochloromethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 106-93-4		
Dibromomethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 541-73-1		

Date: 12/11/01

Page: 1

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781142 Project Sample Number: 9225565-001 Date Collected: 08/23/01 09:30
Client Sample ID: GP-1 (2.5-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,4-Dichlorobenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/kg	9.5	0.8	08/27/01 13:01	RPJ 75-71-8		
1,1-Dichloroethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 75-34-3		
1,2-Dichloroethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 107-06-2		
1,1-Dichloroethene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 75-35-4		
cis-1,2-Dichloroethene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 78-87-5		
1,3-Dichloropropane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	48.	0.8	08/27/01 13:01	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 103-65-1		
Styrene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 79-34-5		
Tetrachloroethene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 127-18-4		
Toluene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	9.5	0.8	08/27/01 13:01	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	9.5	0.8	08/27/01 13:01	RPJ		
o-Xylene	ND	ug/kg	4.8	0.8	08/27/01 13:01	RPJ 95-47-6		

Date: 12/11/01

Page: 2

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781142 Project Sample Number: 9225565-001 Date Collected: 08/23/01 09:30
Client Sample ID: GP-1 (2.5-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Toluene-d8 (S)	96	%		1.0	08/27/01 13:01	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	98	%		1.0	08/27/01 13:01	RPJ 460-00-4		
Dibromofluoromethane (S)	89	%		1.0	08/27/01 13:01	RPJ		
1,2-Dichloroethane-d4 (S)	74	%		1.0	08/27/01 13:01	RPJ 17060-07-0	1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781159 Project Sample Number: 9225565-002 Date Collected: 08/23/01 09:58
 Client Sample ID: GP-2 (2-3.5FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	16.4	%		0.8	08/28/01	AST		

GC Semivolatiles

TPH in Soil by 3550/8015	Prep/Method: EPA 3550 / EPA 8015							
Diesel Fuel	9.2	mg/kg	6.0	1.0	08/30/01 08:17	BCK 68334-30-5		
n-Pentacosane (S)	86	%		1.0	08/30/01 08:17	BCK 629-99-2		
Date Extracted					08/28/01			

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.





Pace Analytical Services, Inc.
 9800 Kincey Avenue, Suite 100
 Huntersville, NC 28078
 Phone: 704.875.9092
 Fax: 704.875.9091

Lab Project Number: 9225565
 Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781167 Project Sample Number: 9225565-003 Date Collected: 08/23/01 10:23
 Client Sample ID: GP-3 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Fnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	-------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	13.6	%		0.9	08/28/01	AST		

GC Semivolatiles

TPH in Soil by 3550/8015	Prep/Method: EPA 3550 / EPA 8015							
Diesel Fuel	11.	mg/kg	5.8	1.0	08/30/01 08:48	BCK 68334-30-5		
n-Pentacosane (S)	177	%		1.0	08/30/01 08:48	BCK 629-99-2	2	
Date Extracted					08/28/01			

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781217 Project Sample Number: 9225565-004 Date Collected: 08/22/01 09:25
Client Sample ID: GP-4 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	22.3	%		0.8	08/28/01		AST	

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone		ND	ug/kg	130	1.0	08/27/01 13:32	RPJ 67-64-1		
Benzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 71-43-2		
Bromobenzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 108-86-1		
Bromochloromethane		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 74-97-5		
Bromodichloromethane		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 75-27-4		
Bromoform		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 75-25-2		
Bromomethane		ND	ug/kg	13.	1.0	08/27/01 13:32	RPJ 74-83-9		
2-Butanone (MEK)		ND	ug/kg	130	1.0	08/27/01 13:32	RPJ 78-93-3		
n-Butylbenzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 104-51-8		
sec-Butylbenzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 135-98-8		
tert-Butylbenzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 98-06-6		
Carbon tetrachloride		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 56-23-5		
Chlorobenzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 108-90-7		
Chloroethane		ND	ug/kg	13.	1.0	08/27/01 13:32	RPJ 75-00-3		
Chloroform		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 67-66-3		
Chloromethane		ND	ug/kg	13.	1.0	08/27/01 13:32	RPJ 74-87-3		
2-Chlorotoluene		200	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 95-49-8		
4-Chlorotoluene		21.	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 96-12-8		
Dibromochloromethane		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 124-48-1		
1,2-Dibromoethane (EDB)		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 106-93-4		
Dibromomethane		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 74-95-3		
1,2-Dichlorobenzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 95-50-1		
1,3-Dichlorobenzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 541-73-1		
1,4-Dichlorobenzene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 106-46-7		
Dichlorodifluoromethane		ND	ug/kg	13.	1.0	08/27/01 13:32	RPJ 75-71-8		
1,1-Dichloroethane		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 75-34-3		
1,2-Dichloroethane		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 107-06-2		
1,1-Dichloroethene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 75-35-4		
cis-1,2-Dichloroethene		9.6	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 156-59-2		
trans-1,2-Dichloroethene		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 156-60-5		
1,2-Dichloropropane		ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 78-87-5		

Date: 12/11/01

Page: 6

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781217
 Client Sample ID: GP-4 (2-4FT)

Project Sample Number: 9225565-004
 Matrix: Soil

Date Collected: 08/22/01 09:25
 Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	66.	1.0	08/27/01 13:32	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 103-65-1		
Styrene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 79-34-5		
Tetrachloroethene	29.	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 127-18-4		
Toluene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 79-00-5		
Trichloroethene	47.	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	13.	1.0	08/27/01 13:32	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	13.	1.0	08/27/01 13:32	RPJ		
o-Xylene	ND	ug/kg	6.6	1.0	08/27/01 13:32	RPJ 95-47-6		
Toluene-d8 (S)	99	%		1.0	08/27/01 13:32	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	107	%		1.0	08/27/01 13:32	RPJ 460-00-4		
Dibromofluoromethane (S)	86	%		1.0	08/27/01 13:32	RPJ		
1,2-Dichloroethane-d4 (S)	75	%		1.0	08/27/01 13:32	RPJ 17060-07-0	1	

Date: 12/11/01

Page: 7

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781225 Project Sample Number: 9225565-005 Date Collected: 08/22/01 09:55
Client Sample ID: GP-5 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	9.4	%		0.9	08/28/01		AST	

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone		ND	ug/kg	120	1.1	08/27/01 14:33	RPJ 67-64-1		
Benzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 71-43-2		
Bromobenzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 108-86-1		
Bromochloromethane		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 74-97-5		
Bromodichloromethane		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 75-27-4		
Bromoform		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 75-25-2		
Bromomethane		ND	ug/kg	12.	1.1	08/27/01 14:33	RPJ 74-83-9		
2-Butanone (MEK)		ND	ug/kg	120	1.1	08/27/01 14:33	RPJ 78-93-3		
n-Butylbenzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 104-51-8		
sec-Butylbenzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 135-98-8		
tert-Butylbenzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 98-06-6		
Carbon tetrachloride		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 56-23-5		
Chlorobenzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 108-90-7		
Chloroethane		ND	ug/kg	12.	1.1	08/27/01 14:33	RPJ 75-00-3		
Chloroform		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 67-66-3		
Chloromethane		ND	ug/kg	12.	1.1	08/27/01 14:33	RPJ 74-87-3		
2-Chlorotoluene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 95-49-8		
4-Chlorotoluene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 96-12-8		
Dibromochloromethane		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 124-48-1		
1,2-Dibromoethane (EDB)		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 106-93-4		
Dibromomethane		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 74-95-3		
1,2-Dichlorobenzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 95-50-1		
1,3-Dichlorobenzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 541-73-1		
1,4-Dichlorobenzene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 106-46-7		
Dichlorodifluoromethane		ND	ug/kg	12.	1.1	08/27/01 14:33	RPJ 75-71-8		
1,1-Dichloroethane		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 75-34-3		
1,2-Dichloroethane		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 107-06-2		
1,1-Dichloroethene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 75-35-4		
cis-1,2-Dichloroethene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 156-59-2		
trans-1,2-Dichloroethene		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 156-60-5		
1,2-Dichloropropane		ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 78-87-5		

Date: 12/11/01

Page: 8

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781225
 Client Sample ID: GP-5 (2-4FT)

Project Sample Number: 9225565-005
 Matrix: Soil

Date Collected: 08/22/01 09:55
 Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	61.	1.1	08/27/01 14:33	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 103-65-1		
Styrene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 79-34-5		
Tetrachloroethene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 127-18-4		
Toluene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	12.	1.1	08/27/01 14:33	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	12.	1.1	08/27/01 14:33	RPJ		
o-Xylene	ND	ug/kg	6.1	1.1	08/27/01 14:33	RPJ 95-47-6		
Toluene-d8 (S)	99	%		1.0	08/27/01 14:33	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	107	%		1.0	08/27/01 14:33	RPJ 460-00-4		
Dibromofluoromethane (S)	86	%		1.0	08/27/01 14:33	RPJ		
1,2-Dichloroethane-d4 (S)	74	%		1.0	08/27/01 14:33	RPJ 17060-07-0	1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781233 Project Sample Number: 9225565-006 Date Collected: 08/22/01 10:19
Client Sample ID: GP-6 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	15.2	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	110	1.0	08/27/01 15:04	RPJ	67-64-1		
Benzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	71-43-2		
Bromobenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	108-86-1		
Bromochloromethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	74-97-5		
Bromodichloromethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	75-27-4		
Bromoform	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	75-25-2		
Bromomethane	ND	ug/kg	11.	1.0	08/27/01 15:04	RPJ	74-83-9		
2-Butanone (MEK)	ND	ug/kg	110	1.0	08/27/01 15:04	RPJ	78-93-3		
n-Butylbenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	104-51-8		
sec-Butylbenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	135-98-8		
tert-Butylbenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	98-06-6		
Carbon tetrachloride	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	56-23-5		
Chlorobenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	108-90-7		
Chloroethane	ND	ug/kg	11.	1.0	08/27/01 15:04	RPJ	75-00-3		
Chloroform	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	67-66-3		
Chloromethane	ND	ug/kg	11.	1.0	08/27/01 15:04	RPJ	74-87-3		
2-Chlorotoluene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	95-49-8		
4-Chlorotoluene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	96-12-8		
Dibromochloromethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	106-93-4		
Dibromomethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	106-46-7		
Dichlorodifluoromethane	ND	ug/kg	11.	1.0	08/27/01 15:04	RPJ	75-71-8		
1,1-Dichloroethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	75-34-3		
1,2-Dichloroethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	107-06-2		
1,1-Dichloroethene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	75-35-4		
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	156-60-5		
1,2-Dichloropropane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ	78-87-5		

Date: 12/11/01

Page: 10

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

 Lab Sample No: 921781233
 Client Sample ID: GP-6 (2-4FT)

 Project Sample Number: 9225565-006
 Matrix: Soil

 Date Collected: 08/22/01 10:19
 Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.	1.0	08/27/01 15:04	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 103-65-1		
Styrene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 79-34-5		
Tetrachloroethene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 127-18-4		
Toluene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	11.	1.0	08/27/01 15:04	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	11.	1.0	08/27/01 15:04	RPJ		
o-Xylene	ND	ug/kg	5.7	1.0	08/27/01 15:04	RPJ 95-47-6		
Toluene-d8 (S)	98	%		1.0	08/27/01 15:04	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	105	%		1.0	08/27/01 15:04	RPJ 460-00-4		
Dibromofluoromethane (S)	88	%		1.0	08/27/01 15:04	RPJ		
1,2-Dichloroethane-d4 (S)	74	%		1.0	08/27/01 15:04	RPJ 17060-07-0	1	

Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781241 Project Sample Number: 9225565-007 Date Collected: 08/22/01 10:42
Client Sample ID: GP-7 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	12.9	%		0.9	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	110		1.0	08/27/01 15:35	RPJ	67-64-1	
Benzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	71-43-2	
Bromobenzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	108-86-1	
Bromochloromethane	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	75-27-4	
Bromoform	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	75-25-2	
Bromomethane	ND	ug/kg	11.		1.0	08/27/01 15:35	RPJ	74-83-9	
2-Butanone (MEK)	ND	ug/kg	110		1.0	08/27/01 15:35	RPJ	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	56-23-5	
Chlorobenzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	108-90-7	
Chloroethane	ND	ug/kg	11.		1.0	08/27/01 15:35	RPJ	75-00-3	
Chloroform	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	67-66-3	
Chloromethane	ND	ug/kg	11.		1.0	08/27/01 15:35	RPJ	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	106-93-4	
Dibromomethane	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.		1.0	08/27/01 15:35	RPJ	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5		1.0	08/27/01 15:35	RPJ	78-87-5	

Date: 12/11/01

Page: 12

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781241
Client Sample ID: GP-7 (2-4FT)

Project Sample Number: 9225565-007
Matrix: Soil

Date Collected: 08/22/01 10:42
Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.	1.0	08/27/01 15:35	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 103-65-1		
Styrene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 630-20-6		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 79-34-5		
Tetrachloroethene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 127-18-4		
Toluene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	11.	1.0	08/27/01 15:35	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	11.	1.0	08/27/01 15:35	RPJ		
o-Xylene	ND	ug/kg	5.5	1.0	08/27/01 15:35	RPJ 95-47-6		
Toluene-d8 (S)	99	%		1.0	08/27/01 15:35	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	107	%		1.0	08/27/01 15:35	RPJ 460-00-4		
Dibromofluoromethane (S)	87	%		1.0	08/27/01 15:35	RPJ		
1,2-Dichloroethane-d4 (S)	73	%		1.0	08/27/01 15:35	RPJ 17060-07-0	1	

Date: 12/11/01

Page: 13

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781258 Project Sample Number: 9225565-008 Date Collected: 08/22/01 11:15
Client Sample ID: GP-8 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	16.7	%		0.8	08/28/01		AST	

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone		ND	ug/kg	110	0.9	08/27/01 16:05	RPJ 67-64-1		
Benzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 71-43-2		
Bromobenzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 108-86-1		
Bromochloromethane		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 74-97-5		
Bromodichloromethane		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 75-27-4		
Bromoform		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 75-25-2		
Bromomethane		ND	ug/kg	11.	0.9	08/27/01 16:05	RPJ 74-83-9		
2-Butanone (MEK)		ND	ug/kg	110	0.9	08/27/01 16:05	RPJ 78-93-3		
n-Butylbenzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 104-51-8		
sec-Butylbenzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 135-98-8		
tert-Butylbenzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 98-06-6		
Carbon tetrachloride		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 56-23-5		
Chlorobenzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 108-90-7		
Chloroethane		ND	ug/kg	11.	0.9	08/27/01 16:05	RPJ 75-00-3		
Chloroform		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 67-66-3		
Chloromethane		ND	ug/kg	11.	0.9	08/27/01 16:05	RPJ 74-87-3		
2-Chlorotoluene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 95-49-8		
4-Chlorotoluene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 96-12-8		
Dibromochloromethane		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 124-48-1		
1,2-Dibromoethane (EDB)		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 106-93-4		
Dibromomethane		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 74-95-3		
1,2-Dichlorobenzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 95-50-1		
1,3-Dichlorobenzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 541-73-1		
1,4-Dichlorobenzene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 106-46-7		
Dichlorodifluoromethane		ND	ug/kg	11.	0.9	08/27/01 16:05	RPJ 75-71-8		
1,1-Dichloroethane		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 75-34-3		
1,2-Dichloroethane		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 107-06-2		
1,1-Dichloroethene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 75-35-4		
cis-1,2-Dichloroethene		21.	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 156-59-2		
trans-1,2-Dichloroethene		ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 156-60-5		
1,2-Dichloropropane		5.4	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 78-87-5		

Date: 12/11/01

Page: 14

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781258
Client Sample ID: GP-8 (2-4FT)

Project Sample Number: 9225565-008
Matrix: Soil

Date Collected: 08/22/01 11:15
Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.	0.9	08/27/01 16:05	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 103-65-1		
Styrene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 79-34-5		
Tetrachloroethene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 127-18-4		
Toluene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	11.	0.9	08/27/01 16:05	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	11.	0.9	08/27/01 16:05	RPJ		
o-Xylene	ND	ug/kg	5.3	0.9	08/27/01 16:05	RPJ 95-47-6		
Toluene-d8 (S)	98	%		1.0	08/27/01 16:05	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	107	%		1.0	08/27/01 16:05	RPJ 460-00-4		
Dibromofluoromethane (S)	87	%		1.0	08/27/01 16:05	RPJ		
1,2-Dichloroethane-d4 (S)	74	%		1.0	08/27/01 16:05	RPJ 17060-07-0	1	

Date: 12/11/01

Page: 15

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781266 Project Sample Number: 9225565-009 Date Collected: 08/22/01 11:50
Client Sample ID: GP-9 (1-3FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	15.5	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
Acetone	390	ug/kg	110	1.0	08/27/01 16:36	RPJ	67-64-1		
Benzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	71-43-2		
Bromobenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	108-86-1		
Bromochloromethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	74-97-5		
Bromodichloromethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	75-27-4		
Bromoform	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	75-25-2		
Bromomethane	ND	ug/kg	11.	1.0	08/27/01 16:36	RPJ	74-83-9		
2-Butanone (MEK)	310	ug/kg	110	1.0	08/27/01 16:36	RPJ	78-93-3		
n-Butylbenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	104-51-8		
sec-Butylbenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	135-98-8		
tert-Butylbenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	98-06-6		
Carbon tetrachloride	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	56-23-5		
Chlorobenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	108-90-7		
Chloroethane	ND	ug/kg	11.	1.0	08/27/01 16:36	RPJ	75-00-3		
Chloroform	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	67-66-3		
Chloromethane	ND	ug/kg	11.	1.0	08/27/01 16:36	RPJ	74-87-3		
2-Chlorotoluene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	95-49-8		
4-Chlorotoluene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	96-12-8		
Dibromochloromethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	106-93-4		
Dibromomethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	106-46-7		
Dichlorodifluoromethane	ND	ug/kg	11.	1.0	08/27/01 16:36	RPJ	75-71-8		
1,1-Dichloroethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	75-34-3		
1,2-Dichloroethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	107-06-2		
1,1-Dichloroethene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	75-35-4		
cis-1,2-Dichloroethene	11.	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	156-60-5		
1,2-Dichloropropane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ	78-87-5		

Date: 12/11/01

Page: 16

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
 Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781266 Project Sample Number: 9225565-009 Date Collected: 08/22/01 11:50
 Client Sample ID: GP-9 (1-3FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results.	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	120	ug/kg	56.	1.0	08/27/01 16:36	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 103-65-1		
Styrene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 79-34-5		
Tetrachloroethene	48.	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 127-18-4		
Toluene	11.	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 79-00-5		
Trichloroethene	21.	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	11.	1.0	08/27/01 16:36	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	11.	1.0	08/27/01 16:36	RPJ		
o-Xylene	ND	ug/kg	5.6	1.0	08/27/01 16:36	RPJ 95-47-6		
Toluene-d8 (S)	97	%		1.0	08/27/01 16:36	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	107	%		1.0	08/27/01 16:36	RPJ 460-00-4		
Dibromofluoromethane (S)	86	%		1.0	08/27/01 16:36	RPJ		
1,2-Dichloroethane-d4 (S)	75	%		1.0	08/27/01 16:36	RPJ 17060-07-0	1	



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781274 Project Sample Number: 9225565-010 Date Collected: 08/22/01 14:14
Client Sample ID: GP-10 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	18.0	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote
Acetone	2000	ug/kg	110	0.9	08/27/01 17:07	RPJ	67-64-1	3
Benzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	71-43-2	
Bromobenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	75-27-4	
Bromoform	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	75-25-2	
Bromomethane	ND	ug/kg	11.	0.9	08/27/01 17:07	RPJ	74-83-9	
2-Butanone (MEK)	850	ug/kg	110	0.9	08/27/01 17:07	RPJ	78-93-3	3
n-Butylbenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	98-06-6	
Carbon tetrachloride	6.4	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	108-90-7	
Chloroethane	ND	ug/kg	11.	0.9	08/27/01 17:07	RPJ	75-00-3	
Chloroform	31.	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	67-66-3	
Chloromethane	ND	ug/kg	11.	0.9	08/27/01 17:07	RPJ	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	106-93-4	
Dibromomethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	74-95-3	
1,2-Dichlorobenzene	36.	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.	0.9	08/27/01 17:07	RPJ	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	75-35-4	
cis-1,2-Dichloroethene	78.	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	156-60-5	
1,2-Dichloropropane	8.6	ug/kg	5.7	0.9	08/27/01 17:07	RPJ	78-87-5	

Date: 12/11/01

Page: 18

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781274 Project Sample Number: 9225565-010 Date Collected: 08/22/01 14:14
Client Sample ID: GP-10 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 108-20-3		
Ethylbenzene	9.3	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 99-87-6		
Methylene chloride	11.	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	1300	ug/kg	57.	0.9	08/27/01 17:07	RPJ 108-10-1	3	
Methyl-tert-butyl ether	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 103-65-1		
Styrene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	6.1	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 79-34-5		
Tetrachloroethane	170	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 127-18-4		
Toluene	78.	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 79-00-5		
Trichloroethene	420	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 79-01-6	3	
Trichlorofluoromethane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	11.	0.9	08/27/01 17:07	RPJ 75-01-4		
m&p-Xylene	32.	ug/kg	11.	0.9	08/27/01 17:07	RPJ		
o-Xylene	17.	ug/kg	5.7	0.9	08/27/01 17:07	RPJ 95-47-6		
Toluene-d8 (S)	98	μ		1.0	08/27/01 17:07	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	106	μ		1.0	08/27/01 17:07	RPJ 460-00-4		
Dibromofluoromethane (S)	88	μ		1.0	08/27/01 17:07	RPJ		
1,2-Dichloroethane-d4 (S)	76	μ		1.0	08/27/01 17:07	RPJ 17060-07-0	1	

Date: 12/11/01

Page: 19

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627

Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781282 Project Sample Number: 9225565-011 Date Collected: 08/22/01 14:42
Client Sample ID: GP-11 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	11.9	%		0.9	08/28/01			AST
GC Semivolatiles								
TPH in Soil by 3550/8015	Prep/Method: EPA 3550 / EPA 8015							
Diesel Fuel	69.	mg/kg	5.7	1.0	08/30/01 07:45	BCK 68334-30-5		
n-Pentacosane (S)	79	%		1.0	08/30/01 07:45	BCK 629-99-2		
Date Extracted	08/28/01							

Date: 12/11/01

Page: 20

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627

Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781290 Project Sample Number: 9225565-012 Date Collected: 08/22/01 15:02
Client Sample ID: GP-12 (2-3.5FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.	0.9	08/27/01 17:37	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 103-65-1		
Styrene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 79-34-5		
Tetrachloroethene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 127-18-4		
Toluene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	10.	0.9	08/27/01 17:37	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	10.	0.9	08/27/01 17:37	RPJ		
o-Xylene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 95-47-6		
Toluene-d8 (S)	98	%		1.0	08/27/01 17:37	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	107	%		1.0	08/27/01 17:37	RPJ 460-00-4		
Dibromofluoromethane (S)	86	%		1.0	08/27/01 17:37	RPJ		
1,2-Dichloroethane-d4 (S)	75	%		1.0	08/27/01 17:37	RPJ 17060-07-0	1	

Date: 12/11/01

Page: 22

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781308 Project Sample Number: 9225565-013 Date Collected: 08/22/01 15:23
Client Sample ID: GP-13 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	14.0	%		0.9	08/28/01		AST	

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone		ND	ug/kg	120	1.0	08/27/01 18:08	RPJ 67-64-1		
Benzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 71-43-2		
Bromobenzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 108-86-1		
Bromochloromethane		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 74-97-5		
Bromodichloromethane		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 75-27-4		
Bromoform		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 75-25-2		
Bromomethane		ND	ug/kg	12.	1.0	08/27/01 18:08	RPJ 74-83-9		
2-Butanone (MEK)		ND	ug/kg	120	1.0	08/27/01 18:08	RPJ 78-93-3		
n-Butylbenzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 104-51-8		
sec-Butylbenzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 135-98-8		
tert-Butylbenzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 98-06-6		
Carbon tetrachloride		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 56-23-5		
Chlorobenzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 108-90-7		
Chloroethane		ND	ug/kg	12.	1.0	08/27/01 18:08	RPJ 75-00-3		
Chloroform		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 67-66-3		
Chloromethane		ND	ug/kg	12.	1.0	08/27/01 18:08	RPJ 74-87-3		
2-Chlorotoluene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 95-49-8		
4-Chlorotoluene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 96-12-8		
Dibromochloromethane		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 124-48-1		
1,2-Dibromoethane (EDB)		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 106-93-4		
Dibromomethane		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 74-95-3		
1,2-Dichlorobenzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 95-50-1		
1,3-Dichlorobenzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 541-73-1		
1,4-Dichlorobenzene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 106-46-7		
Dichlorodifluoromethane		ND	ug/kg	12.	1.0	08/27/01 18:08	RPJ 75-71-8		
1,1-Dichloroethane		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 75-34-3		
1,2-Dichloroethane		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 107-06-2		
1,1-Dichloroethene		6.0	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 75-35-4		
cis-1,2-Dichloroethene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 156-59-2		
trans-1,2-Dichloroethene		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 156-60-5		
1,2-Dichloropropane		ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 78-87-5		

Date: 12/11/01

Page: 23

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781308 Project Sample Number: 9225565-013 Date Collected: 08/22/01 15:23
Client Sample ID: GP-13 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.	1.0	08/27/01 18:08	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 103-65-1		
Styrene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 630-20-6		
1,1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 79-34-5		
Tetrachloroethene	20.	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 127-18-4		
Toluene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	12.	1.0	08/27/01 18:08	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	12.	1.0	08/27/01 18:08	RPJ		
o-Xylene	ND	ug/kg	5.8	1.0	08/27/01 18:08	RPJ 95-47-6		
Toluene-d8 (S)	97	%		1.0	08/27/01 18:08	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	105	%		1.0	08/27/01 18:08	RPJ 460-00-4		
Dibromofluoromethane (S)	88	%		1.0	08/27/01 18:08	RPJ		
1,2-Dichloroethane-d4 (S)	76	%		1.0	08/27/01 18:08	RPJ 17060-07-0	1	

Date: 12/11/01

Page: 24

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781316 Project Sample Number: 9225565-014 Date Collected: 08/22/01 15:50
Client Sample ID: GP-14 (0.5-2FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	16.4	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Report Limit	Dilution	Analyzed	CAS No.	Ftnote
Acetone	170 ug/kg	100	0.9	08/27/01 21:44	RPJ 67-64-1	
Benzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 71-43-2	
Bromobenzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 108-86-1	
Bromochloromethane	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 74-97-5	
Bromodichloromethane	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 75-27-4	
Bromoform	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 75-25-2	
Bromomethane	ND ug/kg	10.	0.9	08/27/01 21:44	RPJ 74-83-9	
2-Butanone (MEK)	ND ug/kg	100	0.9	08/27/01 21:44	RPJ 78-93-3	
n-Butylbenzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 104-51-8	
sec-Butylbenzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 135-98-8	
tert-Butylbenzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 98-06-6	
Carbon tetrachloride	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 56-23-5	
Chlorobenzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 108-90-7	
Chloroethane	ND ug/kg	10.	0.9	08/27/01 21:44	RPJ 75-00-3	
Chloroform	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 67-66-3	
Chloromethane	ND ug/kg	10.	0.9	08/27/01 21:44	RPJ 74-87-3	
2-Chlorotoluene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 95-49-8	
4-Chlorotoluene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 96-12-8	
Dibromochloromethane	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 106-93-4	
Dibromomethane	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 74-95-3	
1,2-Dichlorobenzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 95-50-1	
1,3-Dichlorobenzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 541-73-1	
1,4-Dichlorobenzene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 106-46-7	
Dichlorodifluoromethane	ND ug/kg	10.	0.9	08/27/01 21:44	RPJ 75-71-8	
1,1-Dichloroethane	37. ug/kg	5.2	0.9	08/27/01 21:44	RPJ 75-34-3	
1,2-Dichloroethane	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 107-06-2	
1,1-Dichloroethene	33. ug/kg	5.2	0.9	08/27/01 21:44	RPJ 75-35-4	
cis-1,2-Dichloroethene	390 ug/kg	5.2	0.9	08/27/01 21:44	RPJ 156-59-2	3
trans-1,2-Dichloroethene	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 156-60-5	
1,2-Dichloropropane	ND ug/kg	5.2	0.9	08/27/01 21:44	RPJ 78-87-5	

Date: 12/11/01

Page: 25

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781316 Project Sample Number: 9225565-014 Date Collected: 08/22/01 15:50
Client Sample ID: GP-14 (0.5-2FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 108-20-3		
Ethylbenzene	770	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 87-68-3		
Isopropylbenzene (Cumene)	21.	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 99-87-6		
Methylene chloride	1600	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 75-09-2	3	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.	0.9	08/27/01 21:44	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 91-20-3		
n-Propylbenzene	8.8	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 103-65-1		
Styrene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 79-34-5		
Tetrachloroethene	1300	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 127-18-4	3	
Toluene	7100	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 108-88-3	3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 120-82-1		
1,1,1-Trichloroethane	55.	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 79-00-5		
Trichloroethene	1600	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 79-01-6	3	
Trichlorofluoromethane	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 108-67-8		
Vinyl chloride	14.	ug/kg	10.	0.9	08/27/01 21:44	RPJ 75-01-4		
m&p-Xylene	2200	ug/kg	10.	0.9	08/27/01 21:44	RPJ	3	
o-Xylene	780	ug/kg	5.2	0.9	08/27/01 21:44	RPJ 95-47-6	3	
Toluene-d8 (S)	52	×		1.0	08/27/01 21:44	RPJ 2037-26-5	1	
4-Bromofluorobenzene (S)	107	×		1.0	08/27/01 21:44	RPJ 460-00-4		
Dibromofluoromethane (S)	89	×		1.0	08/27/01 21:44	RPJ		
1,2-Dichloroethane-d4 (S)	81	×		1.0	08/27/01 21:44	RPJ 17060-07-0		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781324 Project Sample Number: 9225565-015 Date Collected: 08/22/01 17:02
 Client Sample ID: GP-15 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	15.4	%		0.8	08/28/01	AST		
GC/MS Volatiles								
GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260							
Acetone	230	ug/kg	100	0.9	08/27/01 18:39	RPJ 67-64-1		
Benzene	55.	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 71-43-2		
Bromobenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 108-86-1		
Bromochloromethane	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 74-97-5		
Bromodichloromethane	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 75-27-4		
Bromoform	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 75-25-2		
Bromomethane	ND	ug/kg	10.	0.9	08/27/01 18:39	RPJ 74-83-9		
2-Butanone (MEK)	160	ug/kg	100	0.9	08/27/01 18:39	RPJ 78-93-3		
n-Butylbenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 56-23-5		
Chlorobenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 108-90-7		
Chloroethane	ND	ug/kg	10.	0.9	08/27/01 18:39	RPJ 75-00-3		
Chloroform	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 67-66-3		
Chloromethane	ND	ug/kg	10.	0.9	08/27/01 18:39	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 96-12-8		
Dibromochloromethane	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 106-93-4		
Dibromomethane	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/kg	10.	0.9	08/27/01 18:39	RPJ 75-71-8		
1,1-Dichloroethane	13.	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 75-34-3		
1,2-Dichloroethane	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 107-06-2		
1,1-Dichloroethene	71.	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 75-35-4		
cis-1,2-Dichloroethene	250	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 156-59-2	3	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/kg	5.2	0.9	08/27/01 18:39	RPJ 78-87-5		

Date: 12/11/01

Page: 27

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781324 Project Sample Number: 9225565-015 Date Collected: 08/22/01 17:02
Client Sample ID: GP-15 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	563-58-6		
Diisopropyl ether	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	108-20-3		
Ethylbenzene	310	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	100-41-4	3	
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	99-87-6		
Methylene chloride	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.	0.9	08/27/01 18:39 RPJ	108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	1634-04-4		
Naphthalene	25.	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	91-20-3		
n-Propylbenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	103-65-1		
Styrene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	79-34-5		
Tetrachloroethene	1700	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	127-18-4	3	
Toluene	85.	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	120-82-1		
1,1,1-Trichloroethane	22.	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	79-00-5		
Trichloroethene	4100	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	79-01-6	3	
Trichlorofluoromethane	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	108-67-8		
Vinyl chloride	ND	ug/kg	10.	0.9	08/27/01 18:39 RPJ	75-01-4		
m&p-Xylene	800	ug/kg	10.	0.9	08/27/01 18:39 RPJ		3	
o-Xylene	490	ug/kg	5.2	0.9	08/27/01 18:39 RPJ	95-47-6	3	
Toluene-d8 (S)	122	μ		1.0	08/27/01 18:39 RPJ	2037-26-5	1	
4-Bromofluorobenzene (S)	106	μ		1.0	08/27/01 18:39 RPJ	460-00-4		
Dibromofluoromethane (S)	89	μ		1.0	08/27/01 18:39 RPJ			
1,2-Dichloroethane-d4 (S)	81	μ		1.0	08/27/01 18:39 RPJ	17060-07-0		

Date: 12/11/01

Page: 28

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781332 Project Sample Number: 9225565-016 Date Collected: 08/22/01 16:42
Client Sample ID: GP-16 (1-3FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Fnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	-------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	17.9	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/kg	120	1.0	08/27/01 19:10	RPJ	67-64-1	
Benzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	71-43-2	
Bromobenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	75-27-4	
Bromoform	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	75-25-2	
Bromomethane	ND	ug/kg	12.	1.0	08/27/01 19:10	RPJ	74-83-9	
2-Butanone (MEK)	ND	ug/kg	120	1.0	08/27/01 19:10	RPJ	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	98-06-6	
Carbon tetrachloride	6.1	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	108-90-7	
Chloroethane	ND	ug/kg	12.	1.0	08/27/01 19:10	RPJ	75-00-3	
Chloroform	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	67-66-3	
Chloromethane	ND	ug/kg	12.	1.0	08/27/01 19:10	RPJ	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	106-93-4	
Dibromomethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.	1.0	08/27/01 19:10	RPJ	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	107-06-2	
1,1-Dichloroethene	31.	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	75-35-4	
cis-1,2-Dichloroethene	35.	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ	78-87-5	

Date: 12/11/01

Page: 29

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781332 Project Sample Number: 9225565-016 Date Collected: 08/22/01 16:42
Client Sample ID: GP-16 (1-3FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.	1.0	08/27/01 19:10	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 103-65-1		
Styrene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 79-34-5		
Tetrachloroethane	590	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 127-18-4		
Toluene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 120-82-1		
1,1,1-Trichloroethane	7.6	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 79-00-5		
Trichloroethene	130	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	12.	1.0	08/27/01 19:10	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	12.	1.0	08/27/01 19:10	RPJ		
o-Xylene	ND	ug/kg	5.8	1.0	08/27/01 19:10	RPJ 95-47-6		
Toluene-d8 (S)	97	×		1.0	08/27/01 19:10	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	101	×		1.0	08/27/01 19:10	RPJ 460-00-4		
Dibromofluoromethane (S)	89	×		1.0	08/27/01 19:10	RPJ		
1,2-Dichloroethane-d4 (S)	78	×		1.0	08/27/01 19:10	RPJ 17060-07-0	1	

Date: 12/11/01

Page: 30

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781340 Project Sample Number: 9225565-017 Date Collected: 08/22/01 17:23
Client Sample ID: GP-17 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	17.9	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level Prep/Method: EPA 8260 / EPA 8260

Acetone	ND	ug/kg	120	1.0	08/27/01 19:41	RPJ 67-64-1		
Benzene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 71-43-2		
Bromobenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 108-86-1		
Bromochloromethane	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 74-97-5		
Bromodichloromethane	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 75-27-4		
Bromoform	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 75-25-2		
Bromomethane	ND	ug/kg	12.	1.0	08/27/01 19:41	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/kg	120	1.0	08/27/01 19:41	RPJ 78-93-3		
n-Butylbenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 56-23-5		
Chlorobenzene	7.6	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 108-90-7		
Chloroethane	ND	ug/kg	12.	1.0	08/27/01 19:41	RPJ 75-00-3		
Chloroform	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 67-66-3		
Chloromethane	ND	ug/kg	12.	1.0	08/27/01 19:41	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 96-12-8		
Dibromochloromethane	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 106-93-4		
Dibromomethane	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/kg	12.	1.0	08/27/01 19:41	RPJ 75-71-8		
1,1-Dichloroethane	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 75-34-3		
1,2-Dichloroethane	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 107-06-2		
1,1-Dichloroethene	92.	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 75-35-4		
cis-1,2-Dichloroethene	190	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/kg	6.1	1.0	08/27/01 19:41	RPJ 78-87-5		

Date: 12/11/01

Page: 31

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781340
 Client Sample ID: GP-17 (2-4FT)

Project Sample Number: 9225565-017
 Matrix: Soil

Date Collected: 08/22/01 17:23
 Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	142-28-9		
2,2-Dichloropropane	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	594-20-7		
1,1-Dichloropropene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	563-58-6		
Diisopropyl ether	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	108-20-3		
Ethylbenzene	1500	ug/kg	300	50.0	08/27/01 19:41 RPJ	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	87-68-3		
Isopropylbenzene (Cumene)	7.8	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	98-82-8		
p-Isopropyltoluene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	99-87-6		
Methylene chloride	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	61.	1.0	08/27/01 19:41 RPJ	108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	1634-04-4		
Naphthalene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	91-20-3		
n-Propylbenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	103-65-1		
Styrene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	100-42-5		
1,1,1,2-Tetrachloroethane	9.4	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	79-34-5		
Tetrachloroethene	140000	ug/kg	3000	500	08/27/01 19:41 RPJ	127-18-4	3	
Toluene	130	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	120-82-1		
1,1,1-Trichloroethane	27.	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	71-55-6		
1,1,2-Trichloroethane	48.	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	79-00-5		
Trichloroethene	50000	ug/kg	3000	500	08/27/01 19:41 RPJ	79-01-6		
Trichlorofluoromethane	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	1.0	08/27/01 19:41 RPJ	108-67-8		
Vinyl chloride	ND	ug/kg	12.	1.0	08/27/01 19:41 RPJ	75-01-4		
m&p-Xylene	4900	ug/kg	610	50.0	08/27/01 19:41 RPJ			
o-Xylene	2500	ug/kg	300	50.0	08/27/01 19:41 RPJ	95-47-6		
Toluene-d8 (S)	240	x		1.0	08/27/01 19:41 RPJ	2037-26-5	2	
4-Bromofluorobenzene (S)	94	x		1.0	08/27/01 19:41 RPJ	460-00-4		
Dibromofluoromethane (S)	92	x		1.0	08/27/01 19:41 RPJ			
1,2-Dichloroethane-d4 (S)	81	x		1.0	08/27/01 19:41 RPJ	17060-07-0		

Date: 12/11/01

Page: 32

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781357 Project Sample Number: 9225565-018 Date Collected: 08/22/01 18:00
Client Sample ID: GP-18 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	20.9	%		0.8	08/28/01		AST	

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
Acetone		ND	ug/kg	120	1.0	08/27/01 20:12	RPJ 67-64-1		
Benzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 71-43-2		
Bromobenzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 108-86-1		
Bromochloromethane		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 74-97-5		
Bromodichloromethane		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 75-27-4		
Bromoform		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 75-25-2		
Bromomethane		ND	ug/kg	12.	1.0	08/27/01 20:12	RPJ 74-83-9		
2-Butanone (MEK)		ND	ug/kg	120	1.0	08/27/01 20:12	RPJ 78-93-3		
n-Butylbenzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 104-51-8		
sec-Butylbenzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 135-98-8		
tert-Butylbenzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 98-06-6		
Carbon tetrachloride		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 56-23-5		
Chlorobenzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 108-90-7		
Chloroethane		ND	ug/kg	12.	1.0	08/27/01 20:12	RPJ 75-00-3		
Chloroform		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 67-66-3		
Chloromethane		ND	ug/kg	12.	1.0	08/27/01 20:12	RPJ 74-87-3		
2-Chlorotoluene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 95-49-8		
4-Chlorotoluene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 96-12-8		
Dibromochloromethane		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 124-48-1		
1,2-Dibromoethane (EDB)		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 106-93-4		
Dibromomethane		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 74-95-3		
1,2-Dichlorobenzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 95-50-1		
1,3-Dichlorobenzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 541-73-1		
1,4-Dichlorobenzene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 106-46-7		
Dichlorodifluoromethane		ND	ug/kg	12.	1.0	08/27/01 20:12	RPJ 75-71-8		
1,1-Dichloroethane		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 75-34-3		
1,2-Dichloroethane		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 107-06-2		
1,1-Dichloroethene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 75-35-4		
cis-1,2-Dichloroethene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 156-59-2		
trans-1,2-Dichloroethene		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 156-60-5		
1,2-Dichloropropane		ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 78-87-5		

Date: 12/11/01

Page: 33

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781357
 Client Sample ID: GP-18 (2-4FT)

Project Sample Number: 9225565-018
 Matrix: Soil

Date Collected: 08/22/01 18:00
 Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	61.	1.0	08/27/01 20:12	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 103-65-1		
Styrene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 79-34-5		
Tetrachloroethane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 127-18-4		
Toluene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	12.	1.0	08/27/01 20:12	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	12.	1.0	08/27/01 20:12	RPJ		
o-Xylene	ND	ug/kg	6.1	1.0	08/27/01 20:12	RPJ 95-47-6		
Toluene-d8 (S)	99	%		1.0	08/27/01 20:12	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	103	%		1.0	08/27/01 20:12	RPJ 460-00-4		
Dibromofluoromethane (S)	91	%		1.0	08/27/01 20:12	RPJ		
1,2-Dichloroethane-d4 (S)	81	%		1.0	08/27/01 20:12	RPJ 17060-07-0		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781365	Project Sample Number: 9225565-019	Date Collected: 08/22/01 17:40
Client Sample ID: GP-19 (1-3FT)	Matrix: Soil	Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	11.1	%		0.9	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	110	0.9	08/27/01 20:43	RPJ	67-64-1
Benzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	71-43-2
Bromobenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	108-86-1
Bromochloromethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	74-97-5
Bromodichloromethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	75-27-4
Bromoform	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	75-25-2
Bromomethane	ND	ug/kg	11.	0.9	08/27/01 20:43	RPJ	74-83-9
2-Butanone (MEK)	ND	ug/kg	110	0.9	08/27/01 20:43	RPJ	78-93-3
n-Butylbenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	104-51-8
sec-Butylbenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	135-98-8
tert-Butylbenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	98-06-6
Carbon tetrachloride	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	56-23-5
Chlorobenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	108-90-7
Chloroethane	ND	ug/kg	11.	0.9	08/27/01 20:43	RPJ	75-00-3
Chloroform	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	67-66-3
Chloromethane	ND	ug/kg	11.	0.9	08/27/01 20:43	RPJ	74-87-3
2-Chlorotoluene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	95-49-8
4-Chlorotoluene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	106-43-4
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	96-12-8
Dibromochloromethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	124-48-1
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	106-93-4
Dibromomethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	74-95-3
1,2-Dichlorobenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	95-50-1
1,3-Dichlorobenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	541-73-1
1,4-Dichlorobenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	106-46-7
Dichlorodifluoromethane	ND	ug/kg	11.	0.9	08/27/01 20:43	RPJ	75-71-8
1,1-Dichloroethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	75-34-3
1,2-Dichloroethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	107-06-2
1,1-Dichloroethene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	75-35-4
cis-1,2-Dichloroethene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	156-59-2
trans-1,2-Dichloroethene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	156-60-5
1,2-Dichloropropane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ	78-87-5

Date: 12/11/01

Page: 35

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781365 Project Sample Number: 9225565-019 Date Collected: 08/22/01 17:40
Client Sample ID: GP-19 (1-3FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.	0.9	08/27/01 20:43	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 103-65-1		
Styrene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 630-20-6		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 79-34-5		
Tetrachloroethane	14.	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 127-18-4		
Toluene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	11.	0.9	08/27/01 20:43	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	11.	0.9	08/27/01 20:43	RPJ		
o-Xylene	ND	ug/kg	5.3	0.9	08/27/01 20:43	RPJ 95-47-6		
Toluene-d8 (S)	100	%		1.0	08/27/01 20:43	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	104	%		1.0	08/27/01 20:43	RPJ 460-00-4		
Dibromofluoromethane (S)	89	%		1.0	08/27/01 20:43	RPJ		
1,2-Dichloroethane-d4 (S)	81	%		1.0	08/27/01 20:43	RPJ 17060-07-0		

Date: 12/11/01

Page: 36

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781373 Project Sample Number: 9225565-020 Date Collected: 08/23/01 08:35
Client Sample ID: GP-20 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	12.8	%		0.9	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260							
Acetone	900	ug/kg	100	0.9	08/27/01 21:13	RPJ	67-64-1	3
Benzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	71-43-2	
Bromobenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	75-27-4	
Bromoform	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	75-25-2	
Bromomethane	ND	ug/kg	10.	0.9	08/27/01 21:13	RPJ	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	0.9	08/27/01 21:13	RPJ	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	108-90-7	
Chloroethane	ND	ug/kg	10.	0.9	08/27/01 21:13	RPJ	75-00-3	
Chloroform	1100	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	67-66-3	
Chloromethane	ND	ug/kg	10.	0.9	08/27/01 21:13	RPJ	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	106-93-4	
Dibromomethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	74-95-3	
1,2-Dichlorobenzene	19.	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.	0.9	08/27/01 21:13	RPJ	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	107-06-2	
1,1-Dichloroethene	6.4	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ	78-87-5	

Date: 12/11/01

Page: 37

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781373 Project Sample Number: 9225565-020 Date Collected: 08/23/01 08:35
Client Sample ID: GP-20 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.	0.9	08/27/01 21:13	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 1634-04-4		
Naphthalene	16.	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 103-65-1		
Styrene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 79-34-5		
Tetrachloroethene	1700	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 127-18-4	3	
Toluene	170	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 87-61-6		
1,2,4-Trichlorobenzene	550	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 120-82-1	3	
1,1,1-Trichloroethane	14.	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 79-00-5		
Trichloroethene	13.	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 96-18-4		
1,2,4-Trimethylbenzene	13.	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 95-63-6		
1,3,5-Trimethylbenzene	5.1	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	10.	0.9	08/27/01 21:13	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	10.	0.9	08/27/01 21:13	RPJ		
o-Xylene	ND	ug/kg	5.0	0.9	08/27/01 21:13	RPJ 95-47-6		
Toluene-d8 (S)	96	%		1.0	08/27/01 21:13	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	100	%		1.0	08/27/01 21:13	RPJ 460-00-4		
Dibromofluoromethane (S)	94	%		1.0	08/27/01 21:13	RPJ		
1,2-Dichloroethane-d4 (S)	82	%		1.0	08/27/01 21:13	RPJ 17060-07-0		

Date: 12/11/01

Page: 38

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

 Lab Sample No: 921781381 Project Sample Number: 9225565-021 Date Collected: 08/23/01 08:15
 Client Sample ID: GP-21 (5-6FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results*	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	----------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	8.8	%		0.9	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 Low Level	Prep/Method: EPA 8260 / EPA 8260	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	100	0.9	08/28/01 09:34	RPJ	67-64-1
Benzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	71-43-2
Bromobenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	108-86-1
Bromochloromethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	74-97-5
Bromodichloromethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	75-27-4
Bromoform	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	75-25-2
Bromomethane	ND	ug/kg	10.	0.9	08/28/01 09:34	RPJ	74-83-9
2-Butanone (MEK)	ND	ug/kg	100	0.9	08/28/01 09:34	RPJ	78-93-3
n-Butylbenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	104-51-8
sec-Butylbenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	135-98-8
tert-Butylbenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	98-06-6
Carbon tetrachloride	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	56-23-5
Chlorobenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	108-90-7
Chloroethane	ND	ug/kg	10.	0.9	08/28/01 09:34	RPJ	75-00-3
Chloroform	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	67-66-3
Chloromethane	ND	ug/kg	10.	0.9	08/28/01 09:34	RPJ	74-87-3
2-Chlorotoluene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	95-49-8
4-Chlorotoluene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	106-43-4
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	96-12-8
Dibromochloromethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	124-48-1
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	106-93-4
Dibromomethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	74-95-3
1,2-Dichlorobenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	95-50-1
1,3-Dichlorobenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	541-73-1
1,4-Dichlorobenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	106-46-7
Dichlorodifluoromethane	ND	ug/kg	10.	0.9	08/28/01 09:34	RPJ	75-71-8
1,1-Dichloroethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	75-34-3
1,2-Dichloroethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	107-06-2
1,1-Dichloroethene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	75-35-4
cis-1,2-Dichloroethene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	156-59-2
trans-1,2-Dichloroethene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	156-60-5
1,2-Dichloropropane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ	78-87-5

Date: 12/11/01

Page: 39

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781381
Client Sample ID: GP-21 (5-6FT)

Project Sample Number: 9225565-021
Matrix: Soil

Date Collected: 08/23/01 08:15
Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.	0.9	08/28/01 09:34	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 103-65-1		
Styrene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 79-34-5		
Tetrachloroethene	32.	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 127-18-4		
Toluene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 79-00-5		
Trichloroethene	6.9	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	10.	0.9	08/28/01 09:34	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	10.	0.9	08/28/01 09:34	RPJ		
o-Xylene	ND	ug/kg	5.2	0.9	08/28/01 09:34	RPJ 95-47-6		
Toluene-d8 (S)	102	×		1.0	08/28/01 09:34	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	93	×		1.0	08/28/01 09:34	RPJ 460-00-4		
Dibromofluoromethane (S)	103	×		1.0	08/28/01 09:34	RPJ		
1,2-Dichloroethane-d4 (S)	107	×		1.0	08/28/01 09:34	RPJ 17060-07-0		

Date: 12/11/01

Page: 40

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781399 Project Sample Number: 9225565-022 Date Collected: 08/23/01 08:55
Client Sample ID: GP-22 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	25.1	%		0.7	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone		ND	ug/kg	6700	50.0	08/28/01 14:41	RPJ 67-64-1		
Benzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 71-43-2		
Bromobenzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 108-86-1		
Bromochloromethane		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 74-97-5		
Bromodichloromethane		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 75-27-4		
Bromoform		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 75-25-2		
Bromomethane		ND	ug/kg	13.	1.0	08/28/01 14:41	RPJ 74-83-9		
2-Butanone (MEK)		ND	ug/kg	130	1.0	08/28/01 14:41	RPJ 78-93-3		
n-Butylbenzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 104-51-8		
sec-Butylbenzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 135-98-8		
tert-Butylbenzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 98-06-6		
Carbon tetrachloride		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 56-23-5		
Chlorobenzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 108-90-7		
Chloroethane		ND	ug/kg	13.	1.0	08/28/01 14:41	RPJ 75-00-3		
Chloroform		710	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 67-66-3	3	
Chloromethane		ND	ug/kg	13.	1.0	08/28/01 14:41	RPJ 74-87-3		
2-Chlorotoluene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 95-49-8		
4-Chlorotoluene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 96-12-8		
Dibromochloromethane		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 124-48-1		
1,2-Dibromoethane (EDB)		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 106-93-4		
Dibromomethane		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 74-95-3		
1,2-Dichlorobenzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 95-50-1		
1,3-Dichlorobenzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 541-73-1		
1,4-Dichlorobenzene		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 106-46-7		
Dichlorodifluoromethane		ND	ug/kg	13.	1.0	08/28/01 14:41	RPJ 75-71-8		
1,1-Dichloroethane		170	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 75-34-3		
1,2-Dichloroethane		7.1	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 107-06-2		
1,1-Dichloroethene		330	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 75-35-4	3	
cis-1,2-Dichloroethene		1600	ug/kg	330	50.0	08/28/01 14:41	RPJ 156-59-2		
trans-1,2-Dichloroethene		22.	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 156-60-5		
1,2-Dichloropropane		ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 78-87-5		

Date: 12/11/01

Page: 41

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781399 Project Sample Number: 9225565-022 Date Collected: 08/23/01 08:55
 Client Sample ID: GP-22 (2-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 99-87-6		
Methylene chloride	2100	ug/kg	330	50.0	08/28/01 14:41	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	310	ug/kg	67.	1.0	08/28/01 14:41	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 103-65-1		
Styrene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 79-34-5		
Tetrachloroethene	1900	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 127-18-4	3	
Toluene	180	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 71-55-6		
1,1,2-Trichloroethane	14.	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 79-00-5		
Trichloroethene	2800	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 79-01-6	3	
Trichlorofluoromethane	38.	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 108-67-8		
Vinyl chloride	220	ug/kg	13.	1.0	08/28/01 14:41	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	13.	1.0	08/28/01 14:41	RPJ		
o-Xylene	ND	ug/kg	6.7	1.0	08/28/01 14:41	RPJ 95-47-6		
Toluene-d8 (S)	96	%		1.0	08/28/01 14:41	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	100	%		1.0	08/28/01 14:41	RPJ 460-00-4		
Dibromofluoromethane (S)	98	%		1.0	08/28/01 14:41	RPJ		
1,2-Dichloroethane-d4 (S)	88	%		1.0	08/28/01 14:41	RPJ 17060-07-0		



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781407 Project Sample Number: 9225565-023 Date Collected: 08/23/01 11:15
Client Sample ID: GP-23 (2.5-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	15.7	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 Low level	Prep/Method: EPA 8260 / EPA 8260	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	120	1.0	08/28/01 15:12	RPJ	67-64-1
Benzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	71-43-2
Bromobenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	108-86-1
Bromochloromethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	74-97-5
Bromodichloromethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	75-27-4
Bromoform	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	75-25-2
Bromomethane	ND	ug/kg	12.	1.0	08/28/01 15:12	RPJ	74-83-9
2-Butanone (MEK)	ND	ug/kg	120	1.0	08/28/01 15:12	RPJ	78-93-3
n-Butylbenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	104-51-8
sec-Butylbenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	135-98-8
tert-Butylbenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	98-06-6
Carbon tetrachloride	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	56-23-5
Chlorobenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	108-90-7
Chloroethane	ND	ug/kg	12.	1.0	08/28/01 15:12	RPJ	75-00-3
Chloroform	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	67-66-3
Chloromethane	ND	ug/kg	12.	1.0	08/28/01 15:12	RPJ	74-87-3
2-Chlorotoluene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	95-49-8
4-Chlorotoluene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	106-43-4
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	96-12-8
Dibromochloromethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	124-48-1
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	106-93-4
Dibromomethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	74-95-3
1,2-Dichlorobenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	95-50-1
1,3-Dichlorobenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	541-73-1
1,4-Dichlorobenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	106-46-7
Dichlorodifluoromethane	ND	ug/kg	12.	1.0	08/28/01 15:12	RPJ	75-71-8
1,1-Dichloroethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	75-34-3
1,2-Dichloroethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	107-06-2
1,1-Dichloroethene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	75-35-4
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	156-59-2
trans-1,2-Dichloroethene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	156-60-5
1,2-Dichloropropane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ	78-87-5

Date: 12/11/01

Page: 43

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781407 Project Sample Number: 9225565-023 Date Collected: 08/23/01 11:15
 Client Sample ID: GP-23 (2.5-4FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58	1.0	08/28/01 15:12	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 1634-04-4		
Naphthalene	32	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 103-65-1		
Styrene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 79-34-5		
Tetrachloroethane	220	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 127-18-4		
Toluene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 108-88-3		
1,2,3-Trichlorobenzene	37	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 87-61-6		
1,2,4-Trichlorobenzene	350	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 120-82-1	3	
1,1,1-Trichloroethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 79-00-5		
Trichloroethene	15	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	12	1.0	08/28/01 15:12	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	12	1.0	08/28/01 15:12	RPJ		
o-Xylene	ND	ug/kg	5.8	1.0	08/28/01 15:12	RPJ 95-47-6		
Toluene-d8 (S)	100	%		1.0	08/28/01 15:12	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	96	%		1.0	08/28/01 15:12	RPJ 460-00-4		
Dibromofluoromethane (S)	97	%		1.0	08/28/01 15:12	RPJ		
1,2-Dichloroethane-d4 (S)	88	%		1.0	08/28/01 15:12	RPJ 17060-07-0		



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781415 Project Sample Number: 9225565-024 Date Collected: 08/23/01 11:55
Client Sample ID: HA-1 (3.5-4.5FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	19.3	%		0.8	08/28/01	AST		
GC/MS Volatiles								
GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/kg	120	0.9	08/28/01 15:43	RPJ 67-64-1		
Benzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 71-43-2		
Bromobenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 108-86-1		
Bromochloromethane	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 74-97-5		
Bromodichloromethane	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 75-27-4		
Bromoform	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 75-25-2		
Bromomethane	ND	ug/kg	12.	0.9	08/28/01 15:43	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/kg	120	0.9	08/28/01 15:43	RPJ 78-93-3		
n-Butylbenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 56-23-5		
Chlorobenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 108-90-7		
Chloroethane	ND	ug/kg	12.	0.9	08/28/01 15:43	RPJ 75-00-3		
Chloroform	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 67-66-3		
Chloromethane	ND	ug/kg	12.	0.9	08/28/01 15:43	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 96-12-8		
Dibromochloromethane	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 106-93-4		
Dibromomethane	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/kg	12.	0.9	08/28/01 15:43	RPJ 75-71-8		
1,1-Dichloroethane	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 75-34-3		
1,2-Dichloroethane	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 107-06-2		
1,1-Dichloroethene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 75-35-4		
cis-1,2-Dichloroethene	22.	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/kg	5.8	0.9	08/28/01 15:43	RPJ 78-87-5		

Date: 12/11/01

Page: 45

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

 Lab Sample No: 921781415 Project Sample Number: 9225565-024 Date Collected: 08/23/01 11:55
 Client Sample ID: HA-1 (3.5-4.5FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
1,3-Dichloropropane	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	563-58-6		
Diisopropyl ether	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	108-20-3		
Ethylbenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	99-87-6		
Methylene chloride	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.	0.9	08/28/01 15:43 RPJ	108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	1634-04-4		
Naphthalene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	91-20-3		
n-Propylbenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	103-65-1		
Styrene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	79-34-5		
Tetrachloroethene	68.	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	127-18-4		
Toluene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	79-00-5		
Trichloroethene	80.	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	108-67-8		
Vinyl chloride	ND	ug/kg	12.	0.9	08/28/01 15:43 RPJ	75-01-4		
m&p-Xylene	ND	ug/kg	12.	0.9	08/28/01 15:43 RPJ			
o-Xylene	14.	ug/kg	5.8	0.9	08/28/01 15:43 RPJ	95-47-6		
Toluene-d8 (S)	97	%		1.0	08/28/01 15:43 RPJ	2037-26-5		
4-Bromofluorobenzene (S)	96	%		1.0	08/28/01 15:43 RPJ	460-00-4		
Dibromofluoromethane (S)	94	%		1.0	08/28/01 15:43 RPJ			
1,2-Dichloroethane-d4 (S)	84	%		1.0	08/28/01 15:43 RPJ	17060-07-0		

Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781423
Client Sample ID: HA-2 (1-2FT)

Project Sample Number: 9225565-025
Matrix: Soil

Date Collected: 08/23/01 12:15
Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	19.0	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	110	0.9	08/28/01 16:13	RPJ	67-64-1		
Benzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	71-43-2		
Bromobenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	108-86-1		
Bromochloromethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	74-97-5		
Bromodichloromethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	75-27-4		
Bromoform	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	75-25-2		
Bromomethane	ND	ug/kg	11.	0.9	08/28/01 16:13	RPJ	74-83-9		
2-Butanone (MEK)	ND	ug/kg	110	0.9	08/28/01 16:13	RPJ	78-93-3		
n-Butylbenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	104-51-8		
sec-Butylbenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	135-98-8		
tert-Butylbenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	98-06-6		
Carbon tetrachloride	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	56-23-5		
Chlorobenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	108-90-7		
Chloroethane	ND	ug/kg	11.	0.9	08/28/01 16:13	RPJ	75-00-3		
Chloroform	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	67-66-3		
Chloromethane	ND	ug/kg	11.	0.9	08/28/01 16:13	RPJ	74-87-3		
2-Chlorotoluene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	95-49-8		
4-Chlorotoluene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	96-12-8		
Dibromochloromethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	106-93-4		
Dibromomethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	106-46-7		
Dichlorodifluoromethane	ND	ug/kg	11.	0.9	08/28/01 16:13	RPJ	75-71-8		
1,1-Dichloroethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	75-34-3		
1,2-Dichloroethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	107-06-2		
1,1-Dichloroethene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	75-35-4		
cis-1,2-Dichloroethene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	156-60-5		
1,2-Dichloropropane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ	78-87-5		

Date: 12/11/01

Page: 47

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781423
 Client Sample ID: HA-2 (1-2FT)

Project Sample Number: 9225565-025
 Matrix: Soil

Date Collected: 08/23/01 12:15
 Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 108-20-3		
Ethylbenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.	0.9	08/28/01 16:13	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 1634-04-4		
Naphthalene	20.	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 103-65-1		
Styrene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 79-34-5		
Tetrachloroethene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 127-18-4		
Toluene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 79-00-5		
Trichloroethene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	11.	0.9	08/28/01 16:13	RPJ 75-01-4		
m&p-Xylene	ND	ug/kg	11.	0.9	08/28/01 16:13	RPJ		
o-Xylene	ND	ug/kg	5.7	0.9	08/28/01 16:13	RPJ 95-47-6		
Toluene-d8 (S)	99	%		1.0	08/28/01 16:13	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	97	%		1.0	08/28/01 16:13	RPJ 460-00-4		
Dibromofluoromethane (S)	94	%		1.0	08/28/01 16:13	RPJ		
1,2-Dichloroethane-d4 (S)	87	%		1.0	08/28/01 16:13	RPJ 17060-07-0		

Date: 12/11/01

Page: 48

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781431 Project Sample Number: 9225565-026 Date Collected: 08/23/01 13:17
Client Sample ID: HA-3 (2-3FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	21.0	%		0.8	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	6300	50.0	08/28/01 16:44	RPJ	67-64-1
Benzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	71-43-2
Bromobenzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	108-86-1
Bromochloromethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	74-97-5
Bromodichloromethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	75-27-4
Bromoform	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	75-25-2
Bromomethane	ND	ug/kg	13.	1.0	08/28/01 16:44	RPJ	74-83-9
2-Butanone (MEK)	ND	ug/kg	130	1.0	08/28/01 16:44	RPJ	78-93-3
n-Butylbenzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	104-51-8
sec-Butylbenzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	135-98-8
tert-Butylbenzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	98-06-6
Carbon tetrachloride	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	56-23-5
Chlorobenzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	108-90-7
Chloroethane	ND	ug/kg	13.	1.0	08/28/01 16:44	RPJ	75-00-3
Chloroform	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	67-66-3
Chloromethane	ND	ug/kg	13.	1.0	08/28/01 16:44	RPJ	74-87-3
2-Chlorotoluene	56.	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	95-49-8
4-Chlorotoluene	13.	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	106-43-4
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	96-12-8
Dibromochloromethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	124-48-1
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	106-93-4
Dibromomethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	74-95-3
1,2-Dichlorobenzene	160	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	95-50-1
1,3-Dichlorobenzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	541-73-1
1,4-Dichlorobenzene	27.	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	106-46-7
Dichlorodifluoromethane	ND	ug/kg	13.	1.0	08/28/01 16:44	RPJ	75-71-8
1,1-Dichloroethane	110	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	75-34-3
1,2-Dichloroethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	107-06-2
1,1-Dichloroethene	3600	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	75-35-4 3
cis-1,2-Dichloroethene	150	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	156-59-2
trans-1,2-Dichloroethene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	156-60-5
1,2-Dichloropropane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ	78-87-5

Date: 12/11/01

Page: 49

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781290	Project Sample Number: 9225565-012	Date Collected: 08/22/01 15:02
Client Sample ID: GP-12 (2-3.5FT)	Matrix: Soil	Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	9.0	%		0.9	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level Prep/Method: EPA 8260 / EPA 8260

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Acetone	ND	ug/kg	100	0.9	08/27/01 17:37	RPJ 67-64-1		
Benzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 71-43-2		
Bromobenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 108-86-1		
Bromochloromethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 74-97-5		
Bromodichloromethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 75-27-4		
Bromoform	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 75-25-2		
Bromomethane	ND	ug/kg	10.	0.9	08/27/01 17:37	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/kg	100	0.9	08/27/01 17:37	RPJ 78-93-3		
n-Butylbenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 56-23-5		
Chlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 108-90-7		
Chloroethane	ND	ug/kg	10.	0.9	08/27/01 17:37	RPJ 75-00-3		
Chloroform	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 67-66-3		
Chloromethane	ND	ug/kg	10.	0.9	08/27/01 17:37	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 96-12-8		
Dibromochloromethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 106-93-4		
Dibromomethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/kg	10.	0.9	08/27/01 17:37	RPJ 75-71-8		
1,1-Dichloroethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 75-34-3		
1,2-Dichloroethane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 107-06-2		
1,1-Dichloroethene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 75-35-4		
cis-1,2-Dichloroethene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/kg	5.0	0.9	08/27/01 17:37	RPJ 78-87-5		

Date: 12/11/01

Page: 21

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781431
Client Sample ID: HA-3 (2-3FT)

Project Sample Number: 9225565-026
Matrix: Soil

Date Collected: 08/23/01 13:17
Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 108-20-3		
Ethylbenzene	73.	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 99-87-6		
Methylene chloride	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.	1.0	08/28/01 16:44	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 1634-04-4		
Naphthalene	19.	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 103-65-1		
Styrene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 79-34-5		
Tetrachloroethene	7300	ug/kg	320	50.0	08/28/01 16:44	RPJ 127-18-4		
Toluene	3600	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 108-88-3	3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 87-61-6		
1,2,4-Trichlorobenzene	20.	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 120-82-1		
1,1,1-Trichloroethane	14000	ug/kg	630	100	08/28/01 16:44	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 79-00-5		
Trichloroethene	9800	ug/kg	320	50.0	08/28/01 16:44	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 96-18-4		
1,2,4-Trimethylbenzene	27.	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 95-63-6		
1,3,5-Trimethylbenzene	7.5	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	13.	1.0	08/28/01 16:44	RPJ 75-01-4		
m&p-Xylene	220	ug/kg	13.	1.0	08/28/01 16:44	RPJ		
o-Xylene	63.	ug/kg	6.3	1.0	08/28/01 16:44	RPJ 95-47-6		
Toluene-d8 (S)	283	µ		1.0	08/28/01 16:44	RPJ 2037-26-5	2	
4-Bromofluorobenzene (S)	95	µ		1.0	08/28/01 16:44	RPJ 460-00-4		
Dibromofluoromethane (S)	45	µ		1.0	08/28/01 16:44	RPJ	2	
1,2-Dichloroethane-d4 (S)	86	µ		1.0	08/28/01 16:44	RPJ 17060-07-0		

Date: 12/11/01

Page: 50

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781449 Project Sample Number: 9225565-027 Date Collected: 08/22/01 15:50
 Client Sample ID: GP-14 (4-5.5FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
------------	---------	-------	--------------	----------	----------	---------	--------	-----------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	12.3	%		0.9	08/28/01	AST		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level Prep/Method: EPA 8260 / EPA 8260

Acetone	100	ug/kg	85.	0.7	08/28/01 17:46	RPJ	67-64-1
Benzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	71-43-2
Bromobenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	108-86-1
Bromochloromethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	74-97-5
Bromodichloromethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	75-27-4
Bromoform	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	75-25-2
Bromomethane	ND	ug/kg	8.5	0.7	08/28/01 17:46	RPJ	74-83-9
2-Butanone (MEK)	ND	ug/kg	85.	0.7	08/28/01 17:46	RPJ	78-93-3
n-Butylbenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	104-51-8
sec-Butylbenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	135-98-8
tert-Butylbenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	98-06-6
Carbon tetrachloride	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	56-23-5
Chlorobenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	108-90-7
Chloroethane	ND	ug/kg	8.5	0.7	08/28/01 17:46	RPJ	75-00-3
Chloroform	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	67-66-3
Chloromethane	ND	ug/kg	8.5	0.7	08/28/01 17:46	RPJ	74-87-3
2-Chlorotoluene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	95-49-8
4-Chlorotoluene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	106-43-4
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	96-12-8
Dibromochloromethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	124-48-1
1,2-Dibromoethane (EDB)	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	106-93-4
Dibromomethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	74-95-3
1,2-Dichlorobenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	95-50-1
1,3-Dichlorobenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	541-73-1
1,4-Dichlorobenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	106-46-7
Dichlorodifluoromethane	ND	ug/kg	8.5	0.7	08/28/01 17:46	RPJ	75-71-8
1,1-Dichloroethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	75-34-3
1,2-Dichloroethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	107-06-2
1,1-Dichloroethene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	75-35-4
cis-1,2-Dichloroethene	20.	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	156-59-2
trans-1,2-Dichloroethene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	156-60-5
1,2-Dichloropropane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ	78-87-5

Date: 12/11/01

Page: 51

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781449
Client Sample ID: GP-14 (4-5.5FT)

Project Sample Number: 9225565-027
Matrix: Soil

Date Collected: 08/22/01 15:50
Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 563-58-6		
Diisopropyl ether	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 108-20-3		
Ethylbenzene	15.	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 99-87-6		
Methylene chloride	230	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 75-09-2	3	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	42.	0.7	08/28/01 17:46	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 1634-04-4		
Naphthalene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 91-20-3		
n-Propylbenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 103-65-1		
Styrene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 79-34-5		
Tetrachloroethene	34.	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 127-18-4		
Toluene	470	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 108-88-3	3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 79-00-5		
Trichloroethene	29.	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 108-67-8		
Vinyl chloride	ND	ug/kg	8.5	0.7	08/28/01 17:46	RPJ 75-01-4		
m&p-Xylene	73.	ug/kg	8.5	0.7	08/28/01 17:46	RPJ		
o-Xylene	18.	ug/kg	4.2	0.7	08/28/01 17:46	RPJ 95-47-6		
Toluene-d8 (S)	98	%		1.0	08/28/01 17:46	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	96	%		1.0	08/28/01 17:46	RPJ 460-00-4		
Dibromofluoromethane (S)	98	%		1.0	08/28/01 17:46	RPJ		
1,2-Dichloroethane-d4 (S)	89	%		1.0	08/28/01 17:46	RPJ 17060-07-0		

Date: 12/11/01

Page: 52

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781456 Project Sample Number: 9225565-028 Date Collected: 08/22/01 11:50
 Client Sample ID: GP-9 (4-6FT) Matrix: Soil Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	12.5	%		0.9	08/28/01	AST		
GC/MS Volatiles								
GC/MS VOCs 5035/8260 low level	Prep/Method: EPA 8260 / EPA 8260							
Acetone	570	ug/kg	90.	0.8	09/05/01 19:58	RWS 67-64-1		3
Benzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 71-43-2		
Bromobenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 108-86-1		
Bromochloromethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 74-97-5		
Bromodichloromethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 75-27-4		
Bromoform	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 75-25-2		
Bromomethane	ND	ug/kg	9.0	0.8	09/05/01 19:58	RWS 74-83-9		
2-Butanone (MEK)	460	ug/kg	90.	0.8	09/05/01 19:58	RWS 78-93-3		
n-Butylbenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 104-51-8		
sec-Butylbenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 135-98-8		
tert-Butylbenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 98-06-6		
Carbon tetrachloride	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 56-23-5		
Chlorobenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 108-90-7		
Chloroethane	ND	ug/kg	9.0	0.8	09/05/01 19:58	RWS 75-00-3		
Chloroform	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 67-66-3		
Chloromethane	ND	ug/kg	9.0	0.8	09/05/01 19:58	RWS 74-87-3		
2-Chlorotoluene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 95-49-8		
4-Chlorotoluene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 96-12-8		
Dibromochloromethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 106-93-4		
Dibromomethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 106-46-7		
Dichlorodifluoromethane	ND	ug/kg	9.0	0.8	09/05/01 19:58	RWS 75-71-8		
1,1-Dichloroethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 75-34-3		
1,2-Dichloroethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 107-06-2		
1,1-Dichloroethene	5.0	ug/kg	4.5	0.8	09/05/01 19:58	RWS 75-35-4		
cis-1,2-Dichloroethene	5.7	ug/kg	4.5	0.8	09/05/01 19:58	RWS 156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 156-60-5		
1,2-Dichloropropane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 78-87-5		

Date: 12/11/01

Page: 53

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

Lab Sample No: 921781456
 Client Sample ID: GP-9 (4-6FT)

Project Sample Number: 9225565-028
 Matrix: Soil

Date Collected: 08/22/01 11:50
 Date Received: 08/24/01 10:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
1,3-Dichloropropane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 142-28-9		
2,2-Dichloropropane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 594-20-7		
1,1-Dichloropropene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 563-58-6		
Diisopropyl ether	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 108-20-3		
Ethylbenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 98-82-8		
p-Isopropyltoluene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 99-87-6		
Methylene chloride	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 75-09-2		
4-Methyl-2-pentanone (MIBK)	460	ug/kg	45.	0.8	09/05/01 19:58	RWS 108-10-1	3	
Methyl-tert-butyl ether	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 1634-04-4		
Naphthalene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 91-20-3		
n-Propylbenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 103-65-1		
Styrene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 79-34-5		
Tetrachloroethene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 127-18-4		
Toluene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 79-00-5		
Trichloroethene	6.2	ug/kg	4.5	0.8	09/05/01 19:58	RWS 79-01-6		
Trichlorofluoromethane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 108-67-8		
Vinyl chloride	ND	ug/kg	9.0	0.8	09/05/01 19:58	RWS 75-01-4		
m&p-Xylene	ND	ug/kg	9.0	0.8	09/05/01 19:58	RWS		
o-Xylene	ND	ug/kg	4.5	0.8	09/05/01 19:58	RWS 95-47-6		
Toluene-d8 (S)	100	%		1.0	09/05/01 19:58	RWS 2037-26-5		
4-Bromofluorobenzene (S)	105	%		1.0	09/05/01 19:58	RWS 460-00-4		
Dibromofluoromethane (S)	86	%		1.0	09/05/01 19:58	RWS		
1,2-Dichloroethane-d4 (S)	96	%		1.0	09/05/01 19:58	RWS 17060-07-0		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.



Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

PARAMETER FOOTNOTES

- ND Not Detected
- NC Not Calculable
- (S) Surrogate
- [1] The surrogate and/or spike recovery was outside acceptance limits.
- [2] The surrogate recovery was outside QC acceptance limits due to matrix interference.
- [3] Compound concentration exceeds the calibration range of the instrument (CLP E-Flag).

Date: 12/11/01

Page: 55

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

QC Batch: 45986

Analysis Method: EPA 8015

QC Batch Method: EPA 3550

Analysis Description: TPH in Soil by 3550/8015

Associated Lab Samples: 921781159 921781167 921781282

METHOD BLANK: 921784807

Associated Lab Samples: 921781159 921781167 921781282

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Diesel Fuel	mg/kg	ND	5.0	
n-Pentacosane (S)	%	93		

LABORATORY CONTROL SAMPLE: 921784849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Diesel Fuel	mg/kg	166.7	151.3	91	
n-Pentacosane (S)				108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921784815 921784823

Parameter	Units	921783106 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Diesel Fuel	mg/kg	0.9041	203.20	158.2	179.0	77	88	12	
n-Pentacosane (S)						83	98		

SAMPLE DUPLICATE: 921784831

Parameter	Units	921783114 Result	DUP Result	RPD	Footnotes
Diesel Fuel	mg/kg	ND	ND	NC	
n-Pentacosane (S)	%	66	89		

Date: 12/11/01

Page: 56

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

QC Batch: 45982

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: GC/MS VOCs 5035/8260 low level

Associated Lab Samples:	921781142	921781217	921781225	921781233	921781241
	921781258	921781266	921781274	921781290	

METHOD BLANK: 921785200

Associated Lab Samples:	921781142	921781217	921781225	921781233	921781241	921781258	921781266
	921781274	921781290					

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/kg	ND	5.0	
Bromobenzene	ug/kg	ND	5.0	
Bromochloromethane	ug/kg	ND	5.0	
Bromodichloromethane	ug/kg	ND	5.0	
Bromoform	ug/kg	ND	5.0	
Bromomethane	ug/kg	ND	10.	
n-Butylbenzene	ug/kg	ND	5.0	
sec-Butylbenzene	ug/kg	ND	5.0	
tert-Butylbenzene	ug/kg	ND	5.0	
Carbon tetrachloride	ug/kg	ND	5.0	
Chlorobenzene	ug/kg	ND	5.0	
Chloroethane	ug/kg	ND	10.	
Chloroform	ug/kg	ND	5.0	
Chloromethane	ug/kg	ND	10.	
2-Chlorotoluene	ug/kg	ND	5.0	
4-Chlorotoluene	ug/kg	ND	5.0	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	
Dibromochloromethane	ug/kg	ND	5.0	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	
Dibromomethane	ug/kg	ND	5.0	
1,2-Dichlorobenzene	ug/kg	ND	5.0	
1,3-Dichlorobenzene	ug/kg	ND	5.0	
1,4-Dichlorobenzene	ug/kg	ND	5.0	
Dichlorodifluoromethane	ug/kg	ND	10.	
1,1-Dichloroethane	ug/kg	ND	5.0	
1,2-Dichloroethane	ug/kg	ND	5.0	
1,1-Dichloroethene	ug/kg	ND	5.0	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	

Date: 12/11/01

Page: 57

Laboratory Certification IDs

NC Wastewater	12
NC Drinking Water	37706
SC	99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water	90090
VA Drinking Water	213
FL NELAP	E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

METHOD BLANK: 921785200

 Associated Lab Samples: 921781142 921781217 921781225 921781233 921781241 921781258 921781266
 921781274 921781290

Parameter	Units	Blank Result	Reporting Limit	Footnotes
trans-1,2-Dichloroethene	ug/kg	ND	5.0	
1,2-Dichloropropane	ug/kg	ND	5.0	
1,3-Dichloropropane	ug/kg	ND	5.0	
2,2-Dichloropropane	ug/kg	ND	5.0	
1,1-Dichloropropene	ug/kg	ND	5.0	
Diisopropyl ether	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	
p-Isopropyltoluene	ug/kg	ND	5.0	
Methylene chloride	ug/kg	ND	5.0	
Methyl-tert-butyl ether	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
n-Propylbenzene	ug/kg	ND	5.0	
Styrene	ug/kg	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	
Tetrachloroethene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	
1,1,1-Trichloroethane	ug/kg	ND	5.0	
1,1,2-Trichloroethane	ug/kg	ND	5.0	
Trichloroethene	ug/kg	ND	5.0	
Trichlorofluoromethane	ug/kg	ND	5.0	
1,2,3-Trichloropropane	ug/kg	ND	5.0	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	
Vinyl chloride	ug/kg	ND	10.	
m&p-Xylene	ug/kg	ND	10.	
o-Xylene	ug/kg	ND	5.0	
Toluene-d8 (S)	‰	98		
4-Bromofluorobenzene (S)	‰	106		
Dibromofluoromethane (S)	‰	90		

Date: 12/11/01

Page: 58

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

METHOD BLANK: 921785200

Associated Lab Samples: 921781142 921781217 921781225 921781233 921781241 921781258 921781266
921781274 921781290

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dichloroethane-d4 (S)	%	76		1

LABORATORY CONTROL SAMPLE: 921784575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/kg	100	85.05	85	
Benzene	ug/kg	50	48.28	97	
Bromobenzene	ug/kg	50	45.75	92	
Bromochloromethane	ug/kg	50	55.07	110	
Bromodichloromethane	ug/kg	50	46.65	93	
Bromoform	ug/kg	50	49.47	99	
Bromomethane	ug/kg	50	42.74	86	
2-Butanone (MEK)	ug/kg	100	91.51	92	
n-Butylbenzene	ug/kg	50	40.70	81	
sec-Butylbenzene	ug/kg	50	47.40	95	
tert-Butylbenzene	ug/kg	50	48.16	96	
Carbon tetrachloride	ug/kg	50	45.01	90	
Chlorobenzene	ug/kg	50	50.67	101	
Chloroethane	ug/kg	50	69.11	138	
Chloroform	ug/kg	50	49.94	100	
Chloromethane	ug/kg	50	30.08	60	
2-Chlorotoluene	ug/kg	50	45.82	92	
4-Chlorotoluene	ug/kg	50	43.92	88	
1,2-Dibromo-3-chloropropane	ug/kg	50	44.83	90	
Dibromochloromethane	ug/kg	50	53.33	107	
1,2-Dibromoethane (EDB)	ug/kg	50	54.68	109	
Dibromomethane	ug/kg	50	50.04	100	
1,2-Dichlorobenzene	ug/kg	50	42.77	86	
1,3-Dichlorobenzene	ug/kg	50	40.42	81	
1,4-Dichlorobenzene	ug/kg	50	40.12	80	
Dichlorodifluoromethane	ug/kg	50	15.94	32	1
1,1-Dichloroethane	ug/kg	50	48.05	96	

Date: 12/11/01

Page: 59

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE: 921784575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
1,2-Dichloroethane	ug/kg	50	45.81	92	
1,1-Dichloroethene	ug/kg	50	55.99	112	
cis-1,2-Dichloroethene	ug/kg	50	50.54	101	
trans-1,2-Dichloroethene	ug/kg	50	48.42	97	
1,2-Dichloropropane	ug/kg	50	50.58	101	
1,3-Dichloropropane	ug/kg	50	53.45	107	
2,2-Dichloropropane	ug/kg	50	2.021	4	1
1,1-Dichloropropene	ug/kg	50	52.71	105	
Diisopropyl ether	ug/kg	50	38.13	76	
Ethylbenzene	ug/kg	50	49.58	99	
Hexachloro-1,3-butadiene	ug/kg	50	39.26	78	
Isopropylbenzene (Cumene)	ug/kg	50	48.53	97	
p-Isopropyltoluene	ug/kg	50	43.51	87	
Methylene chloride	ug/kg	50	47.34	95	
4-Methyl-2-pentanone (MIBK)	ug/kg	100	85.20	85	
Naphthalene	ug/kg	50	42.33	85	
n-Propylbenzene	ug/kg	50	45.99	92	
Styrene	ug/kg	50	47.12	94	
1,1,1,2-Tetrachloroethane	ug/kg	50	51.17	102	
1,1,2,2-Tetrachloroethane	ug/kg	50	52.76	106	
Tetrachloroethene	ug/kg	50	46.88	94	
Toluene	ug/kg	50	50.15	100	
1,2,3-Trichlorobenzene	ug/kg	50	33.73	68	1
1,2,4-Trichlorobenzene	ug/kg	50	28.29	57	1
1,1,1-Trichloroethane	ug/kg	50	44.47	89	
1,1,2-Trichloroethane	ug/kg	50	51.31	103	
Trichloroethene	ug/kg	50	49.79	100	
Trichlorofluoromethane	ug/kg	50	45.47	91	
1,2,3-Trichloropropane	ug/kg	50	49.35	99	
1,2,4-Trimethylbenzene	ug/kg	50	43.79	88	
1,3,5-Trimethylbenzene	ug/kg	50	44.98	90	
Vinyl chloride	ug/kg	50	34.38	69	
m&p-Xylene	ug/kg	100	95.83	96	
o-Xylene	ug/kg	50	48.16	96	
Toluene-d8 (S)				97	
4-Bromofluorobenzene (S)				100	

Date: 12/11/01

Page: 60

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565
 Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE: 921784575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Dibromofluoromethane (S)				100	
1,2-Dichloroethane-d4 (S)				88	

MATRIX SPIKE: 921785218

Parameter	Units	921781142 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Benzene	ug/kg	0	50.42	46.99	93	
Chlorobenzene	ug/kg	0	50.42	54.79	109	
1,1-Dichloroethene	ug/kg	0	50.42	46.18	92	
Toluene	ug/kg	2.538	50.42	49.97	94	
Trichloroethene	ug/kg	0	50.42	52.36	104	
Toluene-d8 (S)					98	
4-Bromofluorobenzene (S)					111	
Dibromofluoromethane (S)					89	
1,2-Dichloroethane-d4 (S)					74	1

SAMPLE DUPLICATE: 921785226

Parameter	Units	921781217 Result	DUP Result	RPD	Footnotes
Benzene	ug/kg	ND	ND	NC	
Bromobenzene	ug/kg	ND	ND	NC	
Bromochloromethane	ug/kg	ND	ND	NC	
Bromodichloromethane	ug/kg	ND	ND	NC	
Bromoform	ug/kg	ND	ND	NC	
Bromomethane	ug/kg	ND	ND	NC	
n-Butylbenzene	ug/kg	ND	ND	NC	
sec-Butylbenzene	ug/kg	ND	ND	NC	
tert-Butylbenzene	ug/kg	ND	ND	NC	
Carbon tetrachloride	ug/kg	ND	ND	NC	
Chlorobenzene	ug/kg	ND	ND	NC	
Chloroethane	ug/kg	ND	ND	NC	
Chloroform	ug/kg	ND	ND	NC	

Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

SAMPLE DUPLICATE: 921785226

Parameter	Units	921781217	DUP	RPD	Footnotes
		Result	Result		
Chloromethane	ug/kg	ND	ND	NC	
2-Chlorotoluene	ug/kg	200.0	260.0	30	2
4-Chlorotoluene	ug/kg	21.00	22.00	5	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND	NC	
Dibromochloromethane	ug/kg	ND	ND	NC	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND	NC	
Dibromomethane	ug/kg	ND	ND	NC	
1,2-Dichlorobenzene	ug/kg	ND	ND	NC	
1,3-Dichlorobenzene	ug/kg	ND	ND	NC	
1,4-Dichlorobenzene	ug/kg	ND	ND	NC	
Dichlorodifluoromethane	ug/kg	ND	ND	NC	
1,1-Dichloroethane	ug/kg	ND	ND	NC	
1,2-Dichloroethane	ug/kg	ND	ND	NC	
1,1-Dichloroethene	ug/kg	ND	ND	NC	
cis-1,2-Dichloroethene	ug/kg	9.600	72.00	153	2
trans-1,2-Dichloroethene	ug/kg	ND	ND	NC	
1,2-Dichloropropane	ug/kg	ND	ND	NC	
1,3-Dichloropropane	ug/kg	ND	ND	NC	
2,2-Dichloropropane	ug/kg	ND	ND	NC	
1,1-Dichloropropene	ug/kg	ND	ND	NC	
Diisopropyl ether	ug/kg	ND	ND	NC	
Ethylbenzene	ug/kg	ND	ND	NC	
Hexachloro-1,3-butadiene	ug/kg	ND	ND	NC	
Isopropylbenzene (Cumene)	ug/kg	ND	ND	NC	
p-Isopropyltoluene	ug/kg	ND	ND	NC	
Methylene chloride	ug/kg	ND	ND	NC	
Methyl-tert-butyl ether	ug/kg	ND	ND	NC	
Naphthalene	ug/kg	ND	ND	NC	
n-Propylbenzene	ug/kg	ND	ND	NC	
Styrene	ug/kg	ND	ND	NC	
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND	NC	
Tetrachloroethene	ug/kg	29.00	67.00	79	2
Toluene	ug/kg	ND	12.00	NC	
1,2,3-Trichlorobenzene	ug/kg	ND	ND	NC	
1,2,4-Trichlorobenzene	ug/kg	ND	ND	NC	

Date: 12/11/01

Page: 62

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

SAMPLE DUPLICATE: 921785226

Parameter	Units	921781217	DUP	RPD	Footnotes
		Result	Result		
1,1,1-Trichloroethane	ug/kg	ND	ND	NC	
1,1,2-Trichloroethane	ug/kg	ND	ND	NC	
Trichloroethene	ug/kg	47.00	170.0	112	2
Trichlorofluoromethane	ug/kg	ND	ND	NC	
1,2,3-Trichloropropane	ug/kg	ND	ND	NC	
1,2,4-Trimethylbenzene	ug/kg	ND	ND	NC	
1,3,5-Trimethylbenzene	ug/kg	ND	ND	NC	
Vinyl chloride	ug/kg	ND	ND	NC	
m&p-Xylene	ug/kg	ND	ND	NC	
o-Xylene	ug/kg	ND	ND	NC	
Toluene-d8 (S)	%	99	98		
4-Bromofluorobenzene (S)	%	107	101		
Dibromofluoromethane (S)	%	86	85		
1,2-Dichloroethane-d4 (S)	%	75	79		1

Date: 12/11/01

Page: 63

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

METHOD BLANK: 921785234

 Associated Lab Samples: 921781308 921781316 921781324 921781332 921781340 921781357 921781365
 921781373

Parameter	Units	Blank Result	Reporting Limit	Footnotes
trans-1,2-Dichloroethene	ug/kg	ND	5.0	
1,2-Dichloropropane	ug/kg	ND	5.0	
1,3-Dichloropropane	ug/kg	ND	5.0	
2,2-Dichloropropane	ug/kg	ND	5.0	
1,1-Dichloropropene	ug/kg	ND	5.0	
Diisopropyl ether	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	
p-Isopropyltoluene	ug/kg	ND	5.0	
Methylene chloride	ug/kg	ND	5.0	
Methyl-tert-butyl ether	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
n-Propylbenzene	ug/kg	ND	5.0	
Styrene	ug/kg	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	
Tetrachloroethene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	
1,1,1-Trichloroethane	ug/kg	ND	5.0	
1,1,2-Trichloroethane	ug/kg	ND	5.0	
Trichloroethene	ug/kg	ND	5.0	
Trichlorofluoromethane	ug/kg	ND	5.0	
1,2,3-Trichloropropane	ug/kg	ND	5.0	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	
Vinyl chloride	ug/kg	ND	10.	
m&p-Xylene	ug/kg	ND	10.	
o-Xylene	ug/kg	ND	5.0	
Toluene-d8 (S)	‰	98		
4-Bromofluorobenzene (S)	‰	106		
Dibromofluoromethane (S)	‰	90		

Date: 12/11/01

Page: 65

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

METHOD BLANK: 921785234

 Associated Lab Samples: 921781308 921781316 921781324 921781332 921781340 921781357 921781365
 921781373

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dichloroethane-d4 (S)	%	76		1

LABORATORY CONTROL SAMPLE: 921785242

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/kg	100	68.40	68	
Benzene	ug/kg	50	45.29	91	
Bromobenzene	ug/kg	50	42.80	86	
Bromochloromethane	ug/kg	50	47.70	95	
Bromodichloromethane	ug/kg	50	43.33	87	
Bromoform	ug/kg	50	51.89	104	
Bromomethane	ug/kg	50	38.35	77	
2-Butanone (MEK)	ug/kg	100	82.53	82	
n-Butylbenzene	ug/kg	50	43.29	87	
sec-Butylbenzene	ug/kg	50	45.82	92	
tert-Butylbenzene	ug/kg	50	44.76	90	
Carbon tetrachloride	ug/kg	50	41.72	83	
Chlorobenzene	ug/kg	50	52.81	106	
Chloroethane	ug/kg	50	46.54	93	
Chloroform	ug/kg	50	42.42	85	
Chloromethane	ug/kg	50	22.43	45	1
2-Chlorotoluene	ug/kg	50	44.61	89	
4-Chlorotoluene	ug/kg	50	46.73	94	
1,2-Dibromo-3-chloropropane	ug/kg	50	42.14	84	
Dibromochloromethane	ug/kg	50	50.08	100	
1,2-Dibromoethane (EDB)	ug/kg	50	53.32	107	
Dibromomethane	ug/kg	50	52.60	105	
1,2-Dichlorobenzene	ug/kg	50	47.30	95	
1,3-Dichlorobenzene	ug/kg	50	47.20	94	
1,4-Dichlorobenzene	ug/kg	50	47.75	96	
Dichlorodifluoromethane	ug/kg	50	7.759	16	1
1,1-Dichloroethane	ug/kg	50	38.79	78	

Date: 12/11/01

Page: 66

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE: 921785242

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
1,2-Dichloroethane	ug/kg	50	37.98	76	
1,1-Dichloroethene	ug/kg	50	41.74	84	
cis-1,2-Dichloroethene	ug/kg	50	42.50	85	
trans-1,2-Dichloroethene	ug/kg	50	40.61	81	
1,2-Dichloropropane	ug/kg	50	47.65	95	
1,3-Dichloropropane	ug/kg	50	49.99	100	
2,2-Dichloropropane	ug/kg	50	34.58	69	1
1,1-Dichloropropene	ug/kg	50	42.96	86	
Diisopropyl ether	ug/kg	50	38.14	76	
Ethylbenzene	ug/kg	50	50.57	101	
Hexachloro-1,3-butadiene	ug/kg	50	45.66	91	
Isopropylbenzene (Cumene)	ug/kg	50	49.83	100	
p-Isopropyltoluene	ug/kg	50	43.54	87	
Methylene chloride	ug/kg	50	37.49	75	
4-Methyl-2-pentanone (MIBK)	ug/kg	100	82.35	82	
Methyl-tert-butyl ether	ug/kg	50	19.42	39	1
Naphthalene	ug/kg	50	46.04	92	
n-Propylbenzene	ug/kg	50	44.67	89	
Styrene	ug/kg	50	51.21	102	
1,1,1,2-Tetrachloroethane	ug/kg	50	49.87	100	
1,1,2,2-Tetrachloroethane	ug/kg	50	51.17	102	
Tetrachloroethene	ug/kg	50	53.62	107	
Toluene	ug/kg	50	50.05	100	
1,2,3-Trichlorobenzene	ug/kg	50	47.06	94	
1,2,4-Trichlorobenzene	ug/kg	50	46.18	92	
1,1,1-Trichloroethane	ug/kg	50	40.43	81	
1,1,2-Trichloroethane	ug/kg	50	50.09	100	
Trichloroethene	ug/kg	50	48.86	98	
Trichlorofluoromethane	ug/kg	50	35.30	71	
1,2,3-Trichloropropane	ug/kg	50	49.47	99	
1,2,4-Trimethylbenzene	ug/kg	50	45.18	90	
1,3,5-Trimethylbenzene	ug/kg	50	45.24	90	
Vinyl chloride	ug/kg	50	25.48	51	
m&p-Xylene	ug/kg	100	98.27	98	
o-Xylene	ug/kg	50	49.50	99	
Toluene-d8 (S)				98	

Date: 12/11/01

Page: 67

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE: 921785242

<u>Parameter</u>	<u>Units</u>	<u>Spike Conc.</u>	<u>LCS Result</u>	<u>LCS % Rec</u>	<u>Footnotes</u>
4-Bromofluorobenzene (S)				113	
Dibromofluoromethane (S)				91	
1,2-Dichloroethane-d4 (S)				77	1

Date: 12/11/01

Page: 68

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

QC Batch: 46080

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: GC/MS VOCs 5035/8260 low level

 Associated Lab Samples: 921781381 921781399 921781407 921781415 921781423
 921781431 921781449

METHOD BLANK: 921789046

Associated Lab Samples: 921781381

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/kg	ND	5.0	
Bromobenzene	ug/kg	ND	5.0	
Bromochloromethane	ug/kg	ND	5.0	
Bromodichloromethane	ug/kg	ND	5.0	
Bromoform	ug/kg	ND	5.0	
Bromomethane	ug/kg	ND	10.	
n-Butylbenzene	ug/kg	ND	5.0	
sec-Butylbenzene	ug/kg	ND	5.0	
tert-Butylbenzene	ug/kg	ND	5.0	
Carbon tetrachloride	ug/kg	ND	5.0	
Chlorobenzene	ug/kg	ND	5.0	
Chloroethane	ug/kg	ND	10.	
Chloroform	ug/kg	ND	5.0	
Chloromethane	ug/kg	ND	10.	
2-Chlorotoluene	ug/kg	ND	5.0	
4-Chlorotoluene	ug/kg	ND	5.0	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	
Dibromochloromethane	ug/kg	ND	5.0	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	
Dibromomethane	ug/kg	ND	5.0	
1,2-Dichlorobenzene	ug/kg	ND	5.0	
1,3-Dichlorobenzene	ug/kg	ND	5.0	
1,4-Dichlorobenzene	ug/kg	ND	5.0	
Dichlorodifluoromethane	ug/kg	ND	10.	
1,1-Dichloroethane	ug/kg	ND	5.0	
1,2-Dichloroethane	ug/kg	ND	5.0	
1,1-Dichloroethene	ug/kg	ND	5.0	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	

Date: 12/11/01

Page: 69

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

METHOD BLANK: 921789046

Associated Lab Samples: 921781381

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dichloropropane	ug/kg	ND	5.0	
1,3-Dichloropropane	ug/kg	ND	5.0	
2,2-Dichloropropane	ug/kg	ND	5.0	
1,1-Dichloropropene	ug/kg	ND	5.0	
Diisopropyl ether	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	
p-Isopropyltoluene.	ug/kg	ND	5.0	
Methylene chloride	ug/kg	ND	5.0	
Methyl-tert-butyl ether	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
n-Propylbenzene	ug/kg	ND	5.0	
Styrene	ug/kg	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	
Tetrachloroethene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	
1,1,1-Trichloroethane	ug/kg	ND	5.0	
1,1,2-Trichloroethane	ug/kg	ND	5.0	
Trichloroethene	ug/kg	ND	5.0	
Trichlorofluoromethane	ug/kg	ND	5.0	
1,2,3-Trichloropropane	ug/kg	ND	5.0	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	
Vinyl chloride	ug/kg	ND	10.	
m&p-Xylene	ug/kg	ND	10.	
o-Xylene	ug/kg	ND	5.0	
Toluene-d8 (S)	‰	99		
4-Bromofluorobenzene (S)	‰	94		
Dibromofluoromethane (S)	‰	96		
1,2-Dichloroethane-d4 (S)	‰	98		

Date: 12/11/01

Page: 70

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565
 Client Project ID: NC101047.0001/Former Worth

METHOD BLANK: 921805495

Associated Lab Samples: 921781399 921781407 921781415 921781423 921781431 921781449

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/kg	ND	5.0	
Bromobenzene	ug/kg	ND	5.0	
Bromochloromethane	ug/kg	ND	5.0	
Bromodichloromethane	ug/kg	ND	5.0	
Bromoform	ug/kg	ND	5.0	
Bromomethane	ug/kg	ND	10.	
n-Butylbenzene	ug/kg	ND	5.0	
sec-Butylbenzene	ug/kg	ND	5.0	
tert-Butylbenzene	ug/kg	ND	5.0	
Carbon tetrachloride	ug/kg	ND	5.0	
Chlorobenzene	ug/kg	ND	5.0	
Chloroethane	ug/kg	ND	10.	
Chloroform	ug/kg	ND	5.0	
Chloromethane	ug/kg	ND	10.	
2-Chlorotoluene	ug/kg	ND	5.0	
4-Chlorotoluene	ug/kg	ND	5.0	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	
Dibromochloromethane	ug/kg	ND	5.0	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	
Dibromomethane	ug/kg	ND	5.0	
1,2-Dichlorobenzene	ug/kg	ND	5.0	
1,3-Dichlorobenzene	ug/kg	ND	5.0	
1,4-Dichlorobenzene	ug/kg	ND	5.0	
Dichlorodifluoromethane	ug/kg	ND	10.	
1,1-Dichloroethane	ug/kg	ND	5.0	
1,2-Dichloroethane	ug/kg	ND	5.0	
1,1-Dichloroethene	ug/kg	ND	5.0	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	
1,2-Dichloropropane	ug/kg	ND	5.0	
1,3-Dichloropropane	ug/kg	ND	5.0	
2,2-Dichloropropane	ug/kg	ND	5.0	
1,1-Dichloropropene	ug/kg	ND	5.0	
Diisopropyl ether	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	

Date: 12/11/01

Page: 71

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

METHOD BLANK: 921805495

Associated Lab Samples: 921781399 921781407 921781415 921781423 921781431 921781449

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	
p-Isopropyltoluene	ug/kg	ND	5.0	
Methylene chloride	ug/kg	ND	5.0	
Methyl-tert-butyl ether	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
n-Propylbenzene	ug/kg	ND	5.0	
Styrene	ug/kg	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	
Tetrachloroethene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	
1,1,1-Trichloroethane	ug/kg	ND	5.0	
1,1,2-Trichloroethane	ug/kg	ND	5.0	
Trichloroethene	ug/kg	ND	5.0	
Trichlorofluoromethane	ug/kg	ND	5.0	
1,2,3-Trichloropropane	ug/kg	ND	5.0	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	
Vinyl chloride	ug/kg	ND	10.	
m&p-Xylene	ug/kg	ND	10.	
o-Xylene	ug/kg	ND	5.0	
Toluene-d8 (S)	‰	100		
4-Bromofluorobenzene (S)	‰	97		
Dibromofluoromethane (S)	‰	92		
1,2-Dichloroethane-d4 (S)	‰	83		

LABORATORY CONTROL SAMPLE & LCSD: 921789053 921789061

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Acetone	ug/kg	100	100.0	111.6	100	112	11	

Date: 12/11/01

Page: 72

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090.
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE & LCSD: 921789053 921789061

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Benzene	ug/kg	50	52.97	54.52	106	109	3	
Bromobenzene	ug/kg	50	51.95	53.59	104	107	3	
Bromochloromethane	ug/kg	50	54.96	56.02	110	112	2	
Bromodichloromethane	ug/kg	50	54.82	53.48	110	107	2	
Bromoform	ug/kg	50	52.40	52.72	105	105	1	
Bromomethane	ug/kg	50	48.13	46.31	96	93	4	
2-Butanone (MEK)	ug/kg	100	92.42	99.43	92	99	7	
n-Butylbenzene	ug/kg	50	48.45	52.49	97	105	8	
sec-Butylbenzene	ug/kg	50	50.39	53.01	101	106	5	
tert-Butylbenzene	ug/kg	50	50.97	52.80	102	106	4	
Carbon tetrachloride	ug/kg	50	55.81	57.11	112	114	2	
Chlorobenzene	ug/kg	50	52.62	53.71	105	107	2	
Chloroethane	ug/kg	50	64.90	67.61	130	135	4	
Chloroform	ug/kg	50	53.76	55.20	108	110	3	
Chloromethane	ug/kg	50	28.69	28.22	57	56	2	
2-Chlorotoluene	ug/kg	50	50.22	53.55	100	107	6	
4-Chlorotoluene	ug/kg	50	49.13	52.65	98	105	7	
1,2-Dibromo-3-chloropropane	ug/kg	50	49.62	50.20	99	100	1	
Dibromochloromethane	ug/kg	50	55.22	54.73	110	109	1	
1,2-Dibromoethane (EDB)	ug/kg	50	52.60	54.04	105	108	3	
Dibromomethane	ug/kg	50	52.15	51.93	104	104	0	
1,2-Dichlorobenzene	ug/kg	50	47.94	52.09	96	104	8	
1,3-Dichlorobenzene	ug/kg	50	48.75	53.28	98	107	9	
1,4-Dichlorobenzene	ug/kg	50	46.85	52.15	94	104	11	
Dichlorodifluoromethane	ug/kg	50	9.944	9.990	20	20	0	1,1
1,1-Dichloroethane	ug/kg	50	56.79	56.31	114	113	1	
1,2-Dichloroethane	ug/kg	50	52.43	54.32	105	109	4	
1,1-Dichloroethene	ug/kg	50	65.00	68.09	130	136	5	3,3
cis-1,2-Dichloroethene	ug/kg	50	53.31	55.46	107	111	4	
trans-1,2-Dichloroethene	ug/kg	50	58.34	60.46	117	121	4	
1,2-Dichloropropane	ug/kg	50	53.30	54.53	107	109	2	
1,3-Dichloropropane	ug/kg	50	53.07	53.92	106	108	2	
2,2-Dichloropropane	ug/kg	50	39.00	38.91	78	78	0	
1,1-Dichloropropene	ug/kg	50	55.70	57.81	111	116	4	
Diisopropyl ether	ug/kg	50	49.14	51.11	98	102	4	
Ethylbenzene	ug/kg	50	52.24	53.46	104	107	2	

Date: 12/11/01

Page: 73

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE & LCSD: 921789053 921789061

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Hexachloro-1,3-butadiene	ug/kg	50	46.94	50.02	94	100	6	
Isopropylbenzene (Cumene)	ug/kg	50	52.36	53.04	105	106	1	
p-Isopropyltoluene	ug/kg	50	49.26	52.17	98	104	6	
Methylene chloride	ug/kg	50	57.64	57.86	115	116	0	
4-Methyl-2-pentanone (MIBK)	ug/kg	100	93.84	94.52	94	94	1	
Methyl-tert-butyl ether	ug/kg	50	21.29	21.30	43	43	0	1.1
Naphthalene	ug/kg	50	45.16	50.52	90	101	11	
n-Propylbenzene	ug/kg	50	51.06	54.06	102	108	6	
Styrene	ug/kg	50	48.10	49.03	96	98	2	
1,1,1,2-Tetrachloroethane	ug/kg	50	53.22	52.99	106	106	0	
1,1,2,2-Tetrachloroethane	ug/kg	50	50.98	51.58	102	103	1	
Tetrachloroethene	ug/kg	50	50.69	52.38	101	105	3	
Toluene	ug/kg	50	49.81	51.78	100	104	4	
1,2,3-Trichlorobenzene	ug/kg	50	43.24	50.69	86	101	16	
1,2,4-Trichlorobenzene	ug/kg	50	41.44	50.31	83	101	19	
1,1,1-Trichloroethane	ug/kg	50	54.44	56.25	109	113	3	
1,1,2-Trichloroethane	ug/kg	50	52.02	52.93	104	106	2	
Trichloroethene	ug/kg	50	53.97	54.32	108	109	1	
Trichlorofluoromethane	ug/kg	50	52.24	53.94	104	108	3	
1,2,3-Trichloropropane	ug/kg	50	52.95	53.92	106	108	2	
1,2,4-Trimethylbenzene	ug/kg	50	50.29	53.32	101	107	6	
1,3,5-Trimethylbenzene	ug/kg	50	50.57	53.76	101	108	6	
Vinyl chloride	ug/kg	50	30.95	31.21	62	62	1	
m&p-Xylene	ug/kg	100	104.3	107.4	104	107	3	
o-Xylene	ug/kg	50	51.37	53.07	103	106	3	
Toluene-d8 (S)					98	98		
4-Bromofluorobenzene (S)					100	100		
Dibromofluoromethane (S)					98	100		
1,2-Dichloroethane-d4 (S)					100	96		

LABORATORY CONTROL SAMPLE: 921801304

Parameter	Units	Spike Conc.	LCS Result	LCSD % Rec	Footnotes
Acetone	ug/kg	100	86.45	86	

Date: 12/11/01

Page: 74

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE: 921801304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/kg	50	26.62	53	1
Bromobenzene	ug/kg	50	55.60	111	
Bromochloromethane	ug/kg	50	57.27	115	
Bromodichloromethane	ug/kg	50	53.99	108	
Bromoform	ug/kg	50	55.27	111	
Bromomethane	ug/kg	50	6.124	12	3
2-Butanone (MEK)	ug/kg	100	88.69	89	
n-Butylbenzene	ug/kg	50	57.63	115	
sec-Butylbenzene	ug/kg	50	56.37	113	
tert-Butylbenzene	ug/kg	50	57.77	116	
Carbon tetrachloride	ug/kg	50	57.28	115	
Chlorobenzene	ug/kg	50	54.11	108	
Chloroethane	ug/kg	50	228.0	456	3
Chloroform	ug/kg	50	55.79	112	
Chloromethane	ug/kg	50	26.84	54	
2-Chlorotoluene	ug/kg	50	57.29	115	
4-Chlorotoluene	ug/kg	50	56.00	112	
1,2-Dibromo-3-chloropropane	ug/kg	50	55.41	111	
Dibromochloromethane	ug/kg	50	55.98	112	
1,2-Dibromoethane (EDB)	ug/kg	50	57.94	116	
Dibromomethane	ug/kg	50	56.09	112	
1,2-Dichlorobenzene	ug/kg	50	55.92	112	
1,3-Dichlorobenzene	ug/kg	50	58.39	117	
1,4-Dichlorobenzene	ug/kg	50	56.02	112	
Dichlorodifluoromethane	ug/kg	50	29.95	60	
1,1-Dichloroethane	ug/kg	50	54.10	108	
1,2-Dichloroethane	ug/kg	50	50.99	102	
1,1-Dichloroethene	ug/kg	50	73.66	147	3
cis-1,2-Dichloroethene	ug/kg	50	56.44	113	
trans-1,2-Dichloroethene	ug/kg	50	59.48	119	
1,2-Dichloropropane	ug/kg	50	55.45	111	
1,3-Dichloropropane	ug/kg	50	55.88	112	
2,2-Dichloropropane	ug/kg	50	10.14	20	1
1,1-Dichloropropene	ug/kg	50	59.83	120	
Diisopropyl ether	ug/kg	50	49.39	99	
Ethylbenzene	ug/kg	50	58.73	117	

Date: 12/11/01

Page: 75

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE: 921801304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Hexachloro-1,3-butadiene	ug/kg	50	56.92	114	
Isopropylbenzene (Cumene)	ug/kg	50	58.06	116	
p-Isopropyltoluene	ug/kg	50	56.98	114	
Methylene chloride	ug/kg	50	59.52	119	
4-Methyl-2-pentanone (MIBK)	ug/kg	100	94.13	94	
Methyl-tert-butyl ether	ug/kg	50	2.774	6	1
Naphthalene	ug/kg	50	55.69	111	
n-Propylbenzene	ug/kg	50	57.29	115	
Styrene	ug/kg	50	51.81	104	
1,1,1,2-Tetrachloroethane	ug/kg	50	56.32	113	
1,1,2,2-Tetrachloroethane	ug/kg	50	54.05	108	
Tetrachloroethene	ug/kg	50	59.60	119	
Toluene	ug/kg	50	56.70	113	
1,2,3-Trichlorobenzene	ug/kg	50	57.76	116	
1,2,4-Trichlorobenzene	ug/kg	50	61.46	123	
1,1,1-Trichloroethane	ug/kg	50	54.73	109	
1,1,2-Trichloroethane	ug/kg	50	54.66	109	
Trichloroethene	ug/kg	50	58.65	117	
Trichlorofluoromethane	ug/kg	50	67.21	134	
1,2,3-Trichloropropane	ug/kg	50	51.79	104	
1,2,4-Trimethylbenzene	ug/kg	50	56.96	114	
1,3,5-Trimethylbenzene	ug/kg	50	56.47	113	
Vinyl chloride	ug/kg	50	39.35	79	
m&p-Xylene	ug/kg	100	119.1	119	
o-Xylene	ug/kg	50	57.52	115	
Toluene-d8 (S)				98	
4-Bromofluorobenzene (S)				103	
Dibromofluoromethane (S)				98	
1,2-Dichloroethane-d4 (S)				90	

MATRIX SPIKE: 921789079

Parameter	Units	921781381 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Benzene	ug/kg	1.221	55.96	56.68	99	

Date: 12/11/01

Page: 76

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

MATRIX SPIKE: 921789079

Parameter	Units	921781381	Spike	MS	MS	Footnotes
		Result	Conc.	Result	% Rec	
Chlorobenzene	ug/kg	0	55.96	63.98	114	
1,1-Dichloroethene	ug/kg	0	55.96	61.24	109	
Toluene	ug/kg	0	55.96	59.78	107	
Trichloroethene	ug/kg	6.921	55.96	69.18	111	
Toluene-d8 (S)					97	
4-Bromofluorobenzene (S)					103	
Dibromofluoromethane (S)					98	
1,2-Dichloroethane-d4 (S)					84	

SAMPLE DUPLICATE: 921789111

Parameter	Units	921779344	DUP	RPD	Footnotes
		Result	Result		
Benzene	ug/kg	ND	ND	NC	
Bromobenzene	ug/kg	ND	ND	NC	
Bromochloromethane	ug/kg	ND	ND	NC	
Bromodichloromethane	ug/kg	ND	ND	NC	
Bromoform	ug/kg	ND	ND	NC	
Bromomethane	ug/kg	ND	ND	NC	
n-Butylbenzene	ug/kg	ND	ND	NC	
sec-Butylbenzene	ug/kg	ND	ND	NC	
tert-Butylbenzene	ug/kg	ND	ND	NC	
Carbon tetrachloride	ug/kg	ND	ND	NC	
Chlorobenzene	ug/kg	ND	ND	NC	
Chloroethane	ug/kg	ND	ND	NC	
Chloroform	ug/kg	ND	ND	NC	
Chloromethane	ug/kg	ND	ND	NC	
2-Chlorotoluene	ug/kg	ND	ND	NC	
4-Chlorotoluene	ug/kg	ND	ND	NC	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND	NC	
Dibromochloromethane	ug/kg	ND	ND	NC	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND	NC	
Dibromomethane	ug/kg	ND	ND	NC	
1,2-Dichlorobenzene	ug/kg	ND	ND	NC	
1,3-Dichlorobenzene	ug/kg	ND	ND	NC	

Date: 12/11/01

Page: 77

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

SAMPLE DUPLICATE: 921789111

Parameter	Units	921779344	DUP	RPD	Footnotes
		Result	Result		
1,4-Dichlorobenzene	ug/kg	ND	ND	NC	
Dichlorodifluoromethane	ug/kg	ND	ND	NC	
1,1-Dichloroethane	ug/kg	ND	ND	NC	
1,2-Dichloroethane	ug/kg	ND	ND	NC	
1,1-Dichloroethene	ug/kg	ND	ND	NC	
cis-1,2-Dichloroethene	ug/kg	ND	ND	NC	
trans-1,2-Dichloroethene	ug/kg	ND	ND	NC	
1,2-Dichloropropane	ug/kg	ND	ND	NC	
1,3-Dichloropropane	ug/kg	ND	ND	NC	
2,2-Dichloropropane	ug/kg	ND	ND	NC	
1,1-Dichloropropene	ug/kg	ND	ND	NC	
Diisopropyl ether	ug/kg	ND	ND	NC	
Ethylbenzene	ug/kg	ND	ND	NC	
Hexachloro-1,3-butadiene	ug/kg	ND	ND	NC	
Isopropylbenzene (Cumene)	ug/kg	ND	ND	NC	
p-Isopropyltoluene	ug/kg	ND	ND	NC	
Methylene chloride	ug/kg	ND	ND	NC	
Methyl-tert-butyl ether	ug/kg	ND	ND	NC	
Naphthalene	ug/kg	ND	ND	NC	
n-Propylbenzene	ug/kg	ND	ND	NC	
Styrene	ug/kg	ND	ND	NC	
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND	NC	
Tetrachloroethene	ug/kg	ND	ND	NC	
Toluene	ug/kg	ND	ND	NC	
1,2,3-Trichlorobenzene	ug/kg	ND	ND	NC	
1,2,4-Trichlorobenzene	ug/kg	ND	ND	NC	
1,1,1-Trichloroethane	ug/kg	ND	ND	NC	
1,1,2-Trichloroethane	ug/kg	ND	ND	NC	
Trichloroethene	ug/kg	ND	ND	NC	
Trichlorofluoromethane	ug/kg	ND	ND	NC	
1,2,3-Trichloropropane	ug/kg	ND	ND	NC	
1,2,4-Trimethylbenzene	ug/kg	ND	ND	NC	
1,3,5-Trimethylbenzene	ug/kg	ND	ND	NC	
Vinyl chloride	ug/kg	ND	ND	NC	
m&p-Xylene	ug/kg	ND	ND	NC	

Date: 12/11/01

Page: 78

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

SAMPLE DUPLICATE: 921789111

<u>Parameter</u>	<u>Units</u>	921779344	DUP	<u>RPD</u>	<u>Footnotes</u>
		<u>Result</u>	<u>Result</u>		
o-Xylene	ug/kg	ND	ND	NC	
Toluene-d8 (S)	%	99	99		
4-Bromofluorobenzene (S)	%	97	92		
Dibromofluoromethane (S)	%	99	100		
1,2-Dichloroethane-d4 (S)	%	102	106		

Date: 12/11/01

Page: 79

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

QC Batch: 46461

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: GC/MS VOCs 5035/8260 low level

Associated Lab Samples: 921781456

METHOD BLANK: 921805164

Associated Lab Samples: 921781456

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/kg	ND	5.0	
Bromobenzene	ug/kg	ND	5.0	
Bromochloromethane	ug/kg	ND	5.0	
Bromodichloromethane	ug/kg	ND	5.0	
Bromoform	ug/kg	ND	5.0	
Bromomethane	ug/kg	ND	10.	
n-Butylbenzene	ug/kg	ND	5.0	
sec-Butylbenzene	ug/kg	ND	5.0	
tert-Butylbenzene	ug/kg	ND	5.0	
Carbon tetrachloride	ug/kg	ND	5.0	
Chlorobenzene	ug/kg	ND	5.0	
Chloroethane	ug/kg	ND	10.	
Chloroform	ug/kg	ND	5.0	
Chloromethane	ug/kg	ND	10.	
2-Chlorotoluene	ug/kg	ND	5.0	
4-Chlorotoluene	ug/kg	ND	5.0	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	
Dibromochloromethane	ug/kg	ND	5.0	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	
Dibromomethane	ug/kg	ND	5.0	
1,2-Dichlorobenzene	ug/kg	ND	5.0	
1,3-Dichlorobenzene	ug/kg	ND	5.0	
1,4-Dichlorobenzene	ug/kg	ND	5.0	
Dichlorodifluoromethane	ug/kg	ND	10.	
1,1-Dichloroethane	ug/kg	ND	5.0	
1,2-Dichloroethane	ug/kg	ND	5.0	
1,1-Dichloroethene	ug/kg	ND	5.0	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	
1,2-Dichloropropane	ug/kg	ND	5.0	

Date: 12/11/01

Page: 80

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

METHOD BLANK: 921805164

Associated Lab Samples: 921781456

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,3-Dichloropropane	ug/kg	ND	5.0	
2,2-Dichloropropane	ug/kg	ND	5.0	
1,1-Dichloropropene	ug/kg	ND	5.0	
Diisopropyl ether	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	
p-Isopropyltoluene	ug/kg	ND	5.0	
Methylene chloride	ug/kg	ND	5.0	
Methyl-tert-butyl ether	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
n-Propylbenzene	ug/kg	ND	5.0	
Styrene	ug/kg	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	
Tetrachloroethene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	
1,1,1-Trichloroethane	ug/kg	ND	5.0	
1,1,2-Trichloroethane	ug/kg	ND	5.0	
Trichloroethene	ug/kg	ND	5.0	
Trichlorofluoromethane	ug/kg	ND	5.0	
1,2,3-Trichloropropane	ug/kg	ND	5.0	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	
Vinyl chloride	ug/kg	ND	10.	
m&p-Xylene	ug/kg	ND	10.	
o-Xylene	ug/kg	ND	5.0	
Toluene-d8 (S)	‰	99		
4-Bromofluorobenzene (S)	‰	101		
Dibromofluoromethane (S)	‰	96		
1,2-Dichloroethane-d4 (S)	‰	96		

Date: 12/11/01

Page: 81

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE: 921805172

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/kg	100	101.1	101	
Benzene	ug/kg	50	57.10	114	
Bromobenzene	ug/kg	50	49.51	99	
Bromochloromethane	ug/kg	50	55.20	110	
Bromodichloromethane	ug/kg	50	55.19	110	
Bromoform	ug/kg	50	54.41	109	
Bromomethane	ug/kg	50	41.32	83	
2-Butanone (MEK)	ug/kg	100	96.89	97	
n-Butylbenzene	ug/kg	50	48.58	97	
sec-Butylbenzene	ug/kg	50	48.80	98	
tert-Butylbenzene	ug/kg	50	50.35	101	
Carbon tetrachloride	ug/kg	50	59.01	118	
Chlorobenzene	ug/kg	50	52.29	105	
Chloroethane	ug/kg	50	47.61	95	
Chloroform	ug/kg	50	53.19	106	
Chloromethane	ug/kg	50	38.79	78	
2-Chlorotoluene	ug/kg	50	49.03	98	
4-Chlorotoluene	ug/kg	50	48.43	97	
1,2-Dibromo-3-chloropropane	ug/kg	50	53.35	107	
Dibromochloromethane	ug/kg	50	54.27	109	
1,2-Dibromoethane (EDB)	ug/kg	50	53.76	108	
Dibromomethane	ug/kg	50	55.40	111	
1,2-Dichlorobenzene	ug/kg	50	50.16	100	
1,3-Dichlorobenzene	ug/kg	50	49.47	99	
1,4-Dichlorobenzene	ug/kg	50	49.07	98	
Dichlorodifluoromethane	ug/kg	50	26.28	53	
1,1-Dichloroethane	ug/kg	50	56.89	114	
1,2-Dichloroethane	ug/kg	50	52.80	106	
1,1-Dichloroethene	ug/kg	50	59.79	120	
cis-1,2-Dichloroethene	ug/kg	50	55.61	111	
trans-1,2-Dichloroethene	ug/kg	50	61.19	122	
1,2-Dichloropropane	ug/kg	50	55.48	111	
1,3-Dichloropropane	ug/kg	50	51.96	104	
2,2-Dichloropropane	ug/kg	50	55.87	112	
1,1-Dichloropropene	ug/kg	50	56.52	113	
Diisopropyl ether	ug/kg	50	52.46	105	

Date: 12/11/01

Page: 82

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


QUALITY CONTROL DATA

Lab Project Number: 9225565
Client Project ID: NC101047.0001/Former Worth

LABORATORY CONTROL SAMPLE: 921805172

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Ethylbenzene	ug/kg	50	51.15	102	
Hexachloro-1,3-butadiene	ug/kg	50	51.91	104	
Isopropylbenzene (Cumene)	ug/kg	50	51.94	104	
p-Isopropyltoluene	ug/kg	50	49.34	99	
Methylene chloride	ug/kg	50	53.55	107	
4-Methyl-2-pentanone (MIBK)	ug/kg	100	106.5	106	
Methyl-tert-butyl ether	ug/kg	50	52.66	105	
Naphthalene	ug/kg	50	66.43	133	1
n-Propylbenzene	ug/kg	50	49.31	99	
Styrene	ug/kg	50	52.32	105	
1,1,1,2-Tetrachloroethane	ug/kg	50	53.11	106	
1,1,2,2-Tetrachloroethane	ug/kg	50	51.57	103	
Tetrachloroethene	ug/kg	50	53.44	107	
Toluene	ug/kg	50	53.61	107	
1,2,3-Trichlorobenzene	ug/kg	50	64.81	130	
1,2,4-Trichlorobenzene	ug/kg	50	56.48	113	
1,1,1-Trichloroethane	ug/kg	50	57.16	114	
1,1,2-Trichloroethane	ug/kg	50	54.13	108	
Trichloroethene	ug/kg	50	57.12	114	
Trichlorofluoromethane	ug/kg	50	44.95	90	
1,2,3-Trichloropropane	ug/kg	50	51.56	103	
1,2,4-Trimethylbenzene	ug/kg	50	49.59	99	
1,3,5-Trimethylbenzene	ug/kg	50	50.09	100	
Vinyl chloride	ug/kg	50	41.87	84	
m&p-Xylene	ug/kg	100	102.2	102	
o-Xylene	ug/kg	50	51.76	104	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				103	
Dibromofluoromethane (S)				98	
1,2-Dichloroethane-d4 (S)				100	

Date: 12/11/01

Page: 83

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

QC Batch: 46028

Analysis Method: % Moisture

QC Batch Method:

Analysis Description: Percent Moisture

Associated Lab Samples: 921781217 921781225 921781233 921781241 921781258
 921781266 921781274 921781282 921781290

SAMPLE DUPLICATE: 921786083

<u>Parameter</u>	<u>Units</u>	921785564 <u>Result</u>	DUP <u>Result</u>	<u>RPD</u>	<u>Footnotes</u>
Percent Moisture	%	11.60	11.90	2	

SAMPLE DUPLICATE: 921786091

<u>Parameter</u>	<u>Units</u>	921781290 <u>Result</u>	DUP <u>Result</u>	<u>RPD</u>	<u>Footnotes</u>
Percent Moisture	%	9.000	9.000	0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

QC Batch: 46029

Analysis Method: % Moisture

QC Batch Method:

Analysis Description: Percent Moisture

Associated Lab Samples:	921781142	921781159	921781167	921781308	921781316
	921781324	921781332	921781340	921781357	921781365
	921781373	921781381	921781399	921781407	921781415
	921781423	921781431	921781449	921781456	

SAMPLE DUPLICATE: 921786109

<u>Parameter</u>	<u>Units</u>	921781308 <u>Result</u>	DUP <u>Result</u>	<u>RPD</u>	<u>Footnotes</u>
Percent Moisture	%	14.00	15.00	7	

SAMPLE DUPLICATE: 921786117

<u>Parameter</u>	<u>Units</u>	921781571 <u>Result</u>	DUP <u>Result</u>	<u>RPD</u>	<u>Footnotes</u>
Percent Moisture	%	14.60	15.10	3	

Lab Project Number: 9225565

Client Project ID: NC101047.0001/Former Worth

QUALITY CONTROL DATA PARAMETER FOOTNOTES

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

LCS(D)Laboratory Control Sample (Duplicate)

MS(D)Matrix Spike (Duplicate)

DUP Sample Duplicate

ND Not Detected

NC Not Calculable

RPD Relative Percent Difference

(S) Surrogate

[1] The surrogate and/or spike recovery was outside acceptance limits.

[2] The calculated RPD was outside QC acceptance limits.

[3] Recovery falls outside of QC limits, however, this compound is not found in the associated samples.

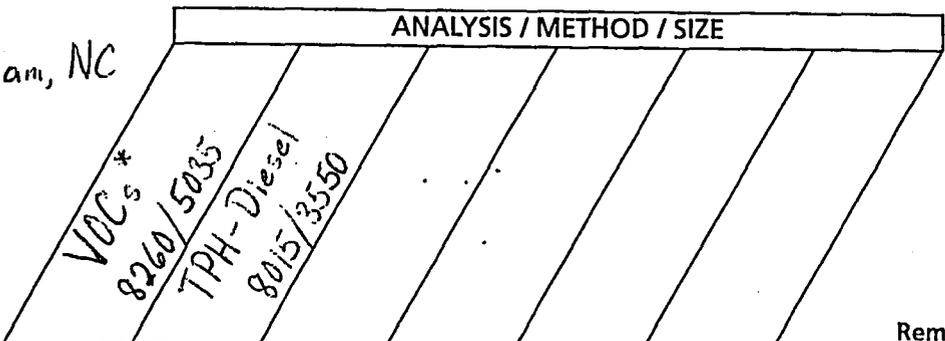
Project Number/Name NC101047.0001.00001

Project Location Former Worth Chemical, Durham, NC

Laboratory Pace Labs

Project Manager Jim Shilliday

Sampler(s)/Affiliation Dan Tomczak



25565

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	VOCs *	8260/5035	TPH-Diesel	8015/3550	Remarks	Total
GP-1 (2.5-4 ft)	S	8-23-01 / 9:30	3					1781142	3
GP-2 (2-3.5 ft)		8-23-01 / 9:58			1			1781159	1
GP-3 (2-4 ft)		8-23-01 / 10:23			1			1781167	1
GP-4 (2-4 ft)		8-22-01 / 9:25	3					1781217	3
GP-5 (2-4 ft)		8-22-01 / 9:55	3					1781225	3
GP-6 (2-4 ft)		8-22-01 / 10:19	3					1781233	3
GP-7 (2-4 ft)		8-22-01 / 10:42	3					1781241	3
GP-8 (2-4 ft)		8-22-01 / 11:15	3					1781258	3
GP-9 (1-3 ft)		8-22-01 / 11:50	3					1781266	3
GP-10 (2-4 ft)		8-22-01 / 14:14	3					1781274	3
GP-11 (2-4 ft)		8-22-01 / 14:42			1			1781282 -	1
GP-12 (2-3.5 ft)		8-22-01 / 15:02	3					1781290	3
GP-13 (2-4 ft)		8-22-01 / 15:23	3					1781308	3
GP-14 (0.5-2 ft)		8-22-01 / 15:50	3					1781316	3
GP-15 (2-4 ft)	↓	8-22-01 / 17:02	3					1781324	3

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 39

Relinquished by: <u>Dan Tomczak</u>	Organization: <u>ARCADIS</u>	Date: <u>8/23/01</u>	Time: <u>19:15</u>	Seal Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Received by: <u>Greg [unclear] Pace</u>	Organization: <u>Pace</u>	Date: <u>8/24/01</u>	Time: <u>1000</u>	
Relinquished by: _____	Organization: _____	Date: <u>1/1</u>	Time: _____	Seal Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Received by: _____	Organization: _____	Date: <u>1/1</u>	Time: _____	

Special Instructions/Remarks:
* VOC containers include 2 Encore samplers and 1 poly bottle.

Delivery Method: In Person Common Carrier FedEx Lab Courier Other 2.7°C

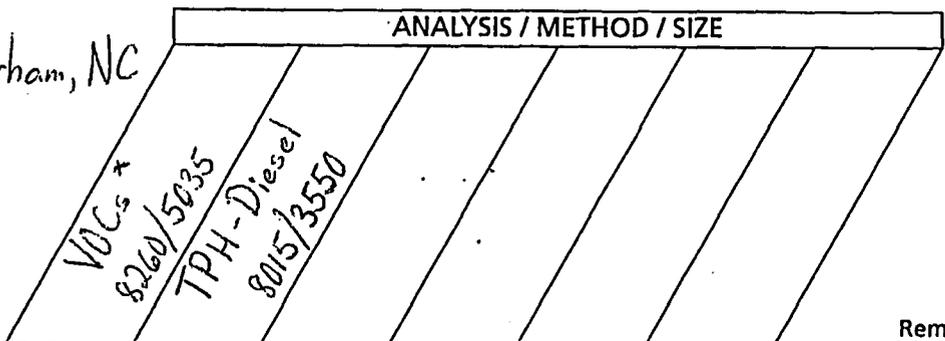
Project Number/Name NC101047.0001.00001

Project Location Former Worth Chemical, Durham, NC

Laboratory Pace Labs

Project Manager Jim Shilliday

Sampler(s)/Affiliation Dan Tomczak



Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Remarks	Total
GP-16 (1-3 ft)	S	8-22-01 / 16:42	3	1781332	3
GP-17 (2-4 ft)		8-22-01 / 17:23	3	1781240	3
GP-18 (2-4 ft)		8-22-01 / 18:00	3	1781357	3
GP-19 (1-3 ft)		8-22-01 / 17:40	3	1781365	3
GP-20 (2-4 ft)		8-23-01 / 8:35	3	1781373	3
GP-21 (5-6 ft)		8-23-01 / 8:15	3	1781381	3
GP-22 (2-4 ft)		8-23-01 / 8:55	3	1781399	3
GP-23 (2.5-4 ft)		8-23-01 / 11:15	3	1781407	3
HA-1 (3.5-4.5 ft)		8-23-01 / 11:55	3	1781415	3
HA-2 (1-2 ft)		8-23-01 / 12:15	3	1781423	3
HA-3 (2-3 ft)	↓	8-23-01 / 13:17	3	1781431	3
GP-14 (4-5.5 ft)		8-22-01 / 15:50	3	1781449	3
GP-9 (4-6 ft)	↓	8-22-01 / 11:50	3	1781456	3

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 39

Relinquished by: <u>Dan Tomczak</u>	Organization: <u>ARCADIS</u>	Date: <u>8/23/01</u>	Time: <u>19:15</u>	Seal Intact? <u>Yes</u> No N/A
Received by: <u>[Signature]</u>	Organization: <u>Pace</u>	Date: <u>8/22/01</u>	Time: <u>1000</u>	Seal Intact? <u>Yes</u> No N/A
Relinquished by: _____	Organization: _____	Date: <u>1/1</u>	Time: _____	Seal Intact? Yes No N/A
Received by: _____	Organization: _____	Date: <u>1/1</u>	Time: _____	Seal Intact? Yes No N/A

Special Instructions/Remarks:

* VOC containers include 2 Encore samplers and 1 poly bottle

Delivery Method: In Person Common Carrier FedEx Lab Courier Other 2, 70c



ARCADIS

**Soil and Groundwater
Assessment Report**

APPENDIX E

**Groundwater Analytical
Reports**

Pace Analytical™

www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078

Phone: 704.875.9092
Fax: 704.875.9091

December 11, 2001

Mr. Jim Shilliday
ARCADIS Geraghty & Miller
2301 Rexwoods Dr.
Suite 200
Raleigh, NC 27607

RE: Lab Project Number: 9226925
Client Project ID: NC101047.0001.00002/Worth

Dear Mr. Shilliday:

Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 2001. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,



Sherri Howard
Sherri.Howard@pacelabs.com
Project Manager

Enclosures

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



CASE NARRATIVE

RECEIVED

DEC 12 2001

ARCADIS Geraghty & Miller

Client: ARCADIS
Project #: 9226925

GC/MS Volatiles

- **Hold Time:** All samples were analyzed within holding times by SW846 Method 8260B.
- **Tune / Calibration:** For each day of analysis, the BFB tunes were compliant and the initial calibration was verified with a continuing calibration standard. The calibration check compounds, system performance check compounds, internal standard areas and retention times all met method QC requirements, prior to sample analysis.

Exceptions: Per the client's request, the following results were reported from analyses where the internal standard did not meet method QC requirements.

Sample Number	Compound	µg/L
921871646	Benzene	110
921871661	Toluene	210
	1,1,2-Trichloroethane	170

These results were footnoted with an E-flag and should be considered estimated results.

- **Method Blanks:** The method blank(s) did not contain any analytes above the reporting limits.
- **Laboratory Control Sample (LCS):** All recoveries for the LCS(s) were within control limits.

Exception: The LCS associated with samples 921871638 and 921871687 had low recovery for hexachloro-1,3-butadiene and high recovery for tetrachloroethene.

The LCS associates with samples 921871646, 921871653, 921871661, and 921871679 had low recoveries for tert-butylbenzene, hexachloro-1,3-butadiene, naphthalene, and 1,2,3-trichlorobenzene.

- **Matrix Spikes / Matrix Spike Duplicates (MS/MSD):** A matrix spike and matrix spike duplicate were analyzed on samples 921866042 and 921876348. Both of these samples were from other clients. All percent recoveries and relative percent differences (RPDs) were within control limits.
- **Sample Duplicate:** Duplicate analysis was performed on sample 921866034 and 921876314. Both of these samples were from other clients. All RPDs were within acceptance criteria.
- **Surrogate Recoveries:** All surrogate recoveries were within method control limits.

Exceptions: Toluene-d8 was outside of acceptance criteria in sample(s) MW-2 (921871646), MW-3 (921871653), and MW-4 (921871661).

4-Bromofluorobenzene was outside of acceptance criteria in sample(s) 921866034, which was from another client and used as a sample duplicate and the LCS associated with samples 921871646, 921871653, 921871661, and 921871679.

All surrogate results reported in the data package are from the 1X run. Surrogate results from runs involving dilutions were within acceptance criteria.

Additional Comments:

Several compounds, acetone, 2-butanone (MEK) and 4-methyl-2-pentanone (MIBK), were added to the compound list after analysis of the samples. Although this may seem like a simple process, it is not. All data previously reported must be reentered into the laboratory information management system (LIMS). In some instances, the analyst who reentered the data selected the wrong run which caused changes in the concentrations of the reports that were issued to you. The results that changed between the original report and the reissued report are listed below along with applicable notes to help you in discerning any affects these errors may have had on you.

Sample ID	Compound	Original	Reissued	Correct	Notes
921871646	Benzene	< 500 µg/L (Results from 100X dilution)	110 µg/L	110 µg/L	As noted previously, the result being reported is from a run where the internal standard failed method criteria.
921871653	Ethyl Benzene	< 5 µg/L	15 µg/L	< 5 µg/L	
	m&p-Xylene	<10 µg/L	69 µg/L	< 10 µg/L	
	o-Xylene	< 5 µg/L	32 µg/L	< 5 µg/L	
921871661	Benzene	220 µg/L (Results from 100X dilution)	99 µg/L (Results from 1X dilution)	220 µg/L (Results from 100X dilution)	The result being reported is from the 100X run and is below the PRL. The internal standard from the 1X run did not meet method criteria.
	Carbon tetrachloride	260 µg/L (Results from 100X dilution)	2000 µg/L (Results from 1X dilution)	260 µg/L (Results from 100X dilution)	The result being reported is from the 100X run and is below the PRL. The internal standard from the 1X run did not meet method criteria.

Sample ID	Compound	Original	Reissued	Correct	Notes
921871661	1,2-dichloropropane	470 µg/L (Results from 100X dilution)	2700 µg/L (Results from 1X dilution)	470 µg/L (Results from 100X dilution)	The result being reported is from the 100X run and is below the PRL. The internal standard from the 1X run did not meet method criteria.
	Toluene	< 500 µg/L (Results from 100X dilution)	210 µg/L (Results from 1X dilution)	210 µg/L	As noted previously, the result being reported is from a run where the internal standard failed method criteria.
	1,1,2-trichloroethane	< 500 µg/L (Results from 100X dilution)	170 µg/L (Results from 1X dilution)	170 µg/L	As noted previously, the result being reported is from a run where the internal standard failed method criteria.
921871679	o-Xylene	< 5 µg/L	5.6 µg/L	< 5 µg/L	

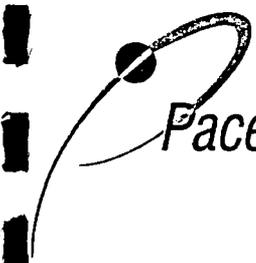
Diluted sample runs were not performed on the same day. All 100X dilutions were analyzed on October 17, 2001. The 50X, 1000X and 2000X dilutions were analyzed on October 18, 2001. The LCS analyzed on October 18, 2001 had high recovery for tetrachloroethene. The BFB tunes were acceptable.

The laboratory used the surrogate limits from the method, which are supplied as guidance until in-house limits are generated. We are in the process of generating in-house limits. The method limits are as follows:

Surrogate Compound	Water (% Recovery)
Dibromofluoromethane	86-118
1,2-Dichloroethane-d4	80-120
Toluene-d8	88-110
4-Bromofluorobenzene	86-115

QC results in the data report are associated with the undiluted sample runs.

With regard to your question about why some compounds are not reported for the method blank, I will attempt to explain how our LIMS system operates. When a batch is initially set up, the LIMS system links the method blank to the requested analyses for samples in that batch. If at a later date, additional compounds are added, the system is not able to go back and establish a link to the additional compounds.



Pace Analytical™

www.pacelabs.com

Pace Analytical Services, Inc.

9800 Kincey Avenue, Suite 100

Huntersville, NC 28078

Phone: 704.875.9092

Fax: 704.875.9091

Therefore, any compounds that were added after the analysis had already completed will not be included in the report. For QC Batch 48406, when the batch was initially set up, there were samples from other clients that required the additional compounds. As a result, the report for the method blank for this batch contains the added compounds while QC Batch 48165 does not. With regards to the sample duplicate, the reported results are dependent on which sample was duplicated and the analysis requested for that sample.



Mavis W. Jones

Quality Assurance Officer

ARCADIS Geraghty & Miller
2301 Rexwoods Dr.
Suite 200
Raleigh, NC 27607

Lab Project Number: 9226925
Client Project ID: NC101047.0001.00002/Worth

Attn: Mr. Jim Shilliday
Phone: (919)782-5511

Lab Sample No: 921871638 Project Sample Number: 9226925-001 Date Collected: 10/12/01 12:15
Client Sample ID: MW-1 Matrix: Water Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	1.0	10/15/01 12:31	RPJ 67-64-1		
Benzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 71-43-2		
Bromobenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 108-86-1		
Bromochloromethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 74-97-5		
Bromodichloromethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 75-27-4		
Bromoform	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 75-25-2		
Bromomethane	ND	ug/l	10.	1.0	10/15/01 12:31	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/l	100	1.0	10/15/01 12:31	RPJ 78-93-3		
n-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 56-23-5		
Chlorobenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 108-90-7		
Chloroethane	ND	ug/l	10.	1.0	10/15/01 12:31	RPJ 75-00-3		
Chloroform	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 67-66-3		
Chloromethane	ND	ug/l	10.	1.0	10/15/01 12:31	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 96-12-8		
Dibromochloromethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 106-93-4		
Dibromomethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/l	10.	1.0	10/15/01 12:31	RPJ 75-71-8		
1,1-Dichloroethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 75-34-3		
1,2-Dichloroethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 75-35-4		

Date: 12/11/01

Page: 1

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925
Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871638 Project Sample Number: 9226925-001 Date Collected: 10/12/01 12:15
Client Sample ID: MW-1 Matrix: Water Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
cis-1,2-Dichloroethene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 78-87-5		
1,3-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 563-58-6		
Diisopropyl ether	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 108-20-3		
Ethylbenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 99-87-6		
Methylene chloride	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	1.0	10/15/01 12:31	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 91-20-3		
n-Propylbenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 103-65-1		
Styrene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 79-34-5		
Tetrachloroethene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 127-18-4		
Toluene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 79-00-5		
Trichloroethene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	1.0	10/15/01 12:31	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 108-67-8		
Vinyl chloride	ND	ug/l	10.	1.0	10/15/01 12:31	RPJ 75-01-4		
m&p-Xylene	ND	ug/l	10.	1.0	10/15/01 12:31	RPJ		
o-Xylene	ND	ug/l	5.0	1.0	10/15/01 12:31	RPJ 95-47-6		
Toluene-d8 (S)	102	%		1.0	10/15/01 12:31	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	95	%		1.0	10/15/01 12:31	RPJ 460-00-4		
Dibromofluoromethane (S)	98	%		1.0	10/15/01 12:31	RPJ		
1,2-Dichloroethane-d4 (S)	114	%		1.0	10/15/01 12:31	RPJ 17060-07-0		

Date: 12/11/01

Page: 2

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925
Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871646 Project Sample Number: 9226925-002 Date Collected: 10/12/01 14:05
Client Sample ID: MW-2 Matrix: Water Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	10000	100	10/15/01 13:00	RPJ 67-64-1		
Benzene	110	ug/l	5.0	1.0	10/15/01 13:00	RPJ 71-43-2	1	
Bromobenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 108-86-1		
Bromochloromethane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 74-97-5		
Bromodichloromethane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 75-27-4		
Bromoform	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 75-25-2		
Bromomethane	ND	ug/l	10.	1.0	10/15/01 13:00	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/l	10000	100	10/15/01 13:00	RPJ 78-93-3		
n-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 56-23-5		
Chlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 108-90-7		
Chloroethane	ND	ug/l	10.	1.0	10/15/01 13:00	RPJ 75-00-3		
Chloroform	560	ug/l	500	100	10/15/01 13:00	RPJ 67-66-3		
Chloromethane	ND	ug/l	10.	1.0	10/15/01 13:00	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 96-12-8		
Dibromochloromethane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 106-93-4		
Dibromomethane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 74-95-3		
1,2-Dichlorobenzene	17.	ug/l	5.0	1.0	10/15/01 13:00	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/l	10.	1.0	10/15/01 13:00	RPJ 75-71-8		
1,1-Dichloroethane	110	ug/l	5.0	1.0	10/15/01 13:00	RPJ 75-34-3		
1,2-Dichloroethane	20.	ug/l	5.0	1.0	10/15/01 13:00	RPJ 107-06-2		
1,1-Dichloroethene	920	ug/l	500	100	10/15/01 13:00	RPJ 75-35-4		
cis-1,2-Dichloroethene	80000	ug/l	10000	2000	10/15/01 13:00	RPJ 156-59-2		
trans-1,2-Dichloroethene	230	ug/l	5.0	1.0	10/15/01 13:00	RPJ 156-60-5	1	
1,2-Dichloropropane	1200	ug/l	500	100	10/15/01 13:00	RPJ 78-87-5		
1,3-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 563-58-6		
Diisopropyl ether	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 108-20-3		

Date: 12/11/01

Page: 3

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

 Lab Sample No: 921871646
 Client Sample ID: MW-2

 Project Sample Number: 9226925-002
 Matrix: Water

 Date Collected: 10/12/01 14:05
 Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Ethylbenzene	3800	ug/l	500	100	10/15/01 13:00	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 87-68-3		
Isopropylbenzene (Cumene)	60.	ug/l	5.0	1.0	10/15/01 13:00	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 99-87-6		
Methylene chloride	530	ug/l	500	100	10/15/01 13:00	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	5000	ug/l	5000	100	10/15/01 13:00	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 1634-04-4		
Naphthalene	15.	ug/l	5.0	1.0	10/15/01 13:00	RPJ 91-20-3		
n-Propylbenzene	11.	ug/l	5.0	1.0	10/15/01 13:00	RPJ 103-65-1		
Styrene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 79-34-5		
Tetrachloroethene	6800	ug/l	500	100	10/15/01 13:00	RPJ 127-18-4		
Toluene	6500	ug/l	500	100	10/15/01 13:00	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 71-55-6		
1,1,2-Trichloroethane	190	ug/l	5.0	1.0	10/15/01 13:00	RPJ 79-00-5		
Trichloroethene	110000	ug/l	10000	2000	10/15/01 13:00	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	1.0	10/15/01 13:00	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:00	RPJ 96-18-4		
1,2,4-Trimethylbenzene	33.	ug/l	5.0	1.0	10/15/01 13:00	RPJ 95-63-6		
1,3,5-Trimethylbenzene	35.	ug/l	5.0	1.0	10/15/01 13:00	RPJ 108-67-8		
Vinyl chloride	47.	ug/l	10.	1.0	10/15/01 13:00	RPJ 75-01-4		
m&p-Xylene	14000	ug/l	1000	100	10/15/01 13:00	RPJ		
o-Xylene	5400	ug/l	500	100	10/15/01 13:00	RPJ 95-47-6		
Toluene-d8 (S)	690	%		1.0	10/15/01 13:00	RPJ 2037-26-5	2	
4-Bromofluorobenzene (S)	107	%		1.0	10/15/01 13:00	RPJ 460-00-4		
Dibromofluoromethane (S)	102	%		1.0	10/15/01 13:00	RPJ		
1,2-Dichloroethane-d4 (S)	111	%		1.0	10/15/01 13:00	RPJ 17060-07-0		

Date: 12/11/01

Page: 4

 Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

 Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871653
 Client Sample ID: MW-3

Project Sample Number: 9226925-003
 Matrix: Water

Date Collected: 10/12/01 12:05
 Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Fnote	Reg Limit
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	920	ug/l	100	1.0	10/15/01 13:29	RPJ 67-64-1	1	
Benzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 71-43-2		
Bromobenzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 108-86-1		
Bromochloromethane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 74-97-5		
Bromodichloromethane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 75-27-4		
Bromoform	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 75-25-2		
Bromomethane	ND	ug/l	10.	1.0	10/15/01 13:29	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/l	100	1.0	10/15/01 13:29	RPJ 78-93-3		
n-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 98-06-6		
Carbon tetrachloride	100	ug/l	5.0	1.0	10/15/01 13:29	RPJ 56-23-5		
Chlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 108-90-7		
Chloroethane	ND	ug/l	10.	1.0	10/15/01 13:29	RPJ 75-00-3		
Chloroform	34.	ug/l	5.0	1.0	10/15/01 13:29	RPJ 67-66-3		
Chloromethane	ND	ug/l	10.	1.0	10/15/01 13:29	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 96-12-8		
Dibromochloromethane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 106-93-4		
Dibromomethane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/l	10.	1.0	10/15/01 13:29	RPJ 75-71-8		
1,1-Dichloroethane	8.1	ug/l	5.0	1.0	10/15/01 13:29	RPJ 75-34-3		
1,2-Dichloroethane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 107-06-2		
1,1-Dichloroethene	270	ug/l	5.0	1.0	10/15/01 13:29	RPJ 75-35-4	1	
cis-1,2-Dichloroethene	37.	ug/l	5.0	1.0	10/15/01 13:29	RPJ 156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 78-87-5		
1,3-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 563-58-6		
Diisopropyl ether	ND	ug/l	5.0	1.0	10/15/01 13:29	RPJ 108-20-3		

Date: 12/11/01

Page: 5

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871653
Client Sample ID: MW-3

Project Sample Number: 9226925-003
Matrix: Water

Date Collected: 10/12/01 12:05
Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Ethylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	98-82-8		
p-Isopropyltoluene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	99-87-6		
Methylene chloride	96.	ug/l	5.0	1.0	10/15/01 13:29 RPJ	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	1.0	10/15/01 13:29 RPJ	108-10-1		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	1634-04-4		
Naphthalene	5.7	ug/l	5.0	1.0	10/15/01 13:29 RPJ	91-20-3		
n-Propylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	103-65-1		
Styrene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	79-34-5		
Tetrachloroethene	570	ug/l	5.0	1.0	10/15/01 13:29 RPJ	127-18-4	1	
Toluene	21.	ug/l	5.0	1.0	10/15/01 13:29 RPJ	108-88-3		
1,2,3-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	87-61-6		
1,2,4-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	120-82-1		
1,1,1-Trichloroethane	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	71-55-6		
1,1,2-Trichloroethane	11.	ug/l	5.0	1.0	10/15/01 13:29 RPJ	79-00-5		
Trichloroethene	22000	ug/l	5000	1000	10/15/01 13:29 RPJ	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	1.0	10/15/01 13:29 RPJ	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	96-18-4		
1,2,4-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	108-67-8		
Vinyl chloride	ND	ug/l	10.	1.0	10/15/01 13:29 RPJ	75-01-4		
m&p-Xylene	ND	ug/l	10.	1.0	10/15/01 13:29 RPJ			
o-Xylene	ND	ug/l	5.0	1.0	10/15/01 13:29 RPJ	95-47-6		
Toluene-d8 (S)	173	%		1.0	10/15/01 13:29 RPJ	2037-26-5	2	
4-Bromofluorobenzene (S)	98	%		1.0	10/15/01 13:29 RPJ	460-00-4		
Dibromofluoromethane (S)	96	%		1.0	10/15/01 13:29 RPJ			
1,2-Dichloroethane-d4 (S)	113	%		1.0	10/15/01 13:29 RPJ	17060-07-0		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871661
Client Sample ID: MW-4

Project Sample Number: 9226925-004
Matrix: Water

Date Collected: 10/12/01 12:50
Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	1.0	10/15/01 13:57	RPJ 67-64-1		
Benzene	220	ug/l	500	100	10/15/01 13:57	RPJ 71-43-2	3	
Bromobenzene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 108-86-1		
Bromochloromethane	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 74-97-5		
Bromodichloromethane	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 75-27-4		
Bromoform	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 75-25-2		
Bromomethane	ND	ug/l	10.	1.0	10/15/01 13:57	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/l	100	1.0	10/15/01 13:57	RPJ 78-93-3		
n-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 98-06-6		
Carbon tetrachloride	260	ug/l	500	100	10/15/01 13:57	RPJ 56-23-5	3	
Chlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 108-90-7		
Chloroethane	ND	ug/l	10.	1.0	10/15/01 13:57	RPJ 75-00-3		
Chloroform	210	ug/l	5.0	1.0	10/15/01 13:57	RPJ 67-66-3	1	
Chloromethane	ND	ug/l	10.	1.0	10/15/01 13:57	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 96-12-8		
Dibromochloromethane	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 106-93-4		
Dibromomethane	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/l	10.	1.0	10/15/01 13:57	RPJ 75-71-8		
1,1-Dichloroethane	53.	ug/l	5.0	1.0	10/15/01 13:57	RPJ 75-34-3		
1,2-Dichloroethane	12.	ug/l	5.0	1.0	10/15/01 13:57	RPJ 107-06-2		
1,1-Dichloroethene	590	ug/l	500	100	10/15/01 13:57	RPJ 75-35-4		
cis-1,2-Dichloroethene	52000	ug/l	5000	1000	10/15/01 13:57	RPJ 156-59-2		
trans-1,2-Dichloroethene	81.	ug/l	5.0	1.0	10/15/01 13:57	RPJ 156-60-5		
1,2-Dichloropropane	470	ug/l	500	100	10/15/01 13:57	RPJ 78-87-5	3	
1,3-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 563-58-6		
Diisopropyl ether	ND	ug/l	5.0	1.0	10/15/01 13:57	RPJ 108-20-3		

Date: 12/11/01

Page: 7

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871661

Project Sample Number: 9226925-004

Date Collected: 10/12/01 12:50

Client Sample ID: MW-4

Matrix: Water

Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Ethylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	87-68-3		
Isopropylbenzene (Cumene)	25.	ug/l	5.0	1.0	10/15/01 13:57 RPJ	98-82-8		
p-Isopropyltoluene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	99-87-6		
Methylene chloride	12.	ug/l	5.0	1.0	10/15/01 13:57 RPJ	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	1.0	10/15/01 13:57 RPJ	108-10-1		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	91-20-3		
n-Propylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	103-65-1		
Styrene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	79-34-5		
Tetrachloroethene	1100	ug/l	500	100	10/15/01 13:57 RPJ	127-18-4		
Toluene	210	ug/l	5.0	1.0	10/15/01 13:57 RPJ	108-88-3	1	
1,2,3-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	87-61-6		
1,2,4-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	120-82-1		
1,1,1-Trichloroethane	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	71-55-6		
1,1,2-Trichloroethane	170	ug/l	5.0	1.0	10/15/01 13:57 RPJ	79-00-5	1	
Trichloroethene	96000	ug/l	5000	1000	10/15/01 13:57 RPJ	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	1.0	10/15/01 13:57 RPJ	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	96-18-4		
1,2,4-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 13:57 RPJ	108-67-8		
Vinyl chloride	ND	ug/l	10.	1.0	10/15/01 13:57 RPJ	75-01-4		
m&p-Xylene	190	ug/l	10.	1.0	10/15/01 13:57 RPJ			
o-Xylene	1200	ug/l	500	100	10/15/01 13:57 RPJ	95-47-6		
Toluene-d8 (S)	606	%		1.0	10/15/01 13:57 RPJ	2037-26-5	1	
4-Bromofluorobenzene (S)	92	%		1.0	10/15/01 13:57 RPJ	460-00-4		
Dibromofluoromethane (S)	108	%		1.0	10/15/01 13:57 RPJ			
1,2-Dichloroethane-d4 (S)	117	%		1.0	10/15/01 13:57 RPJ	17060-07-0		

Date: 12/11/01

Page: 8

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925
Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871679 Project Sample Number: 9226925-005 Date Collected: 10/12/01 13:20
Client Sample ID: MW-5 Matrix: Water Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	270	ug/l	100	1.0	10/15/01 14:26	RPJ 67-64-1		
Benzene	6.2	ug/l	5.0	1.0	10/15/01 14:26	RPJ 71-43-2		
Bromobenzene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 108-86-1		
Bromochloromethane	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 74-97-5		
Bromodichloromethane	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 75-27-4		
Bromoform	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 75-25-2		
Bromomethane	ND	ug/l	10.	1.0	10/15/01 14:26	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/l	100	1.0	10/15/01 14:26	RPJ 78-93-3		
n-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 56-23-5		
Chlorobenzene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 108-90-7		
Chloroethane	ND	ug/l	10.	1.0	10/15/01 14:26	RPJ 75-00-3		
Chloroform	3400	ug/l	250	50.0	10/15/01 14:26	RPJ 67-66-3		
Chloromethane	ND	ug/l	10.	1.0	10/15/01 14:26	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 96-12-8		
Dibromochloromethane	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 106-93-4		
Dibromomethane	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/l	10.	1.0	10/15/01 14:26	RPJ 75-71-8		
1,1-Dichloroethane	69.	ug/l	5.0	1.0	10/15/01 14:26	RPJ 75-34-3		
1,2-Dichloroethane	16.	ug/l	5.0	1.0	10/15/01 14:26	RPJ 107-06-2		
1,1-Dichloroethene	360	ug/l	250	50.0	10/15/01 14:26	RPJ 75-35-4		
cis-1,2-Dichloroethene	200	ug/l	5.0	1.0	10/15/01 14:26	RPJ 156-59-2		
trans-1,2-Dichloroethene	5.0	ug/l	5.0	1.0	10/15/01 14:26	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 78-87-5		
1,3-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 563-58-6		
Diisopropyl ether	ND	ug/l	5.0	1.0	10/15/01 14:26	RPJ 108-20-3		

Date: 12/11/01

Page: 9

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871679
 Client Sample ID: MW-5

Project Sample Number: 9226925-005
 Matrix: Water

Date Collected: 10/12/01 13:20
 Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Ethylbenzene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	98-82-8		
p-Isopropyltoluene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	99-87-6		
Methylene chloride	630	ug/l	250	50.0	10/15/01 14:26 RPJ	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	1.0	10/15/01 14:26 RPJ	108-10-1		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	91-20-3		
n-Propylbenzene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	103-65-1		
Styrene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	79-34-5		
Tetrachloroethene	1400	ug/l	250	50.0	10/15/01 14:26 RPJ	127-18-4		
Toluene	75.	ug/l	5.0	1.0	10/15/01 14:26 RPJ	108-88-3		
1,2,3-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	87-61-6		
1,2,4-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	120-82-1		
1,1,1-Trichloroethane	19.	ug/l	5.0	1.0	10/15/01 14:26 RPJ	71-55-6		
1,1,2-Trichloroethane	49.	ug/l	5.0	1.0	10/15/01 14:26 RPJ	79-00-5		
Trichloroethene	2700	ug/l	250	50.0	10/15/01 14:26 RPJ	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	1.0	10/15/01 14:26 RPJ	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	96-18-4		
1,2,4-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	108-67-8		
Vinyl chloride	ND	ug/l	10.	1.0	10/15/01 14:26 RPJ	75-01-4		
m&p-Xylene	ND	ug/l	10.	1.0	10/15/01 14:26 RPJ			
o-Xylene	ND	ug/l	5.0	1.0	10/15/01 14:26 RPJ	95-47-6		
Toluene-d8 (S)	100	%		1.0	10/15/01 14:26 RPJ	2037-26-5		
4-Bromofluorobenzene (S)	95	%		1.0	10/15/01 14:26 RPJ	460-00-4		
Dibromofluoromethane (S)	101	%		1.0	10/15/01 14:26 RPJ			
1,2-Dichloroethane-d4 (S)	117	%		1.0	10/15/01 14:26 RPJ	17060-07-0		

Date: 12/11/01

Page: 10

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871687
Client Sample ID: TRIP BLANK

Project Sample Number: 9226925-006
Matrix: Water

Date Collected: 10/12/01 14:45
Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
GC/MS Volatiles								
GC/MS VOCs by 8260								
Prep/Method: EPA 8260 / EPA 8260								
Acetone	ND	ug/l	100	1.0	10/15/01 10:37	RPJ 67-64-1		
Benzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 71-43-2		
Bromobenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 108-86-1		
Bromochloromethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 74-97-5		
Bromodichloromethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 75-27-4		
Bromoform	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 75-25-2		
Bromomethane	ND	ug/l	10.	1.0	10/15/01 10:37	RPJ 74-83-9		
2-Butanone (MEK)	ND	ug/l	100	1.0	10/15/01 10:37	RPJ 78-93-3		
n-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 104-51-8		
sec-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 135-98-8		
tert-Butylbenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 98-06-6		
Carbon tetrachloride	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 56-23-5		
Chlorobenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 108-90-7		
Chloroethane	ND	ug/l	10.	1.0	10/15/01 10:37	RPJ 75-00-3		
Chloroform	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 67-66-3		
Chloromethane	ND	ug/l	10.	1.0	10/15/01 10:37	RPJ 74-87-3		
2-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 95-49-8		
4-Chlorotoluene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 96-12-8		
Dibromochloromethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 106-93-4		
Dibromomethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 106-46-7		
Dichlorodifluoromethane	ND	ug/l	10.	1.0	10/15/01 10:37	RPJ 75-71-8		
1,1-Dichloroethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 75-34-3		
1,2-Dichloroethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 78-87-5		
1,3-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 142-28-9		
2,2-Dichloropropane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 594-20-7		
1,1-Dichloropropene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 563-58-6		
Diisopropyl ether	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 108-20-3		

Date: 12/11/01

Page: 11

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

Lab Sample No: 921871687
 Client Sample ID: TRIP BLANK

Project Sample Number: 9226925-006
 Matrix: Water

Date Collected: 10/12/01 14:45
 Date Received: 10/13/01 09:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
Ethylbenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 98-82-8		
p-Isopropyltoluene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 99-87-6		
Methylene chloride	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	1.0	10/15/01 10:37	RPJ 108-10-1		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 91-20-3		
n-Propylbenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 103-65-1		
Styrene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 79-34-5		
Tetrachloroethene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 127-18-4		
Toluene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 108-88-3		
1,2,3-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 87-61-6		
1,2,4-Trichlorobenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 120-82-1		
1,1,1-Trichloroethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 79-00-5		
Trichloroethene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	1.0	10/15/01 10:37	RPJ 75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 96-18-4		
1,2,4-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 95-63-6		
1,3,5-Trimethylbenzene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 108-67-8		
Vinyl chloride	ND	ug/l	10.	1.0	10/15/01 10:37	RPJ 75-01-4		
m&p-Xylene	ND	ug/l	10.	1.0	10/15/01 10:37	RPJ		
o-Xylene	ND	ug/l	5.0	1.0	10/15/01 10:37	RPJ 95-47-6		
Toluene-d8 (S)	101	x		1.0	10/15/01 10:37	RPJ 2037-26-5		
4-Bromofluorobenzene (S)	113	x		1.0	10/15/01 10:37	RPJ 460-00-4		
Dibromofluoromethane (S)	97	x		1.0	10/15/01 10:37	RPJ		
1,2-Dichloroethane-d4 (S)	112	x		1.0	10/15/01 10:37	RPJ 17060-07-0		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

PARAMETER FOOTNOTES

ND Not Detected

NC Not Calculable

(S) Surrogate

[1] Compound concentration exceeds the calibration range of the instrument (CLP E-Flag).

[2] The surrogate recovery was outside QC acceptance limits due to matrix interference.

[3] Detected but below the PRL; therefore, result is an estimated concentration (CLP J-Flag).

Date: 12/11/01

Page: 13

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

QC Batch: 48046

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: GC/MS VOCs by 8260

Associated Lab Samples: 921871638

921871687

METHOD BLANK: 921874707

Associated Lab Samples: 921871638 921871687

<u>Parameter</u>	<u>Units</u>	<u>Blank Result</u>	<u>Reporting Limit</u>	<u>Footnotes</u>
Acetone	ug/l	ND	100	
Benzene	ug/l	ND	5.0	
Bromobenzene	ug/l	ND	5.0	
Bromochloromethane	ug/l	ND	5.0	
Bromodichloromethane	ug/l	ND	5.0	
Bromoform	ug/l	ND	5.0	
Bromomethane	ug/l	ND	10.	
2-Butanone (MEK)	ug/l	ND	100	
n-Butylbenzene	ug/l	ND	5.0	
sec-Butylbenzene	ug/l	ND	5.0	
tert-Butylbenzene	ug/l	ND	5.0	
Carbon tetrachloride	ug/l	ND	5.0	
Chlorobenzene	ug/l	ND	5.0	
Chloroethane	ug/l	ND	10.	
Chloroform	ug/l	ND	5.0	
Chloromethane	ug/l	ND	10.	
2-Chlorotoluene	ug/l	ND	5.0	
4-Chlorotoluene	ug/l	ND	5.0	
1,2-Dibromo-3-chloropropane	ug/l	ND	5.0	
Dibromochloromethane	ug/l	ND	5.0	
1,2-Dibromoethane (EDB)	ug/l	ND	5.0	
Dibromomethane	ug/l	ND	5.0	
1,2-Dichlorobenzene	ug/l	ND	5.0	
1,3-Dichlorobenzene	ug/l	ND	5.0	
1,4-Dichlorobenzene	ug/l	ND	5.0	
Dichlorodifluoromethane	ug/l	ND	10.	
1,1-Dichloroethane	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
1,1-Dichloroethene	ug/l	ND	5.0	
cis-1,2-Dichloroethene	ug/l	ND	5.0	

Date: 12/11/01

Page: 14

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

METHOD BLANK: 921874707

Associated Lab Samples: 921871638 921871687

Parameter	Units	Blank Result	Reporting Limit	Footnotes
trans-1,2-Dichloroethene	ug/l	ND	5.0	
1,2-Dichloropropane	ug/l	ND	5.0	
1,3-Dichloropropane	ug/l	ND	5.0	
2,2-Dichloropropane	ug/l	ND	5.0	
1,1-Dichloropropene	ug/l	ND	5.0	
Diisopropyl ether	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Hexachloro-1,3-butadiene	ug/l	ND	5.0	
Isopropylbenzene (Cumene)	ug/l	ND	5.0	
p-Isopropyltoluene	ug/l	ND	5.0	
Methylene chloride	ug/l	ND	5.0	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	50.	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
n-Propylbenzene	ug/l	ND	5.0	
Styrene	ug/l	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/l	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/l	ND	5.0	
Tetrachloroethene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
1,2,3-Trichlorobenzene	ug/l	ND	5.0	
1,2,4-Trichlorobenzene	ug/l	ND	5.0	
1,1,1-Trichloroethane	ug/l	ND	5.0	
1,1,2-Trichloroethane	ug/l	ND	5.0	
Trichloroethene	ug/l	ND	5.0	
Trichlorofluoromethane	ug/l	ND	10.	
1,2,3-Trichloropropane	ug/l	ND	5.0	
1,2,4-Trimethylbenzene	ug/l	ND	5.0	
1,3,5-Trimethylbenzene	ug/l	ND	5.0	
Vinyl chloride	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	×	102		
4-Bromofluorobenzene (S)	×	96		
Dibromofluoromethane (S)	×	97		

Date: 12/11/01

Page: 15

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

METHOD BLANK: 921874707

Associated Lab Samples: 921871638 921871687

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dichloroethane-d4 (S)	μ	110		

LABORATORY CONTROL SAMPLE: 921870820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/l	100	80.73	81	
Benzene	ug/l	50	48.55	97	
Bromobenzene	ug/l	50	53.06	106	
Bromochloromethane	ug/l	50	47.28	95	
Bromodichloromethane	ug/l	50	53.55	107	
Bromoform	ug/l	50	58.90	118	
Bromomethane	ug/l	50	52.68	105	
2-Butanone (MEK)	ug/l	100	86.35	86	
n-Butylbenzene	ug/l	50	50.84	102	
sec-Butylbenzene	ug/l	50	51.95	104	
tert-Butylbenzene	ug/l	50	35.07	70	
Carbon tetrachloride	ug/l	50	54.74	109	
Chlorobenzene	ug/l	50	51.11	102	
Chloroethane	ug/l	50	52.33	105	
Chloroform	ug/l	50	49.55	99	
Chloromethane	ug/l	50	38.46	77	
2-Chlorotoluene	ug/l	50	52.37	105	
4-Chlorotoluene	ug/l	50	52.62	105	
1,2-Dibromo-3-chloropropane	ug/l	50	55.02	110	
Dibromochloromethane	ug/l	50	55.84	112	
1,2-Dibromoethane (EDB)	ug/l	50	51.23	102	
Dibromomethane	ug/l	50	50.98	102	
1,2-Dichlorobenzene	ug/l	50	51.40	103	
1,3-Dichlorobenzene	ug/l	50	56.07	112	
1,4-Dichlorobenzene	ug/l	50	50.60	101	
Dichlorodifluoromethane	ug/l	50	37.09	74	
1,1-Dichloroethane	ug/l	50	50.80	102	
1,2-Dichloroethane	ug/l	50	49.62	99	

Date: 12/11/01

Page: 16

 Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

 Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

LABORATORY CONTROL SAMPLE: 921870820

<u>Parameter</u>	<u>Units</u>	<u>Spike Conc.</u>	<u>LCS Result</u>	<u>LCS % Rec</u>	<u>Footnotes</u>
1,1-Dichloroethene	ug/l	50	48.86	98	
cis-1,2-Dichloroethene	ug/l	50	48.34	97	
trans-1,2-Dichloroethene	ug/l	50	51.18	102	
1,2-Dichloropropane	ug/l	50	48.11	96	
1,3-Dichloropropane	ug/l	50	51.01	102	
2,2-Dichloropropane	ug/l	50	43.04	86	
1,1-Dichloropropene	ug/l	50	48.84	98	
Diisopropyl ether	ug/l	50	50.07	100	
Ethylbenzene	ug/l	50	52.43	105	
Hexachloro-1,3-butadiene	ug/l	50	32.09	64	1
Isopropylbenzene (Cumene)	ug/l	50	54.12	108	
p-Isopropyltoluene	ug/l	50	51.72	103	
Methylene chloride	ug/l	50	50.20	100	
4-Methyl-2-pentanone (MIBK)	ug/l	100	97.15	97	
Methyl-tert-butyl ether	ug/l	50	51.23	102	
Naphthalene	ug/l	50	39.17	78	
n-Propylbenzene	ug/l	50	53.45	107	
Styrene	ug/l	50	53.58	107	
1,1,1,2-Tetrachloroethane	ug/l	50	52.11	104	
1,1,2,2-Tetrachloroethane	ug/l	50	48.94	98	
Tetrachloroethene	ug/l	50	71.89	144	1
Toluene	ug/l	50	51.38	103	
1,2,3-Trichlorobenzene	ug/l	50	34.99	70	
1,2,4-Trichlorobenzene	ug/l	50	43.74	88	
1,1,1-Trichloroethane	ug/l	50	52.16	104	
1,1,2-Trichloroethane	ug/l	50	50.12	100	
Trichloroethene	ug/l	50	51.27	103	
Trichlorofluoromethane	ug/l	50	51.24	102	
1,2,3-Trichloropropane	ug/l	50	53.44	107	
1,2,4-Trimethylbenzene	ug/l	50	53.73	107	
1,3,5-Trimethylbenzene	ug/l	50	52.58	105	
Vinyl chloride	ug/l	50	40.31	81	
m&p-Xylene	ug/l	100	108.3	108	
o-Xylene	ug/l	50	52.74	105	
Toluene-d8 (S)				99	
4-Bromofluorobenzene (S)				99	

Date: 12/11/01

Page: 17

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

LABORATORY CONTROL SAMPLE: 921870820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Dibromofluoromethane (S)				99	
1,2-Dichloroethane-d4 (S)				104	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921873311 921873329

Parameter	Units	921866042 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	50.44	49.47	101	99	2	
Chlorobenzene	ug/l	0	50.00	53.00	49.79	106	100	6	
1,1-Dichloroethene	ug/l	0	50.00	50.16	49.49	100	99	1	
Toluene	ug/l	0	50.00	52.79	51.44	106	103	3	
Trichloroethene	ug/l	0	50.00	52.83	52.19	106	104	1	
Toluene-d8 (S)						99	100		
4-Bromofluorobenzene (S)						105	114		
Dibromofluoromethane (S)						100	101		
1,2-Dichloroethane-d4 (S)						106	103		

SAMPLE DUPLICATE: 921873303

Parameter	Units	921866034 Result	DUP Result	RPD	Footnotes
Acetone	ug/l	ND	ND	NC	
Benzene	ug/l	ND	ND	NC	
Bromobenzene	ug/l	ND	ND	NC	
Bromochloromethane	ug/l	ND	ND	NC	
Bromodichloromethane	ug/l	ND	ND	NC	
Bromoform	ug/l	ND	ND	NC	
Bromomethane	ug/l	ND	ND	NC	
2-Butanone (MEK)	ug/l	ND	ND	NC	
n-Butylbenzene	ug/l	ND	ND	NC	
sec-Butylbenzene	ug/l	ND	ND	NC	
tert-Butylbenzene	ug/l	ND	ND	NC	
Carbon tetrachloride	ug/l	ND	ND	NC	
Chlorobenzene	ug/l	ND	ND	NC	

Date: 12/11/01

Page: 18

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

SAMPLE DUPLICATE: 921873303

Parameter	Units	921866034	DUP	RPD	Footnotes
		Result	Result		
Chloroethane	ug/l	ND	ND	NC	
Chloroform	ug/l	ND	ND	NC	
Chloromethane	ug/l	ND	ND	NC	
2-Chlorotoluene	ug/l	ND	ND	NC	
4-Chlorotoluene	ug/l	ND	ND	NC	
1,2-Dibromo-3-chloropropane	ug/l	ND	ND	NC	
Dibromochloromethane	ug/l	ND	ND	NC	
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
Dibromomethane	ug/l	ND	ND	NC	
1,2-Dichlorobenzene	ug/l	ND	ND	NC	
1,3-Dichlorobenzene	ug/l	ND	ND	NC	
1,4-Dichlorobenzene	ug/l	ND	ND	NC	
Dichlorodifluoromethane	ug/l	ND	ND	NC	
1,1-Dichloroethane	ug/l	ND	ND	NC	
1,2-Dichloroethane	ug/l	ND	ND	NC	
1,1-Dichloroethene	ug/l	ND	ND	NC	
cis-1,2-Dichloroethene	ug/l	ND	ND	NC	
trans-1,2-Dichloroethene	ug/l	ND	ND	NC	
1,2-Dichloropropane	ug/l	ND	ND	NC	
1,3-Dichloropropane	ug/l	ND	ND	NC	
2,2-Dichloropropane	ug/l	ND	ND	NC	
1,1-Dichloropropene	ug/l	ND	ND	NC	
Diisopropyl ether	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	ND	ND	NC	
Hexachloro-1,3-butadiene	ug/l	ND	ND	NC	
Isopropylbenzene (Cumene)	ug/l	ND	ND	NC	
p-Isopropyltoluene	ug/l	ND	ND	NC	
Methylene chloride	ug/l	ND	ND	NC	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	ND	NC	
Methyl-tert-butyl ether	ug/l	ND	ND	NC	
Naphthalene	ug/l	ND	ND	NC	
n-Propylbenzene	ug/l	ND	ND	NC	
Styrene	ug/l	ND	ND	NC	
1,1,1,2-Tetrachloroethane	ug/l	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/l	ND	ND	NC	
Tetrachloroethene	ug/l	ND	ND	NC	

Date: 12/11/01

Page: 19

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

SAMPLE DUPLICATE: 921873303

Parameter	Units	921866034	DUP	RPD	Footnotes
		Result	Result		
Toluene	ug/l	ND	ND	NC	
1,2,3-Trichlorobenzene	ug/l	ND	ND	NC	
1,2,4-Trichlorobenzene	ug/l	ND	ND	NC	
1,1,1-Trichloroethane	ug/l	ND	ND	NC	
1,1,2-Trichloroethane	ug/l	ND	ND	NC	
Trichloroethene	ug/l	ND	ND	NC	
Trichlorofluoromethane	ug/l	ND	ND	NC	
1,2,3-Trichloropropane	ug/l	ND	ND	NC	
1,2,4-Trimethylbenzene	ug/l	ND	ND	NC	
1,3,5-Trimethylbenzene	ug/l	ND	ND	NC	
Vinyl chloride	ug/l	ND	ND	NC	
m&p-Xylene	ug/l	ND	ND	NC	
o-Xylene	ug/l	ND	ND	NC	
Toluene-d8 (S)	%	100	101		
4-Bromofluorobenzene (S)	%	88	86		1
Dibromofluoromethane (S)	%	98	101		
1,2-Dichloroethane-d4 (S)	%	104	104		

Date: 12/11/01

Page: 20

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

QC Batch: 48165

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: GC/MS VOCs by 8260

Associated Lab Samples: 921871646 921871653 921871661 921871679

METHOD BLANK: 921874715

Associated Lab Samples: 921871646 921871653 921871661 921871679

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
Bromobenzene	ug/l	ND	5.0	
Bromochloromethane	ug/l	ND	5.0	
Bromodichloromethane	ug/l	ND	5.0	
Bromoform	ug/l	ND	5.0	
Bromomethane	ug/l	ND	10.	
n-Butylbenzene	ug/l	ND	5.0	
sec-Butylbenzene	ug/l	ND	5.0	
tert-Butylbenzene	ug/l	ND	5.0	
Carbon tetrachloride	ug/l	ND	5.0	
Chlorobenzene	ug/l	ND	5.0	
Chloroethane	ug/l	ND	10.	
Chloroform	ug/l	ND	5.0	
Chloromethane	ug/l	ND	10.	
2-Chlorotoluene	ug/l	ND	5.0	
4-Chlorotoluene	ug/l	ND	5.0	
1,2-Dibromo-3-chloropropane	ug/l	ND	5.0	
Dibromochloromethane	ug/l	ND	5.0	
1,2-Dibromoethane (EDB)	ug/l	ND	5.0	
Dibromomethane	ug/l	ND	5.0	
1,2-Dichlorobenzene	ug/l	ND	5.0	
1,3-Dichlorobenzene	ug/l	ND	5.0	
1,4-Dichlorobenzene	ug/l	ND	5.0	
Dichlorodifluoromethane	ug/l	ND	10.	
1,1-Dichloroethane	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
1,1-Dichloroethene	ug/l	ND	5.0	
cis-1,2-Dichloroethene	ug/l	ND	5.0	
trans-1,2-Dichloroethene	ug/l	ND	5.0	
1,2-Dichloropropane	ug/l	ND	5.0	

Date: 12/11/01

Page: 21

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

METHOD BLANK: 921874715

Associated Lab Samples: 921871646 921871653 921871661 921871679

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,3-Dichloropropane	ug/l	ND	5.0	
2,2-Dichloropropane	ug/l	ND	5.0	
1,1-Dichloropropene	ug/l	ND	5.0	
Diisopropyl ether	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Hexachloro-1,3-butadiene	ug/l	ND	5.0	
Isopropylbenzene (Cumene)	ug/l	ND	5.0	
p-Isopropyltoluene	ug/l	ND	5.0	
Methylene chloride	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
n-Propylbenzene	ug/l	ND	5.0	
Styrene	ug/l	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/l	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/l	ND	5.0	
Tetrachloroethene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
1,2,3-Trichlorobenzene	ug/l	ND	5.0	
1,2,4-Trichlorobenzene	ug/l	ND	5.0	
1,1,1-Trichloroethane	ug/l	ND	5.0	
1,1,2-Trichloroethane	ug/l	ND	5.0	
Trichloroethene	ug/l	ND	5.0	
Trichlorofluoromethane	ug/l	ND	10.	
1,2,3-Trichloropropane	ug/l	ND	5.0	
1,2,4-Trimethylbenzene	ug/l	ND	5.0	
1,3,5-Trimethylbenzene	ug/l	ND	5.0	
Vinyl chloride	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	102		
4-Bromofluorobenzene (S)	%	96		
Dibromofluoromethane (S)	%	97		
1,2-Dichloroethane-d4 (S)	%	110		

Date: 12/11/01

Page: 22

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

LABORATORY CONTROL SAMPLE: 921874723

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/l	100	117.0	117	
Benzene	ug/l	50	45.56	91	
Bromobenzene	ug/l	50	38.36	77	
Bromochloromethane	ug/l	50	43.24	86	
Bromodichloromethane	ug/l	50	53.86	108	
Bromoform	ug/l	50	52.79	106	
Bromomethane	ug/l	50	53.86	108	
2-Butanone (MEK)	ug/l	100	89.38	89	
n-Butylbenzene	ug/l	50	37.97	76	
sec-Butylbenzene	ug/l	50	38.49	77	
tert-Butylbenzene	ug/l	50	28.76	58	1
Carbon tetrachloride	ug/l	50	60.42	121	
Chlorobenzene	ug/l	50	47.24	94	
Chloroethane	ug/l	50	51.93	104	
Chloroform	ug/l	50	48.38	97	
Chloromethane	ug/l	50	34.11	68	
2-Chlorotoluene	ug/l	50	38.19	76	
4-Chlorotoluene	ug/l	50	37.58	75	
1,2-Dibromo-3-chloropropane	ug/l	50	43.88	88	
Dibromochloromethane	ug/l	50	51.29	103	
1,2-Dibromoethane (EDB)	ug/l	50	48.87	98	
Dibromomethane	ug/l	50	53.22	106	
1,2-Dichlorobenzene	ug/l	50	37.99	76	
1,3-Dichlorobenzene	ug/l	50	42.10	84	
1,4-Dichlorobenzene	ug/l	50	37.81	76	
Dichlorodifluoromethane	ug/l	50	37.05	74	
1,1-Dichloroethane	ug/l	50	51.92	104	
1,2-Dichloroethane	ug/l	50	50.25	100	
1,1-Dichloroethene	ug/l	50	52.80	106	
cis-1,2-Dichloroethene	ug/l	50	44.19	88	
trans-1,2-Dichloroethene	ug/l	50	52.39	105	
1,2-Dichloropropane	ug/l	50	43.18	86	
1,3-Dichloropropane	ug/l	50	46.99	94	
2,2-Dichloropropane	ug/l	50	50.91	102	
1,1-Dichloropropene	ug/l	50	46.17	92	
Diisopropyl ether	ug/l	50	51.96	104	

Date: 12/11/01

Page: 23

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925
Client Project ID: NC101047.0001.00002/Worth

LABORATORY CONTROL SAMPLE: 921874723

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Ethylbenzene	ug/l	50	48.93	98	
Hexachloro-1,3-butadiene	ug/l	50	25.66	51	1
Isopropylbenzene (Cumene)	ug/l	50	51.82	104	
p-Isopropyltoluene	ug/l	50	39.14	78	
Methylene chloride	ug/l	50	51.31	103	
4-Methyl-2-pentanone (MIBK)	ug/l	100	98.49	98	
Methyl-tert-butyl ether	ug/l	50	54.74	109	
Naphthalene	ug/l	50	29.75	60	1
n-Propylbenzene	ug/l	50	37.95	76	
Styrene	ug/l	50	49.95	100	
1,1,1,2-Tetrachloroethane	ug/l	50	49.80	100	
1,1,2,2-Tetrachloroethane	ug/l	50	46.61	93	
Tetrachloroethene	ug/l	50	56.57	113	
Toluene	ug/l	50	49.01	98	
1,2,3-Trichlorobenzene	ug/l	50	28.49	57	1
1,2,4-Trichlorobenzene	ug/l	50	35.17	70	
1,1,1-Trichloroethane	ug/l	50	52.86	106	
1,1,2-Trichloroethane	ug/l	50	49.59	99	
Trichloroethene	ug/l	50	50.76	102	
Trichlorofluoromethane	ug/l	50	55.16	110	
1,2,3-Trichloropropane	ug/l	50	53.73	107	
1,2,4-Trimethylbenzene	ug/l	50	38.71	77	
1,3,5-Trimethylbenzene	ug/l	50	38.29	77	
Vinyl chloride	ug/l	50	43.39	87	
m&p-Xylene	ug/l	100	102.6	103	
o-Xylene	ug/l	50	49.93	100	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				117	1
Dibromofluoromethane (S)				95	
1,2-Dichloroethane-d4 (S)				110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921880704 921880712

Parameter	Units	921876348 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
-----------	-------	------------------	-------------	-----------	------------	----------	-----------	-----	-----------

Date: 12/11/01

Page: 24

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921880704 921880712

Parameter	Units	921876348	Spike	MS	MSD	MS	MSD	RPD	Footnotes
		Result	Conc.	Result	Result	% Rec	% Rec		
Benzene	ug/l	0	50.00	50.49	51.89	101	104	3	
Chlorobenzene	ug/l	0	50.00	53.38	55.35	107	111	4	
1,1-Dichloroethene	ug/l	0	50.00	49.35	48.73	99	98	1	
Toluene	ug/l	0	50.00	51.17	51.96	102	104	2	
Trichloroethene	ug/l	23.48	50.00	73.89	74.36	101	102	1	
Toluene-d8 (S)						93	92		
4-Bromofluorobenzene (S)						91	87		
Dibromofluoromethane (S)						96	97		
1,2-Dichloroethane-d4 (S)						91	94		

SAMPLE DUPLICATE: 921880696

Parameter	Units	921876314	DUP	RPD	Footnotes
		Result	Result		
Benzene	ug/l	ND	ND	NC	
Bromobenzene	ug/l	ND	ND	NC	
Bromochloromethane	ug/l	ND	ND	NC	
Bromodichloromethane	ug/l	ND	ND	NC	
Bromoform	ug/l	ND	ND	NC	
Bromomethane	ug/l	ND	ND	NC	
n-Butylbenzene	ug/l	ND	ND	NC	
sec-Butylbenzene	ug/l	ND	ND	NC	
tert-Butylbenzene	ug/l	ND	ND	NC	
Carbon tetrachloride	ug/l	ND	ND	NC	
Chlorobenzene	ug/l	ND	ND	NC	
Chloroethane	ug/l	ND	ND	NC	
Chloroform	ug/l	ND	ND	NC	
Chloromethane	ug/l	ND	ND	NC	
2-Chlorotoluene	ug/l	ND	ND	NC	
4-Chlorotoluene	ug/l	ND	ND	NC	
1,2-Dibromo-3-chloropropane	ug/l	ND	ND	NC	
Dibromochloromethane	ug/l	ND	ND	NC	
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
Dibromomethane	ug/l	ND	ND	NC	
1,2-Dichlorobenzene	ug/l	ND	ND	NC	

Date: 12/11/01

Page: 25

 Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

 Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

SAMPLE DUPLICATE: 921880696

Parameter	Units	921876314	DUP	RPD	Footnotes
		Result	Result		
1,3-Dichlorobenzene	ug/l	ND	ND	NC	
1,4-Dichlorobenzene	ug/l	ND	ND	NC	
Dichlorodifluoromethane	ug/l	ND	ND	NC	
1,1-Dichloroethane	ug/l	ND	ND	NC	
1,2-Dichloroethane	ug/l	ND	ND	NC	
1,1-Dichloroethene	ug/l	ND	ND	NC	
cis-1,2-Dichloroethene	ug/l	ND	ND	NC	
trans-1,2-Dichloroethene	ug/l	ND	ND	NC	
1,2-Dichloropropane	ug/l	ND	ND	NC	
1,3-Dichloropropane	ug/l	ND	ND	NC	
2,2-Dichloropropane	ug/l	ND	ND	NC	
1,1-Dichloropropene	ug/l	ND	ND	NC	
Diisopropyl ether	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	ND	ND	NC	
Hexachloro-1,3-butadiene	ug/l	ND	ND	NC	
Isopropylbenzene (Cumene)	ug/l	ND	ND	NC	
p-Isopropyltoluene	ug/l	ND	ND	NC	
Methylene chloride	ug/l	ND	ND	NC	
Methyl-tert-butyl ether	ug/l	ND	ND	NC	
Naphthalene	ug/l	ND	ND	NC	
n-Propylbenzene	ug/l	ND	ND	NC	
Styrene	ug/l	ND	ND	NC	
1,1,1,2-Tetrachloroethane	ug/l	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/l	ND	ND	NC	
Tetrachloroethene	ug/l	31.00	25.00	20	
Toluene	ug/l	ND	ND	NC	
1,2,3-Trichlorobenzene	ug/l	ND	ND	NC	
1,2,4-Trichlorobenzene	ug/l	ND	ND	NC	
1,1,1-Trichloroethane	ug/l	ND	ND	NC	
1,1,2-Trichloroethane	ug/l	ND	ND	NC	
Trichloroethene	ug/l	ND	ND	NC	
Trichlorofluoromethane	ug/l	ND	ND	NC	
1,2,3-Trichloropropane	ug/l	ND	ND	NC	
1,2,4-Trimethylbenzene	ug/l	ND	ND	NC	
1,3,5-Trimethylbenzene	ug/l	ND	ND	NC	
Vinyl chloride	ug/l	ND	ND	NC	

Date: 12/11/01

Page: 26

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9226925

Client Project ID: NC101047.0001.00002/Worth

SAMPLE DUPLICATE: 921880696

Parameter	Units	921876314	DUP	RPD	Footnotes
		Result	Result		
m&p-Xylene	ug/l	ND	ND	NC	
o-Xylene	ug/l	ND	ND	NC	
Toluene-d8 (S)	µ	93	96		
4-Bromofluorobenzene (S)	µ	103	95		
Dibromofluoromethane (S)	µ	93	98		
1,2-Dichloroethane-d4 (S)	µ	94	106		

Date: 12/11/01

Page: 27

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9226925
Client Project ID: NC101047.0001.00002/Worth

QUALITY CONTROL DATA PARAMETER FOOTNOTES

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

- LCS(D)Laboratory Control Sample (Duplicate)
- MS(D)Matrix Spike (Duplicate)
- DUP Sample Duplicate
- ND Not Detected
- NC Not Calculable
- RPD Relative Percent Difference
- (S) Surrogate
- [1] The surrogate and/or spike recovery was outside acceptance limits.

Date: 12/11/01

Page: 28

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627





RECEIVED
NOV 2 - 2001
ARCADIS Geraghty & Miller
of North Carolina, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

October 31, 2001

Mr. Jim Shilliday
ARCADIS Geraghty & Miller
2301 Rexwoods Dr.
Suite 200
Raleigh, NC 27607

RE: Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Dear Mr. Shilliday:

Enclosed are the analytical results for sample(s) received by the laboratory on October 18, 2001. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Sherri Howard
Sherri.Howard@pacelabs.com
Project Manager

Enclosures

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



ARCADIS Geraghty & Miller
 2301 Rexwoods Dr.
 Suite 200
 Raleigh, NC 27607

Lab Project Number: 9227038
 Client Project ID: NC101047.0001.00003/Worth

Attn: Mr. Jim Shilliday
 Phone: (919)782-5511

Lab Sample No: 921882320 Project Sample Number: 9227038-001 Date Collected: 10/16/01 15:45
 Client Sample ID: MW-1 Matrix: Water Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
GC/MS Semivolatiles								
Semivolatile Organics Prep/Method: EPA 3510 / EPA 8270								
Acenaphthene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 83-32-9		
Acenaphthylene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 208-96-8		
Aniline	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 62-53-3		
Anthracene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 120-12-7		
Benzo(a)anthracene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 56-55-3		
Benzo(a)pyrene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 50-32-8		
Benzo(b)fluoranthene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 205-99-2		
Benzo(g,h,i)perylene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 191-24-2		
Benzo(k)fluoranthene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 207-08-9		
Benzoic acid	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 65-85-0		
Benzyl alcohol	ND	ug/l	23.	1.2	10/24/01 13:44	CWA 100-51-6		
4-Bromophenylphenyl ether	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 101-55-3		
Butylbenzylphthalate	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 85-68-7		
4-Chloro-3-methylphenol	ND	ug/l	23.	1.2	10/24/01 13:44	CWA 59-50-7		
4-Chloroaniline	ND	ug/l	23.	1.2	10/24/01 13:44	CWA 106-47-8		
bis(2-Chloroethoxy)methane	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 111-91-1		
bis(2-Chloroethyl) ether	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 111-44-4		
bis(2-Chloroisopropyl) ether	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 39638-32-9		
2-Chloronaphthalene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 91-58-7		
2-Chlorophenol	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 95-57-8		
4-Chlorophenylphenyl ether	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 7005-72-3		
Chrysene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 53-70-3		
Dibenzofuran	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 132-64-9		
1,2-Dichlorobenzene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 106-46-7		
3,3'-Dichlorobenzidine	ND	ug/l	23.	1.2	10/24/01 13:44	CWA 91-94-1		
2,4-Dichlorophenol	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 120-83-2		

Date: 10/31/01

Page: 1

Laboratory Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882320
Client Sample ID: MW-1

Project Sample Number: 9227038-001
Matrix: Water

Date Collected: 10/16/01 15:45
Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Fnote	Reg Limit
Diethylphthalate	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 84-66-2		
2,4-Dimethylphenol	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 105-67-9		
Dimethylphthalate	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 131-11-3		
Di-n-butylphthalate	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 84-74-2		
4,6-Dinitro-2-methylphenol	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 534-52-1		
2,4-Dinitrophenol	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 51-28-5		
2,4-Dinitrotoluene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 121-14-2		
2,6-Dinitrotoluene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 606-20-2		
Di-n-octylphthalate	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 117-84-0		
1,2-Diphenylhydrazine	ND	ug/l	23.	1.2	10/24/01 13:44	CWA 122-66-7		
bis(2-Ethylhexyl)phthalate	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 117-81-7		
Fluoranthene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 206-44-0		
Fluorene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 86-73-7		
Hexachloro-1,3-butadiene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 87-68-3		
Hexachlorobenzene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 118-74-1		
Hexachlorocyclopentadiene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 77-47-4		
Hexachloroethane	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 67-72-1		
Indeno(1,2,3-cd)pyrene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 193-39-5		
Isophorone	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 78-59-1		
2-Methylnaphthalene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 91-57-6		
2-Methylphenol (o-Cresol)	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 95-48-7		
3&4-Methylphenol	ND	ug/l	12.	1.2	10/24/01 13:44	CWA		
Naphthalene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 91-20-3		
2-Nitroaniline	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 88-74-4		
3-Nitroaniline	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 99-09-2		
4-Nitroaniline	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 100-01-6		
Nitrobenzene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 98-95-3		
2-Nitrophenol	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 88-75-5		
4-Nitrophenol	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 100-02-7		
N-Nitrosodimethylamine	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 62-75-9		
N-Nitroso-di-n-propylamine	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 621-64-7		
N-Nitrosodiphenylamine	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 86-30-6		
Pentachlorophenol	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 87-86-5		
Phenanthrene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 85-01-8		
Phenol	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 108-95-2		
Pyrene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 129-00-0		
1,2,4-Trichlorobenzene	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 120-82-1		
2,4,5-Trichlorophenol	ND	ug/l	58.	1.2	10/24/01 13:44	CWA 95-95-4		

Date: 10/31/01

Page: 2

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882320 Project Sample Number: 9227038-001 Date Collected: 10/16/01 15:45
Client Sample ID: MW-1 Matrix: Water Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
2,4,6-Trichlorophenol	ND	ug/l	12.	1.2	10/24/01 13:44	CWA 88-06-2		
Nitrobenzene-d5 (S)	41	x		1.0	10/24/01 13:44	CWA 4165-60-0		
2-Fluorobiphenyl (S)	39	x		1.0	10/24/01 13:44	CWA 321-60-8	1	
Terphenyl-d14 (S)	40	x		1.0	10/24/01 13:44	CWA 1718-51-0		
Phenol-d6 (S)	14	x		1.0	10/24/01 13:44	CWA 13127-88-3		
2-Fluorophenol (S)	23	x		1.0	10/24/01 13:44	CWA 367-12-4		
2,4,6-Tribromophenol (S)	37	x		1.0	10/24/01 13:44	CWA		
Date Extracted					10/22/01			

Date: 10/31/01

Page: 3

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882338 Project Sample Number: 9227038-002 Date Collected: 10/16/01 16:15
Client Sample ID: MW-2 Matrix: Water Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Fnote	Reg Limit
GC/MS Semivolatiles								
Semivolatile Organics Prep/Method: EPA 3510 / EPA 8270								
Acenaphthene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 83-32-9		
Acenaphthylene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 208-96-8		
Aniline	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 62-53-3		
Anthracene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 120-12-7		
Benzo(a)anthracene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 56-55-3		
Benzo(a)pyrene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 50-32-8		
Benzo(b)fluoranthene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 205-99-2		
Benzo(g,h,i)perylene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 191-24-2		
Benzo(k)fluoranthene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 207-08-9		
Benzoic acid	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 65-85-0		
Benzyl alcohol	ND	ug/l	21.	1.1	10/24/01 07:15	CWA 100-51-6		
4-Bromophenylphenyl ether	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 101-55-3		
Butylbenzylphthalate	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 85-68-7		
4-Chloro-3-methylphenol	ND	ug/l	21.	1.1	10/24/01 07:15	CWA 59-50-7		
4-Chloroaniline	ND	ug/l	21.	1.1	10/24/01 07:15	CWA 106-47-8		
bis(2-Chloroethoxy)methane	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 111-91-1		
bis(2-Chloroethyl) ether	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 111-44-4		
bis(2-Chloroisopropyl) ether	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 39638-32-9		
2-Chloronaphthalene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 91-58-7		
2-Chlorophenol	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 95-57-8		
4-Chlorophenylphenyl ether	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 7005-72-3		
Chrysene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 53-70-3		
Dibenzofuran	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 132-64-9		
1,2-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 106-46-7		
3,3'-Dichlorobenzidine	ND	ug/l	21.	1.1	10/24/01 07:15	CWA 91-94-1		
2,4-Dichlorophenol	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 120-83-2		
Diethylphthalate	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 84-66-2		
2,4-Dimethylphenol	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 105-67-9		
Dimethylphthalate	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 131-11-3		
Di-n-butylphthalate	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 84-74-2		
4,6-Dinitro-2-methylphenol	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 534-52-1		
2,4-Dinitrophenol	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 51-28-5		
2,4-Dinitrotoluene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 121-14-2		

Date: 10/31/01

Page: 4

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882338 Project Sample Number: 9227038-002 Date Collected: 10/16/01 16:15
Client Sample ID: MW-2 Matrix: Water Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
2,6-Dinitrotoluene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 606-20-2		
Di-n-octylphthalate	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 117-84-0		
1,2-Diphenylhydrazine	ND	ug/l	21.	1.1	10/24/01 07:15	CWA 122-66-7		
bis(2-Ethylhexyl)phthalate	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 117-81-7		
Fluoranthene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 206-44-0		
Fluorene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 86-73-7		
Hexachloro-1,3-butadiene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 87-68-3		
Hexachlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 118-74-1		
Hexachlorocyclopentadiene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 77-47-4		
Hexachloroethane	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 67-72-1		
Indeno(1,2,3-cd)pyrene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 193-39-5		
Isophorone	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 78-59-1		
2-Methylnaphthalene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 91-57-6		
2-Methylphenol (o-Cresol)	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 95-48-7		
3&4-Methylphenol	23.	ug/l	11.	1.1	10/24/01 07:15	CWA		
Naphthalene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 91-20-3		
2-Nitroaniline	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 88-74-4		
3-Nitroaniline	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 99-09-2		
4-Nitroaniline	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 100-01-6		
Nitrobenzene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 98-95-3		
2-Nitrophenol	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 88-75-5		
4-Nitrophenol	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 100-02-7		
N-Nitrosodimethylamine	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 62-75-9		
N-Nitroso-di-n-propylamine	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 621-64-7		
N-Nitrosodiphenylamine	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 86-30-6		
Pentachlorophenol	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 87-86-5		
Phenanthrene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 85-01-8		
Phenol	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 108-95-2		
Pyrene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 129-00-0		
1,2,4-Trichlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 120-82-1		
2,4,5-Trichlorophenol	ND	ug/l	53.	1.1	10/24/01 07:15	CWA 95-95-4		
2,4,6-Trichlorophenol	ND	ug/l	11.	1.1	10/24/01 07:15	CWA 88-06-2		
Nitrobenzene-d5 (S)	50	%		1.0	10/24/01 07:15	CWA 4165-60-0		
2-Fluorobiphenyl (S)	47	%		1.0	10/24/01 07:15	CWA 321-60-8		
Terphenyl-d14 (S)	74	%		1.0	10/24/01 07:15	CWA 1718-51-0		
Phenol-d6 (S)	18	%		1.0	10/24/01 07:15	CWA 13127-88-3		
2-Fluorophenol (S)	0	%		1.0	10/24/01 07:15	CWA 367-12-4		2
2,4,6-Tribromophenol (S)	50	%		1.0	10/24/01 07:15	CWA		

Date: 10/31/01

Page: 5

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882338

Project Sample Number: 9227038-002

Date Collected: 10/16/01 16:15

Client Sample ID: MW-2

Matrix: Water

Date Received: 10/18/01 12:00

<u>Parameters</u>	<u>Results</u>	<u>Units</u>	<u>Report Limit</u>	<u>Dilution</u>	<u>Analyzed</u>	<u>CAS No.</u>	<u>Fnote</u>	<u>Reg Limit</u>
Date Extracted					10/22/01			

Date: 10/31/01

Page: 6

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882346 Project Sample Number: 9227038-003 Date Collected: 10/16/01 16:35
Client Sample ID: MW-3 Matrix: Water Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
GC/MS Semivolatiles								
Semivolatiles Organics Prep/Method: EPA 3510 / EPA 8270								
Acenaphthene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 83-32-9		
Acenaphthylene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 208-96-8		
Aniline	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 62-53-3		
Anthracene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 120-12-7		
Benzo(a)anthracene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 56-55-3		
Benzo(a)pyrene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 50-32-8		
Benzo(b)fluoranthene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 205-99-2		
Benzo(g,h,i)perylene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 191-24-2		
Benzo(k)fluoranthene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 207-08-9		
Benzoic acid	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 65-85-0		
Benzyl alcohol	ND	ug/l	22.	1.1	10/24/01 07:51	CWA 100-51-6		
4-Bromophenylphenyl ether	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 101-55-3		
Butylbenzylphthalate	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 85-68-7		
4-Chloro-3-methylphenol	ND	ug/l	22.	1.1	10/24/01 07:51	CWA 59-50-7		
4-Chloroaniline	ND	ug/l	22.	1.1	10/24/01 07:51	CWA 106-47-8		
bis(2-Chloroethoxy)methane	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 111-91-1		
bis(2-Chloroethyl) ether	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 111-44-4		
bis(2-Chloroisopropyl) ether	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 39638-32-9		
2-Chloronaphthalene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 91-58-7		
2-Chlorophenol	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 95-57-8		
4-Chlorophenylphenyl ether	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 7005-72-3		
Chrysene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 53-70-3		
Dibenzofuran	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 132-64-9		
1,2-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 106-46-7		
3,3'-Dichlorobenzidine	ND	ug/l	22.	1.1	10/24/01 07:51	CWA 91-94-1		
2,4-Dichlorophenol	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 120-83-2		
Diethylphthalate	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 84-66-2		
2,4-Dimethylphenol	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 105-67-9		
Dimethylphthalate	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 131-11-3		
Di-n-butylphthalate	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 84-74-2		
4,6-Dinitro-2-methylphenol	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 534-52-1		
2,4-Dinitrophenol	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 51-28-5		
2,4-Dinitrotoluene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 121-14-2		

Date: 10/31/01

Page: 7

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882346
 Client Sample ID: MW-3

Project Sample Number: 9227038-003
 Matrix: Water

Date Collected: 10/16/01 16:35
 Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
2,6-Dinitrotoluene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 606-20-2		
Di-n-octylphthalate	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 117-84-0		
1,2-Diphenylhydrazine	ND	ug/l	22.	1.1	10/24/01 07:51	CWA 122-66-7		
bis(2-Ethylhexyl)phthalate	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 117-81-7		
Fluoranthene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 206-44-0		
Fluorene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 86-73-7		
Hexachloro-1,3-butadiene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 87-68-3		
Hexachlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 118-74-1		
Hexachlorocyclopentadiene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 77-47-4		
Hexachloroethane	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 67-72-1		
Indeno(1,2,3-cd)pyrene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 193-39-5		
Isophorone	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 78-59-1		
2-Methylnaphthalene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 91-57-6		
2-Methylphenol (o-Cresol)	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 95-48-7		
3&4-Methylphenol	ND	ug/l	11.	1.1	10/24/01 07:51	CWA		
Naphthalene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 91-20-3		
2-Nitroaniline	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 88-74-4		
3-Nitroaniline	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 99-09-2		
4-Nitroaniline	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 100-01-6		
Nitrobenzene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 98-95-3		
2-Nitrophenol	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 88-75-5		
4-Nitrophenol	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 100-02-7		
N-Nitrosodimethylamine	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 62-75-9		
N-Nitroso-di-n-propylamine	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 621-64-7		
N-Nitrosodiphenylamine	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 86-30-6		
Pentachlorophenol	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 87-86-5		
Phenanthrene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 85-01-8		
Phenol	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 108-95-2		
Pyrene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 129-00-0		
1,2,4-Trichlorobenzene	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 120-82-1		
2,4,5-Trichlorophenol	ND	ug/l	56.	1.1	10/24/01 07:51	CWA 95-95-4		
2,4,6-Trichlorophenol	ND	ug/l	11.	1.1	10/24/01 07:51	CWA 88-06-2		
Nitrobenzene-d5 (S)	58	×		1.0	10/24/01 07:51	CWA 4165-60-0		
2-Fluorobiphenyl (S)	56	×		1.0	10/24/01 07:51	CWA 321-60-8		
Terphenyl-d14 (S)	64	×		1.0	10/24/01 07:51	CWA 1718-51-0		
Phenol-d6 (S)	19	×		1.0	10/24/01 07:51	CWA 13127-88-3		
2-Fluorophenol (S)	30	×		1.0	10/24/01 07:51	CWA 367-12-4		
2,4,6-Tribromophenol (S)	57	×		1.0	10/24/01 07:51	CWA		

Date: 10/31/01

Page: 8

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882346 Project Sample Number: 9227038-003 Date Collected: 10/16/01 16:35
Client Sample ID: MW-3 Matrix: Water Date Received: 10/18/01 12:00

<u>Parameters</u>	<u>Results</u>	<u>Units</u>	<u>Report Limit</u>	<u>Dilution</u>	<u>Analyzed</u>	<u>CAS No.</u>	<u>Ftnote</u>	<u>Reg Limit</u>
Date Extracted					10/22/01			

Date: 10/31/01

Page: 9

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882353 Project Sample Number: 9227038-004 Date Collected: 10/16/01 16:55
Client Sample ID: MW-4 Matrix: Water Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
GC/MS Semivolatiles								
Semivolatiles Organics Prep/Method: EPA 3510 / EPA 8270								
Acenaphthene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 83-32-9		
Acenaphthylene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 208-96-8		
Aniline	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 62-53-3		
Anthracene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 120-12-7		
Benzo(a)anthracene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 56-55-3		
Benzo(a)pyrene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 50-32-8		
Benzo(b)fluoranthene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 205-99-2		
Benzo(g,h,i)perylene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 191-24-2		
Benzo(k)fluoranthene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 207-08-9		
Benzoic acid	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 65-85-0		
Benzyl alcohol	ND	ug/l	21.	1.0	10/24/01 08:28	CWA 100-51-6		
4-Bromophenylphenyl ether	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 101-55-3		
Butylbenzylphthalate	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 85-68-7		
4-Chloro-3-methylphenol	ND	ug/l	21.	1.0	10/24/01 08:28	CWA 59-50-7		
4-Chloroaniline	ND	ug/l	21.	1.0	10/24/01 08:28	CWA 106-47-8		
bis(2-Chloroethoxy)methane	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 111-91-1		
bis(2-Chloroethyl) ether	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 111-44-4		
bis(2-Chloroisopropyl) ether	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 39638-32-9		
2-Chloronaphthalene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 91-58-7		
2-Chlorophenol	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 95-57-8		
4-Chlorophenylphenyl ether	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 7005-72-3		
Chrysene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 53-70-3		
Dibenzofuran	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 132-64-9		
1,2-Dichlorobenzene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 106-46-7		
3,3'-Dichlorobenzidine	ND	ug/l	21.	1.0	10/24/01 08:28	CWA 91-94-1		
2,4-Dichlorophenol	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 120-83-2		
Diethylphthalate	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 84-66-2		
2,4-Dimethylphenol	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 105-67-9		
Dimethylphthalate	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 131-11-3		
Di-n-butylphthalate	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 84-74-2		
4,6-Dinitro-2-methylphenol	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 534-52-1		
2,4-Dinitrophenol	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 51-28-5		
2,4-Dinitrotoluene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 121-14-2		

Date: 10/31/01

Page: 10

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882353 Project Sample Number: 9227038-004 Date Collected: 10/16/01 16:55
Client Sample ID: MW-4 Matrix: Water Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limit
2,6-Dinitrotoluene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 606-20-2		
Di-n-octylphthalate	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 117-84-0		
1,2-Diphenylhydrazine	ND	ug/l	21.	1.0	10/24/01 08:28	CWA 122-66-7		
bis(2-Ethylhexyl)phthalate	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 117-81-7		
Fluoranthene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 206-44-0		
Fluorene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 86-73-7		
Hexachloro-1,3-butadiene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 87-68-3		
Hexachlorobenzene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 118-74-1		
Hexachlorocyclopentadiene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 77-47-4		
Hexachloroethane	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 67-72-1		
Indeno(1,2,3-cd)pyrene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 193-39-5		
Isophorone	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 78-59-1		
2-Methylnaphthalene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 91-57-6		
2-Methylphenol (o-Cresol)	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 95-48-7		
3&4-Methylphenol	ND	ug/l	10.	1.0	10/24/01 08:28	CWA		
Naphthalene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 91-20-3		
2-Nitroaniline	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 88-74-4		
3-Nitroaniline	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 99-09-2		
4-Nitroaniline	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 100-01-6		
Nitrobenzene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 98-95-3		
2-Nitrophenol	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 88-75-5		
4-Nitrophenol	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 100-02-7		
N-Nitrosodimethylamine	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 62-75-9		
N-Nitroso-di-n-propylamine	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 621-64-7		
N-Nitrosodiphenylamine	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 86-30-6		
Pentachlorophenol	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 87-86-5		
Phenanthrene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 85-01-8		
Phenol	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 108-95-2		
Pyrene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 129-00-0		
1,2,4-Trichlorobenzene	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 120-82-1		
2,4,5-Trichlorophenol	ND	ug/l	52.	1.0	10/24/01 08:28	CWA 95-95-4		
2,4,6-Trichlorophenol	ND	ug/l	10.	1.0	10/24/01 08:28	CWA 88-06-2		
Nitrobenzene-d5 (S)	43	%		1.0	10/24/01 08:28	CWA 4165-60-0		
2-Fluorobiphenyl (S)	44	%		1.0	10/24/01 08:28	CWA 321-60-8		
Terphenyl-d14 (S)	67	%		1.0	10/24/01 08:28	CWA 1718-51-0		
Phenol-d6 (S)	10	%		1.0	10/24/01 08:28	CWA 13127-88-3		
2-Fluorophenol (S)	6	%		1.0	10/24/01 08:28	CWA 367-12-4		2
2,4,6-Tribromophenol (S)	6	%		1.0	10/24/01 08:28	CWA		2

Date: 10/31/01

Page: 11

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627





Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882353 Project Sample Number: 9227038-004 Date Collected: 10/16/01 16:55
Client Sample ID: MW-4 Matrix: Water Date Received: 10/18/01 12:00

Parameters Results Units Report Limit Dilution Analyzed CAS No. Ftnote Reg Limit
Date Extracted 10/22/01

Date: 10/31/01

Page: 12

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882379
 Client Sample ID: MW-5

Project Sample Number: 9227038-005
 Matrix: Water

Date Collected: 10/16/01 17:15
 Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Fnote	Reg Limit
GC/MS Semivolatiles								
Semivolatile Organics								
Prep/Method: EPA 3510 / EPA 8270								
Acenaphthene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 83-32-9		
Acenaphthylene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 208-96-8		
Aniline	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 62-53-3		
Anthracene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 120-12-7		
Benzo(a)anthracene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 56-55-3		
Benzo(a)pyrene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 50-32-8		
Benzo(b)fluoranthene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 205-99-2		
Benzo(g,h,i)perylene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 191-24-2		
Benzo(k)fluoranthene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 207-08-9		
Benzoic acid	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 65-85-0		
Benzyl alcohol	ND	ug/l	22.	1.1	10/24/01 09:05	CWA 100-51-6		
4-Bromophenylphenyl ether	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 101-55-3		
Butylbenzylphthalate	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 85-68-7		
4-Chloro-3-methylphenol	ND	ug/l	22.	1.1	10/24/01 09:05	CWA 59-50-7		
4-Chloroaniline	ND	ug/l	22.	1.1	10/24/01 09:05	CWA 106-47-8		
bis(2-Chloroethoxy)methane	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 111-91-1		
bis(2-Chloroethyl) ether	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 111-44-4		
bis(2-Chloroisopropyl) ether	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 39638-32-9		
2-Chloronaphthalene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 91-58-7		
2-Chlorophenol	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 95-57-8		
4-Chlorophenylphenyl ether	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 7005-72-3		
Chrysene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 53-70-3		
Dibenzofuran	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 132-64-9		
1,2-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 95-50-1		
1,3-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 541-73-1		
1,4-Dichlorobenzene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 106-46-7		
3,3'-Dichlorobenzidine	ND	ug/l	22.	1.1	10/24/01 09:05	CWA 91-94-1		
2,4-Dichlorophenol	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 120-83-2		
Diethylphthalate	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 84-66-2		
2,4-Dimethylphenol	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 105-67-9		
Dimethylphthalate	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 131-11-3		
Di-n-butylphthalate	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 84-74-2		
4,6-Dinitro-2-methylphenol	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 534-52-1		
2,4-Dinitrophenol	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 51-28-5		
2,4-Dinitrotoluene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 121-14-2		

Date: 10/31/01

Page: 13

Laboratory Certification IDs

NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627



Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882379

Project Sample Number: 9227038-005

Date Collected: 10/16/01 17:15

Client Sample ID: MW-5

Matrix: Water

Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Req Limit
2,6-Dinitrotoluene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 606-20-2		
Di-n-octylphthalate	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 117-84-0		
1,2-Diphenylhydrazine	ND	ug/l	22.	1.1	10/24/01 09:05	CWA 122-66-7		
bis(2-Ethylhexyl)phthalate	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 117-81-7		
Fluoranthene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 206-44-0		
Fluorene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 86-73-7		
Hexachloro-1,3-butadiene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 87-68-3		
Hexachlorobenzene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 118-74-1		
Hexachlorocyclopentadiene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 77-47-4		
Hexachloroethane	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 67-72-1		
Indeno(1,2,3-cd)pyrene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 193-39-5		
Isophorone	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 78-59-1		
2-Methylnaphthalene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 91-57-6		
2-Methylphenol (o-Cresol)	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 95-48-7		
3&4-Methylphenol	ND	ug/l	11.	1.1	10/24/01 09:05	CWA		
Naphthalene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 91-20-3		
2-Nitroaniline	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 88-74-4		
3-Nitroaniline	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 99-09-2		
4-Nitroaniline	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 100-01-6		
Nitrobenzene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 98-95-3		
2-Nitrophenol	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 88-75-5		
4-Nitrophenol	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 100-02-7		
N-Nitrosodimethylamine	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 62-75-9		
N-Nitroso-di-n-propylamine	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 621-64-7		
N-Nitrosodiphenylamine	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 86-30-6		
Pentachlorophenol	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 87-86-5		
Phenanthrene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 85-01-8		
Phenol	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 108-95-2		
Pyrene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 129-00-0		
1,2,4-Trichlorobenzene	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 120-82-1		
2,4,5-Trichlorophenol	ND	ug/l	54.	1.1	10/24/01 09:05	CWA 95-95-4		
2,4,6-Trichlorophenol	ND	ug/l	11.	1.1	10/24/01 09:05	CWA 88-06-2		
Nitrobenzene-d5 (S)	68	×		1.0	10/24/01 09:05	CWA 4165-60-0		
2-Fluorobiphenyl (S)	67	×		1.0	10/24/01 09:05	CWA 321-60-8		
Terphenyl-d14 (S)	85	×		1.0	10/24/01 09:05	CWA 1718-51-0		
Phenol-d6 (S)	21	×		1.0	10/24/01 09:05	CWA 13127-88-3		
2-Fluorophenol (S)	32	×		1.0	10/24/01 09:05	CWA 367-12-4		
2,4,6-Tribromophenol (S)	63	×		1.0	10/24/01 09:05	CWA		

Date: 10/31/01

Page: 14

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

Lab Sample No: 921882379 Project Sample Number: 9227038-005 Date Collected: 10/16/01 17:15
Client Sample ID: MW-5 Matrix: Water Date Received: 10/18/01 12:00

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Fnote	Req	Limit
Date Extracted					10/22/01				

Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

PARAMETER FOOTNOTES

ND Not Detected

NC Not Calculable

(S) Surrogate

[1] Base/neutral surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two base/neutral surrogates.

[2] The surrogate recovery was outside QC acceptance limits due to matrix interference.

Date: 10/31/01

Page: 16

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

METHOD BLANK: 921888897

Associated Lab Samples: 921882320 921882338 921882346 921882353 921882379

Parameter	Units	Blank Result	Reporting Limit	Footnotes
2,4-Dimethylphenol	ug/l	ND	10.	
Dimethylphthalate	ug/l	ND	10.	
Di-n-butylphthalate	ug/l	ND	10.	
4,6-Dinitro-2-methylphenol	ug/l	ND	50.	
2,4-Dinitrophenol	ug/l	ND	50.	
2,4-Dinitrotoluene	ug/l	ND	10.	
2,6-Dinitrotoluene	ug/l	ND	10.	
Di-n-octylphthalate	ug/l	ND	10.	
1,2-Diphenylhydrazine	ug/l	ND	20.	
bis(2-Ethylhexyl)phthalate	ug/l	ND	10.	
Fluoranthene	ug/l	ND	10.	
Fluorene	ug/l	ND	10.	
Hexachloro-1,3-butadiene	ug/l	ND	10.	
Hexachlorobenzene	ug/l	ND	10.	
Hexachlorocyclopentadiene	ug/l	ND	10.	
Hexachloroethane	ug/l	ND	10.	
Indeno(1,2,3-cd)pyrene	ug/l	ND	10.	
Isophorone	ug/l	ND	10.	
2-Methylnaphthalene	ug/l	ND	10.	
2-Methylphenol (o-Cresol)	ug/l	ND	10.	
3&4-Methylphenol	ug/l	ND	10.	
Naphthalene	ug/l	ND	10.	
2-Nitroaniline	ug/l	ND	50.	
3-Nitroaniline	ug/l	ND	50.	
4-Nitroaniline	ug/l	ND	50.	
Nitrobenzene	ug/l	ND	10.	
2-Nitrophenol	ug/l	ND	10.	
4-Nitrophenol	ug/l	ND	50.	
N-Nitrosodimethylamine	ug/l	ND	10.	
N-Nitroso-di-n-propylamine	ug/l	ND	10.	
N-Nitrosodiphenylamine	ug/l	ND	10.	
Pentachlorophenol	ug/l	ND	50.	
Phenanthrene	ug/l	ND	10.	
Phenol	ug/l	ND	10.	
Pyrene	ug/l	ND	10.	

Date: 10/31/01

Page: 18

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

METHOD BLANK: 92188897

Associated Lab Samples: 921882320 921882338 921882346 921882353 921882379

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2,4-Trichlorobenzene	ug/l	ND	10.	
2,4,5-Trichlorophenol	ug/l	ND	50.	
2,4,6-Trichlorophenol	ug/l	ND	10.	
Nitrobenzene-d5 (S)	×	60		
2-Fluorobiphenyl (S)	×	52		
Terphenyl-d14 (S)	×	79		
Phenol-d6 (S)	×	21		
2-Fluorophenol (S)	×	34		
2,4,6-Tribromophenol (S)	×	65		

LABORATORY CONTROL SAMPLE & LCS: 921888905 921888913

Parameter	Units	Spike Conc.	LCS Result	LCS Result	LCS % Rec	LCS % Rec	RPD	Footnotes
Acenaphthene	ug/l	25	14.42	12.37	58	50	15	
Acenaphthylene	ug/l	25	15.32	12.90	61	52	17	
Aniline	ug/l	25	11.69	10.39	47	42	12	
Anthracene	ug/l	25	16.63	15.58	66	62	6	
Benzo(a)anthracene	ug/l	25	16.91	16.83	68	67	1	
Benzo(a)pyrene	ug/l	25	17.09	15.26	68	61	11	
Benzo(b)fluoranthene	ug/l	25	16.33	16.60	65	66	2	
Benzo(g,h,i)perylene	ug/l	25	15.13	11.85	60	47	24	
Benzo(k)fluoranthene	ug/l	25	16.51	15.07	66	60	9	
Benzoic acid	ug/l	25	8.559	10.33	34	41	19	
Benzyl alcohol	ug/l	25	10.79	6.234	43	25	54	
4-Bromophenylphenyl ether	ug/l	25	15.38	13.85	62	55	10	
Butylbenzylphthalate	ug/l	25	16.69	17.59	67	70	5	
4-Chloro-3-methylphenol	ug/l	25	13.29	11.82	53	47	12	
4-Chloroaniline	ug/l	25	9.887	11.52	40	46	15	
bis(2-Chloroethoxy)methane	ug/l	25	15.63	13.17	62	53	17	
bis(2-Chloroethyl) ether	ug/l	25	15.87	13.08	64	52	19	
bis(2-Chloroisopropyl) ether	ug/l	25	16.21	12.86	65	51	23	
2-Chloronaphthalene	ug/l	25	14.63	10.74	58	43	31	
2-Chlorophenol	ug/l	25	12.91	9.551	52	38	30	

Date: 10/31/01

Page: 19

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9227038
Client Project ID: NC101047.0001.00003/Worth

LABORATORY CONTROL SAMPLE & LCSD: 921888905 921888913

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
4-Chlorophenylphenyl ether	ug/l	25	14.80	14.09	59	56	5	
Chrysene	ug/l	25	16.69	16.52	67	66	1	
Dibenz(a,h)anthracene	ug/l	25	17.79	14.55	71	58	20	
Dibenzofuran	ug/l	25	14.65	13.28	59	53	10	
1,2-Dichlorobenzene	ug/l	25	13.46	9.360	54	37	36	
1,3-Dichlorobenzene	ug/l	25	13.01	8.553	52	34	41	
1,4-Dichlorobenzene	ug/l	25	13.55	8.673	54	35	44	
3,3'-Dichlorobenzidine	ug/l	50	45.47	46.10	91	92	1	
2,4-Dichlorophenol	ug/l	25	13.49	9.974	54	40	30	
Diethylphthalate	ug/l	25	15.99	17.77	64	71	11	
2,4-Dimethylphenol	ug/l	25	12.86	11.20	51	45	14	
Dimethylphthalate	ug/l	25	16.49	16.05	66	64	3	
Di-n-butylphthalate	ug/l	25	16.86	17.90	67	72	6	
4,6-Dinitro-2-methylphenol	ug/l	25	11.69	10.73	47	43	9	
2,4-Dinitrophenol	ug/l	25	9.384	8.898	38	36	5	
2,4-Dinitrotoluene	ug/l	25	13.98	15.86	56	64	13	
2,6-Dinitrotoluene	ug/l	25	12.65	13.45	51	54	6	
Di-n-octylphthalate	ug/l	25	10.01	15.77	40	63	45	
1,2-Diphenylhydrazine	ug/l	25	16.78	13.59	67	54	21	
bis(2-Ethylhexyl)phthalate	ug/l	25	16.54	16.76	66	67	1	
Fluoranthene	ug/l	25	15.72	16.26	63	65	3	
Fluorene	ug/l	25	15.27	14.64	61	59	4	
Hexachloro-1,3-butadiene	ug/l	25	12.18	7.943	49	32	42	
Hexachlorobenzene	ug/l	25	15.70	13.86	63	56	12	
Hexachlorocyclopentadiene	ug/l	25	11.87	7.472	48	30	45	
Hexachloroethane	ug/l	25	13.10	8.401	52	34	44	
Indeno(1,2,3-cd)pyrene	ug/l	25	18.00	14.35	72	57	23	
Isophorone	ug/l	25	15.87	13.52	64	54	16	
2-Methylnaphthalene	ug/l	25	13.96	11.01	56	44	24	
2-Methylphenol (o-Cresol)	ug/l	25	11.61	8.875	46	36	27	
3&4-Methylphenol	ug/l	25	9.920	7.478	40	30	28	
Naphthalene	ug/l	25	14.02	10.66	56	43	27	
2-Nitroaniline	ug/l	25	13.76	12.64	55	51	8	
3-Nitroaniline	ug/l	25	12.50	14.70	50	59	16	
4-Nitroaniline	ug/l	25	11.50	13.75	46	55	18	
Nitrobenzene	ug/l	25	14.70	11.44	59	46	25	

Date: 10/31/01

Page: 20

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

LABORATORY CONTROL SAMPLE & LCSD: 921888905 921888913

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
2-Nitrophenol	ug/l	25	12.12	9.449	48	38	25	
4-Nitrophenol	ug/l	25	13.68	17.43	55	70	24	
N-Nitrosodimethylamine	ug/l	25	9.056	7.088	36	28	24	
N-Nitroso-di-n-propylamine	ug/l	25	15.52	13.12	62	52	17	
N-Nitrosodiphenylamine	ug/l	25	16.63	14.75	66	59	12	
Pentachlorophenol	ug/l	25	15.26	14.48	61	58	5	
Phenanthrene	ug/l	25	16.17	15.43	65	62	5	
Phenol	ug/l	25	5.114	3.820	20	15	29	
Pyrene	ug/l	25	15.95	18.88	64	76	17	
1,2,4-Trichlorobenzene	ug/l	25	13.53	9.325	54	37	37	
2,4,5-Trichlorophenol	ug/l	25	13.41	10.61	54	42	23	
2,4,6-Trichlorophenol	ug/l	25	13.95	11.39	56	46	20	
Nitrobenzene-d5 (S)					70	57		
2-Fluorobiphenyl (S)					68	53		
Terphenyl-d14 (S)					87	78		
Phenol-d6 (S)					25	19		
2-Fluorophenol (S)					40	29		
2,4,6-Tribromophenol (S)					70	63		

Date: 10/31/01

Page: 21

Laboratory Certification IDs

 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006

REPORT OF LABORATORY ANALYSIS

 This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

 KY Drinking Water 90090
 VA Drinking Water 213
 FL NELAP E87627


Lab Project Number: 9227038

Client Project ID: NC101047.0001.00003/Worth

QUALITY CONTROL DATA PARAMETER FOOTNOTES

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

- LCS(D)Laboratory Control Sample (Duplicate)
- MS(D)Matrix Spike (Duplicate)
- DUP Sample Duplicate
- ND Not Detected
- NC Not Calculable
- RPD Relative Percent Difference
- (S) Surrogate

Laboratory Certification IDs

NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs

KY Drinking Water 90090
VA Drinking Water 213
FL NELAP E87627



