

PRELIMINARY CONTAMINATION ASSESSMENT PLAN

**Ringhaver Equipment Company
9797 Gibsonton Drive
Riverview, Florida 33569
FLD 984170415
OGC File No.: 02-0770**

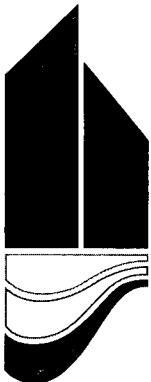
GLE Project No.: 02000-03189

Prepared for:

**Ringhaver Equipment Company
9797 Gibsonton Drive
Riverview, Florida 33569**

July 2002

Prepared by:

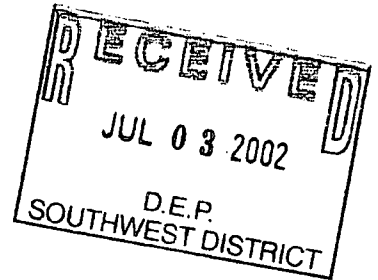


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Preliminary Contamination Assessment Plan

Ringhaver Equipment Company
9797 Gibsonton Drive
Riverview, Florida 33569
FLD 984170415
OGC File No.: 02-0770



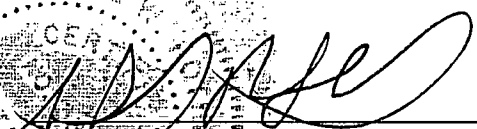
for

Ringhaver Equipment Company
9797 Gibsonton Drive
Riverview, Florida 33569

July 1, 2002


Edmund A. Smith, Jr.
Environmental Department Manager

7/1/02
Date


Michael W. Rothenburg, PE
Registered Professional Engineer No.: 33728

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1.0 INTRODUCTION

The following Preliminary Contamination Assessment Plan (PCAP) was prepared in accordance with the Florida Department of Environmental Protection (FDEP) Consent Order OGC File Number 02-0770. The objectives of the PCAP are as follows:

- Determine the presence of any soil or groundwater impacted above regulatory limits.
- Determine the presence and number of aquifers at the site, as well as their classification with respect to Chapter 62-3 Florida Administrative Code (FAC).
- Determine the geology and hydrogeology at the site including the potential for movement of contaminants both horizontally and vertically.

The goal of the PCAP is to describe all investigative methodologies necessary to determine whether the soil, sediment, surface water or groundwater has been impacted above regulatory limits. The PCAP includes a preliminary schedule for completion of the proposed tasks. Ringhaver Equipment Company, the responsible party, has requested that GLE Associates Inc. (GLE) prepare the PCAP for submittal to the FDEP.

1.1 Site Location

The facility under investigation is the Ringhaver Equipment Company. The site is located at 9797 Gibsonton Drive in Riverview, Florida. The facility is located within an industrial area of east of Tampa, just east of Interstate 75, which abuts the western portion of the property. Figure 1 is a portion of the United States Geologic Survey (USGS) topographical map, entitled Riverview, Florida, dated 1956 and photorevised in 1987, that illustrates the location of the facility in relation to surrounding facilities, geography and topography. Figure 2 is a site map that illustrates the locations of major structures on site.

The topography at the facility indicates an elevation of 25 feet above mean sea level (msl). The property appears to be relatively flat. Further review of the USGS topographical map indicates the presence of Bullfrog Creek to the west and south of the subject site, approximately 500 feet. The Alafia River is also noted approximately 3,000 feet to the north of the subject site.

Based upon previous investigations at the subject site, the near surface hydrogeology consists of silty sand to a depth of approximately six feet below land surface (bls). Below the silty sand is a sandy clay. The clay acts as an aquitard between the surficial aquifer within the overlying silty sand and the underlying Tampa Limestone that is the upper most portion of the Floridan aquifer. A copy of the previous investigation is provided in Appendix A.

1.2 Site Background and History

The site currently operates as a Caterpillar equipment sales and service facility. The facility has been in operation since 1991. As part of their equipment service operation, equipment brought in for service is removed of all debris at one of the two operating wash racks. Equipment, which is thought to contain "clean" debris, is washed down in one wash rack and equipment being washed down containing visible oils and grease is washed down in the second wash rack. The clean debris wash rack is sloped to a collection area where sediment is separated from the liquid and the liquid is sent to the closed-loop water filtration/treatment system on-site. Both wash racks are tied into a closed-loop water filtration system located on the site.

On November 9, 2001, the FDEP completed a site inspection based on a citizen complaint to determine if sludge material was being disposed of on the southern portions of the subject site. During the site visit, it was noted that the sludge material was removed from the wash rack area and placed on the southern portions of the facility. Following the inspection, the material placed on the southern portions of the subject site was sampled for laboratory analysis. The analysis revealed levels of petroleum constituents and metals. The FDEP has identified the southern portion of the subject site as a potential environmental concern and is requiring additional investigation. Figure 3 is a scaled site diagram illustrating the area of proposed investigation.

2.0 QUALITY ASSURANCE

In order to conduct field work contemplated herein, GLE will adhere to the Florida Department of Environmental Protection's Standard Operating Procedures, SOP-001/01. GLE will be utilizing PC&B Environmental Laboratories, Inc. (PC&B), to perform all analytical analysis for this assessment. PC&B is a NELAC accredited Laboratory, Certificate No.: E83239 through the Florida Department of Health. Copies of the laboratory's approval letters can be found in Appendix B. GLE personnel performing the assessment will include Matt Coe, David Hufford, Edmund Smith and Mike Rothenburg, PE.

3.0 INVESTIGATIVE METHODOLOGIES

The investigative methodologies for this PCAP include a potential receptor and potential contributor survey, along with soil and groundwater assessment. Although not excluded from future investigation, surface water and sediment assessment is not a part of the PCAP. The PCAP will include a detailed history of site operations, as well as a regional geology and hydrogeologic summary.

3.1 Potential Receptor and Contributor Survey

A potential receptor and potential contributor survey will be completed. The potential receptor survey includes all public and private potable supply wells within a half-mile radius from the site. Specifically, the survey will include a well inventory request from the Southwest Florida Water Management District (SWFWMD), as well as a review of any Hillsborough County Health Department records. Additionally, the well survey will include a visual vehicular survey of the surrounding neighborhood.

An inventory of potential contributing sources of environmental impacts will be completed. The names and addresses of facilities identified on-site and on surrounding properties will be looked up in the databases and files. In general, federal records that will be reviewed include, but are not limited to the following:

- National Priorities List (NPL)
- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS)
- Resource Conservation and Recovery Information System (RCRIS) including TS - Treatment, Storage, and Disposal Facilities, LG - Large Quantity Generators, and SG - Small Quantity Generators
- Emergency Response Notification System (ERNS)
- No Further Remedial Action Planned (NFRAP) sites

Reasonably obtainable state and local environmental records will be reviewed to identify any environmental violations, incidents or enforcement actions that may be present within a quarter-mile radius of the site. In general, records that will be reviewed include, but are not limited to, the following:

- State's Sites List (HWS): State Hazardous Waste Sites List
- State's Stationary Tank Inventory Listing (RST)
- State's Leaking Storage Tank Report (LRST)
- State's Solid Waste Facilities Directory (SWF) (aka: GMS 80)

In addition, inquiries will be made to the Hillsborough County EPC and the FDEP Southwest District office.

3.2 Soil Assessment

Soil samples will be collected for both visual observations and for OVA analysis at two-foot intervals via the use of Direct Push Technology (DPT). Sampling points will be conducted in a grid pattern extending from the western portion of the former excavation area, toward the western property boundary. Figure 4 shows the approximate locations of the proposed sampling points.

Soil hydrocarbon vapor field screening will be conducted using a Foxboro Century Model 128 OVA FID in accordance with the methods described in Rule 62-770.200(8) FAC. Prior to use in the field, documentation of the OVA calibration will be completed.

Samples will be tested by placing the soil into two 16-ounce glass containers, leaving half of the container empty. The containers will be capped with aluminum foil and a metal lid, and set aside for approximately five minutes. The head space inside the container of each sample will be analyzed using the OVA with the temperature maintained between 20°-32° C. When organic vapors are detected in the soil samples, soil testing procedures will include screening the second sub-sample with a granular activated carbon (GAC) filter. Use of the GAC filter removes petroleum hydrocarbon vapors and allows naturally occurring methane to be measured and recorded.

Eight soil samples will be collected from representative sampling points that yield the highest OVA reading and the area that visually represents the greatest impacts. The samples will be collected and placed in a laboratory-supplied sample container. The samples will be immediately placed on wet ice, and transported to PC&B Laboratories under a completed chain of custody for analysis. The samples will be analyzed by EPA Methods 8260 (purgeable hydrocarbons) via the use of the syringe method in accordance with USEPA SW-846 (Update III) via Method 5035, 8270 (semi-volatile organics) and RCRA 8 metals. One QA/QC equipment blank and duplicate sample, will be collected and analyzed for the above parameters.

3.3 Groundwater Assessment

To assess the potential groundwater impacts at the subject site, GLE proposes the installation of a total of four monitoring wells. One well will be installed in the former excavation area, where the latest material from the wash rack was deposited. A second well will be installed in what is believed to be the downgradient area, toward the southwest corner of the property. An upgradient well will be installed in the northeast portion of the area of investigation. The fourth well will be installed in an area determined by the soil investigation as having the greatest likelihood of impacts. Figure 4 is a site diagram depicting the proposed locations of the monitoring wells.

The wells are proposed to be installed via the direct push method to a completion depth of approximately 15 feet. Final completion depth will be dependent on field observations of the groundwater table. The wells will be constructed using a U-Pack 0.5-inch inside diameter schedule 40 PVC with a 0.01-inch slotted well screen and a one-inch outside diameter schedule 40 PVC with a 0.01-inch slotted well screen. The wells are constructed so that the annular space between the two screens was filled with a 20/30 silica sand pack to ensure collection of a representative groundwater sample. Figure 5 is a well construction diagram of the U-Pack well.

After the installation of each well, the wells will be developed until limited fines are present in the well development water. Prior to sampling, each well will be purged until parameters such as pH, conductivity and temperature stabilize. Purge and development water without NAPLs or significant indications of impacts will be discharged on-site into the source aquifer. Very small quantities of decontamination fluids generated (<1 gallon) will be disposed onto a paved surface for evaporation.

Samples will be collected using a peristaltic pump equipped with virgin silica tubing and virgin teflon tubing with a teflon volatile trap in accordance with FDEP's groundwater sampling procedures FS-2200. The samples will be immediately placed on wet ice, and transported to PC&B Laboratories under a completed chain of custody for analysis for purgeable hydrocarbons and semi-volatile organics by EPA Methods 624 and 625, and RCRA-8 metals. One QA/QC equipment blank and duplicate sample, will be collected and analyzed for the above parameters.

Well casing elevations and depth to water measurements will be performed to determine groundwater table elevations and groundwater flow. Geologic well logs will be completed during each monitoring well installation.

4.0 REPORTING

4.1 Preliminary Contamination Assessment Report

Upon completion of field activities, a Preliminary Contamination Assessment Report (PCAR) will be prepared and submitted. The PCAR includes the following items:

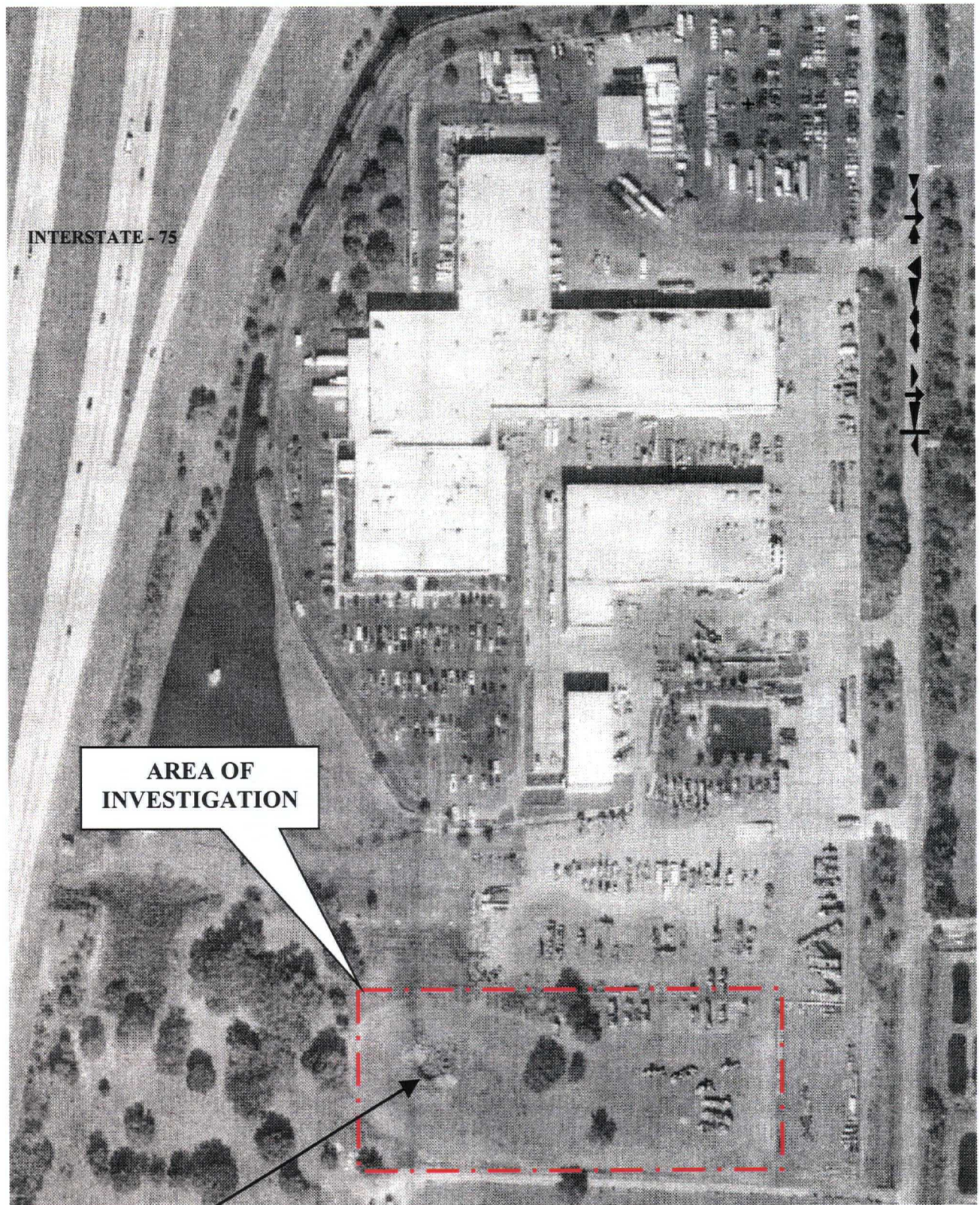
- A summary of historical operations and environmental reports.
- A scaled site diagram, a USGS topographical map and vicinity map of the subject site and its surroundings indicating sampling points and groundwater flow.
- Well construction diagrams, included with geologic logs for each well.
- A summary of site-specific geology and hydrology with a north/south and an east/west cross section.
- Results of a one-half mile potable well survey.
- Tables that will include well casing elevations and depth to groundwater, product presence and thickness, and soil/groundwater analytical summary results.
- Maps illustrating contaminant concentrations in the soil and/or groundwater and groundwater elevation maps.
- Included in the report will be copies of all field documentation and quality assurance data.
- The report will also include a summary of results and conclusions with respect to the original objectives.
- The report will attempt to identify possible sources, and/or the existence of any imminent hazards.

5.0 SCHEDULE

Within 90 days of approval of the PCAP, a PCAR will be submitted to the FDEP. The following is a listing of major tasks and estimated time for completion:

- Generate cost estimates and obtain client authorization (7-10 working days)
- Preliminary field activities including sampling notification and mobilization (1 week)
- Site work (1 week)
- Obtain analytical data (2-3 weeks)
- Complete report including drafts and QA reviews (2-3 weeks).

FIGURES



SOIL PILE



Figure 2. Site Location Map

Ringhaver Equipment Company

Scale: 1" = 200'

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Date

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Job No.

02000-03189

Figure

F-2

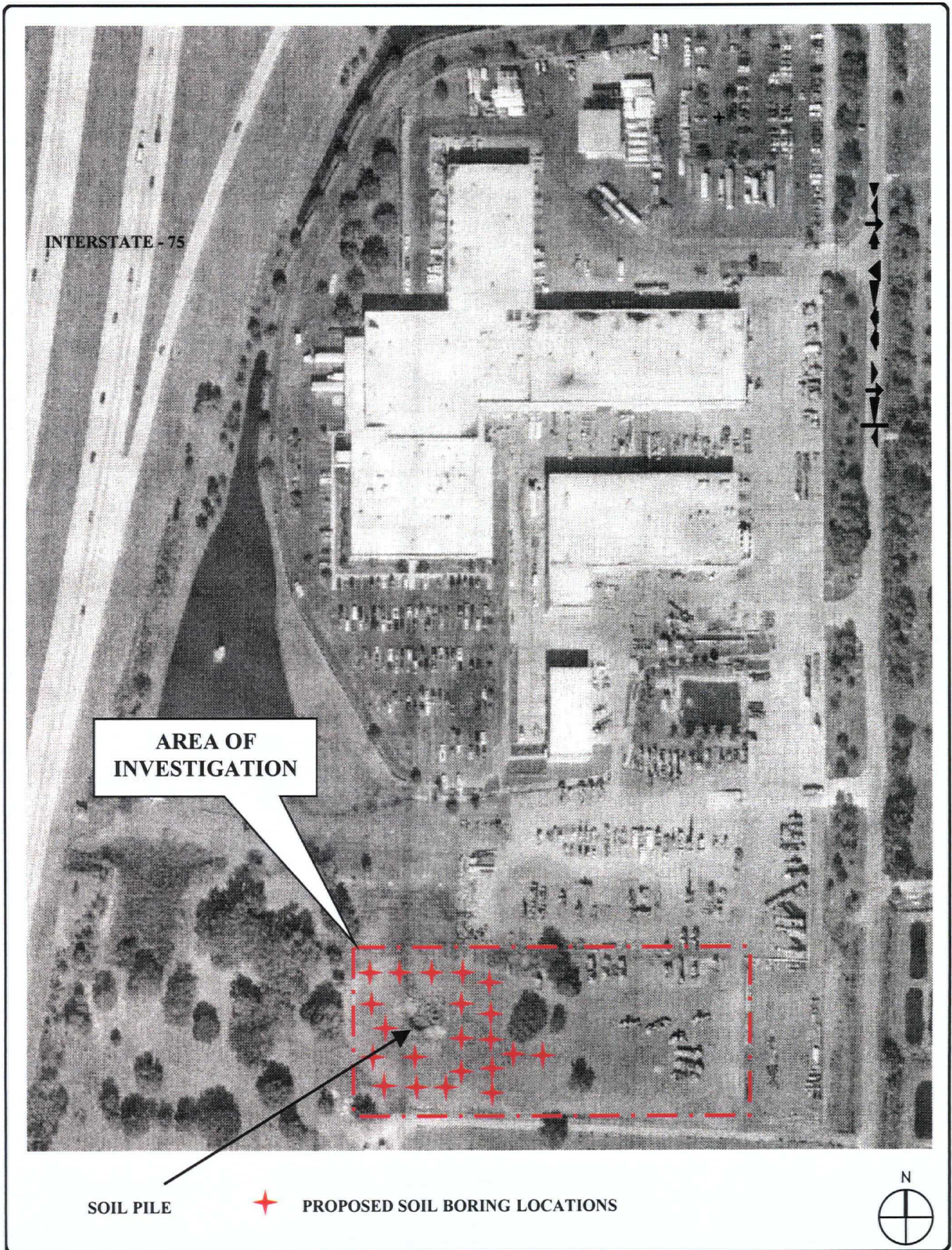


Figure 3. Soil Boring Location Map

Ringhaver Equipment Company

Scale: 1" = 200'

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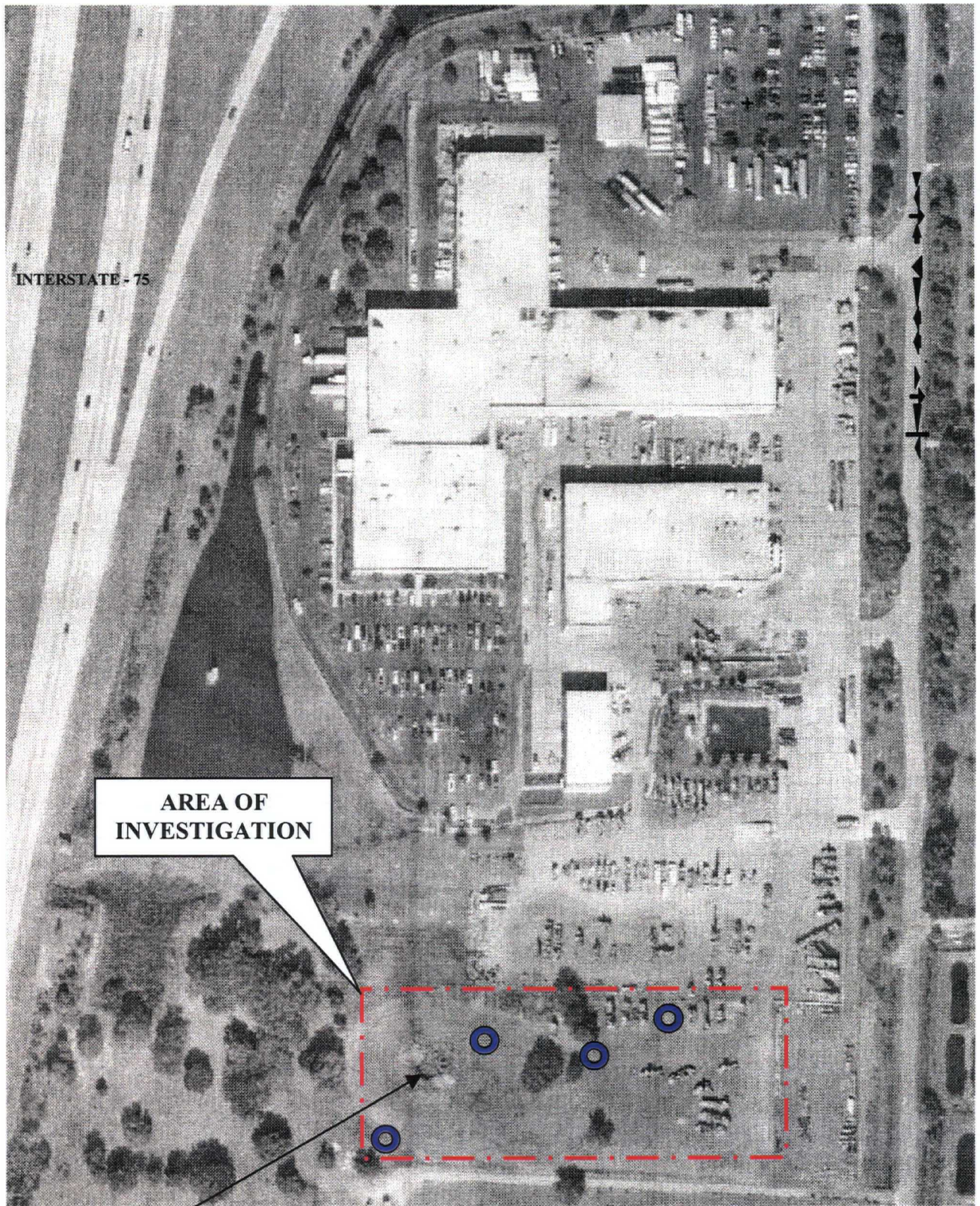
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Figure

F-3



SOIL PILE



PROPOSED MONITORING WELL LOCATION



Figure 4. Monitoring Well Location Map
Ringhaver Equipment Company

Scale: 1" = 200'

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Figure

F-4

TYPICAL MONITORING WELL CONSTRUCTION

DEPTH (FEET)

NET OVA
READING (ppm)

UNIFIED SOIL
CLASSIFICATION
SYSTEM SYMBOL

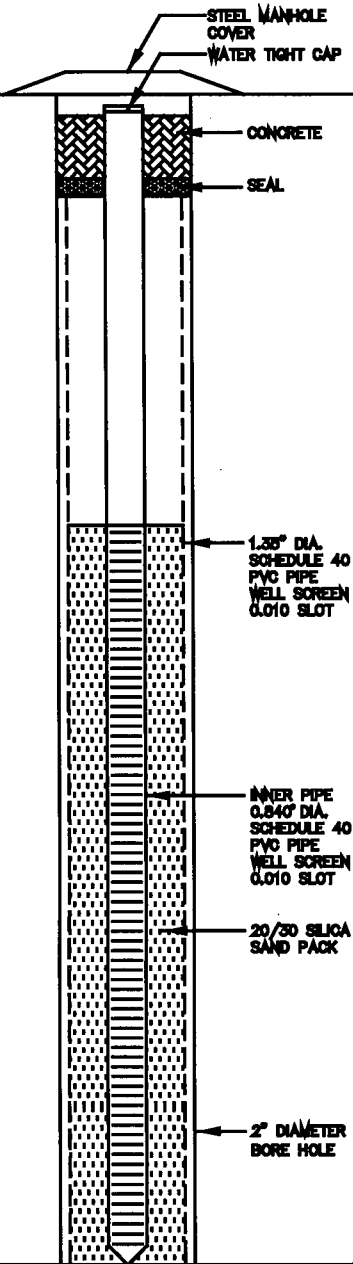
LITHOLOGICAL
PROFILE

LOCATION:

DATE STARTED:
DRILL METHOD: DIRECT PUSH
GROUND ELEVATION: -
WATER AT INSTALL:
GEOLOGIST: EAS

PROJECT NO.: 02000-03189
DATE COMPLETED:
DRILL MASTER: PREFERRED DRILLING
SCALE: NTS
DRAWN BY: EAS
DRAWING NO.: 02000/03189/MW.DWG
CHECKED BY: EAS

LITHOLOGICAL DESCRIPTION



TOTAL DEPTH = 15.0 FEET

15.0'

CONSTRUCTION DIAGRAM

Prepared for :
FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

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OF 6 SHEET(S)

APPENDIX A
Previous Environmental Report

PHASE II ENVIRONMENTAL SITE ASSESSMENT

**Ringhaver Equipment Company
9297 Gibsonton Drive
Riverview, Hillsborough County, Florida**

GLE Project No.: 02000-02986

Prepared for:

**Mr. Michael O'Keefe
c/o Mr. V. James Dickson
Ruden, McClosky, Smith,
Schuster & Russell, P.A.
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St. Petersburg, Florida 33701**

May 2002

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PHASE II ENVIRONMENTAL SITE ASSESSMENT

Conducted at

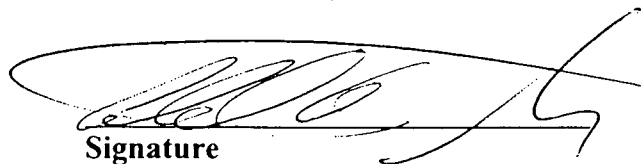
Ringhaver Equipment Company
9297 Gibsonton Drive
Riverview, Florida

for

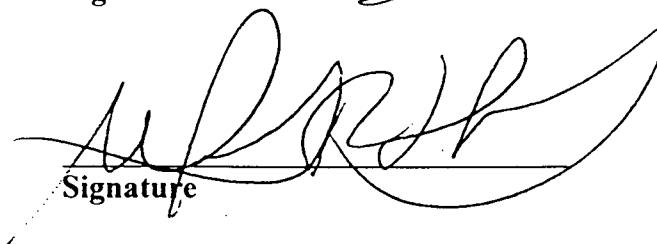
Mr. Michael O'Keefe
c/o Mr. V. James Dickson
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Issue Date: May 17, 2002

Edmund A. Smith, Jr.
Environmental Department Manager


Signature

Michael W. Rothenburg, PE
Director of Tampa Operations


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Table 3 - Groundwater Analytical Summary

APPENDICES

Appendix A - Geologic Logs
Appendix B - Sample Collection Logs
Appendix C - Laboratory Analytical Report

1.0 INTRODUCTION

The subject site is the Ringhaver Equipment Company facility, located at 9297 Gibsonton Drive, Riverview, Hillsborough County, Florida. The site operates as a heavy equipment repair and sales facility.

The objectives of the Phase II Environmental Assessment included:

- To determine if adverse environmental impacts have occurred at the subject site in particular concentrating on the southern portion of the facility where dumping of sludge material had been previously identified.

2.0 INVESTIGATIVE METHODOLOGIES

2.1 Soil Investigative Methodologies

GLE personnel conducted field activities on May 7, 2002. The soil boring investigation consisted of using direct push technology to obtain soil for visual inspection and OVA analysis at two-foot depth increments. A total of 15 soil borings (DP-01 through DP-015) were advanced on the subject site (refer to **Figure 1** for locations). The direct push equipment was decontaminated between each sample location with liquonox soap and water.

Soil hydrocarbon vapor field screening was conducted using a Foxboro Century Model 128 OVA flame ionization detector (FID) in accordance with the methods described in Rule 62-770.200(8) Florida Administrative Code (FAC). Prior to use in the field, documentation of the OVA calibration was conducted using 95-ppm methane. Samples were tested by placing the soil into two 16-ounce glass containers, leaving half of the container empty. The containers were capped with aluminum foil and a metal lid and set aside for approximately 5 minutes. The headspace inside the container of each sample was analyzed using the OVA with the temperature maintained between 20° C and 32° C.

Soil samples (SS1/050702/RH, SS2/050702/RH) were collected from soil borings (DP-05 and DP-06) immediately placed on wet ice and delivered to PC&B Environmental Laboratories, Inc., Oviedo, Florida. The collected soil samples were analyzed for Volatile Organic Compounds and Polyaromatic Hydrocarbons by EPA Method 80260/8270 and for RCRA 4 Metals. Geologic profiles are included in **Appendix A**. All field-sampling activities were conducted in accordance with FDEP's Standard Operating Procedures FS2200.

2.2 Groundwater Investigative Methodologies

One groundwater sample was collected (DP6/50702/RH), at the DP-06 location. Please refer to **Figure 1** for location map. The groundwater samples were collected via use of direct push technologies and obtained from the surficial aquifer, with a screened interval from four to eight feet below land surface.

Groundwater samples were collected using quiescent sampling techniques, in compliance with the Florida Department of Environmental Protection, Standard Operation Procedures for collecting groundwater samples, (FDEP-SOP-001/01, FS2200). The samples were immediately placed on wet ice and delivered to PC&B Analytical Laboratories, Oviedo, Florida. The collected groundwater samples were analyzed for Volatile Aromatic Hydrocarbons Polyaromatic Hydrocarbons by EPA Methods 624/625, and RCRA 4 Metals. New Teflon™ and silicone tubing was utilized in the peristaltic pump and to purge the temporary well. Please refer to **Appendix B** of this report for Sample Collection Logs.

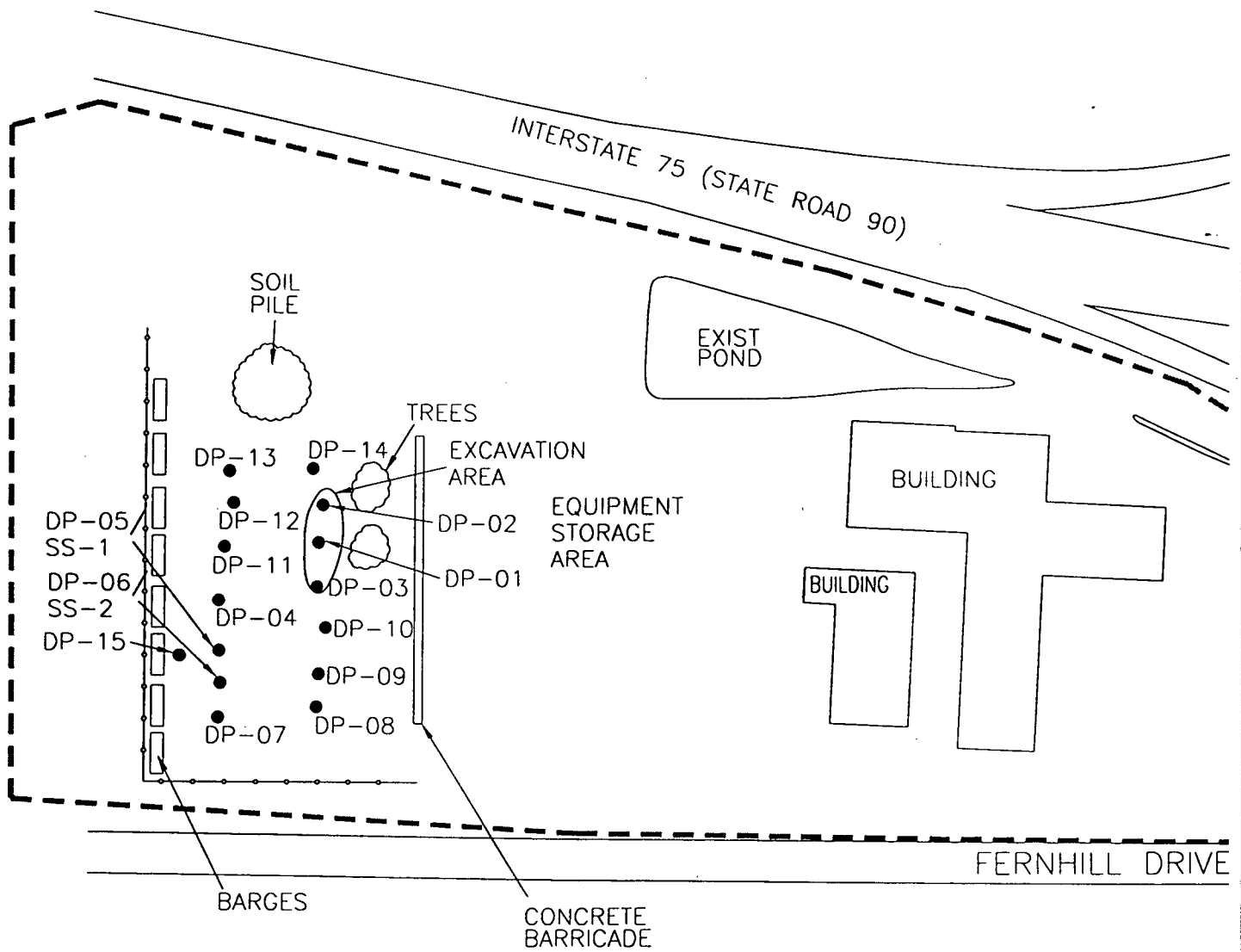
3.0 RESULTS OF INVESTIGATIVE METHODOLOGIES

The results of the soil boring investigation indicated visual observations of contamination (i.e.: stained soil, odors, sheens, etc.) were identified in soil samples collected from DP-05 and DP-06. OVA data is presented in **Table 1**. Subsurface geology of the site consisted of fine silty, brown sand from the surface to an approximate depth of six feet below land surface. Tan clayey sand was noted in some areas from a depth of six feet to eight feet below land surface. Groundwater was noted at the site between five and six feet below land surface.

Analytical results of the soil samples collected from DP-05 and DP-06 indicated that concentrations were detected below applicable State of Florida Cleanup Target Levels. Refer to **Appendix C** of this report for laboratory analytical data.

The results of the groundwater samples collected from DP-06 indicated that no concentrations of constituents analyzed for were detected above applicable State of Florida Cleanup Target Levels. Refer to **Appendix C** of this report for laboratory analytical data.

FIGURE



SITE PLAN
RINGHAVER
 9191 GIBSONTON DRIVE
 RIVERVIEW, FLORIDA

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OF 5-SHEETS	

TABLES

Table 1
Organic Vapor Screening Results
GLE Project No: 02002-02386

Sample Designation	Sample Collection Depth (ft bbs)	Total Organic Vapor Concentration (unfiltered) (ppm)	Total Methane Vapor Concentration (filtered) (ppm)	Total Petroleum Vapor Concentration (ppm)	Comments
DP-01	2	0	-	0	
	4	0	-	0	
	6	0	-	0	Sulfur odor
DP-02	2	0	-	0	
	4	0	-	0	
	6	0	-	0	
DP-03	2	0	-	0	
	4	0	-	0	
	6	0	-	0	
DP-04	2	0	-	0	Sulfur odor
	4	0	-	0	
	6	0	-	0	
DP-05	2	0	-	0	SS1 050702/RH Collected Sand Blast Grit
	4	0	-	0	
	6	0	-	0	
DP-06	2	0	-	0	
	4	0	-	0	
	6	80	66	14	Waste oil odor noted SS2/050702/RH Collected
DP-07	8	360	240	120	
	2	2	-	2	Slight oil odor
	4	2	-	2	
DP-08	6	100	68	32	
	8	110	110	0	
	1	3.2	-	3.2	
DP-09	3	2.2	-	2.2	
	5	90	90	0	
	1	1.6	-	1.6	
DP-09	3	10	-	10	
	5	9.2	-	9.2	

Table 1
 Ground Water Detection Results
 (ULI Report No. 03-01-0006)

Sample Designation	Sample Collection Depth (ft bls) ¹	Total Organic Vapor Concentration (T.O.C.) (ppm) ²	Total Methane Vapor Concentration (T.M.V.) (ppm)	Total Petroleum Vapor Concentration (ppm)	Comments
DP-10	1	1.0	-	1.0	
	3	4.6	-	4.6	
	5	10	-	10	
DP-11	2	0	-	0	
	4	0.5	-	0.5	
	6	1.8	-	1.8	
DP-12	1	6.2	-	6.2	
	3	6.6	-	6.6	
	5	0	-	0	
DP-13	1	34	0	34	No odors
	3	80	0	80	No odors
	5	1.2	-	1.2	
DP-14	2	NA		NA	
	4	NA		NA	
	6	NA		NA	
DP-15	2	NA		NA	
	4	NA		NA	
	6	NA		NA	Sulfur odor

¹ft bls= feet below land surface

²ppm = parts per million

³NA= not analyzed

Table 2
Soil Analysis Summary
Ridgecrest Development Company
Pensacola, Florida
GLR Project No. 02001-02986

Parameter	Direct Exposure I Residential	Direct Exposure II Industrial	Leachability Based on Groundwater	SS20000000	SS20000000
Benzene	1.1	1.6	0.007	<0.005	<0.002
Toluene	380	2600	0.5	<0.005	<0.002
Ethylbenzene	1100	8400	0.6	<0.005	<0.002
Total Xylenes	5900	40000	0.2	<0.005	<0.002
MTBE	3200	22000	0.2	<0.005	<0.002
Acenaphthene	1,900	18,000	2.1	<0.17	<0.185
Naphthalene	40	270	1.7	<0.17	<0.185
TRPH	340	2,500	340.0	58.9	280.0
Arsenic	0.8	3.7	29.0	<0.5	<0.6
Cadium	75	1300	8.0	2.4	0.5
Chromium	210	420	38.0	32.6	5.9
Lead	400	920	*	55.8	5.3

Notes:

- 1) All concentrations in milligrams per kg (mg/kg)
- 2) ND = Not Detected above laboratory detection limits.
- 3) Direct Exposure I, II, and Leachability are specified in Chapter 62-777 FAC.
- 4) * = Leachability values may be derived using SPLP test.

Table 3
 Comparison Analytical Summary
 Ringier Environmental Company
 Clearwater, Florida
 CLEP Project No. 02000-02086

Parameter	Table V Groundwater Cleanup Target Levels	Natural Attenuation Levels	DP5050702-RH
Benzene	1	100	<1.0
Toluene	40	400	<1.0
Ethylbenzene	30	300	<1.0
Total Xylenes	20	200	<1.0
MTBE	50	500	<10.0
Acenaphthene	20	200	<5.0
Naphthalene	20	200	<5.0
TRPH	5,000	50,000	<0.1
Arsenic	50	500	<5.0
Cadium	5	50	<0.5
Chromium	100	1000	<1
Lead	15	150	5

Notes:

- 1) All concentrations in micrograms per liter (ug/l)
- 2) ND = Not Detected above laboratory detection limits.
- 3) Highlighted values are above the lowest FDEP limit, as per Chapter 62-777 F.A.C.
- 4) Bolded values are above State Natural Attenuation Levels.

APPENDIX A
Geologic Logs



GEOLOGIC / WELL / SOIL LOG

Project Number:	02000 - 02956	Page	1	Of	1
Project Name	Ringhaver	Date Started:	5/7/02		
Point I.D. Number:	DP-1	Date Completed:	5/7/02		
Location:	center of excavation	Project Scientist:	EAS/MCC		
Well Completion Depth:		Drilling Contractor:	Preferred Drilling		
Well Construction Material:		Drilling Method:	Direct Push		
Type and Volume of Silica Sand Pack:		Drilling Equipment:			
Well Screen Length/Slot-Size:		Soil Sample Collection Method:	4' Corer		
Well Riser Length:		Volume of Water Used During Drilling:			
Well Seal Type/Thickness:		Depth to Water From Land Surface:	~ 4.5'		
Grout Type and Thickness:					

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes
2			Fin silty brown sand poorly sorted			0 - 0
4						0 - 0
6			Tan clayey sand poorly sorted			0 - 0
8						0 - 0 Sulfur odor
10			— No streaks or stains noted in any of the samples			



GEOLOGIC / WELL / SOIL LOG

Project Number: 02000-02986	Page 1 of 1
Project Name: Ringhaver	Date Started: 5/7/02
Point I.D. Number: 08-2	Date Completed: 5/7/02
Location: Western portion of excavation	Project Scientist: EAS/mcc
Well Completion Depth:	Drilling Contractor: Peffered Drilling
Well Construction Material:	Drilling Method: Direct Push
Type and Volume of Silica Sand Pack:	Drilling Equipment:
Well Screen Length/Slot-Size:	Soil Sample Collection Method: 4' cont.
Well Riser Length:	Volume of Water Used During Drilling:
Well Seal Type/Thickness:	Depth to Water From Land Surface: ~ 6'
Grout Type and Thickness:	

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes		
						Gross	Filt	Net
2			OK brown fine silty sand			0	-	0
4						0	-	0
6			Tan fine silty sand			0	-	0
8			Tan fine clayey sand			0	-	0
10			- No streaks or staining noted in soil - slight and sulfur odor near water table					



GEOLOGIC / WELL / SOIL LOG

Project Number: 02000-02986	Page 1 of 6
Project Name: Ringhaver	Date Started: 5/7/02
Point I.D. Number: OP-3	Date Completed: 5/7/02
Location: Eastern Portion of Excavation	Project Scientist: EAS/MCC
Well Completion Depth:	Drilling Contractor: Preferred Drilling
Well Construction Material:	Drilling Method: Direct Push
Type and Volume of Silica Sand Pack:	Drilling Equipment:
Well Screen Length/Slot-Size:	Soil Sample Collection Method: 4' cont
Well Riser Length:	Volume of Water Used During Drilling:
Well Seal Type/Thickness:	Depth to Water From Land Surface: 4.5'
Grout Type and Thickness:	

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes		
						Gross	F:lt	Net
2			Dk brown fine silty sand not well sorted			0	-	0
4						0	-	0
6	4		Tan fine silty sand			0	-	0
8			clayey fine sand poorly sorted			0	-	0 sulfur smell
10			No streaks or staining noted					



GEOLOGIC / WELL / SOIL LOG

Project Number: 02000-02985			Page 1 of 1		
Project Name: Ringhaver			Date Started: 5/7/02		
Point I.D. Number: DP-4			Date Completed: 5/7/02		
Location: 25' S of DP-3			Project Scientist: F.H. / MCC		
Well Completion Depth:			Drilling Contractor: R. R. R. Drilling		
Well Construction Material:			Drilling Method: Direct Push		
Type and Volume of Silica Sand Pack:			Drilling Equipment:		
Well Screen Length/Slot-Size:			Soil Sample Collection Method: 4' Cont		
Well Riser Length:			Volume of Water Used During Drilling:		
Well Seal Type/Thickness:			Depth to Water From Land Surface: 5'		
Grout Type and Thickness:					

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes		
						Gross	Filt	Net
2			OK brown fine silty sand med/well/sorted			0	-	0
4						0	-	0
6			Fine white silty sand med/well/sorted			0	-	0
8								
10			- No streaks/stain noted in soil - slight sulfur odor noted in water table					

GEOLOGIC / WELL / SOIL LOG

Project Number: 02000-02986	Page 1 of 1
Project Name: 02000 Ringhaver	Date Started: 5/7/02
Point I.D. Number: DRS	Date Completed: 5/7/02
Location: 20' East of NP-4	Project Scientist: EAS/MCC
Well Completion Depth:	Drilling Contractor: Preferred Drilling
Well Construction Material:	Drilling Method: Direct Push
Type and Volume of Silica Sand Pack:	Drilling Equipment:
Well Screen Length/Slot-Size:	Soil Sample Collection Method: 4' cont
Well Riser Length:	Volume of Water Used During Drilling:
Well Seal Type/Thickness:	Depth to Water From Land Surface: 5'
Grout Type and Thickness:	

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes		
						Gross	Filt	Net
2			OK brown fine silty sand			0	-	0
4			course black sand			0	-	0
6			OK brown fine silty sand			0	-	0
8			↓			0	-	0
			1.5' layer of black grit (non-native)					



GEOLOGIC / WELL / SOIL LOG

Project Number: 02000-02986		Page 1 of 1	
Project Name: Roshaver		Date Started: 5/2/02	
Point I.D. Number: DP-6		Date Completed: 5/3/02	
Location: 20' East of DP-5		Project Scientist: ERS/mcc	
Well Completion Depth:		Drilling Contractor: R. R. A. Drilling	
Well Construction Material:		Drilling Method: Direct Push	
Type and Volume of Silica Sand Pack:		Drilling Equipment:	
Well Screen Length/Slot-Size:		Soil Sample Collection Method: 4' cont	
Well Riser Length:		Volume of Water Used During Drilling:	
Well Seal Type/Thickness:		Depth to Water From Land Surface: 5'	
Grout Type and Thickness:			

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes		
						Gross	F.11	Net
2			Pk brown fine silty sand			0	-	0
4			500			0	-	0
6						80	60	14
8								
10			Tan fine silty sand			360	240	120
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								
46								
48								
50								

Waste oil odor noted around 4' 6/5 → 10' 6/5 wcf



GEOLOGIC / WELL / SOIL LOG

Project Number: 02006-02986	Page 1 of 1
Project Name: Rinkaver	Date Started: 5/7/02
Point I.D. Number: 1DP-7	Date Completed: 5/7/02
Location: 20' E. of NP-6	Project Scientist: EAS/MCC
Well Completion Depth:	Drilling Contractor: Pie Perceal Drilling
Well Construction Material:	Drilling Method: Direct Push
Type and Volume of Silica Sand Pack:	Drilling Equipment:
Well Screen Length/Slot-Size:	Soil Sample Collection Method: 4' cont
Well Riser Length:	Volume of Water Used During Drilling:
Well Seal Type/Thickness:	Depth to Water From Land Surface: ~6.5
Grout Type and Thickness:	

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes		
						Gross	Filt	Net
2			OK brown fine silty sand and well sorted			2	-	2
4			brown sandy clay			2	-	2
6						100	68	32
8						110	110	0
10			tan fine silty sand					
			slight oil odor noted ~ 3' b/s					

slight odor



GEOLOGIC / WELL / SOIL LOG

Project Number: 02000-02986				Page 1 of 1	
Project Name: Ringhaver				Date Started: 5/2/02	
Point I.D. Number: DP-8				Date Completed: 5/7/02	
Location: 20' N. of DP-7				Project Scientist: EAS/mec	
Well Completion Depth:				Drilling Contractor: P. J. Drilling	
Well Construction Material:				Drilling Method: Direct Push	
Type and Volume of Silica Sand Pack:				Drilling Equipment:	
Well Screen Length/Slot-Size:				Soil Sample Collection Method: 4' cont	
Well Riser Length:				Volume of Water Used During Drilling:	
Well Seal Type/Thickness:				Depth to Water From Land Surface: 7'	
Grout Type and Thickness:					

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes
2			Ok brown fine silty sand			3.2 - 3.2
4						2.2 - 2.2
6						90 90
8			nt brown fine silty sand			
10						



GEOLOGIC / WELL / SOIL LOG

Project Number: 02000-02986				Page 1 of 1	
Project Name: Ringhaver				Date Started: 5/7/02	
Point I.D. Number: DP-9				Date Completed: 5/7/02	
Location: 20' West DP-8				Project Scientist: RNS/MCC	
Well Completion Depth:				Drilling Contractor: Dr. Howard Drilling	
Well Construction Material:				Drilling Method: Direct Push	
Type and Volume of Silica Sand Pack:				Drilling Equipment:	
Well Screen Length/Slot-Size:				Soil Sample Collection Method: 4' cont	
Well Riser Length:				Volume of Water Used During Drilling:	
Well Seal Type/Thickness:				Depth to Water From Land Surface: 53	
Grout Type and Thickness:					

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes	
2			dk brown fine silty sand ↓			Cross Hilt Not	
4							1.6 - 1.6
6	Δ						10 - 10
8							9.2 - 9.2
10							

GEOLOGIC / WELL / SOIL LOG

Project Number:	02988	Page	1	Of	1
Project Name:	Drinking water	Date Started:	5/2/02		
Point I.D. Number:	DP-10	Date Completed:	5/7/02		
Location:	20 West DP-9	Project Scientist:	EAS/Mce		
Well Completion Depth:		Drilling Contractor:	Petroleum Alliance		
Well Construction Material:		Drilling Method:	Direct Push		
Type and Volume of Silica Sand Pack:		Drilling Equipment:			
Well Screen Length/Slot Size:		Soil Sample Collection Method:	4' Comp		
Well Riser Length:		Volume of Water Used During Drilling:			
Well Seal Type/Thickness:		Depth to Water From Land Surface:	5.5'		
Grout Type and Thickness:					

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes
2			Dk brown fine silty sand			1.0 - 1.0
4			Grey fine silty sand			4.6 - 4.6
6			Brown fine silty sand			10 - 10
8			lt tan fine silty sand			



GEOLOGIC / WELL / SOIL LOG

Project Number: 02008-02986	Page 1 of 1
Project Name: Rindover	Date Started: 5/2/02
Point I.D. Number: DP-12	Date Completed: 5/2/02
Location: 80' West of NP11	Project Scientist: EAS/MCC
Well Completion Depth:	Drilling Contractor: Preferred Drilling
Well Construction Material:	Drilling Method: Direct Push
Type and Volume of Silica Sand Pack:	Drilling Equipment:
Well Screen Length/Slot-Size:	Soil Sample Collection Method: 4' Cont
Well Riser Length:	Volume of Water Used During Drilling:
Well Seal Type/Thickness:	Depth to Water From Land Surface:
Grout Type and Thickness:	

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes
2			Brown fine silty sand well sorted			Grades Filt Wet 6.2 - 6.2
4			Orange fine silty sand well sorted			6.6 - 6.6
6			Tan silty sand			0 - 0
8			Tan sandy clay			
10						

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes
2			Brown fine silty sand			34 0 34
4			lt brown fine silty sand			80 0 80
6			lt tan fine silty sand			1.2 = 1.2
8			lt tan sandy clay			
10						
12						
14						
16						
18						
20						
22						
24						
26						
28						
30						
32						
34						
36						
38						
40						
42						
44						
46						
48						
50						

GEOLOGIC / WELL / SOIL LOG

Project Number: 02000-02986	Page 1 of 1
Project Name: Ringhaver	Date Started: 5/7/02
Point I.D. Number: DR 14	Date Completed: 5/7/02
Location: 20' West of DR-2	Project Scientist: EAS/MCC
Well Completion Depth:	Drilling Contractor: Referred Drilling
Well Construction Material:	Drilling Method: Direct Push
Type and Volume of Silica Sand Pack:	Drilling Equipment:
Well Screen Length/Slot-Size:	Soil Sample Collection Method: 4' core
Well Riser Length:	Volume of Water Used During Drilling:
Well Seal Type/Thickness:	Depth to Water From Land Surface: 5'
Grout Type and Thickness:	

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes
2			Brown fine silty sand			
4						
6			lt tan fine silty sand			
8			clayey sand fine			
No impacts noted in soil						

NO OVA
data



GEOLOGIC / WELL / SOIL LOG

Project Number: 0200-02986	Page 1 of 1
Project Name: Ringhaver	Date Started: 5/7/02
Point I.D. Number: NP-15	Date Completed: 5/7/02
Location: 20' S of NP-15	Project Scientist: EHS/MCC
Well Completion Depth:	Drilling Contractor: Ruffner Drilling
Well Construction Material:	Drilling Method: Direct Push
Type and Volume of Silica Sand Pack:	Drilling Equipment:
Well Screen Length/Slot-Size:	Soil Sample Collection Method: 4' cont
Well Riser Length:	Volume of Water Used During Drilling:
Well Seal Type/Thickness:	Depth to Water From Land Surface: 8'
Grout Type and Thickness:	

Depth (ft)	Blows on Sampler	Split-Spoon % Recovery	Lithological Description (color, grain size, sorting, texture)	USCS Symbol	Well Construction Diagram	Soil Sample Field Screening and Other Notes
2	A		Brown fine silty sand			No OVA sulfur odor
4			Grey fine silty sand			
6			DK brown fine silty sand (ropy)			
8			Brown fine silty sand			
10						

APPENDIX B.
Sample Collection Logs

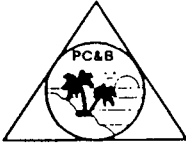
PURGING DATA

SAMPLING DATA

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDPE = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

NOTE: The above do not constitute all of the information required by Chapter 62-160, F.A.C.

APPENDIX C
Laboratory Analytical Data



PC&B Environmental Laboratories, Inc.

210 Park Road, Oviedo, Florida 32765
Phone: 407-359-7194 Fax: 407-359-7197

05-15-2002

Edmund Smith
GLE Associates, Inc.
3109 W. Martin Luther King Jr. Blvd
Tampa, FL 33607-

Dear Edmund Smith:

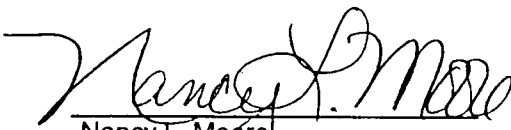
Enclosed are the results of the analysis of your samples received 05/09/2002.

Our laboratory is NELAP certified by the Florida DOH (Lab #E83239) and operates under an NELAP approved Quality Assurance Plan. Unless otherwise noted, all results are reported as received. All data were determined in accordance with published procedures (EPA-600/4-79-020), Methods for Chemical Analysis of Water and Wastes, Revised March 1983, or later and/or Standard Methods for the examination of Water and Wastewater, 18th Edition 1989, or later and/or Test Methods for Evaluating Solid Waste (EPA-SW-846, Revised January 1995, or later), unless stated otherwise in our CompQapp under method modifications.

Test results meet all of the requirements of the NELAC Standards.

If you have any questions, please do not hesitate to give me a call.

Sincerely,


Nancy L. Moore
Technical Director



PC&B Environmental Laboratories, Inc.

210 Park Road, Oviedo, Florida 32765
Phone: 407-359-7194 Fax: 407-359-7197

Client : GLE Associates, Inc.
3109 W. Martin Luther King Jr. Blvd
Tampa, FL 33607-

Contact : Edmund Smith
Phone : (813) 241-8350

Laboratory Reference Number : 202050096

Project Name : Ringhaver
Project Number : 02000-02869

Chain of Custody : 27356

Laboratory ID	Matrix	Client ID	Status	Date/Time Sampled
202050096-1	Soil	SS1/050702/RH	RUN	05/07/2002 13:15
202050096-2	Soil	SS2/050702/RH	RUN	05/07/2002 13:30
202050096-3	Water	DP6/050702/RH	RUN	05/07/2002 14:30

Number	Parameter	Description
2	FL-PRO	Petroleum Hydrocarbons
1	FL-PRO	Petroleum Hydrocarbons
2	EPA 8270	Semivolatile Organics by GCMS
1	EPA 625/8270	Semivolatile Organics by GCMS
2	EPA 8260	Volatile Organics by GCMS
1	EPA 624/8260	Volatile Organics by GCMS
2	EPA 6010	Arsenic by ICAP
1	EPA 6010/200.7	Arsenic by ICP
2	EPA 6010	Cadmium by ICAP
1	EPA 6010/200.7	Cadmium by ICAP
2	EPA 6010	Chromium by ICAP
1	EPA 6010/200.7	Chromium by ICAP
2	EPA 6010	Lead by ICAP
1	EPA 6010/200.7	Lead by ICAP

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Volatile Organics by GCMS

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: EPA 5035/8260

Lab Reference Number	202050096-1	202050096-2
Client Sample ID	SS1/050702/RH	SS2/050702/RH
Date/Time Sampled	05/07/2002 13:15	05/07/2002 13:30
Date/Time Extracted	05/09/2002	05/09/2002
Date/Time Analyzed	05/10/2002 13:55	05/10/2002 13:16
Sample Matrix (as Received)	Soil	Soil
Analysis Confirmed	GCMS	GCMS
Dilution Factor	1	.4
Percent Moisture	5.0	14.0
Result Units	ug/kg	ug/kg
Benzene	5 U	2 U
Bromobenzene	5 U	2 U
Bromochloromethane	5 U	2 U
Bromodichloromethane	5 U	2 U
Bromoform	5 U	2 U
Bromomethane	5 U	2 U
n-Butylbenzene	5 U	2 U
sec-Butylbenzene	5 U	2 U
tert-Butylbenzene	5 U	2 U
Carbon tetrachloride	5 U	2 U
Chlorobenzene	5 U	2 U
Chloroethane	5 U	2 U
Chloroform	5 U	2 U
Chloromethane	5 U	2 U
2-Chlorotoluene	5 U	2 U
4-Chlorotoluene	5 U	2 U
Dibromochloromethane	5 U	2 U
1,2-Dibromo-3-chloropropane	5 U	2 U
1,2-Dibromoethane	5 U	2 U
Dibromomethane	5 U	2 U
1,2-Dichlorobenzene	5 U	2 U
1,3-Dichlorobenzene	5 U	2 U
1,4-Dichlorobenzene	5 U	2 U
Dichlorodifluoromethane	5 U	2 U
1,1-Dichloroethane	5 U	2 U
1,2-Dichloroethane	5 U	2 U
1,1-Dichloroethene	5 U	2 U
cis-1,2-Dichloroethene	5 U	2 U
trans-1,2-Dichloroethene	5 U	2 U
1,2-Dichloropropane	5 U	2 U
1,3-Dichloropropane	5 U	2 U
2,2-Dichloropropane	5 U	2 U
1,1-Dichloropropene	5 U	2 U
Ethylbenzene	5 U	2 U
Hexachlorobutadiene	5 U	2 U
Isopropylbenzene	5 U	2 U
p-Isopropyltoluene	5 U	2 U
Methylene chloride	5 U	2 U
Naphthalene	5 U	2 U
n-Propylbenzene	5 U	2 U
Styrene	5 U	2 U
1,1,1,2-Tetrachloroethane	5 U	2 U
1,1,2,2-Tetrachloroethane	5 U	2 U
Tetrachloroethene	5 U	2 U
Toluene	5 U	2 U
1,2,3-Trichlorobenzene	5 U	2 U
1,2,4-Trichlorobenzene	5 U	2 U
1,1,1-Trichloroethane	5 U	2 U
1,1,2-Trichloroethane	5 U	2 U
Trichloroethene	5 U	2 U
Trichlorofluoromethane	5 U	2 U
1,2,3-Trichloropropane	5 U	2 U
1,2,4-Trimethylbenzene	5 U	2 U
1,3,5-Trimethylbenzene	5 U	2 U
Vinyl chloride	5 U	2 U
m&p-Xylenes	5 U	2 U

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Volatile Organics by GCMS

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: EPA 5035/8260

Lab Reference Number	202050096-1	202050096-2
Client Sample ID	SS1/050702/RH	SS2/050702/RH
Date/Time Sampled	05/07/2002 13:15	05/07/2002 13:30
Date/Time Extracted	05/09/2002	05/09/2002
Date/Time Analyzed	05/10/2002 13:55	05/10/2002 13:16
Sample Matrix (as Received)	Soil	Soil
Analysis Confirmed	GCMS	GCMS
Dilution Factor	1	.4
Percent Moisture	5.0	14.0
Result Units	ug/kg	ug/kg
o-Xylene	5 U	2 U
cis-1,2-Dichloropropene	5 U	2 U
trans-1,2-Dichloropropene	5 U	2 U
MTBE	5 U	2 U
(Surr) 1,2-Dichloroethane-d4 (%)	116	107
(Surr) Toluene-d8 (%)	107	113
(Surr) 4-Bromofluorobenzene (%)	91	84

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Dry Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by: km

Quality Control Report for Spike/Spike Duplicate Analysis

Volatile Organics by GCMS

Matrix: Soil

Lab Sample ID: 202050096-1

QC Batch ID: 200205MS3035

Spike Units: ug/kg

Analysis Date: 05/10/2002

Preparation Date: 05/10/2002

Method: EPA 8260

Analyst: KN

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Benzene	50	0	46	92	47	94	2
Carbon tetrachloride	50	0	45	90	46	92	2
Chlorobenzene	50	0	45	90	46	92	2
1,4-Dichlorobenzene	50	0	47	94	46	92	2
1,1-Dichloroethene	50	0	46	92	46	92	0
Ethylbenzene	50	0	45	90	48	96	6
Toluene	50	0	45	90	45	90	0
Trichloroethene	50	0	46	92	47	94	2
o-Xylene	50	0	47	94	47	94	0

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Benzene	65	135	12
Carbon tetrachloride	63	138	12
Chlorobenzene	73	126	9
1,4-Dichlorobenzene	76	125	10
1,1-Dichloroethene	70	131	12
Ethylbenzene	65	133	11
Toluene	67	131	11
Trichloroethene	69	127	10
o-Xylene	73	125	15

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Volatile Organics by GCMS

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: EPA 624/8260

Lab Reference Number	202050096-3
Client Sample ID	DP6/050702/RH
Date/Time Sampled	05/07/2002 14:30
Date/Time Extracted	05/09/2002
Date/Time Analyzed	05/09/2002 17:09
Sample Matrix (as Received)	Water
Analysis Confirmed	GCMS
Dilution Factor	1
Result Units	ug/l
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane	1.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chlorodibromomethane	1.0 U
Chloroethane	1.0 U
2-Chloroethyl vinyl ether	1.0 U
Chloroform	1.0 U
Chloromethane	1.0 U
Dibromomethane	1.0 U
1,2-Dibromomethane	1.0 U
Dichlorodifluoromethane	1.0 U
1,1-Dichloroethane	1.0 U
1,2-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dichlorobenzene	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
trans-1,2-Dichloroethene	1.0 U
cis-1,2-Dichloroethene	1.0 U
1,2-dichloropropane	1.0 U
cis-1,3-Dichloropropene	1.0 U
trans-1,3-Dichloropropene	1.0 U
Ethylbenzene	1.0 U
Methylene chloride	5.0 U
Styrene	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,1,2-Tetrachloroethane	1.0 U
Tetrachloroethene	1.0 U
Toluene	1.0 U
1,1,1-Trichloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
Trichloroethene	1.0 U
Trichlorofluoromethane	1.0 U
1,2,3-trichloropropane	1.0 U
Vinyl chloride	1.0 U
Xylenes (total)	1.0 U
Acetone	25 U
Acetonitrile	25 U
Acrolein	25 U
Acrylonitrile	25 U
Carbon disulfide	25 U
2-Butanone	25 U
2-Hexanone	25 U
4-Methyl-2-pentanone	25 U
Vinyl acetate	25 U
MTBE	10.0 U
(Surr) 1,2-Dichloroethane (%)	131
(Surr) Toluene-d8 (%)	82
(Surr) 4-Bromofluorobenzene (%)	63

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by :

um

Quality Control Report for Spike/Spike Duplicate Analysis

Volatile Organics by GCMS

Matrix: Water

Lab Sample ID: MW-MS

QC Batch ID: 200205MS2030

Spike Units: ug/l

Analysis Date: 05/09/2002

Preparation Date: 05/09/2002

Method: EPA 624

Analyst: KN

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Benzene	50.0	0.0	51.0	102	49.0	98	4
Carbon tetrachloride	50.0	0.0	52.0	104	49.0	98	6
Chlorobenzene	50.0	0.0	49.0	98	47.0	94	4
1,1-Dichloroethene	50.0	0.0	44.0	88	47.0	94	7
1,4-Dichlorobenzene	50.0	0.0	44.0	88	44.0	88	0
Ethylbenzene	50.0	0.0	44.0	88	42.0	84	5
Toluene	50.0	0.0	41.0	82	40.0	80	2
Trichloroethene	50.0	0.0	51.0	102	49.0	98	4
Xylenes (total)	150.0	0.0	132.0	88	132.0	88	0

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Benzene	58	146	14
Carbon tetrachloride	67	135	14
Chlorobenzene	70	125	15
1,1-Dichloroethene	64	141	13
1,4-Dichlorobenzene	66	132	13
Ethylbenzene	69	128	10
Toluene	66	128	18
Trichloroethene	70	128	10
Xylenes (total)	78	120	14

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Semivolatile Organics by GCMS

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: EPA 8270

Lab Reference Number	202050096-1	202050096-2
Client Sample ID	SS1/050702/RH	SS2/050702/RH
Date/Time Sampled	05/07/2002 13:15	05/07/2002 13:30
Date/Time Extracted	05/10/2002	05/10/2002
Date/Time Analyzed	05/10/2002 17:29	05/10/2002 18:19
Sample Matrix (as Received)	Soil	Soil
Analysis Confirmed	GCMS	GCMS
Dilution Factor	1	1
Percent Moisture	5.0	14.0
Result Units	ug/kg	ug/kg
Acenaphthene	170 U	185 U
Acenaphthylene	170 U	185 U
Anthracene	170 U	185 U
Benzidine	170 U	185 U
Benzoic Acid	1680 U	1860 U
Benzo(a)anthracene	170 U	185 U
Benzo(b)fluoranthene	170 U	185 U
Benzo(k)fluoranthene	170 U	185 U
Benzo(ghi)perylene	170 U	185 U
Benzo(a)pyrene	170 U	185 U
Benzyl alcohol	630 U	700 U
Bis(2-chloroethyl)ether	170 U	185 U
Bis(2-chloroethoxy)methane	170 U	185 U
Bis(2-chloroisopropyl)ether	170 U	185 U
Bis(2-ethylhexyl)phthalate	170 U	185 U
4-Bromophenyl phenyl ether	170 U	185 U
Butyl benzyl phthalate	170 U	185 U
4-Chloroaniline	630 U	700 U
1-Chloronaphthalene	170 U	185 U
2-Chloronaphthalene	170 U	185 U
4-Chloro-3-methylphenol	170 U	185 U
2-Chlorophenol	170 U	185 U
4-Chlorophenyl phenyl ether	170 U	185 U
Chrysene	170 U	185 U
Dibenz(a,h)anthracene	170 U	185 U
Dibenzofuran	170 U	185 U
Di-n-butyl phthalate	170 U	185 U
1,3-Dichlorobenzene	170 U	185 U
1,4-Dichlorobenzene	170 U	185 U
1,2-Dichlorobenzene	170 U	185 U
3,3'-Dichlorobenzidine	630 U	700 U
2,4-Dichlorophenol	170 U	185 U
2,6-Dichlorophenol	170 U	185 U
Diethylphthalate	170 U	185 U
2,4-Dimethylphenol	170 U	185 U
Dimethylphthalate	170 U	185 U
4,6-Dinitro-2-methylphenol	170 U	185 U
2,4-Dinitrophenol	1680 U	1860 U
2,4-Dinitrotoluene	170 U	185 U
2,6-Dinitrotoluene	170 U	185 U
Diphenylamine	170 U	185 U
1,2-Diphenylhydrazine	170 U	185 U
Di-n-Octylphthalate	170 U	185 U
Fluoranthene	170 U	185 U
Fluorene	170 U	185 U
Hexachlorobenzene	170 U	185 U
Hexachlorobutadiene	170 U	185 U
Hexachlorocyclopentadiene	170 U	185 U
Hexachloroethane	170 U	185 U
Indeno(123-cd)pyrene	170 U	185 U
Isophorone	170 U	185 U
1-Methylnaphthalene	170 U	185 U
2-Methylnaphthalene	170 U	185 U
2-Methylphenol	170 U	185 U
4-Methylphenol	170 U	185 U
Naphthalene	170 U	185 U

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Semivolatile Organics by GCMS

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: EPA 8270

Lab Reference Number	202050096-1	202050096-2
Client Sample ID	SS1/050702/RH	SS2/050702/RH
Date/Time Sampled	05/07/2002 13:15	05/07/2002 13:30
Date/Time Extracted	05/10/2002	05/10/2002
Date/Time Analyzed	05/10/2002 17:29	05/10/2002 18:19
Sample Matrix (as Received)	Soil	Soil
Analysis Confirmed	GCMS	GCMS
Dilution Factor	1	1
Percent Moisture	5.0	14.0
Result Units	ug/kg	ug/kg
2-Nitroaniline	1680 U	1860 U
3-Nitroaniline	1680 U	1860 U
4-Nitroaniline	1680 U	1860 U
Nitrobenzene	170 U	185 U
2-Nitrophenol	170 U	185 U
4-Nitrophenol	170 U	185 U
N-Nitrosodiphenylamine	170 U	185 U
N-Nitroso-di-n-propylamine	170 U	185 U
Pentachlorophenol	1680 U	1860 U
Phenanthrene	170 U	185 U
Phenol	170 U	185 U
Pyrene	170 U	185 U
1,2,4-Trichlorobenzene	170 U	185 U
2,4,5-Trichlorophenol	170 U	185 U
2,4,6-Trichlorophenol	170 U	185 U
Pyridine	265 U	290 U
Aniline	265 U	290 U
(Surr) 2-Fluorophenol (%)	56	66
(Surr) Phenol-d5 (%)	58	61
(Surr) Nitrobenzene-d5 (%)	41	47
(Surr) 2-Fluorobiphenyl (%)	37	40
(Surr) 2,4,6-Tribromophenol (%)	55	67
(Surr) Terphenyl-d14 (%)	51	68

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Dry Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by: lum

Quality Control Report for LCS Analysis

Semivolatile Organics by GCMS

Matrix: Soil

Lab Sample ID: LCS

QC Batch ID: 200204BNA039E

LCS Units: ug/kg

Analysis Date: 05/10/2002

Preparation Date: 05/10/2002

Method: EPA 8270

Analyst: KN

Analyte	LCS Conc	LCS Result	Percent Recovery	Lower Control Limit	Upper Control Limit
(Surr) 2-Fluorophenol	100	66	66	24	120
(Surr) Phenol-d5	100	67	67	25	121
(Surr) Nitrobenzene-d5	100	36	36	23	120
(Surr) 2-Fluorobiphenyl	100	34	34	30	120
(Surr) 2,4,6-Tribromophenol	100	36	36	19	130
(Surr) Terphenyl-d14	100	78	78	18	137
Acenaphthene	50	30	59	42	96
4-Chloro-3-methylphenol	100	76	76	49	120
2-Chlorophenol	100	58	58	51	101
1,3-Dichlorobenzene	50	29	58	57	104
2,4-Dinitrotoluene	50	50	100	45	108
4-Nitrophenol	100	59	59	41	115
N-Nitroso-di-n-propylamine	50	36	72	47	98
Pentachlorophenol	100	69	69	54	120
Phenol	100	50	50	50	115
Pyrene	50	24	48	40	118
1,2,4-Trichlorobenzene	50	25	50	47	112

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
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Semivolatile Organics by GCMS

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: EPA 625/8270

Lab Reference Number 202050096-3
Client Sample ID DP6/050702/RH
Date/Time Sampled 05/07/2002 14:30
Date/Time Extracted 05/09/2002
Date/Time Analyzed 05/10/2002 15:49
Sample Matrix (as Received) Water
Analysis Confirmed GCMS
Dilution Factor 1
Result Units ug/l

Acenaphthene	5 U
Acenaphthylene	5 U
Anthracene	5 U
Benzidine	10 U
Benzoic Acid	25 U
Benzo(a)anthracene	5 U
Benzo(b)fluoranthene	5 U
Benzo(k)fluoranthene	5 U
Benzo(ghi)perylene	5 U
Benzo(a)pyrene	5 U
Benzyl alcohol	10 U
Bis(2-chloroethyl)ether	5 U
Bis(2-chloroethoxy)methane	5 U
Bis(2-chloroisopropyl)ether	5 U
Bis(2-ethylhexyl)phthalate	5 U
4-Bromophenyl phenyl ether	5 U
Butyl benzyl phthalate	5 U
1-Chloronaphthalene	5 U
2-Chloronaphthalene	5 U
4-Chloro-3-methylphenol	5 U
2-Chlorophenol	5 U
4-Chlorophenyl phenyl ether	5 U
Chrysene	5 U
Dibenz(a,h)anthracene	5 U
Dibenzofuran	5 U
Di-n-butyl phthalate	5 U
1,3-Dichlorobenzene	5 U
1,4-Dichlorobenzene	5 U
1,2-Dichlorobenzene	5 U
3,3'-Dichlorobenzidine	10 U
2,4-Dichlorophenol	5 U
2,6-Dichlorophenol	5 U
Diethylphthalate	5 U
2,4-Dimethylphenol	5 U
Dimethylphthalate	5 U
4,6-Dinitro-2-methylphenol	5 U
2,4-Dinitrophenol	25 U
2,4-Dinitrotoluene	5 U
2,6-Dinitrotoluene	5 U
Diphenylamine	5 U
1,2-Diphenylhydrazine	5 U
Di-n-octylphthalate	5 U
Fluoranthene	5 U
Fluorene	5 U
Hexachlorobenzene	5 U
Hexachlorobutadiene	5 U
Hexachlorocyclopentadiene	5 U
Hexachloroethane	5 U
Indeno(123-cd)pyrene	5 U
Isophorone	5 U
1-Methylnaphthalene	5 U
2-Methylnaphthalene	5 U
2-Methylphenol	5 U
4-Methylphenol	5 U
Naphthalene	5 U
2-Nitroaniline	25 U
3-Nitroaniline	25 U

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Semivolatile Organics by GCMS

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: EPA 625/8270

Lab Reference Number 202050096-3
Client Sample ID DP6/050702/RH
Date/Time Sampled 05/07/2002 14:30
Date/Time Extracted 05/09/2002
Date/Time Analyzed 05/10/2002 15:49
Sample Matrix (as Received) Water
Analysis Confirmed GCMS
Dilution Factor 1
Result Units ug/l

4-Nitroaniline	25 U
Nitrobenzene	5 U
2-Nitrophenol	5 U
4-Nitrophenol	5 U
N-Nitrosodiphenylamine	5 U
N-Nitroso-di-n-propylamine	5 U
Pentachlorophenol	15 U
Phenanthrene	5 U
Phenol	5 U
Pyrene	5 U
1,2,4-Trichlorobenzene	5 U
2,4,5-Trichlorophenol	5 U
2,4,6-Trichlorophenol	5 U
(Surr) 2-Fluorophenol (%)	32
(Surr) Phenol-d5 (%)	34
(Surr) Nitrobenzene-d5 (%)	51
(Surr) 2-Fluorobiphenyl (%)	41
(Surr) 2,4,6-Tribromophenol (%)	57
(Surr) Terphenyl-d14 (%)	63

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by :

hem

Quality Control Report for LCS Analysis

Semivolatile Organics by GCMS

Matrix: Water

Lab Sample ID: LCS

QC Batch ID: 200204BNA018D

LCS Units: ug/l

Analysis Date: 05/10/2002

Preparation Date: 05/09/2002

Method: EPA 625

Analyst: KN

Analyte	LCS Conc	LCS Result	Percent Recovery	Lower Control Limit	Upper Control Limit
(Surr) 2-Fluorophenol	100	69	69	10	120
(Surr) Phenol-d5	100	74	74	21	120
(Surr) Nitrobenzene-d5	100	92	92	36	120
(Surr) 2-Fluorobiphenyl	100	64	64	43	120
(Surr) 2,4,6-Tribromophenol	100	94	94	10	130
(Surr) Terphenyl-d14	100	90	90	33	141
Acenaphthene	50	21	42	18	120
4-Chloro-3-methylphenol	50	46	92	26	120
2-Chlorophenol	50	27	54	20	120
1,3-Dichlorobenzene	50	30	60	26	120
2,4-Dinitrotoluene	50	32	64	26	120
4-Nitrophenol	50	42	84	18	120
N-Nitroso-di-n-propylamine	50	33	66	26	120
Pentachlorophenol	50	30	60	18	120
Phenol	50	32	64	20	120
Pyrene	50	39	78	20	120
1,2,4-Trichlorobenzene	50	37	74	20	120

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Petroleum Hydrocarbons

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: FL-PRO

Lab Reference Number	202050096-1	202050096-2
Client Sample ID	SS1/050702/RH	SS2/050702/RH
Date/Time Sampled	05/07/2002 13:15	05/07/2002 13:30
Date/Time Extracted	05/09/2002	05/09/2002
Date/Time Analyzed	05/09/2002 22:09	05/09/2002 22:56
Sample Matrix (as Received)	Soil	Soil
Analysis Confirmed	No	No
Dilution Factor	1	1
Percent Moisture	5.0	14.0
Result Units	mg/kg	mg/kg
Total PHS	58.9	280
(Surr) C-39 (%)	39	47
(Surr) OTP (%)	153	149

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Dry Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by :

hem

Quality Control Report for LCS Analysis

Petroleum Hydrocarbons

Matrix: Soil

Lab Sample ID: LCS

QC Batch ID: 200205FLRO015A

LCS Units: mg/kg

Analysis Date: 05/10/2002

Preparation Date: 05/09/2002

Method: FL-PRO

Analyst: EM

Analyte	LCS Conc	LCS Result	Percent Recovery	Lower Control Limit	Upper Control Limit
(Surr) C-39	100.0	62.0	62	30	160
(Surr) OTP	50.0	53.0	106	30	160
Total PHS	50.0	45.0	90	65	110

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Petroleum Hydrocarbons

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002
ANALYTICAL PROTOCOL: FL-PRO

Lab Reference Number	202050096-3
Client Sample ID	DP6/050702/RH
Date/Time Sampled	05/07/2002 14:30
Date/Time Extracted	05/09/2002
Date/Time Analyzed	05/09/2002 23:43
Sample Matrix (as Received)	Water
Analysis Confirmed	No
Dilution Factor	1
Result Units	mg/l
Total PHS	0.1 U
(Surr) C-39 (%)	48
(Surr) OTP (%)	147

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : hem

Quality Control Report for LCS Analysis

Petroleum Hydrocarbons

Matrix: Water
Lab Sample ID: LCS
QC Batch ID: 200205FLRO008B
LCS Units: mg/l

Analysis Date: 05/10/2002
Preparation Date: 05/09/2002
Method: FL-PRO
Analyst: EM

Analyte	LCS Conc	LCS Result	Percent Recovery	Lower Control Limit	Upper Control Limit
(Surr) C-39	100.0	53.0	53	40	140
(Surr) OTP	50.0	53.0	106	40	140
Total PHS	50.0	30.0	60	57	110

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194

Report of Analysis

CLIENT NAME: GLE Associates, Inc.
PROJECT NAME: Ringhaver
PROJECT NUMBER: 02000-02869
DATE RECEIVED: 05/09/2002

Lab Reference Number			202050096-1	202050096-2	202050096-3
Client Sample ID			SS1/050702/RH	SS2/050702/RH	DP6/050702/RH
Date/Time Sampled			05/07/2002	05/07/2002	05/07/2002
			13:15	13:30	14:30
Percent Moisture			5.0	14.0	0.0
Sample Matrix (as Received)			Soil	Soil	Water
EPA 6010	Arsenic, Total	mg/kg	0.5 U	0.6 U	NR
EPA 6010	Cadmium, Total	mg/kg	2.4	0.5	NR
EPA 6010	Chromium, Total	mg/kg	32.6	5.9	NR
EPA 6010	Lead, Total	mg/kg	55.8	5.3	NR
EPA 6010/200.7	Arsenic, Total	ug/l	NR	NR	5 U
EPA 6010/200.7	Cadmium, Total	ug/l	NR	NR	0.5 U
EPA 6010/200.7	Chromium, Total	ug/l	NR	NR	1 U
EPA 6010/200.7	Lead, Total	ug/l	NR	NR	5

NR = Analysis not Requested.

U = Undetected. The value preceeding the 'U' is the RL for the analyte. Results reported on a Dry Weight basis (where applicable).

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by: hem

Quality Control Report for Spike Analysis

INORGANICS

Analyte		Spike Amount	Sample Result	Spike Result	Percent Recovery	Lower Control Limit	Upper Control Limit
Method: EPA 6010A Arsenic, Total	QC Batch: 200205RC101	Sample ID: 202050074-1 20.0 mg/kg	Date Prep: 05/13/2002 0.0	Date Anal: 05/13/2002 18.0	90	Analyst: GG 68	114
Method: EPA 6010A Cadmium, Total	QC Batch: 200205RC101	Sample ID: 202050074-1 10.0 mg/kg	Date Prep: 05/13/2002 0.0	Date Anal: 05/13/2002 9.6	96	Analyst: GG 70	113
Method: EPA 6010A Chromium, Total	QC Batch: 200205RC101	Sample ID: 202050074-1 10.0 mg/kg	Date Prep: 05/13/2002 0.8	Date Anal: 05/13/2002 10.6	98	Analyst: GG 69	126
Method: EPA 6010A Lead, Total	QC Batch: 200205RC101	Sample ID: 202050074-1 10.0 mg/kg	Date Prep: 05/13/2002 1.7	Date Anal: 05/13/2002 10.2	85	Analyst: GG 66	123
Method: EPA 6010/200.7 Arsenic, Total	QC Batch: 200205RC099	Sample ID: 202050076-1 200 ug/l	Date Prep: 05/13/2002 0	Date Anal: 05/13/2002 201	101	Analyst: GG 74	123
Method: EPA 6010/200.7 Cadmium, Total	QC Batch: 200205RC099	Sample ID: 202050076-1 100 ug/l	Date Prep: 05/13/2002 0	Date Anal: 05/13/2002 87	87	Analyst: GG 71	117
Method: EPA 6010/200.7 Chromium, Total	QC Batch: 200205RC099	Sample ID: 202050076-1 100 ug/l	Date Prep: 05/13/2002 0	Date Anal: 05/13/2002 84	84	Analyst: GG 70	121
Method: EPA 6010/200.7 Lead, Total	QC Batch: 200205RC099	Sample ID: 202050076-1 100 ug/l	Date Prep: 05/13/2002 0	Date Anal: 05/13/2002 90	90	Analyst: GG 78	120

Chain of Custody

Work Order: 202050096

Date: 5/3/02 Page 1 of 1

COMPANY: CHE Associates, Inc				ANALYSIS REQUESTED														Number of Containers		
ADDRESS: 1451 Channelside Drive Ste 200 Tampa, FL 33605				8260	8270	FL-Pro	624	625	FL Pro	ACRAY										
SAMPLED BY: Ed Smith SIGN: [Signature]																				
PHONE: 813-241-8350 FAX: 813-241-8737																				
#	SAMPLE ID	DATE/TIME	MATRIX					WNT/MONT	PRESERVATION											
			AIR	WATER	SLUDGE	SOL/SOLID	ORG LIQID													
1	SS1/050702/RH	5/7/02 1315				X		2	1	1					1					3
2	SS2/050702/RH	5/7/02 1330				X		3	1	1					1					4
3	DP6/050702/RH	5/7/02 1430	X								2	1	1	2						6
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				

RELINQUISHED BY		DATE/TIME	RECEIVED BY		DATE/TIME	PROJECT INFORMATION		SAMPLE RECEIPT	
1. [Signature]		5-6-02 0930	2. [Signature]		5/7/01 0900	PROJECT NAME: Ringhaver		Total # of Containers	
2. [Signature]		5/8/01 0750	3. [Signature]		5-9-02 1025	PROJECT #: 02000-02869		Chain of Custody Seals	
3.						SITE ADDRESS: 9797 Gibsonton Drive		Recv'd in Good Condition	
SPECIAL INSTRUCTIONS/COMMENTS: Need Results By Monday! 5/13/02 SS1 VOC's Encores SS2 VOC's Syringe						PROJECT MANAGER: Ed Smith		PO #:	
						INVOICE TO: (if different from above)			
QUOTE/CONTRACT #:									

APPENDIX B
ComQAP Approval Letters



State of Florida, Department of Health
Bureau of Laboratories

This is to certify that

E83239

PC&B Environmental Laboratory, Inc.
210 Park Road
Oviedo, FL 32765

has complied with Florida Administrative Code 64E-1, for the examination of Environmental samples in the following categories:

SDWA - Primary Inorganic, Secondary Inorganic, Synthetic Organic Contaminants, Group I Unregulated Contaminants, Group III Unregulated Contaminants; CWA - Metals, General Chemistry, Volatile Organics, Extractable Organics, Pesticides-Herbicides-PCB's; RCRA/CERCLA - Metals, General Chemistry, Volatile Organics, Extractable Organics, Pesticides-Herbicides-PCB's

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE JULY 1, 2001

THROUGH JUNE 30, 2002



Ming S. Chan, Ph.D.
Bureau Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 3/98

NON - TRANSFERABLE - N 62 239

Jeb Bush
Governor



Robert G. Brooks, M.D.
Secretary

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Laboratory Name:
PC & B ENVIRONMENTAL LABORATORY

Certification Number: E83239

EPA: FL00452

Effective Date: June 1, 2001

Supersedes previous analyte sheet(s) dated: February 26, 2001

SAFE DRINKING WATER ACT

PRIMARY INORGANIC

1. METALS

	AA(FUR)	ICP	ICP/MS	OTHER
N ANTIMONY	200.9			
N ARSENIC		200.7		
N BARIUM		200.7		
N BERYLLIUM		200.7		
N CADMIUM		200.7		
N CHROMIUM		200.7		
N LEAD	200.9			
X MERCURY				245.1
N NICKEL		200.7		
N SELENIUM	200.9			
X SODIUM		200.7		
N THALLIUM	200.9			

2. LEAD AND COPPER RULE

N LEAD	200.9			
N COPPER		200.7		

IC	ISE	UV-VIS	OTHER
----	-----	--------	-------

N ALKALINITY			SM2320B
N pH		150.1, SM4500H+ B	

4. NITRATE AND NITRITE

N NITRATE			SM4500NO3- E
N NITRITE			SM4500NO3- E, SM4500NO2- B, 354.1
N TOTAL NO2-NO3			SM4500NO3- E

5. FLUORIDE & SULFATE

X FLUORIDE		SM4500F- C		
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SECONDARY INORGANIC

AA(FUR)	ICP	UV-VIS	OTHER
---------	-----	--------	-------

X ALUMINUM		200.7		
X CHLORIDE				325.3
N COLOR			SM2120B, 110.2	
N COPPER		200.7		
X FLUORIDE				340.2
X IRON		200.7		
N MANGANESE		200.7		
N ODOR				SM2150B, 140.1
N pH				SM4500H+ B, 150.1

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X	SILVER	200.7		
N	SULFATE			SM4500SO4= E, 375.4
N	SURFACTANTS (Foaming Agents)		SM5540C, 425.1	
N	TOTAL DISSOLVED SOLIDS			SM2540C, 160.1
N	TURBIDITY			SM2130B, 180.1
X	ZINC	200.7		

SYNTHETIC ORGANIC CONTAMINANTS

GC

GC/MS

HPLC

1. INSECTICIDES

N	ALACHLOR	507	525.2	
X	ATRAZINE	507	525.2	
X	CHLORDANE	508	525.2	
N	ENDRIN	508	525.2	
N	HEPTACHLOR	508	525.2	
N	HEPTACHLOR EPOXIDE	508	525.2	
N	LINDANE	508	525.2	
N	METHOXYCHLOR	508	525.2	
X	TOXAPHENE	508	525.2	
X	HEXACHLORO BENZENE	508	525.2	
NX	HEXACHLOROCYCLOPENTADIENE	508(X)	525.2	
N	SIMAZINE	507	525.2	

2. HERBICIDES

X	2,4-D	515.1		
N	PENTACHLOROPHENOL	515.1	525.2	
N	2,4,5-TP (SILVEX)	515.1		
N	DALAPON	515.1		
N	DINOSEB	515.1		
N	PICLORAM	515.1		

3. CARBAMATES

X	CARBOFURAN			531.1
X	OXAMYL (VYDATE)			531.1

4. DISINFECTANT BY-PRODUCTS/VOC'S

N	1,2-DIBROMO-3-CHLOROPROPANE	504.1		
X	ETHYLENE DIBROMIDE	504.1		

5. MISCELLANEOUS SOC'S

N	DIQUAT			549.2
X	ENDOTHALL		548.1	

6. PCB'S

X	AROCLORS (PCB Screen)	508		
---	-----------------------	-----	--	--

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7. ADIPATES AND PHTHALATES

N	DI(2-ETHYLHEXYL) ADIPATE	525.2
N	DI(2-ETHYLHEXYL) PHTHALATE	525.2

8. PAH

N	BENZO(a)PYRENE	525.2
---	----------------	-------

GROUP I UNREGULATED CONTAMINANTS

GC

GC/MS

HPLC

1. CARBAMATES

X	ALDICARB	531.1
X	ALDICARB SULFOXIDE	531.1
X	ALDICARB SULFONE	531.1
N	CARBARYL	531.1
N	3-HYDROXYCARBOFURAN	531.1
X	METHOMYL	531.1

2. HERBICIDES

N	ACIFLUORFEN	515.1
N	DICAMBA	515.1
N	BENTAZON	515.1
N	2,4-DB	515.1
N	3,5-DICHLOROBENZOIC ACID	515.1
N	DICHLORPROP	515.1
N	2,4,5-T	515.1

3. INSECTICIDES

N	ALDRIN	508	525.2
N	BUTACHLOR		525.2
N	4,4'-DDD	508	
N	4,4'-DDE	508	
N	4,4'-DDT	508	
N	DIELDRIN	508	525.2
N	METOLACHLOR		525.2
N	METRIBUZIN		525.2
X	PROPACHLOR		525.2
N	BROMACIL		525.2
N	a-BHC	508	
N	b-BHC	508	
N	ENDOSULFAN I	508	
N	ENDOSULFAN II	508	
N	ENDOSULFAN SULFATE	508	
N	ENDRIN ALDEHYDE	508	

GROUP III UNREGULATED CONTAMINANTS

GC

GC/MS

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1. BASE/NEUTRAL EXTRACTABLES

N	BUTYL BENZYL PHTHALATE	606	525.2, 625
N	DI-n-BUTYL PHTHALATE	606	525.2, 625
N	DIETHYL PHTHALATE	606	525.2, 625
N	DIMETHYL PHTHALATE	606	525.2, 625
N	2,4-DINITROTOLUENE		625
N	DI-n-OCTYL PHTHALATE	606	625
N	ISOPHORONE		625
N	ANTHRACENE		525.2
N	BENZ(a)ANTHRACENE		525.2
N	BENZO(b)FLUORANTHENE		525.2
N	BENZO(k)FLUORANTHENE		525.2
N	BENZO(ghi)PERYLENE		525.2
N	CHRYSENE		525.2
N	DIBENZ(ah)ANTHRACENE		525.2
N	FLUORENE		525.2
N	INDENO(123-cd)PYRENE		525.2
N	PHENANTHRENE		525.2
N	PYRENE		525.2

2. ACID EXTRACTABLES

N	2-CHLOROPHENOL	604	625
N	2-METHYL-4,6-DINITROPHENOL	604	625
N	PHENOL	604	625
N	2,4,6-TRICHLOROPHENOL	604	625

CLEAN WATER ACT

METALS	AA (FL or CV)	AA (FUR)	ICP or DCP	HYDRIDE	OTHER
X ALUMINUM			200.7		
N ANTIMONY			200.7		
N ARSENIC			200.7, 6010		
X BARIUM			200.7		
N BERYLLIUM			200.7		
N CADMIUM			200.7, 6010		
N CALCIUM			200.7		
N CHROMIUM			200.7		
X CHROMIUM (VI)					218.4
N COBALT			200.7		
N COPPER			200.7, 6010		
N HARDNESS (calculation)			SM2340B		
N IRON			200.7		
N LEAD			200.7, 6010		
N MAGNESIUM			200.7		
N MANGANESE			200.7		
X MERCURY	245.1				
N MOLYBDENUM			200.7, 6010		
N NICKEL			200.7, 6010		

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X	POTASSIUM			200.7, 6010		
N	SELENIUM			200.7, 6010		
N	SILICON			200.7		
N	SILVER			200.7		
X	SODIUM			200.7		
N	THALLIUM			200.7		
X	TIN			200.7		
N	TITANIUM			200.7		
N	VANADIUM			200.7		
N	ZINC			200.7, 6010		

GENERAL CHEMISTRY

METHODS

1. NUTRIENTS

N	NITRATE - N	353.3, SM4500NO3- E
N	NITRATE-NITRITE - N	353.3, SM4500NO3- E
N	NITRITE - N	354.1, SM4500NO2- B
N	ORTHOPHOSPHATE - P	365.3
X	TOTAL PHOSPHORUS	365.3

2. DEMANDS

X	COD	410.4, SM5220D, HACH8000
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3. MINERALS & OTHER INORGANICS

N	ALKALINITY	310.1, SM2320B
N	CHLORIDE	325.3, SM4500Cl- C
X	CHLORINE (residual)	330.3
N	COLOR	110.2, SM2120B
N	CONDUCTIVITY	120.1, SM2510B
N	FLUORIDE	340.2, SM4500F- C
N	HARDNESS	130.2
N	pH	150.1, SM4500H+ B
N	OIL & GREASE	1664
N	PETROLEUM HYDROCARBONS	1664
X	TOTAL PHENOLS	420.1
N	FILTERABLE RESIDUE (TDS)	160.1, SM2540C
X	NON-FILTERABLE RESIDUE (TSS)	160.2
N	SULFATE	375.4
N	SULFIDE	376.1, SM4500S= E
N	SURFACTANTS	425.1, SM5540C
N	TURBIDITY	180.1, SM2130B

VOLATILE ORGANICS

GC

GC/MS

HPLC

1. PRIORITY POLLUTANTS

N	BENZENE	602	624
N	BROMODICHLOROMETHANE		624

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N	BROMOFORM		624
X	BROMOMETHANE		624
N	CARBON TETRACHLORIDE		624
X	CHLOROBENZENE	602	624
X	CHLOROETHANE		624
N	2-CHLOROETHYL VINYL ETHER		624
X	CHLOROFORM		624
X	CHLOROMETHANE		624
X	DIBROMOCHLOROMETHANE		624
N	DBCP	504	
N	1,2-DIBROMOETHANE (EDB)	504	
N	1,2-DICHLOROBENZENE	602	624
N	1,3-DICHLOROBENZENE	602	624
N	1,4-DICHLOROBENZENE	602	624
X	DICHLORODIFLUOROMETHANE		624
N	1,1-DICHLOROETHANE		624
N	1,2-DICHLOROETHANE		624
X	1,1-DICHLOROETHENE		624
X	T-1,2-DICHLOROETHENE		624
X	1,2-DICHLOROPROPANE		624
N	C-1,3-DICHLOROPROPENE		624
X	T-1,3-DICHLOROPROPENE		624
N	ETHYLBENZENE	602	624
X	METHYLENE CHLORIDE		624
X	1,1,2,2-TETRACHLOROETHANE		624
N	TETRACHLOROETHENE		624
N	TOLUENE	602	624
N	1,1,1-TRICHLOROETHANE		624
X	1,1,2-TRICHLOROETHANE		624
N	TRICHLOROETHENE		624
X	TRICHLOROFLUOROMETHANE		624
X	VINYL CHLORIDE		624

EXTRACTABLE ORGANICS

GC

GC/MS

HPLC

OTHER

1. PRIORITY POLLUTANTS

X	ACENAPHTHENE	610	625		
X	ACENAPHTHYLENE	610	625		
X	ANTHRACENE	610	625		
X	BENZIDINE		625		
X	BENZ(A)ANTHRACENE	610	625		
X	BENZO(B)FLUORANTHENE	610	625		
X	BENZO(K)FLUORANTHENE	610	625		
X	BENZO(G,H,I)PERYLENE	610	625		
X	BENZO(A)PYRENE	610	625		
X	BENZYL BUTYL PHTHALATE	606	625		
X	BIS(2-CHLOROETHOXY)METHANE		625		
X	BIS(2-CHLOROETHYL) ETHER		625		
X	BIS(2-CHLOROISOPROPYL) ETHER		625		
X	BIS(2-ETHYLHEXYL) PHTHALATE	606	625		
X	4-BROMOPHENYL PHENYL ETHER		625		

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X	4-CHLORO-3-METHYLPHENOL	604	625		
X	2-CHLORONAPHTHALENE	612	625		
X	2-CHLOROPHENOL	604	625		
X	4-CHLOROPHENYL PHENYL ETHER		625		
X	CHRYSENE	610	625		
X	DIBENZ(A,H)ANTHRACENE	610	625		
N	1,2-DICHLOROBENZENE	612	625		
N	1,3-DICHLOROBENZENE	612	625		
N	1,4-DICHLOROBENZENE	612	625		
X	3,3'-DICHLOROBENZIDINE		625		
X	2,4-DICHLOROPHENOL	604	625		
X	DIETHYL PHTHALATE	606	625		
X	2,4-DIMETHYLPHENOL	604	625		
X	DIMETHYL PHTHALATE	606	625		
X	DI-N-BUTYL PHTHALATE	606	625		
X	DI-N-OCTYL PHTHALATE	606	625		
X	2,4-DINITROPHENOL	604	625		
X	2,4-DINITROTOLUENE		625		
X	2,6-DINITROTOLUENE		625		
X	FLUORANTHENE	610	625		
X	FLUORENE	610	625		
X	HEXACHLOROBENZENE	612	625		
X	HEXACHLOROBUTADIENE	612	625		
X	HEXACHLOROCYCLOPENTADIENE	612	625		
X	HEXACHLOROETHANE	612	625		
X	INDENO(1,2,3-cd)PYRENE	610	625		
X	ISOPHORONE		625		
X	2-METHYL-4,6-DINITROPHENOL	604	625		
X	NAPHTHALENE	610	625		
X	NITROBENZENE		625		
X	2-NITROPHENOL	604	625		
X	4-NITROPHENOL	604	625		
X	N-NITROSODIMETHYLAMINE		625		
X	N-NITROSODI-N-PROPYLAMINE		625		
X	N-NITROSODIPHENYLAMINE		625		
X	PENTACHLOROPHENOL	604	625		
X	PHENANTHRENE	610	625		
X	PHENOL	604	625		
X	PYRENE	610	625		
X	1,2,4-TRICHLOROBENZENE	612	625		
X	2,4,6-TRICHLOROPHENOL	604	625		

PESTICIDES-HERBICIDES-PCB'S GC GC/MS HPLC

1. ORGANOCHLORINE PESTICIDES & PCB's

NX	ALDRIN	608	625(X)		
X	alpha-BHC	608	625		
X	beta-BHC	608	625		
X	delta-BHC	608	625		
X	gamma-BHC (Lindane)	608	625		
N	CHLORDANE	608			

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NX	4,4'-DDD	608	625(X)	
NX	4,4'-DDE	608	625(X)	
NX	4,4'-DDT	608	625(X)	
NX	DIELDRIN	608	625(X)	
X	ENDOSULFAN I	608	625	
X	ENDOSULFAN II	608	625	
X	ENDOSULFAN SULFATE	608	625	
X	ENDRIN	608	625	
X	ENDRIN ALDEHYDE	608	625	
NX	HEPTACHLOR	608	625(X)	
NX	HEPTACHLOR EPOXIDE	608	625(X)	
X	METHOXYCHLOR	608.2		
X	TOXAPHENE	608		
X	PCB-1016	608		
X	PCB-1221	608		
X	PCB-1232	608		
X	PCB-1242	608		
X	PCB-1248	608		
X	PCB-1254	608		
X	PCB-1260	608		

2. ORGANOPHOSPHORUS PESTICIDES

N	AZINPHOS METHYL (Guthion)	614, 622		
N	BOLSTAR	622		
N	CHLORPYRIFOS	622		
N	COUMAPHOS	622		
N	DEMETON-O	614		
X	DEMETON-S	614, 622		
N	DIAZINON	614, 622		
N	DICHLORVOS	622		
N	DISULFOTON	614, 622		
N	ETHOPROP	622		
N	FENSULFOTHION	622		
N	FENTHION	622		
N	MERPHOS	622		
N	MEVINPHOS	622		
N	NALED	622		
N	PARATHION METHYL	614		
N	PHORATE	622		
N	RONNEL	622		
N	STIROFOS	622		
X	TOKUTHION	622		
X	TRICHLORONATE	622		

3. HERBICIDES

X	2,4-D	615		
N	2,4-DB	615		
N	DALAPON	615		
X	DICAMBA	615		
N	DICHLORPROP	615		

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N	DINOSEB	615		
X	2,4,5-T	615		
X	2,4,5-TP (Silvex)	615		
N	MCPA	615		
N	MCP	615		
N	ATRAZINE	619		
N	SIMAZINE	619		

7. ORGANONITROGEN & AMINE PESTICIDES

N	ALACHLOR	645		
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RESOURCE CONSERVATION & RECOVERY ACT / COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, & LIABILITY ACT

METALS		AA (FL or CV)	AA (FUR)	ICP	HYDRIDE	ICP/MS
X	ALUMINUM			6010		
X	ANTIMONY			6010		
X	ARSENIC			6010		
X	BARIUM			6010		
X	BERYLLIUM			6010		
N	BORON			6010		
X	CADMIUM			6010		
X	CALCIUM			6010		
X	CHROMIUM			6010		
X	COBALT			6010		
X	COPPER			6010		
X	IRON			6010		
X	LEAD			6010		
N	LITHIUM			6010		
X	MAGNESIUM			6010		
X	MANGANESE			6010		
X	MOLYBDENUM			6010		
X	NICKEL			6010		
N	TOTAL PHOSPHORUS			6010		
X	POTASSIUM			6010		
X	SELENIUM			6010		
N	SILICON			6010		
X	SILVER			6010		
X	SODIUM			6010		
N	STRONTIUM			6010		
X	THALLIUM			6010		
X	VANADIUM			6010		
X	ZINC			6010		

GENERAL CHEMISTRY

N	CONDUCTIVITY	9050
N	pH	9045
N	TOTAL PHENOLS	9065

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N	SULFATE	9038
N	WASTE IGNITABILITY	1010
N	TOXICITY CHARACTERISTIC LEACHING PROCEDURE	1311
N	SYNTHETIC PRECIPITATION LEACHING PROCEDURE	1312
N	PAINT FILTER LIQUIDS TEST	9095

	VOLATILE ORGANICS	GC	GC/MS	HPLC
N	ACETONE		8260	
N	ACROLEIN		8260	
N	ACRYLONITRILE		8260	
X	BENZENE	8021	8260	
N	BROMOBENZENE		8260	
N	BROMOCHLOROMETHANE		8260	
X	BROMODICHLOROMETHANE		8260	
X	BROMOFORM		8260	
N	BROMOMETHANE		8260	
N	n-BUTYLBENZENE		8260	
N	sec-BUTYLBENZENE		8260	
N	tert-BUTYLBENZENE		8260	
N	CARBON DISULFIDE		8260	
X	CARBON TETRACHLORIDE		8260	
N	CHLOROBENZENE	8021	8260	
N	CHLOROETHANE		8260	
N	2-CHLOROETHYL VINYL ETHER		8260	
X	CHLOROFORM		8260	
N	CHLOROMETHANE		8260	
N	2-CHLOROTOLUENE		8260	
N	4-CHLOROTOLUENE		8260	
X	DIBROMOCHLOROMETHANE		8260	
N	DBCP	8011	8260	
N	1,2-DIBROMOETHANE (EDB)	8011	8260	
N	DIBROMOMETHANE		8260	
X	1,2-DICHLOROBENZENE	8021	8260	
X	1,3-DICHLOROBENZENE	8021	8260	
X	1,4-DICHLOROBENZENE	8021	8260	
N	DICHLORODIFLUOROMETHANE		8260	
X	1,1-DICHLOROETHANE		8260	
X	1,2-DICHLOROETHANE		8260	
N	1,1-DICHLOROETHENE		8260	
N	C-1,2-DICHLOROETHENE		8260	
N	T-1,2-DICHLOROETHENE		8260	
N	1,2-DICHLOROPROPANE		8260	
N	1,3-DICHLOROPROPANE		8260	
N	2,2-DICHLOROPROPANE		8260	
N	1,1-DICHLOROPROPENE		8260	
N	C-1,3-DICHLOROPROPENE		8260	
N	T-1,3-DICHLOROPROPENE		8260	
X	ETHYLBENZENE	8021	8260	
X	HEXACHLOROBTADIENE		8260	
N	2-HEXANONE		8260	
N	ISOPROPYLBENZENE		8260	
N	p-ISOPROPYLTOLUENE		8260	

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N	METHYL tert-BUTYL ETHER	8260	
X	METHYLENE CHLORIDE	8260	
N	METHYL ETHYL KETONE	8260	
X	4-METHYL-2-PENTANONE (MIBK)	8260	
X	NAPHTHALENE	8260	
N	n-PROPYLBENZENE	8260	
N	STYRENE	8260	
X	1,1,1,2-TETRACHLOROETHANE	8260	
X	1,1,2,2-TETRACHLOROETHANE	8260	
X	TETRACHLOROETHENE	8260	
X	TOLUENE	8260	
N	1,2,3-TRICHLOROBENZENE	8260	
X	1,2,4-TRICHLOROBENZENE	8260	
X	1,1,1-TRICHLOROETHANE	8260	
N	1,1,2-TRICHLOROETHANE	8260	
X	TRICHLOROETHENE	8260	
N	TRICHLOROFLUOROMETHANE	8260	
N	1,2,3-TRICHLOROPROPANE	8260	
N	1,2,4-TRIMETHYLBENZENE	8260	
N	1,3,5-TRIMETHYLBENZENE	8260	
N	VINYL ACETATE	8260	
N	VINYL CHLORIDE	8260	
X	TOTAL XYLENES	8260	

EXTRACTABLE ORGANICS		GC	GC/MS	HPLC	LC/MS	GC/FTIR
X	ACENAPHTHENE	8100	8270	8310		
X	ACENAPHTHYLENE	8100	8270	8310		
N	ANILINE		8270			
X	ANTHRACENE	8100	8270	8310		
N	BENZIDINE		8270			
X	BENZ(A)ANTHRACENE	8100	8270	8310		
N	BENZOIC ACID		8270			
X	BENZO(B)FLUORANTHENE	8100	8270			
X	BENZO(K)FLUORANTHENE	8100	8270	8310		
X	BENZO(G,H,I)PERYLENE	8100	8270	8310		
X	BENZO(A)PYRENE	8100	8270	8310		
N	BENZYL ALCOHOL		8270			
X	BENZYL BUTYL PHTHALATE	8061	8270			
X	BIS(2-CHLOROETHOXY)METHANE		8270			
X	BIS(2-CHLOROETHYL) ETHER		8270			
X	BIS(2-CHLOROISOPROPYL) ETHER		8270			
X	BIS(2-ETHYLHEXYL) PHTHALATE	8061	8270			
X	4-BROMOPHENYL PHENYL ETHER		8270			
N	4-CHLOROANILINE		8270			
X	4-CHLORO-3-METHYLPHENOL	8041	8270			
X	2-CHLORONAPHTHALENE	8121	8270			
X	2-CHLOROPHENOL	8041	8270			
X	4-CHLOROPHENYL PHENYL ETHER		8270			
X	CHRYSENE	8100	8270	8310		
X	DIBENZ(A,H)ANTHRACENE	8100	8270	8310		
X	DIBENZOFURAN		8270			
X	1,2-DICHLOROBENZENE	8121	8270			

An "X" indicates certification for the analyte by the method(s) specified. An "N" further indicates



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X	1,3-DICHLOROBENZENE	8121	8270			
X	1,4-DICHLOROBENZENE	8121	8270			
N	3,3'-DICHLOROBENZIDINE		8270			
X	2,4-DICHLOROPHENOL	8041	8270			
X	DIETHYL PHTHALATE	8061	8270			
X	2,4-DIMETHYLPHENOL	8041	8270			
X	DIMETHYL PHTHALATE	8061	8270			
X	DI-N-BUTYL PHTHALATE	8061	8270			
X	DI-N-OCTYL PHTHALATE	8061	8270			
X	2,4-DINITROPHENOL	8041	8270			
X	2,4-DINITROTOLUENE		8270			
X	2,6-DINITROTOLUENE		8270			
X	FLUORANTHENE	8100	8270	8310		
X	FLUORENE	8100	8270	8310		
X	HEXACHLOROBENZENE	8121	8270			
X	HEXACHLOROBUTADIENE	8121	8270			
X	HEXACHLOROCYCLOPENTADIENE	8121	8270			
X	HEXACHLOROETHANE	8121	8270			
X	INDENO(1,2,3-cd)PYRENE	8100	8270	8310		
X	ISOPHORONE		8270			
N	2-METHYL-4,6-DINITROPHENOL	8041	8270			
N	2-METHYLNAPHTHALENE		8270			
X	2-METHYLPHENOL		8270			
N	4-METHYLPHENOL		8270			
X	NAPHTHALENE	8100	8270	8310		
N	2-NITROANILINE		8270			
N	3-NITROANILINE		8270			
N	4-NITROANILINE		8270			
X	NITROBENZENE		8270			
X	2-NITROPHENOL	8041	8270			
X	4-NITROPHENOL	8041	8270			
N	N-NITROSODIMETHYLAMINE		8270			
X	N-NITROSODI-N-PROPYLAMINE		8270			
N	N-NITROSODIPHENYLAMINE		8270			
X	PENTACHLOROPHENOL	8041	8270			
X	PHENANTHRENE	8100	8270	8310		
X	PHENOL	8041	8270			
X	PYRENE	8100	8270	8310		
X	1,2,4-TRICHLOROBENZENE	8121	8270			
X	2,4,5-TRICHLOROPHENOL		8270			
X	2,4,6-TRICHLOROPHENOL	8041	8270			
N	TOTAL PETROLEUM HYDROCARBONS	FL-PRO				
N	GASOLINE-RANGE ORGANICS	8015				
N	DIESEL-RANGE ORGANICS	8015				

	PESTICIDES-HERBICIDES-PCB'S	GC	GC/MS	HPLC	LC/MS
X	ALDRIN	8081			
X	alpha-BHC	8081			
X	beta-BHC	8081			
X	delta-BHC	8081			
X	gamma-BHC (Lindane)	8081			
X	CHLORDANE (technical)	8081			

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X	4,4'-DDD	8081			
X	4,4'-DDE	8081			
X	4,4'-DDT	8081			
X	DIELDRIN	8081			
X	ENDOSULFAN I	8081			
X	ENDOSULFAN II	8081			
X	ENDOSULFAN SULFATE	8081			
X	ENDRIN	8081			
X	ENDRIN ALDEHYDE	8081			
N	ENDRIN KETONE	8081			
X	HEPTACHLOR	8081			
X	HEPTACHLOR EPOXIDE	8081			
X	METHOXYCHLOR	8081			
X	TOXAPHENE	8081			
X	PCB-1016	8082			
X	PCB-1221	8082			
X	PCB-1232	8082			
X	PCB-1242	8082			
X	PCB-1248	8082			
X	PCB-1254	8082			
X	PCB-1260	8082			
X	ATRAZINE	8141			
N	AZINPHOS METHYL (GUTHION)	8141			
N	BOLSTAR	8141			
N	CHLORPYRIFOS	8141			
N	COUMAPHOS	8141			
N	DEMETON-O	8141			
X	DEMETON-S	8141			
N	DIAZINON	8141			
N	DICHLORVOS	8141			
X	DISULFOTON	8141			
N	ETHOPROP	8141			
N	FENSULFOTHION	8141			
N	FENTHION	8141			
N	MERPHOS	8141			
N	MEVINPHOS	8141			
N	NALED	8141			
N	PARATHION METHYL	8141			
N	PHORATE	8141			
N	RONNEL	8141			
X	SIMAZINE	8141			
N	STIROFOS	8141			
N	TOKUTHION	8141			
N	TRICHLORONATE	8141			
X	2,4-D	8151			
N	2,4-DB	8151			
X	2,4,5-T	8151			
X	2,4,5-TP (SILVEX)	8151			
N	3,5-DICHLOROBENZOIC ACID	8151			
N	ACIFLUORFEN	8151			
N	BENTAZON	8151			
N	CHLORAMBEN	8151			
N	DALAPON	8151			

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N	DCPA (DACTHAL)	8151	_____	_____	_____
X	DICAMBA	8151	_____	_____	_____
N	DICHLORPROP	8151	_____	_____	_____
N	DINOSEB	8151	_____	_____	_____
N	MCPA	8151	_____	_____	_____
N	MCPP	8151	_____	_____	_____
N	PICLORAM	8151	_____	_____	_____