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# DATA SUMMARY REPORT FOR THE TREATED AND NON-TREATED WOOD STORAGE AREAS SOIL INVESTIGATION SOUTHERN WOOD PIEDMONT COMPANY, WILMINGTON, NORTH CAROLINA

December 9, 1993

NC009006

Prepared for:

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# DATA SUMMARY REPORT FOR THE TREATED AND NON-TREATED WOOD STORAGE AREA SOIL INVESTIGATION SOUTHERN WOOD PIEDMONT COMPANY, WILMINGTON, NORTH CAROLINA

December 9, 1993

Geraghty & Miller, Inc., is submitting this report to Southern Wood Piedmont Company for work performed at the treated and non-treated wood storage areas in Wilmington, North Carolina. The report was prepared in conformance with Geraghty & Miller's strict quality assurance/quality control procedures to ensure that the report meets industry standards in terms of the methods used and the information presented. If you have any questions or comments concerning this report, please contact one of the individuals listed below.

Respectfully submitted,

GERAGHTY & MILLER, INC.

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## CONTENTS


Page

1.0 INTRODUCTION . . . . . 1-1

2.0 SITE HISTORY AND ENVIRONMENTAL SETTING . . . . . 2-1
- 2.1 Site History . . . . . 2-1
- 2.2 Surrounding Land Use . . . . . 2-1
- 2.3 Regional and Site Geology and Hydrology . . . . . 2-2

3.0 INVESTIGATIVE METHODS . . . . . 3-1
- 3.1 Soil Borings and Sampling Program . . . . . 3-1
- 3.2 Chain of Custody . . . . . 3-2
- 3.3 Sample Analysis . . . . . 3-3
- 3.4 Data Validation . . . . . 3-3

4.0 SAMPLING RESULTS . . . . . 4-1
- 4.1 Soil Sample Results . . . . . 4-1
  - 4.1.1 Semi-Volatile Constituents . . . . . 4-1
  - 4.1.2 Inorganic Constituents . . . . . 4-2
- 4.2 Visual Soil Assessment Results . . . . . 4-3

5.0 REFERENCES . . . . . 5-1


## TABLES


3-1. Wood-Preserving Constituents Analyzed for in Soil Samples, Southern Wood Piedmont, Wilmington, North Carolina.

3-2. Field Quality Control Sample Results, Southern Wood Piedmont, Wilmington, North Carolina.

4-1. Semi-Volatile Organic and Inorganic Constituents Detected in the 0- to 6-Inch Soil Samples Collected in the Former Non-Treated Wood Storage Area NTA, Southern Wood Piedmont, Wilmington, North Carolina.

4-2. Semi-Volatile Organic and Inorganic Constituents Detected in the 0- to 6-Inch Soil Samples Collected in the Former Non-Treated Wood Storage Area NTB, Southern Wood Piedmont, Wilmington, North Carolina.

4-3. Semi-Volatile Organic and Inorganic Constituents Detected in 0- to 6-Inch and 12- to 18-Inch Soil Samples Collected in the Former Treated Wood Storage Area TWS, Southern Wood Piedmont, Wilmington, North Carolina.

## FIGURES

3-1. Locations of the Former Treated (TWS) and Non-Treated (NTA and NTB) Wood Storage Areas, Southern Wood Piedmont, Wilmington, North Carolina..

4-1. Total Detected K001, Arsenic, Chromium, and Copper Measured in Soil Samples Collected in the Former Non-Treated Wood Storage Area NTA, Southern Wood Piedmont, Wilmington, North Carolina..

4-2. Total Detected K001, Arsenic, Chromium, and Copper Measured in Soil Samples Collected in the Former Non-Treated Wood Storage Area NTB, Southern Wood Piedmont, Wilmington, North Carolina.

4-3. Total Detected K001, Arsenic, Chromium, and Copper Measured in Soil Samples Collected in the Former Treated Wood Storage Area TWS, Southern Wood Piedmont, Wilmington, North Carolina.

4-4. Soil Boring Investigation Observations at Locations in the Former Non-Treated Wood Storage Area NTA, Southern Wood Piedmont, Wilmington, North Carolina.

4-5. Soil Boring Investigation Observations at Locations in the Former Non-Treated Wood Storage Area NTB, Southern Wood Piedmont, Wilmington, North Carolina.

4-6. Soil Boring Investigation Observations at Locations in the Former Treated Wood Storage Area TWS, Southern Wood Piedmont, Wilmington, North Carolina.

## APPENDICES

A. Field Logs
B. Analytical Laboratory Reports and Chain-of-Custody Forms

# 1.0 INTRODUCTION

Geraghty & Miller, Inc., was retained by the Southern Wood Piedmont Company (SWP) to sample the soils in the former treated wood storage (TWS) and former non-treated wood storage areas (NTA, north of Greenfield Street, and NTB, south of Greenfield Street). aThe purpose of the sampling was to determine whether the surficial soils within these areas had been impacted by wood-treating constituents. A grid system on 100-foot (ft) centers was laid out over the areas to be sampled, and hand-augered soil samples collected from one-third of the grid points were submitted to Savannah Laboratories and Environmental Services, Inc., (SL) for chemical analysis. Two depths (0 to 6 inches and 12 to 18 inches) were sampled. The samples for laboratory analysis were selected using random number tables. Hand-augered borings also were advanced at all remaining grid points. The soils at these locations were examined visually for evidence of wood-treating constituents. All observations, including odor, were recorded.

# 2.0 SITE HISTORY AND ENVIRONMENTAL SETTING

This section describes the site history. Land use for the surrounding area and regional/local geology and hydrogeology also are discussed.

## 2.1 SITE HISTORY

The site was operated as a wood-treatment facility in Wilmington, North Carolina, from approximately 1930 to 1983. In 1930 the North State Treating Company leased the property previously operated by Liberty Shipyards. In 1935, the Taylor Colquitt Company leased the property formerly owned and operated by North State Treating Company. SWP acquired the company in 1969. SWP added chromated copper arsenate (CCA) to the wood-treatment process in the early 1970s, and PCP was added in the late 1970s. Each of the three preservatives (creosote, PCP, and CCA) were stored on-site in tanks adjacent to the wood-treating facility. Additional creosote storage was in the southwestern property corner. In 1983, the SWP facility ceased its wood-treatment operations and began closure procedures.

## 2.2 SURROUNDING LAND USE

The SWP facility, which measures approximately 1,000 ft east to west by 1,600 ft north to south, lies within an industrialized area of Wilmington, North Carolina. Industry in the vicinity includes the Hess Fuel Tank Farms, separated from the SWP property by a ditch on the north side, and the Poctank, Inc., plant separated by an undeveloped lot on the south side of the SWP property. The major roads in the vicinity of the plant are Greenfield and Surrey Streets. Greenfield Street runs in an east-west direction and dead ends into the center of the facility. The NTB area, included in this investigation, lies on the south side of Greenfield Street. Surrey Street runs in a north-south direction and is situated east of the property. The Cape Fear River borders the property on the west.

## 2.3 REGIONAL AND SITE GEOLOGY AND HYDROLOGY

The Wilmington site is in the Coastal Plain physiographic province of North Carolina, a region underlain by Cretaceous and Cenozoic marine and non-marine sedimentary sequences. Approximately 1,500 feet of Coastal Plain sediments overlie pre-Mesozoic crystalline basement rock in the Wilmington area (USGS, 1985). The site is directly underlain by the Cretaceous-age Pee Dee Formation (USGS, 1985), which consists predominantly of unconsolidated, dark green to gray, clay-rich, marine sand and which may contain calcareous sandstone ledges (Sohl and Owens, 1991).

Five soil borings were advanced at the site to a maximum depth of approximately 50 ft by Soil and Material Engineers, Inc., during 1981, and an additional four borings (to a maximum depth of 20 ft) were drilled by Law Environmental in 1985. Lithologic logs ( Soil and Material Engineers, 1981; Law Environmental, 1985) indicate that a surficial layer of sandy fill material or sand is present at the site, which varies from less than 1 ft to 18 ft in thickness. This layer, which appears to be thickest in the northern part of the site, is described as consisting of fine to medium sand, with wood, roots, or other material occasionally found. Below this sandy material is a layer consisting of dark brown, organic-rich silt or peat, which may contain traces of fine sand, roots, and wood fragments. This layer ranges in thickness from 5 to 19 ft in the soil boring locations and apparently increases in thickness toward the Cape Fear River to the west. Fine to medium sands extend from below the organic-rich layers to a depth of 42 to 45.5 ft, below which a gray marl is encountered (Soil and Material Engineers, Inc., 1981).

Based on their observations, Soil and Material Engineers (1981) concluded that the dominant direction of shallow groundwater flow at the site is to the south, parallel to the Cape Fear River. Water-table maps prepared by Law Environmental (1985) indicate westward to southwestward flow (toward the river) near the landfarm areas and generally southward flow at the eastern part of the site. Tidal influences may cause temporary alterations or reversals in

these flow directions. Hydraulic conductivities ranging from $3 \times 10^{-5}$ centimeters/second (cm/sec) to $1 \times 10^{-6}$ cm/sec were determined based on in-situ monitor well tests, and an average groundwater flow velocity of 0.10 ft/year was calculated (Law Environmental, 1985).

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# 3.0 INVESTIGATIVE METHODS

The soil sampling program was designed to determine whether the surficial soils within the treated and non-treated wood storage areas have been impacted by wood-treating constituents and to define the lateral and, to the extent possible, vertical extent of any impacts. Selected samples were analyzed by U.S. Environmental Protection Agency (USEPA) methodologies for wood-preserving constituents. All field records and analytical data were reviewed and validated by a Geraghty & Miller Quality Assurance Manager.

## 3.1 SOIL BORINGS AND SAMPLING PROGRAM

Hand-operated bucket auger soil borings were advanced at a total of 92 locations in the three former wood storage areas. A total of 48 samples were collected from 35 locations for laboratory analysis. Soils from the remaining 57 locations were examined visually.

- NTA - 9 shallow (0 to 6 inches) soil samples were collected for analysis from 9 boring locations, and visual observations only were recorded at 12 boring locations;

- NTB - 13 shallow (0 to 6 inches) soil samples were collected for analysis from 13 boring locations, and visual observations only were recorded at 21 boring locations; and

- TWS - 13 shallow (0 to 6 inches) and 13 deeper (12 to 18 inches) soil samples were collected for analysis from 13 boring locations for a total of 26 samples, and visual observations only were recorded at 24 boring locations.

The samples were collected based on a grid system on 100-ft centers laid out over the three former wood storage areas. Figure 3-1 shows the locations of the three areas. Soil samples

from only one depth (0 to 6 inches) were collected in the former non-treated wood storage areas (NTA and NTB). Samples from two depths were collected from the former TWS area to determine whether wood-preserving constituents have migrated vertically through the soil profile. Visual evidence of creosote in the form of staining and weathered material was observed on the soil surface in the TWS but not in the NTA or NTB.

The soil investigation was conducted as two separate sampling events. During the first event, conducted on February 26-28, 1991, hand-augered soil samples were collected for laboratory analysis from one-third of the grid points analysis. The results of this sampling event indicated that additional characterization was required. Therefore, on April 3, 1991, hand-augered soil borings were advanced at remaining grid points for visual assessment only. The borehole depths were identical to those of the first sampling event.

A small-diameter (<4-inch), stainless steel, hand-held bucket auger was used to collect soil samples. The samples were thoroughly mixed in a stainless steel bowl and stored in pre-cleaned sample containers on ice at 4°C. The auger and bowl were decontaminated between samples with a laboratory-grade soap solution and rinsed three times with distilled water.

## 3.2 CHAIN OF CUSTODY

Samples collected in the field remained in the presence of a project representative at all times until they were shipped to the analytical laboratory. The transfer of the samples to the laboratory was accomplished by means of chain-of-custody forms. Activity documentation logs completed during this investigation are presented in Appendix A, and chain-of-custody forms are included in Appendix B. The placement of the custody seals ensured the integrity of the samples and prevented potential tampering.

## 3.3 SAMPLE ANALYSIS

All samples collected for laboratory analysis were packed with ice in insulated coolers and shipped by overnight carrier to SL in Savannah, Georgia. All samples were analyzed for the list of wood-preserving constituents shown in Table 3-1. The USEPA analytical methods also are shown on Table 3-1.

## 3.4 DATA VALIDATION

The purpose of this section is to evaluate the field data for adherence to the sampling plan and to ensure the completion of required documentation. Additionally, the analytical laboratory data were reviewed for the completeness of the data package deliverables and the achievement of project-specific data quality objectives.

All field activities were appropriately documented, as illustrated by the sampling logs presented in Appendix A. Field (FB) and rinsate blanks (RB) for nutrient and wood-preserving constituent analysis were taken at a frequency of 1 for every 20 samples collected. Field and rinsate blank sample results are shown in Table 3-1.

All soil and quality control samples collected were analyzed within the required holding times. All quality control samples were found to be within established control limits.

# 4.0 SAMPLING RESULTS

## 4.1 SOIL SAMPLE RESULTS

The wood-preserving constituent results for soil samples collected from NTA, NTB, and TWS are presented in Tables 4-1 through 4-3, respectively. Figures 4-1 through 4-3 show the analytical results for the organic wood-preserving constituents (summed and identified as K001) and inorganic constituents (arsenic, chromium, copper) plotted on maps for the NTA, NTB, and TWS areas.

### 4.1.1 Semi-Volatile Constituents

A total of 14 semi-volatile organic compounds (semi-VOCs) were detected above their respective practical quantitation limits (PQLs) in the samples. Twelve are PAHs: naphthalene, acenaphthene, acenaphthylene, phenanthrene, anthracene, benzo(a)anthracene, chrysene, benzo(a)pyrene, benzo(b,k)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and fluoranthene. The PAHs are characteristic components of creosote. One constituent is a heterocyclic, nitrogen-containing organic (carbazole), and one is a phenolic compound (trichlorophenol isomers).

The semi-VOC concentrations were summed as total K001 compounds for comparison purposes. Semi-volatile wood-treating constituents were detected in 18 of 26 samples collected in the former TWS area. Soil samples collected from the TWS area generally had the highest concentrations of K001 compounds, with the maximum occurring in sample TWS-10. Samples from this boring, on the north side of area TWS near the Cape Fear River, had total K001 concentrations of 200 and 15,000 milligrams per kilogram dry weight (mg/kg dw) for 0- to 6-inch and 12- to 18-inch deep samples, respectively. Two other samples, the 0- to 6-inch sample from boring TWS-1 (110 mg/kg dw) and the 12- to 18-inch sample from boring TWS-13 (470

mg/kg dw) had total K001 concentrations exceeding 100 mg/kg dw. The rest of the samples from area TWS had total K001 concentrations below 100 mg/kg dw.

In 10 of 13 area TWS borings, total K001 concentrations decreased with increasing depth from the 0- to 6-inch interval to the 12- to 18-inch interval. Total K001 concentrations in the 12- to 18-inch samples from borings TWS-10 (15,000 mg/kg dw), TWS-12 (100 mg/kg dw), and TWS-3 (470 mg/kg dw) were higher than the corresponding 0- to 6-inch samples (200, ND, and 22 mg/kg dw, respectively). This vertical distribution indicates that downward migration of constituents originally released to the surficial soils has occurred. Natural biotic and abiotic degradation of the PAHs in the surficial soil (0- to 6-inch interval) may account for the differences in concentrations with depth. In each of these three borings, concentrations of PAHs having more than three aromatic rings in their molecular structures were proportionately greater in the 12- to 18-inch samples than in the 0- to 6-inch samples. PAHs with more than three rings are more resistant to aerobic biodegradation than those containing two or three rings (USEPA, 1990). Aerobic biodegradation occurs more rapidly in the 0- to 6-inch soil interval than at greater depths due to higher oxygen levels and higher daytime temperatures.

Semi-volatile wood-treating constituents were detected in 23 of 24 samples collected in the former non-treated wood storage areas (NTA and NTB). The maximum total K001 concentration for samples collected from areas NTA and NTB was 390 mg/kg dw, detected in the sample from boring NTB-4. The rest of the samples collected in areas NTA and NTB had less than 100 mg/kg total K001 compounds.

### 4.1.2 Inorganic Constituents

Arsenic, chromium, and copper were detected at a frequency of 20, 26, and 16 samples, respectively, from a total of 26 samples collected in area TWS. Maximum concentrations of arsenic, chromium, and copper in area TWS samples were 41, 29, and 100 mg/kg dw,

respectively. These maximum concentrations are within observed ranges for these elements in soils of the eastern United States (USGS, 1984).

Frequencies of detection and concentrations of the metals were generally greater for samples collected in areas NTA and NTB than in area TWS. Arsenic, chromium, and copper were detected in all 9 samples collected in area NTA, and in 12, 13, and 12 samples, respectively, of a total of 13 samples collected in area NTB. Maximum concentrations of arsenic, chromium, and copper were 63, 15, and 300 mg/kg dw, respectively, in area NTA samples and 13, 22, and 130 mg/kg dw, respectively, in area NTB samples. These maximum concentrations are also within observed ranges for these elements in soils of the eastern United States (USGS, 1984).

## 4.2 VISUAL SOIL ASSESSMENT RESULTS

The results of the visual soil assessment for areas NTA, NTB, and TWS are shown on Figures 4-4 through 4-6, respectively. Odors and/or discolored soils were observed in 2 of 12 locations during the visual assessment at area NTA, on the northern edge of the area bordering an intermittent stream. Observations of odors and/or discolored soils were made at 6 of 21 locations during the assessment in area NTB, and these locations were distributed throughout the area (not concentrated near one location). In area TWS, observations of odors and/or discolored soils were made at 8 of 23 locations, and these observations also were distributed throughout the area.

# 5.0 REFERENCES

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U.S. Environmental Protection Agency (USEPA), 1990. Fate of PAH Compounds in Two Soil Types: Influence of Volatilization, Abiotic Loss and Biological Activity. Robert S, Kerr Environmental Lab., Ada, OK.

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# TABLES

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Table 3-1. Wood-Preserving Constituents Analyzed for in Soil Samples, Southern Wood Piedmont Company, Wilmington, North Carolina.

| Constituents | Analytical Method (1) |
|---|---|
| Semi-Volatile Organics | |
| 2-Chlorophenol | 8270 |
| Phenol | 8270 |
| 2,4-Dimethylphenol | 8270 |
| Trichlorophenols | 8270 |
| p-Chloro-m-cresol | 8270 |
| Tetrachlorophenols | 8270 |
| 2,4-Dinitrophenol | 8270 |
| Pentachlorophenol | 8270 |
| Naphthalene | 8270 |
| Acenaphthene | 8270 |
| Acenaphthylene | 8270 |
| Phenanthrene | 8270 |
| Anthracene | 8270 |
| Fluoranthene | 8270 |
| Chrysene | 8270 |
| Benzo(a)anthracene | 8270 |
| Benzo(b,k)fluoranthene | 8270 |
| Benzo(a)pyrene | 8270 |
| Indene(1,2,3-c,d)pyrene | 8270 |
| Dibenzo(a,h)anthracene | 8270 |
| Carbazole | 8270 |
| Inorganics | |
| Arsenic | 7060 |
| Chromium | 6010 |
| Copper | 6010 |

(1) USEPA, 1987.

Table 3-2. Field Quality Control Sample Results, Southern Wood Piedmont, Wilmington, North Carolina.

| CONSTITUENTS (mg/L) | RB-1 [1] | FB-1 [1] | RB-2 [2] | FB-2 [2] | RB-3 [3] | FB-3 [3] |
|---|---|---|---|---|---|---|
| Semi-Volatile Organics (8270) | | | | | | |
| 2-Chlorophenol | ND | ND | ND | ND | ND | ND |
| Phenol | ND | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol | ND | ND | ND | ND | ND | ND |
| Trichlorophenols | ND | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol | ND | ND | ND | ND | ND | ND |
| Tetrachlorophenols | ND | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol | ND | ND | ND | ND | ND | ND |
| Pentachlorophenol | ND | ND | ND | ND | ND | ND |
| Naphthalene | ND | ND | ND | ND | ND | ND |
| Acenaphthene | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | ND | ND | ND | ND | ND | ND |
| Phenanthrene | ND | ND | ND | ND | ND | ND |
| Anthracene | ND | ND | ND | ND | ND | ND |
| Fluoranthene | ND | ND | ND | ND | ND | ND |
| Chrysene | ND | ND | ND | ND | ND | ND |
| Benzo(a)anthracene | ND | ND | ND | ND | ND | ND |
| Benzo(b,k)fluoranthene | ND | ND | ND | ND | ND | ND |
| Benzo(a)pyrene | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-c,d)pyrene | ND | ND | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene | ND | ND | ND | ND | ND | ND |
| Carbazole | ND | ND | ND | ND | ND | ND |
| Inorganics | | | | | | |
| Arsenic (7060) | ND | ND | ND | ND | ND | ND |
| Chromium (6010) | ND | ND | ND | ND | ND | ND |
| Copper (6010) | ND | ND | ND | ND | ND | ND |

ND Constituent was not detected.
RB Rinsate blank (rinsate of bucket auger soil sampler).
FB Field blank.
1 Collected in association with soil samples collected in area NTA.
2 Collected in association with soil samples collected in area TWS.
3 Collected in association with soil samples collected in area NTB.
mg/L Milligrams per liter.

Table 4-1. Semi-Volatile Organic and Inorganic Constituents Detected in 0- to 6-Inch Soil Samples Collected in the Former Non-Treated Wood Storage Area NTA, Southern Wood Piedmont, Wilmington, North Carolina.

| CONSTITUENTS (mg/kg dw) | NTA-1/ 9329 | NTA-2/ 9330 | NTA-3/ 9331 | NTA-4/ 9332 | NTA-5/ 9333 | NTA-6/ 9334 | NTA-7/ 9335 | NTA-8/ 9336 | NTA-9/ 9337 |
|---|---|---|---|---|---|---|---|---|---|
| Semi-Volatile Organics (8270) | | | | | | | | | |
| 2-Chlorophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenol | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichlorophenols | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachlorophenols | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentachlorophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | ND | ND | 0.66 | ND | ND | ND | 0.99 | ND | ND |
| Acenaphthene | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | ND | ND | ND | ND | ND | ND | ND | 0.48 | ND |
| Phenanthrene | 0.82 | ND | 1.0 | ND | 0.42 | 0.44 | 1.1 | 0.47 | ND |
| Anthracene | 0.77 | ND | 0.79 | ND | 0.36 | 0.55 | 1.1 | 0.95 | ND |
| Fluoranthene | 2.5 | 4.0 | 2.4 | 0.52 | 1.5 | 1.3 | 1.7 | 2.0 | ND |
| Chrysene | 1.7 | 2.7 | 1.7 | ND | 0.93 | 0.93 | 1.5 | 1.7 | ND |
| Benzo(a)anthracene | 1.2 | 1.6 | 1.1 | ND | 0.57 | 0.47 | 0.97 | 1.5 | ND |
| Benzo(b,k)fluoranthene | 4.1 | 5.9 | 4.1 | 0.80 | 2.2 | ND | 1.7 | 2.9 | ND |
| Benzo(a)pyrene | 1.0 | 1.1 | 1.0 | ND | 0.41 | ND | 0.77 | 1.3 | ND |
| Indeno(1,2,3-c,d)pyrene | 0.68 | 0.66 | 0.85 | ND | ND | ND | ND | 0.58 | ND |
| Dibenzo(a,h)anthracene | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbazole | ND | 0.54 | 0.49 | ND | ND | ND | 1.1 | 1.0 | ND |
| Inorganics | | | | | | | | | |
| Arsenic (7060) | 11 | 1.8 | 30 | 2.8 | 7.1 | 25 | 63 | 10 | 54 |
| Chromium (6010) | 8.4 | 3.8 | 15 | 5.1 | 4.7 | 4.3 | 13 | 5.9 | 8.9 |
| Copper (6010) | 72 | 11 | 300 | 4.5 | 56 | 51 | 240 | 7.8 | 8.8 |
| Percent Solids, % | 73 | 75 | 76 | 83 | 82 | 82 | 62 | 78 | 82 |

ND Constituent was not detected.
mg/kg dw Milligrams per kilogram dry weight.

Table 4-2. Semi-Volatile Organic and Inorganic Constituents Detected in the 0- to 6-Inch Soil Samples Collected in the Former Non-Treated Wood Storage Area NTB, Southern Wood Piedmont, Wilmington, North Carolina.

| CONSTITUENTS (mg/kg dw) | NTB-1/ 9370 | NTB-2/ 9367 | NTB-3/ 9364 | NTB-4/ 9369 | NTB-5/ 9368 | NTB-6/ 9365 | NTB-7/ 9366 | NTB-8/ 9371 | NTB-9/ 9372 | NTB-10/ 9374 | NTB-11/ 9373 | NTB-12/ 9375 | NTB-13/ 9376 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Semi-Volatile Organics (8270) | | | | | | | | | | | | | |
| 2-Chlorophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichlorophenols | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachlorophenols | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentachlorophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | 0.93 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | 1.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenanthrene | 2.0 | 1.0 | ND | 54 | ND | ND | ND | ND | ND | 3.0 | ND | ND | ND |
| Anthracene | 7.6 | 3.7 | ND | 84 | ND | ND | ND | ND | ND | 1.3 | ND | ND | ND |
| Fluoranthene | 7.5 | 1.3 | 0.39 | 97 | 0.70 | 0.91 | 0.83 | 0.68 | 1.0 | 5.8 | 0.63 | 0.58 | 0.86 |
| Chrysene | 4.6 | 0.74 | 0.40 | 52 | 0.49 | 0.82 | 0.75 | 0.79 | 1.2 | 4.5 | 0.76 | 0.59 | 0.93 |
| Benzo(a)anthracene | 3.1 | 0.56 | ND | 25 | ND | 0.38 | ND | ND | ND | 3.1 | 0.50 | ND | 0.69 |
| Benzo(b,k)fluoranthene | 11 | 1.0 | 0.45 | 50 | ND | 1.7 | 1.5 | 1.2 | 2.0 | 5.5 | 1.7 | 1.2 | 1.3 |
| Benzo(a)pyrene | 4.3 | ND | ND | 17 | ND | 0.39 | ND | ND | ND | 1.2 | ND | ND | ND |
| Indeno(1,2,3-c,d)pyrene | 3.8 | ND | ND | ND | ND | ND | ND | ND | ND | 0.57 | ND | ND | ND |
| Dibenzo(a,h)anthracene | 1.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbazole | 1.6 | 2.2 | ND | 11 | ND | ND | ND | ND | ND | 0.51 | ND | ND | ND |
| Inorganics | | | | | | | | | | | | | |
| Arsenic (7060) | 7.0 | ND | 4.8 | 1.7 | 1.8 | 5.0 | 9.4 | 5.3 | 12 | 4.7 | 8.1 | 3.2 | 13 |
| Chromium (6010) | 8.0 | 1.8 | 9.1 | 2.0 | 3.2 | 2.3 | 2.7 | 5.6 | 5.7 | 2.2 | 4.6 | 1.4 | 22 |
| Copper (6010) | 30 | ND | 4.3 | 9.7 | 3.9 | 11 | 2.8 | 90 | 130 | 8.6 | 81 | 3.1 | 20 |
| Percent Solids, % | 68 | 91 | 88 | 87 | 78 | 87 | 79 | 78 | 71 | 71 | 89 | 72 | 51 |

ND Constituent was not detected.
mg/kg dw Milligrams per kilogram dry weight.

Table 4-3. Semi-Volatile Organic and Inorganic Constituents Detected in 0- to 6-Inch and 12- to 18-Inch Soil Samples Collected in the Former Treated Wood Storage Area TWS, Southern Wood Piedmont, Wilmington, North Carolina.

| CONSTITUENTS (mg/kg dw) | TWS-1A/ 9362 0-6" | TWS-1B/ 9363 12-18" | TWS-2A/ 9360 0-6" | TWS-2B/ 9361 12-18" | TWS-3A/ 9358 0-6" | TWS-3B/ 9359 12-18" | TWS-4A/ 9356 0-6" | TWS-4B/ 9357 12-18" | TWS-5A/ 9354 0-6" | TWS-5B/ 9355 12-18" | TWS-6A/ 9352 0-6" | TWS-6B/ 9353 12-18" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Semi-Volatile Organics (8270) | | | | | | | | | | | | |
| 2-Chlorophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichlorophenols | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachlorophenols | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentachlorophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | ND | ND | ND | ND | 0.60 | ND | 0.48 | ND | ND | ND | 0.66 | ND |
| Phenanthrene | 13 | ND | ND | ND | 0.75 | 220 | 0.75 | ND | 0.64 | ND | 2.4 | ND |
| Anthracene | 36 | ND | 0.68 | ND | 1.7 | 51 | 1.4 | ND | 1.1 | ND | 2.3 | ND |
| Fluoranthene | 25 | ND | 3.4 | 1.0 | 3.9 | 150 | 5.9 | 0.95 | 1.2 | ND | 16 | ND |
| Chrysene | 8.0 | ND | 3.5 | 0.73 | 3.2 | 13 | 4.8 | ND | 0.95 | ND | 8.1 | ND |
| Benzo(a)anthracene | 6.2 | ND | 2.2 | 0.66 | 1.7 | 17 | 2.6 | ND | 0.88 | ND | 5.0 | ND |
| Benzo(b,k)fluoranthene | 12 | ND | 6.7 | ND | 7.0 | 20 | 8.2 | ND | 0.73 | ND | 13 | ND |
| Benzo(a)pyrene | 5.1 | ND | 1.3 | ND | 1.4 | ND | 1.4 | ND | 0.58 | ND | 3.5 | ND |
| Indeno(1,2,3-c,d)pyrene | ND | ND | 0.53 | ND | 0.84 | ND | 0.63 | ND | ND | ND | 1.9 | ND |
| Dibenzo(a,h)anthracene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.49 | ND |
| Carbazole | 7.1 | ND | ND | ND | 0.77 | ND | 1.0 | ND | ND | ND | 1.8 | ND |
| Inorganics | | | | | | | | | | | | |
| Arsenic (7060) | 6.8 | 2.0 | 13 | 4.3 | 6.4 | 3.5 | 26 | 13 | 41 | 1.6 | 8.7 | 6.1 |
| Chromium (6010) | 6.5 | 4.8 | 7.0 | 3.8 | 8.8 | 6.1 | 8.4 | 29 | 19 | 4.1 | 13 | 27 |
| Copper (6010) | 88 | 12 | 8.2 | ND | ND | ND | 7.3 | 16 | 71 | ND | 7.2 | 3.9 |
| Percent Solids, % | 89 | 79 | 72 | 72 | 71 | 55 | 74 | 56 | 70 | 79 | 83 | 55 |

ND Constituent was not detected.
mg/kg dw Milligrams per kilogram dry weight.

Table 4-3. Semi-Volatile Organic and Inorganic Constituents Detected in 0- to 6-Inch and 12- to 18-Inch Soil Samples Collected in the Former Treated Wood Storage Area TWS, Southern Wood Piedmont, Wilmington, North Carolina.

| CONSTITUENTS (mg/kg dw) | TWS-7A/ 9350 0-6" | TWS-7B/ 9351 12-18" | TWS-8A/ 9346 0-6" | TWS-8B/ 9347 12-18" | TWS-9A/ 9348 0-6" | TWS-9B/ 9349 12-18" | TWS-10A/ 9344 0-6" | TWS-10B/ 9345 12-18" | TWS-11A/ 9342 0-6" | TWS-11B/ 9343 12-18" | TWS-12A/ 9338 0-6" | TWS-12B/ 9339 12-18" | TWS-13A/ 9340 0-6" | TWS-13B/ 9341 12-18" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Semi-Volatile Organics (8270) | | | | | | | | | | | | | | |
| 2-Chlorophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichlorophenols | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachlorophenols | ND | ND | ND | ND | ND | ND | 2.8 | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentachlorophenol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | ND | ND | ND | ND | ND | ND | 0.87 | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthene | ND | ND | ND | ND | ND | ND | 0.93 | 2000 | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | 0.50 | ND | ND | ND | ND | ND | 2.5 | ND | 0.46 | ND | ND | ND | ND | ND |
| Phenanthrene | 0.73 | ND | 0.74 | ND | ND | ND | 4.2 | 4000 | 0.43 | ND | ND | ND | ND | ND |
| Anthracene | 1.2 | ND | 1.2 | ND | ND | ND | 14 | 2200 | 1.2 | ND | ND | ND | ND | ND |
| Fluoranthene | 4.2 | ND | 3.6 | ND | 1.3 | ND | 33 | 3700 | 4.9 | 0.43 | ND | 42 | 0.66 | ND |
| Chrysene | 3.6 | ND | 2.5 | ND | 0.89 | ND | 27 | 740 | 4.0 | 0.49 | ND | 19 | ND | ND |
| Benzo(a)anthracene | 2.4 | ND | 1.2 | ND | ND | ND | 23 | 800 | 2.9 | ND | ND | 12 | ND | ND |
| Benzo(b,k)fluoranthene | 7.4 | ND | 4.9 | ND | 2.0 | ND | 60 | 690 | 2.7 | 1.0 | ND | 30 | ND | ND |
| Benzo(a)pyrene | 1.6 | ND | 0.89 | ND | ND | ND | 17 | 290 | 1.6 | ND | ND | ND | ND | ND |
| Indeno(1,2,3-c,d)pyrene | 1.0 | ND | 0.64 | ND | ND | ND | 7.2 | 88 | 0.68 | ND | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene | ND | ND | ND | ND | ND | ND | 2.4 | ND | ND | ND | ND | ND | ND | ND |
| Carbazole | 0.90 | ND | 0.74 | ND | ND | ND | 3.4 | 390 | 0.93 | ND | ND | ND | ND | ND |
| Inorganics | | | | | | | | | | | | | | |
| Arsenic (7060) | 2.7 | ND | 1.9 | ND | ND | ND | 1.3 | 6.1 | 31 | 2.2 | ND | 1.6 | 1.8 | ND |
| Chromium (6010) | 5.3 | 3.2 | 3.4 | 1.2 | 4.1 | 2.2 | 2.7 | 4.2 | 11 | 3.7 | 2.7 | 6.0 | 5.2 | 1.8 |
| Copper (6010) | 3.8 | ND | 4.4 | ND | 3.3 | 4.4 | 17 | 110 | 15 | ND | ND | 4.2 | ND | ND |
| Percent Solids, % | 75 | 77 | 79 | 85 | 80 | 80 | 80 | 50 | 78 | 79 | 92 | 87 | 77 | 81 |

ND Constituent was not detected.
mg/kg dw Milligrams per kilogram dry weight.

# FIGURES

1623swp

| DWG DATE: 12 OCT 93 | PRJCT NO.: NC0090.006 | FILE NO.: SWP-WILM | DRAWING: NC09003A | CHECKED: C. LOVDAHL | APPROVED: C. LOVDAHL | DRAFTER: N. JOHNSON |
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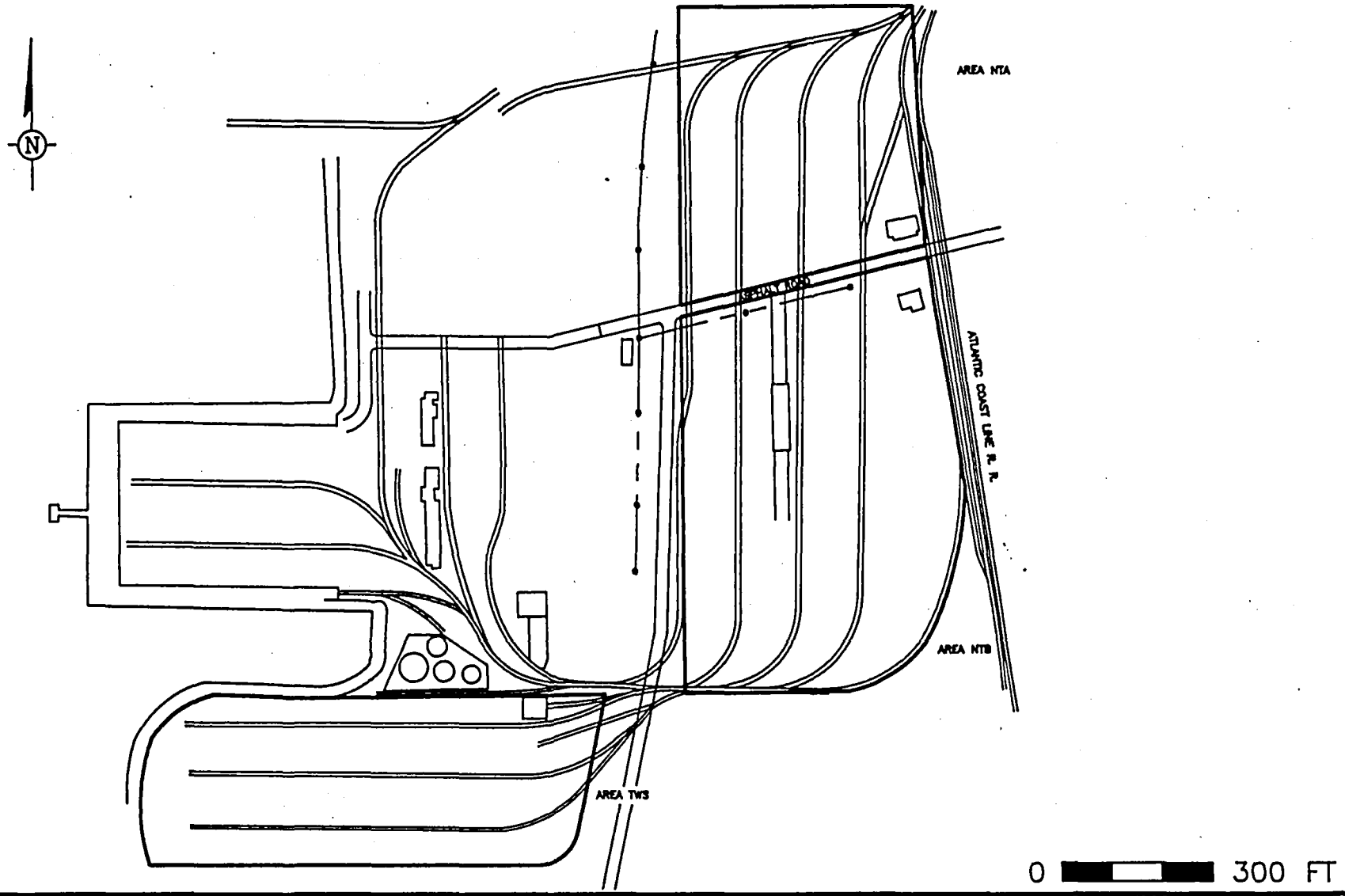
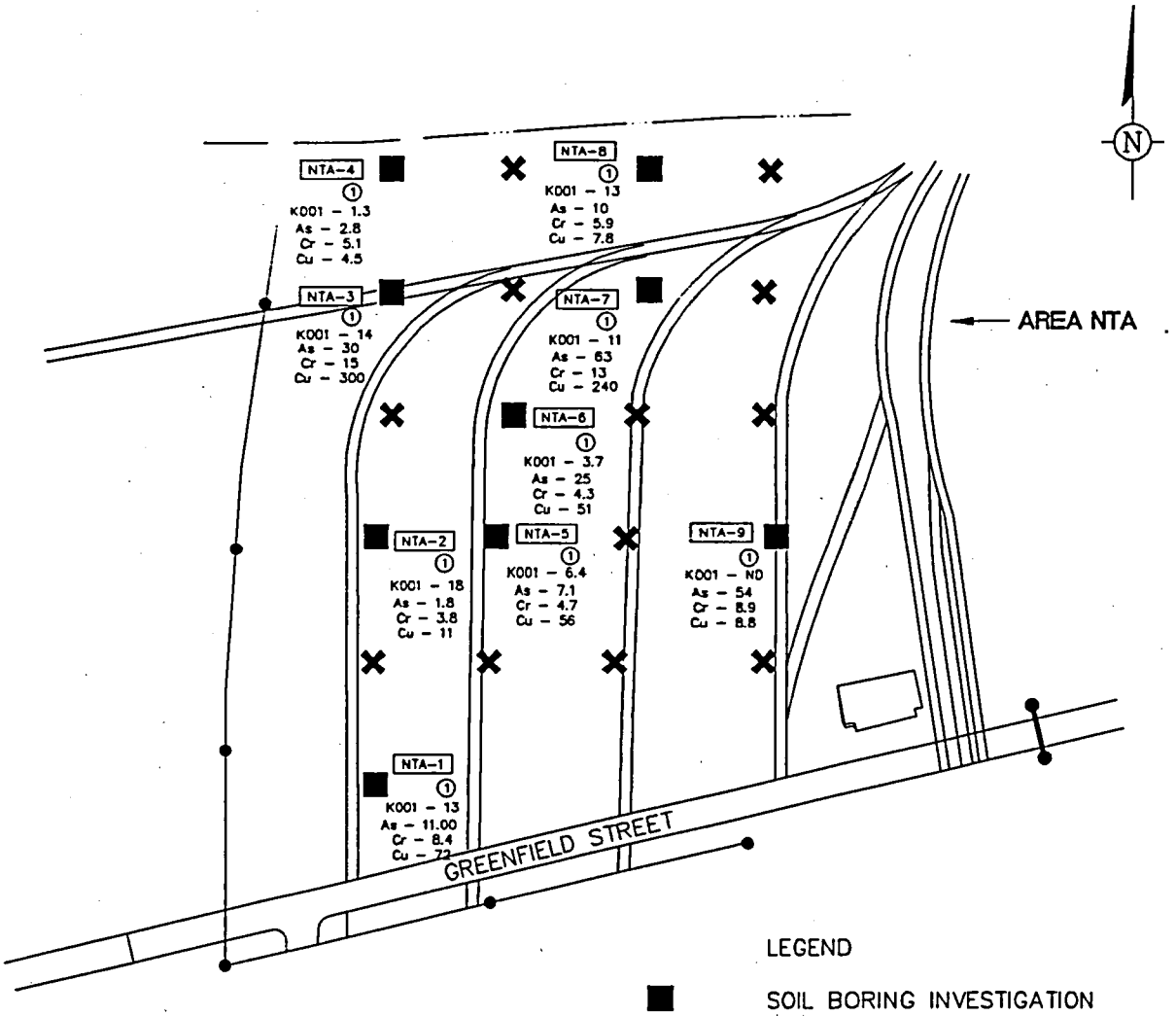



GERAGHTY & MILLER, INC.
*Environmental Services*

**LOCATIONS OF THE FORMER TREATED (TWS) AND NON-TREATED (NTA AND NTB) WOOD STORAGE AREAS**

SOUTHERN WOOD PIEDMONT COMPANY
WILMINGTON, NORTH CAROLINA

FIGURE
3-1




LEGEND

■ SOIL BORING INVESTIGATION

THE FOLLOWING DESIGNATIONS APPLY FOR ALL NTA SAMPLING LOCATIONS:

(1) DENOTES DEPTH AT 0"–6"

K001 – TOTAL DETECTABLE K001 (mg/kg dw)
As – TOTAL ARSENIC (mg/kg dw)
Cr – TOTAL CHROMIUM (mg/kg dw)
Cu – TOTAL COPPER (mg/kg dw)
ND – NOT DETECTED

✕ SOIL BORING INVESTIGATION LOCATION (NOT SAMPLED FOR CHEMICAL ANALYSIS)

—●— OVERHEAD ELEC. AND POLE

—·—·— DRAINAGE DITCH

0 ▬ 150 FT

GERAGHTY & MILLER, INC.
*Environmental Services*

**TOTAL DETECTED K001, ARSENIC, CHROMIUM, AND COPPER MEASURED IN SOIL SAMPLES COLLECTED IN THE FORMER NON-TREATED WOOD STORAGE AREA NTA**

SOUTHERN WOOD PIEDMONT COMPANY
WILMINGTON, NORTH CAROLINA

FIGURE
4-1

DWG DATE: 11 OCT 93 | PRJCT NO.: NC009.006 | FILE NO.: SWP-WILM | DRAWING: NC09003J | CHECKED: C. LOVDAHL | APPROVED: C. LOVDAHL | DRAFTER: N. JOHNSON

| DWG DATE: 12 OCT 93 | PRJCT NO.: NC0090.006 | FILE NO.: SWP-WILM | DRAWING: NC09003D | CHECKED: C. LOVEDAHL | APPROVED: C. LOVEDAHL | DRAFTER: N. JOHNSON |
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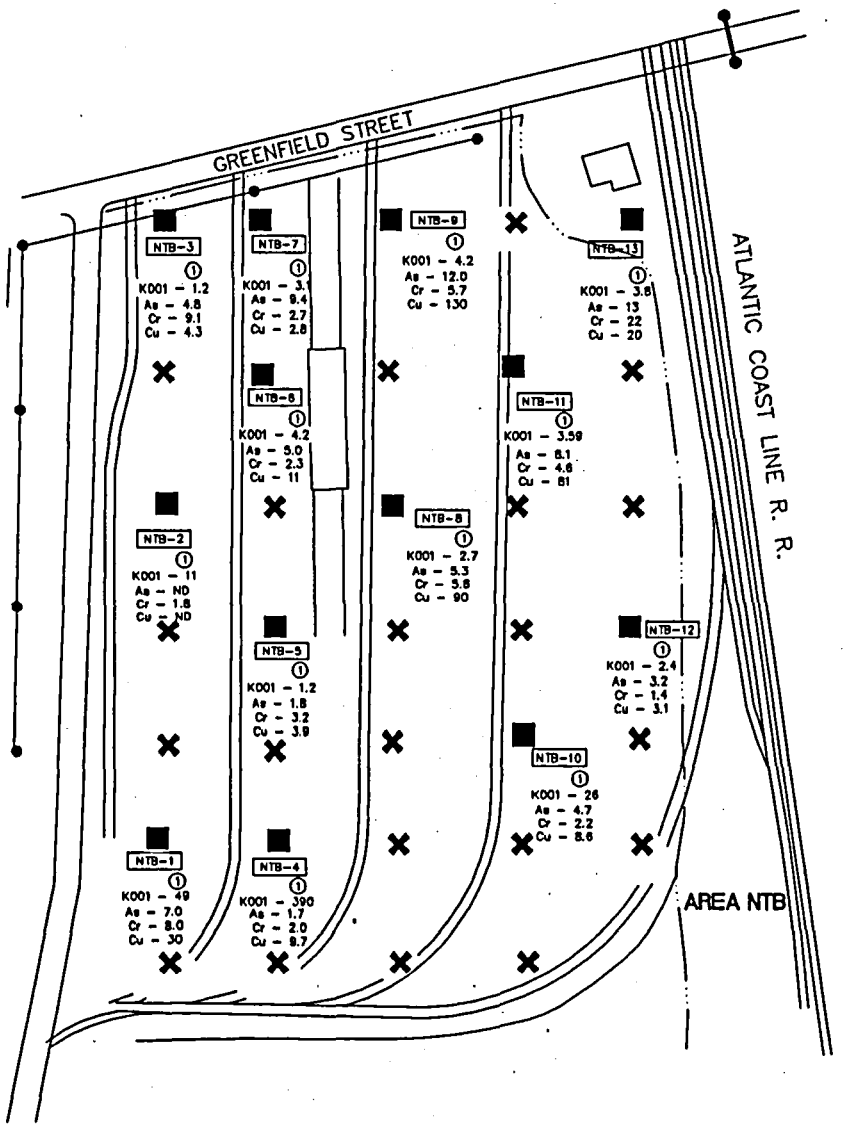


## LEGEND

■ SOIL SAMPLING LOCATION

THE FOLLOWING DESIGNATIONS APPLY FOR ALL NTB SAMPLING LOCATIONS:

(1) DENOTES DEPTH AT 0"–6"

K001 – TOTAL DETECTABLE K001 (mg/kg dw)
As – TOTAL ARSENIC (mg/kg dw)
Cr – TOTAL CHROMIUM (mg/kg dw)
Cu – TOTAL COPPER (mg/kg dw)

✕ SOIL BORING INVESTIGATION LOCATION (NOT SAMPLED FOR CHEMICAL ANALYSIS)

ND – NOT DETECTED

DRAINAGE DITCH

OVERHEAD ELEC. AND POLE

0 175 FT

GERAGHTY & MILLER, INC.
*Environmental Services*

**TOTAL DETECTED K001, ARSENIC, CHROMIUM, AND COPPER MEASURED IN SOIL SAMPLES COLLECTED IN THE FORMER NON-TREATED WOOD STORAGE AREA NTB**

SOUTHERN WOOD PIEDMONT COMPANY
WILMINGTON, NORTH CAROLINA

FIGURE
4-2

| DWG DATE: 12 OCT 93 | PRJCT NO.: NC0090.006 | FILE NO.: SWP-WILM | DRAWING: NC09003E | CHECKED: C. LOVDAHL | APPROVED: C. LOVDAHL | DRAFTER: N. JOHNSON |
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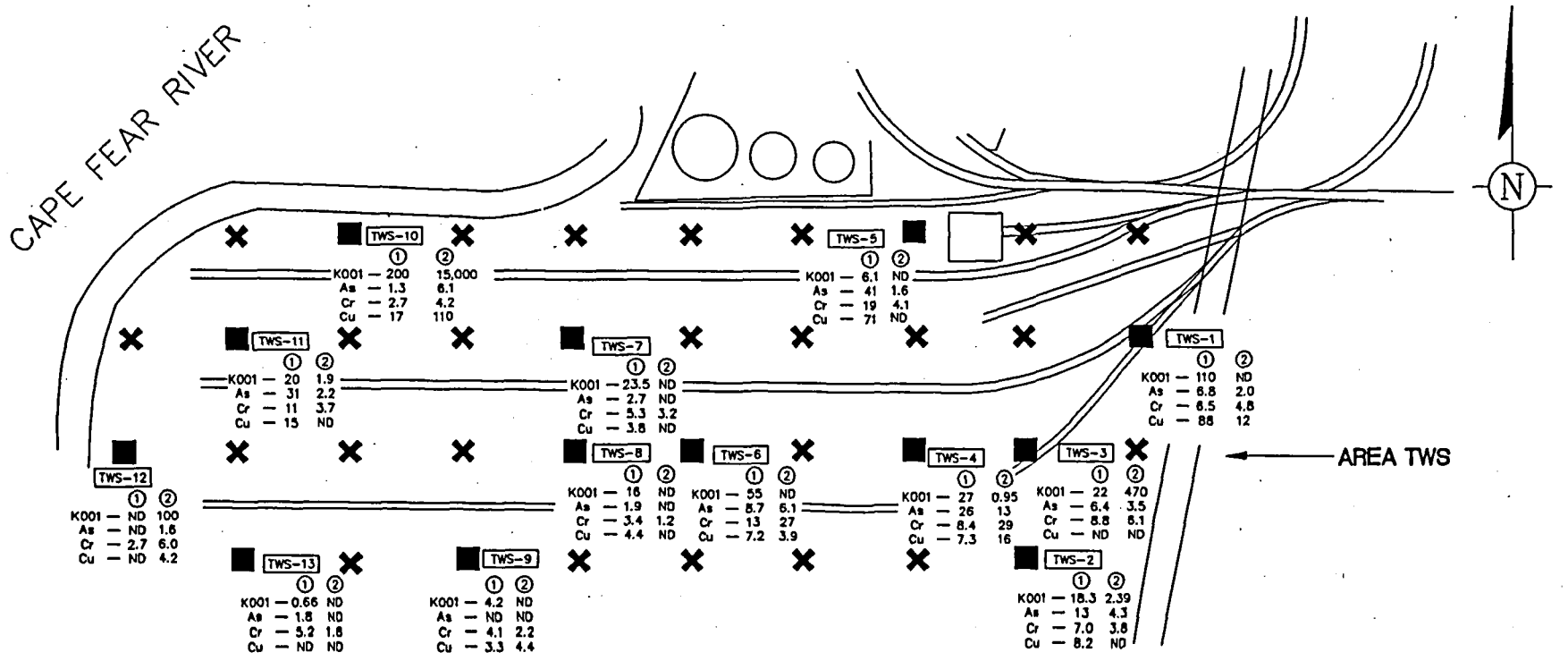



## LEGEND

■ SOIL SAMPLING LOCATION

THE FOLLOWING DESIGNATIONS APPLY FOR ALL TWS SAMPLING LOCATIONS

① DENOTES DEPTH AT 0"–6"

② DENOTES DEPTH AT 12"–18"

K001 – TOTAL DETECTABLE K001 (mg/kg dw)
As – TOTAL ARSENIC (mg/kg dw)
Cr – TOTAL CHROMIUM (mg/kg dw)
Cu – TOTAL COPPER (mg/kg dw)
ND – NOT DETECTED
✖ – SOIL BORING INVESTIGATION LOCATION (NOT SAMPLED FOR CHEMICAL ANALYSIS)

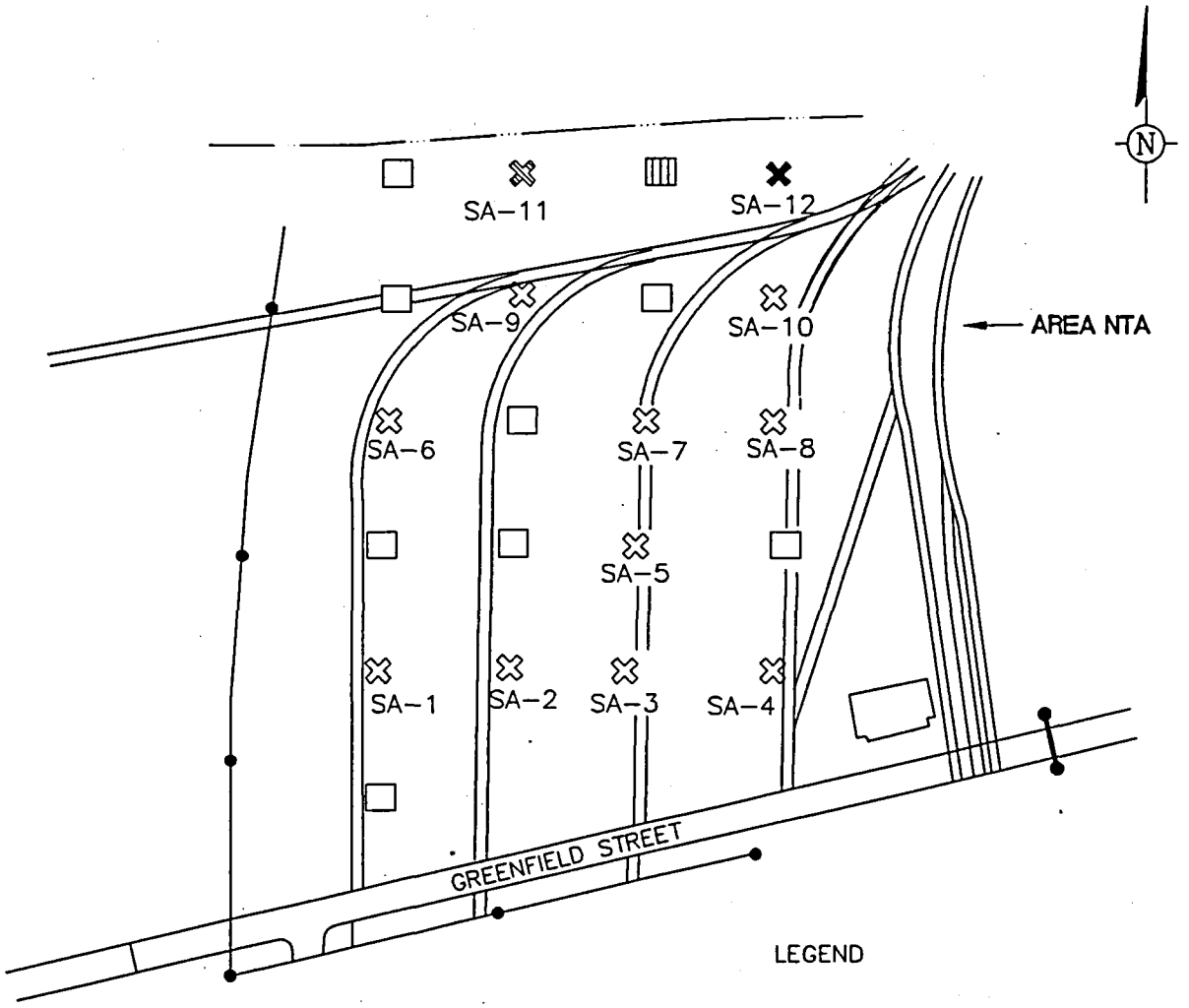
0 ■ ■ ■ ■ 150 FT

GERAGHTY & MILLER, INC.
*Environmental Services*

**TOTAL DETECTED K001, ARSENIC, CHROMIUM, AND COPPER MEASURED IN SOIL SAMPLES COLLECTED IN THE FORMER TREATED WOOD STORAGE AREA TWS**

SOUTHERN WOOD PIEDMONT COMPANY
WILMINGTON, NORTH CAROLINA

FIGURE
4-3




LEGEND

SOIL BORING INVESTIGATION

- NO ODOR
- FAINT ODOR
- DISCOLORED SOIL, ODOR

SOIL SAMPLING LOCATION

- NO ODOR
- FAINT ODOR
- DISCOLORED SOIL, ODOR

- OVERHEAD ELEC. AND POLE
- DRAINAGE DITCH

0 150 FT

GERAGHTY & MILLER, INC.
*Environmental Services*

SOIL BORING INVESTIGATION OBSERVATIONS FOR THE FORMER NON-TREATED WOOD STORAGE AREA NTA

SOUTHERN WOOD PIEDMONT COMPANY
WILMINGTON, NORTH CAROLINA

FIGURE 4-4

DRAFTER: N. JOHNSON | APPROVED: C. LOVDAHL | CHECKED: C. LOVDAHL | DRAWING: NC09003C | FILE NO.: SWP-WILM | PRJCT NO.: NC0090.006 | DWG DATE: 15 JUN 92

| DWG DATE: 12 OCT 93 | PRJCT NO.: NC0090.006 | FILE NO.: SWP-WILM | DRAWING: NC09003G | CHECKED: C. LOVDAHL | APPROVED: C. LOVDAHL | DRAFTER: N. JOHNSON |
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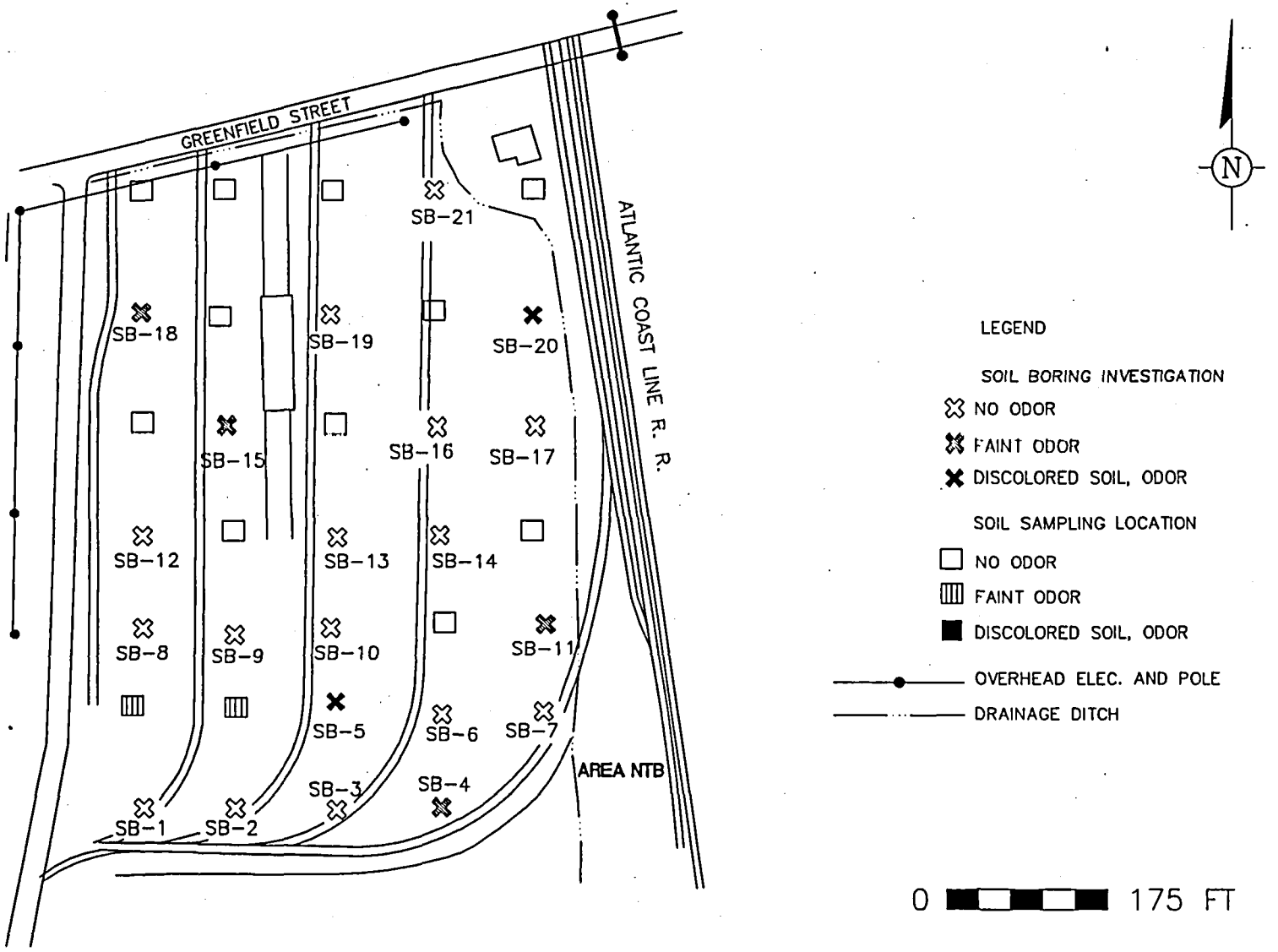


GERAGHTY & MILLER, INC.
*Environmental Services*

**SOIL BORING INVESTIGATION OBSERVATIONS FOR THE FORMER NON-TREATED WOOD STORAGE AREA NTB**

SOUTHERN WOOD PIEDMONT COMPANY
WILMINGTON, NORTH CAROLINA

FIGURE
4-5

| DWG DATE: 12 OCT 93 | PRJCT NO.: NC0090.006 | FILE NO.: SWP-WILM | DRAWING: NC09003H | CHECKED: C. LOVDAHL | APPROVED: C. LOVDAHL | DRAFTER: N. JOHNSON |
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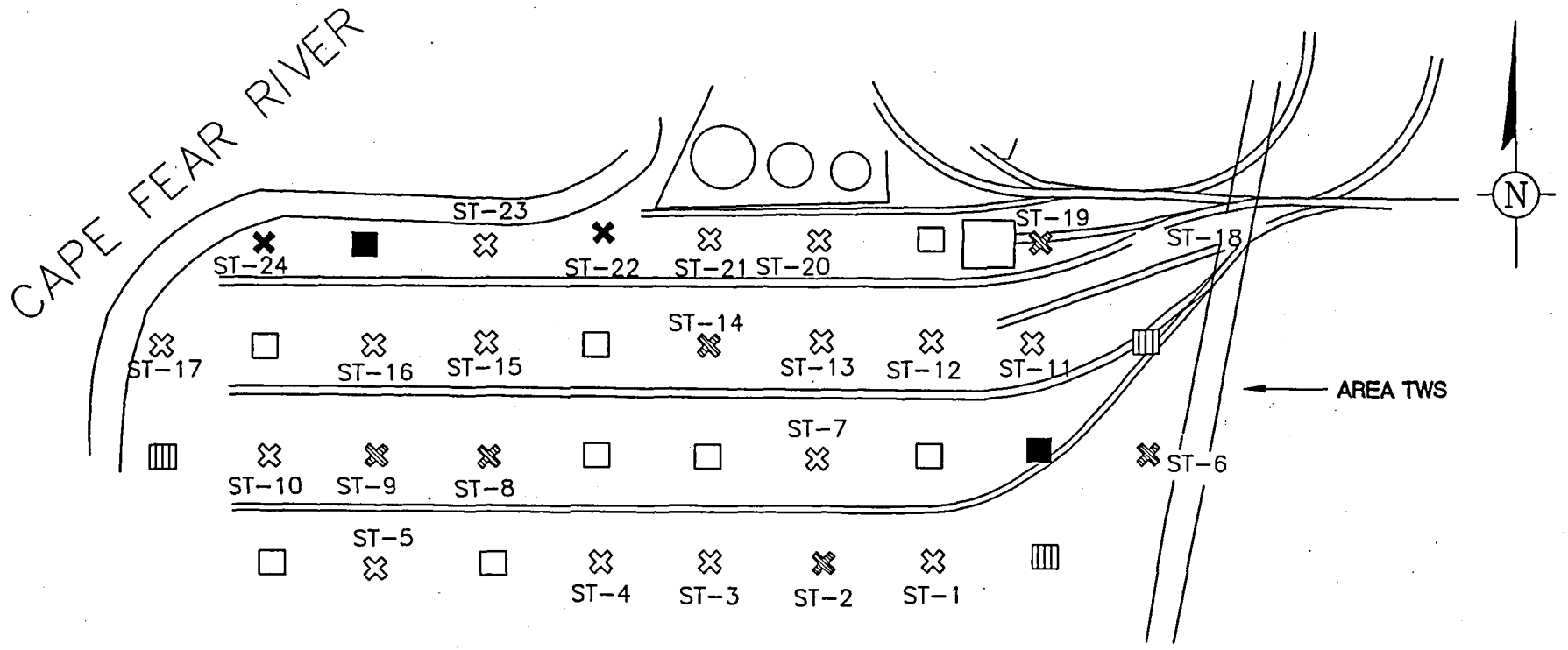


LEGEND

SOIL BORING INVESTIGATION

- NO ODOR
- FAINT ODOR
- DISCOLORED SOIL, ODOR

SOIL SAMPLING LOCATION

- NO ODOR
- FAINT ODOR
- DISCOLORED SOIL, ODOR

0 150 FT

GERAGHTY & MILLER, INC.
*Environmental Services*

SOIL BORING INVESTIGATION OBSERVATIONS FOR THE FORMER TREATED WOOD STORAGE AREA TWS

SOUTHERN WOOD PIEDMONT COMPANY
WILMINGTON, NORTH CAROLINA

FIGURE 4-6

# APPENDIX A

Field Logs

1623swp

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-1A/9362 TWS-1B/9363

Site Location Former treated wood storage area. Area A South of Production Area, NC Port Authority Area

Weather Conditions Sunny & Cool, Windy

Date 2-28-91 Time Sampling Began 13:05 Time Sampling Completed 13:15

Site Description Near dirt road leading to wooded area. ~7' from the road.

## SAMPLING DATA

Depth Sample Collected 0-6" (1A) and 12-18" (1B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 1A - light Brown to black - stoney, large stones - difficult to dig
1B - Grey to Dark grey Sand - Some stones. Water observed in borehole.

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| KOO1 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks Sampling equipment cleaned w/ distilled water & rinsed w/ distilled water prior to collecting 1A & 1B & the removal of the 6-12" layer

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-2A/9360 TWS-2B/9361

Site Location Former treated wood storage area, Area A South of Production Area. NC Port Auth. Area

Weather Conditions Sunny and Cool, Windy

Date 2-28-91 Time Sampling Began 12:15 Time Sampling Completed 12:25

Site Description Vegetation. Adjacent to tree line and (un-named) road.

### SAMPLING DATA

Depth Sample Collected 0-6" (2A) 12-18" (2B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 2A - Several holes Dark Brown to Black Sand. Sheen but no odor. Buried wood or large roots. Near trees and wooded area. Randomly selected location. 2B - light grey to Dark grey clay with some sand. Some mottles brown-orange. Water observed in borehole.

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB ☐ FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| KOD1 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks Sampling equipment cleaned w/ distilled water & microsoapt, rinsed w/ distilled water prior to collecting samples 2A & 2B and the removal of the 6-12" layer.

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-3A/9358 TWS-3B/9359

Site Location Former treated wood storage Area. Area A South of Production Area. NC Port Authority Area

Weather Conditions Sunny and Cool

Date 2-28-91 Time Sampling Began 11:10 Time Sampling Completed 11:15

Site Description Vegetation. Adjacent to R.R. tracks and (un-named) road.

### SAMPLING DATA

Depth Sample Collected 0-6" (3A) 12-18" (3B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/Sediment Description 3A - Dark Brown black sand. Very moist
3B - Black Sand - moist - saturated. Creosote observed (Sheen)

Odor: Creosote (3B) pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| K001 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment cleaned w/ distilled water and micro-soap & rinsed w/ distilled water prior to collecting samples 3A/3B and the removal of the 6-12" layer

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-4A/9356 TWS-4B/9357

Site Location Former treated wood storage area Area A South of Production Area. NC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-28-91 Time Sampling Began 10:10 Time Sampling Completed 10:15

Site Description Vegetation. South of Concrete foundation. Between R.R. tracks in middle of field. Wet Area on surface - 2" to 2½"

### SAMPLING DATA

Depth Sample Collected 0-6" (4A) 12-18" (4B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 4A - Tan to Dark Brown roots - Very moist to saturated
4B - Dark Brown to Dark grey clay - Some sand. Wood observed.

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| K001 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment was cleaned with distilled water + microsoapt rinsed w/ distilled water prior to collecting samples 4A + 4B and the removal of the 6-12" layer.

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC 09003 Site/Sample Number TWS-5A 19354 TWS-5B 19355

Site Location Former treated wood storage area. Area A South of Production Area. NC Port Authorities Area

Weather Conditions Sunny & Cool

Date 2-28-91 Time Sampling Began 9:15 Time Sampling Completed 9:20

Site Description Vegetation. Adjacent to Concrete foundation and R.R. tracks

## SAMPLING DATA

Depth Sample Collected 0-6" (5A) 12-18" (5B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 5A - Moist black roots, stoney-gravelly. hard layer to dig through
5B - Dark grey sand saturated with water

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB | ☐ FROM G&M |
|---|---|---|
| metals Cu, Cr, As | 500ml w/m plastic | |
| KOD) | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment cleaned w/ distilled water, + microsoap & rinsed w/ distilled water prior to collecting samples 5A + 5B and the removal of the 6-12" layer

Sampling Personnel P. Jacobs M. Rudecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-6A/9352 TWS-6B/9353

Site Location Former treated wood storage Area. Area A South of Production Area. NC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-28-91 Time Sampling Began 8:35 Time Sampling Completed 8:45

Site Description Vegetation. Adjacent to #8, between R.R. tracks in center of field

## SAMPLING DATA

Depth Sample Collected 0-6" (6A) 12-18" (6B)

Sampling Method and Equipment Stainless Steel Bucket Augers

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 6A - Tan to Dark Brown Moist. Some wood + roots. Water in the borehole. 6B - Gray clay. Tan sand - Very moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB | ☐ FROM G&M |
|---|---|---|
| metals Cu, Cr, As | 500ml w/m plastic | |
| KOO1 | 500ml w/m glass. | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment cleaned w/ distilled water + micro soap + rinsed w/ distilled water prior to collecting 6A + 6B and the removal of the 6-12" layer.

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-7A/ 9350 TWS-7B/ 9351

Site Location Former treated wood storage Area. Area A South of Production Area. NC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-27-91 Time Sampling Began 17:05 Time Sampling Completed 17:15

Site Description Vegetation. South of Production Area. Between R.R tracks in middle of field.

### SAMPLING DATA

Depth Sample Collected 0-6" (7A) 12-18" (7B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 7A-Light brown to Black sand. Moist
7B-Light Brown sand.-Saturated w/ water. Water observed within one inch of the surface.

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals Cu, Cr, As | 500ml wlm plastic | |
| K001 | 500ml wlm glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment was cleaned w/ distilled water/microsoap/ rinsed w/ distilled water prior to collecting samples 7A/7B and the removal of the 6-12" layer.

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NJC09003 Site/Sample Number TWS-8A/9346 TWS-8B/9347

Site Location Former treated wood Storage Area, Area A South of Production Area, NJC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-27-91 Time Sampling Began 16:15 Time Sampling Completed 16:20

Site Description Vegetation. South of wet spot-Sample area. Between R.R. tracks in middle of field

## SAMPLING DATA

Depth Sample Collected 0-6"(8A) 12-18"(8B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 8A-Upper Soil-Brown to Black, 5-6" Coarse light brown to tan sand. Moist. 8B - Tan to Brown very granular sand - Saturated w/ water

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB | ☐ FROM G&M |
|---|---|---|
| metals Cu, Cr, As | 500ml w/m plastic | |
| K001 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment was cleaned w/ distilled water & microscopt rinsed w/ distilled water prior to collecting samples 8A & 8B and the removal of the 6-12" layer.

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-9A/9348 TWS-9B/9349

Site Location Former treated wood storage area. Area A. South of Production Area. NC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-27-91 Time Sampling Began 15:45 Time Sampling Completed 15:55

Site Description Vegetation. Adjacent to tree line & RR.

### SAMPLING DATA

Depth Sample Collected 0-6" (9A) 12-18" (9B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/Sediment Description 9A - Greyish Brown Sand - Moist, water Observed
9B - Light Brown Sand - Saturated w/ water. Adjacent to a wet area.

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | X FROM LAB | FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| K001 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment was cleaned w/ distilled water & microsoap rinsed w/ distilled water prior to collecting samples 9A & 9B and the removal of the 6-12" layer

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NJC09003 Site/Sample Number TWS-10A/9344 TWS-10B/9345

Site Location Former treated wood storage area, Area A. South of Production Area. NC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-27-91 Time Sampling Began 13:45 Time Sampling Completed 13:50

Site Description Adjacent to River on North Side and R.R. tracks. Vegetation

### SAMPLING DATA

Depth Sample Collected 0-6" (10A) 12-18" (10B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 10A - Dark Brown. Some Sand
10B - Black, Very Moist. Odor. Creosote. (lumber) wood observed. removed wood from sample

Odor: Creosote (10B) pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | X FROM LAB | FROM G&M |
| metals (Cu, Cr, As | 500ml w/m plastic | |
| KO01 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment was cleaned w/ distilled water & micro soap and rinsed w/ distilled water prior to collecting samples 10A + 10B and the removal of the 6-12" layer.

Sampling Personnel P. Jacobs M. Rodecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-11A/9342 TWS-11B/9343

Site Location Former treated wood storage area. Area A. South of Production Area. NC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-27-91 Time Sampling Began 12:25 Time Sampling Completed 12:30

Site Description Adjacent to River and RR. Vegetation

## SAMPLING DATA

Depth Sample Collected 0-6" (11A) 12-18" (11B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 11A - Brown Sand. Water was observed at 6".
11B - Dark grey Sand

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☑ FROM LAB ☐ FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| KOD1 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks Sampling equipment was cleaned w/ distilled water & microsoap and rinsed w/ distilled water prior to collecting samples 11A & 11B and the removal of the 6-12" layer

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-13A/9340 TWS-13B/9341

Site Location Former treated wood storage area, Area A. South of Production Area. NC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-27-91 Time Sampling Began 11:30 Time Sampling Completed 11:35

Site Description Adjacent to treeline and RR tracks. Vegetation near River End.

### SAMPLING DATA

Depth Sample Collected 0-6" (13A) 12-18" (13B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/Sediment Description 13A-Brown greyish sand with roots, Moist
13B-Brown greyish coarse sand-Saturated, water in bottom of borehole

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| metals Cu, Cr, As | 500 ml w/m plastic |
| K001 | 500 ml w/m glass |
| | |
| | |
| | |
| | |

Remarks Sampling equipment was cleaned w/ distilled water & microsoap & rinsed w/ distilled water prior to collecting samples 13A & 13B and the removal of the 6-12" layer

Sampling Personnel P. Jacobs M. Ryderke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number TWS-12A/9338 TWS-12B/9339

Site Location Former treated wood storage area. Area A. South of Production Area NC Port Authorities Area

Weather Conditions Sunny and Cool

Date 2-27-91 Time Sampling Began 11:00 Time Sampling Completed 11:10

Site Description Near Cape Fear River. Vegetation

### SAMPLING DATA

Depth Sample Collected 0-6" (12A) 12-18" (12B)

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description 12A-Light Brown Sand. Moist
12B-Black Sand. Water Observed at bottom of borehole

Odor: faint-possibly creosote (12B) pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | X FROM LAB | FROM G&M |
| metals Cu, Cr, As | 500ml wlm plastic | |
| KOOI | 500ml wlm glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sampling equipment was cleaned w/ distilled water & microsoap & rinsed w/ distilled water prior to collecting samples 12A & 12B and the removal of the 6-12" layer.

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTA-1 / 9329

Site Location Former non treated wood storage area - Area C North of Greenfield St.

Weather Conditions Cloudy cool & windy

Date 2-26-91 Time Sampling Began _____ Time Sampling Completed 13:40

Site Description vacant lot - grass vegetation. Adjacent to tracks (RR) & greenfield St. In proximity of land farm areas

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless steel bucket auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description granular, black coloration - roots were observed

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals (Cu, Cr, As) | 500 ml w/m plastic | |
| K001 | 500 ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks _____

Sampling Personnel P. JACOBS M. RADECKE

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NJC09003 Site/Sample Number NTA-2/9330

Site Location Former non-treated wood storage area - Area C North of Greenfield Street

Weather Conditions Cloudy, Cool and Windy

Date 2-26-91 Time Sampling Began _____ Time Sampling Completed 13:50

Site Description Vacant lot - grass vegetation. Adjacent to RR tracks and Greenfield Street. In proximity of landfill areas.

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Upper inch - Black, Grey, brown coarse sand, moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| K001 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTA-3/9331

Site Location Former non-treated wood storage area-Area C North of Greenfield Street

Weather Conditions Cloudy, Cool and Windy

Date 2-26-91 Time Sampling Began _____ Time Sampling Completed 14:35

Site Description Vacant lot - grass vegetation. Adjacent to RR tracks. In proximity of landfarm areas.

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Roots and coal were observed, Granular, Black Gravel

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB | ☐ FROM G&M |
|---|---|---|
| metals Cu, Cr, As | 500 ml w/m plastic | |
| Kool | 500 ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTA-4/9332

Site Location Former non-treated wood storage area - Area C North of Greenfield Street

Weather Conditions Cloudy, Cool and Windy

Date 2-26-91 Time Sampling Began _____ Time Sampling Completed 14:40

Site Description Vacant lot - Grass Vegetation - Water on Surface, Adjacent to Hess Oil's property line and RR tracks.

**SAMPLING DATA**

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Black surface layer, Grey to light brown coarse sand. Very moist. Water was observed in the borehole.

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| KOO1 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks Sample was taken ~ 21' from Hess Oil's property line

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTA-5/9333

Site Location Former non-treated wood storage area - Area C North of Greenfield Street

Weather Conditions Cloudy, Cool and Windy

Date 2-26-91 Time Sampling Began _____ Time Sampling Completed 15:10

Site Description Vacant lot - Grass Vegetation. Adjacent to RR tracks in middle of field

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Surface - Black and Granular, lower soil - light brown and sandy. Moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB | FROM G&M |
|---|---|---|
| Metals Cu, Cr, As | 500ml w/m plastic | |
| KOD1 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTA-6/9334

Site Location Former non-treated wood storage area - Area C North of Greenfield Street

Weather Conditions Cloudy, Cool and Windy

Date 2-26-91 Time Sampling Began _____ Time Sampling Completed 15:10

Site Description Vacant lot - Grass Vegetation, Adjacent to RR tracks in middle of field

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/Sediment Description Surface - Black Granular, lower depth was Grey and Sandy. Moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | X FROM LAB | FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| KOD | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NJC09003 Site/Sample Number NTA-7/9335

Site Location Former non-treated wood storage area - Area C North of Greenfield Street

Weather Conditions Cloudy, Cool and Windy

Date 2-26-91 Time Sampling Began _____ Time Sampling Completed 16:05

Site Description Vacant lot - Grass Vegetation, Adjacent to tracks (RR) in middle of the North End

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Coal, Unidentified hard material that appears to be pieces of rock. Orange gravel, Grey to Black, Granular, Very Moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB ☐ FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| KOD1 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks _____

Sampling Personnel P. Jacobs M. Rodecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTA-8/9336

Site Location Former non-treated wood storage area - Area C. North of Greenfield Street

Weather Conditions Cloudy, Cool and Windy

Date 2-26-91 Time Sampling Began _____ Time Sampling Completed 16:05

Site Description Vacant lot - Grass Vegetation - Very wet Area. Adjacent to Hess Oil's property line.

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Observed roots, Grey to Black friable and Sandy

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| K001 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTA-91 9337

Site Location Former non-treated wood storage Area - Area C. North of Greenfield Street

Weather Conditions Cloudy, Cool and Windy

Date 2.26.91 Time Sampling Began _____ Time Sampling Completed 16:35

Site Description Vacant lot - Grass Vegetation. Adjacent to RR tracks and near Greenfield Street on NE side of sampling area

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Coarse light brown sand, very moist. Brown to Black hard material. Coal was observed on the surface

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| K001 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks _____

Sampling Personnel P. Jacobs M. Pardecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NJC09003 Site/Sample Number NTB-1/9:370

Site Location Former non-treated wood storage area- Area B. South of Greenfield Street

Weather Conditions Sunny, windy and cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 9:40

Site Description Grass Vegetation. SW corner of Area B next to un-named road and RR track.

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Dark brown organic matter, roots, some sand.

Odor: faint pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| K001 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-10/9374

Site Location Former non-treated wood storage area, Area B South of Greenfield Street

Weather Conditions Sunny, Windy and Cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 10:45

Site Description Wet Area, Vegetation, Adjacent to RR track. North and West of Ditch.

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Black Surface layer, Brown to Tan lower soil layer. Sandy. Water Saturated layer. Roots observed.

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml n/m plastic |
| KOOI | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks Water observed in Borehole

Sampling Personnel P. Jacobs M. Rodecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NJ C09003 Site/Sample Number NTB-12/9375
NTB-12A/9375

Site Location Former non-treated wood storage area
Area B. South of Greenfield St.

Weather Conditions Sunny, Windy and Cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 11:15

Site Description Water on Surface greater than 1' (High tide) Vegetation.
SE corner. West of Ditch

### SAMPLING DATA

Depth Sample Collected 0 - 6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Clayey Brown to Black roots - Very Saturated

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M. |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| KOD | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks Several attempts made to sample. Both samples placed in one container

Sampling Personnel P. Jacobs M. Rodecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-11/9373

Site Location Former non-treated wood storage area - Area B South of Greenfield Street.

Weather Conditions Sunny, Windy and Cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 10:50

Site Description Vegetation. Direction East of Abandoned Bldg. Adjacent to RR tracks

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Tan, Brown ~~to~~ pdj and Black moist sand

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | X FROM LAB | FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| K001 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-919372

Site Location Former non-treated wood storage area- Area B South of Greenfield Street

Weather Conditions Sunny, Windy and Cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 10:15

Site Description Grass Vegetation. Adjacent to Greenfield Street and RR track. ~~middle of field~~ (East Side of Bldg.)

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Many Stones. Brown to Grey. Moist. Hard layer to dig through

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| KC01 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks _____

Sampling Personnel R. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NJC09003 Site/Sample Number NTB-819371

Site Location Former non-treated wood storage area-Area B South of Greenfield Street

Weather Conditions Sunny, Windy and Cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 10:15

Site Description Grass Vegetation. Adjacent to Eastside of Abandoned Bldg and RR tracks.

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Moist dark brown, orange to grey layer ~4" deep. Grey gravel and soil. Roots and stones observed

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION | |
|---|---|---|
| | [X] FROM LAB | [ ] FROM G&M |
| metals Cu, Cr, As | 500ml w/m plastic | |
| K001 | 500ml w/m glass | |
| | | |
| | | |
| | | |
| | | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-4/9369

Site Location Former non-treated wood storage area-Area B South of Greenfield Street

Weather Conditions Sunny, windy and cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 9:35

Site Description Grass Vegetation Adjacent to RR tracks. East of Production Area and North of Ditch.

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Dark Brown organic matter. Moist. Sandy. Sandy layer below 6"

Odor: faint pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| Metals Cu, Cr, As | 500ml w/m plastic |
| K001 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks possible creosote

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NJC09003 Site/Sample Number NTB-619365

Site Location Former non-treated wood storage area - Area B South of Greenfield Street

Weather Conditions Sunny, Warm and Windy

Date 2-28-91 Time Sampling Began _____ Time Sampling Completed 17:30

Site Description Sample taken on West side of building adjacent to RR tracks. Grass Vegetation.

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Brown Sandy soil Moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB ☐ FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| KO01 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-7/9.366

Site Location Former non-treated wood storage area-Area B South of Greenfield Street

Weather Conditions Sunny, Warm and Windy

Date 2-28-91 Time Sampling Began _____ Time Sampling Completed 17:30

Site Description Grass Vegetation, Adjacent to Greenfield St. and RR tracks (West side of bldg)

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Upper Soil Tan with some black (upper inch) Sandy and Moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION ☒ FROM LAB ☐ FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| K001 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
## SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-13/9.3/6

Site Location Former non-treated wood storage area - Area B. South of Greenfield Street

Weather Conditions Sunny, windy and cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 11:40

Site Description Vegetation. Water on Surface, less than 1'. Behind (South) of house. North of Ditch. West of Atlantic Coast Line RR.

### SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Brown to Grey clay - orange and brown spots - Saturated.

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| Metals Cu, Cr, As | 500ml n/m plastic |
| KEDI | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks Two attempts were made to collect Sample

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-319364

Site Location Former non-treated wood storage Area - Area B South of Greenfield Street

Weather Conditions Sunny, warm and windy

Date 2-28-91 Time Sampling Began _____ Time Sampling Completed 17:10

Site Description Lot has 1 abandoned building. Plowed. Adjacent to RR tracks and Greenfield Street

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Soil was clayey with some sand. Greenish brown with grey. Moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| K001 | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-2/9367

Site Location Former non-treated wood storage area-Area B South of Greenfield Street

Weather Conditions Sunny, windy and cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 9:15

Site Description Grass Vegetation. Adjacent to road (un-named) and RR tracks. West of Bldg.

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Tan to Dark Brown slightly moist sand Some roots and wood were observed

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| KOC | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# GERAGHTY & MILLER
# SOIL/SEDIMENT SAMPLING LOG

Project/Number NC09003 Site/Sample Number NTB-519368

Site Location Former non-treated wood storage area - Area B South of Greenfield Street.

Weather Conditions Sunny, windy and cool

Date 3-1-91 Time Sampling Began _____ Time Sampling Completed 9:15

Site Description Grass Vegetation. Adjacent to RR, In middle of field, SW direction from abandoned bldg.

## SAMPLING DATA

Depth Sample Collected 0-6"

Sampling Method and Equipment Stainless Steel Bucket Auger

Collection Mode: Grab/~~Composite~~

Soil/~~Sediment~~ Description Organic matter on surface - roots Tan to light Brown Sand. Moist

Odor: N/A pH: N/A

Sample Monitoring (TIP, OVA, HNU, etc) N/A

| ANALYSES REQUIRED | CONTAINER DESCRIPTION [X] FROM LAB [ ] FROM G&M |
|---|---|
| metals Cu, Cr, As | 500ml w/m plastic |
| KOC | 500ml w/m glass |
| | |
| | |
| | |
| | |

Remarks _____

Sampling Personnel P. Jacobs M. Radecke

# APPENDIX B

Analytical Laboratory Reports and Chain-of-Custody Forms

1623swp

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

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RECEIVED
MAR 14 1991
G & M RALEIGH

LOG NO: S1-30896

Received: 27 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30896-1 | NTA-1 (# 9329) 2-26-91 | Client |
| 30896-2 | NTA-2 (# 9330) 2-26-91 | |
| 30896-3 | NTA-3 (# 9331) 2-26-91 | |
| 30896-4 | NTA-4 (# 9332) 2-26-91 | |
| 30896-5 | NTA-5 (# 9333) 2-26-91 | |

| PARAMETER | 30896-1 | 30896-2 | 30896-3 | 30896-4 | 30896-5 |
|---|---|---|---|---|---|
| K001 (Method 8270) | | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | ND | 0.66 | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthylene, mg/kg dw | ND | ND | ND | ND | ND |
| Phenanthrene, mg/kg dw | 0.82 | ND | 1.0 | ND | 0.42 |
| Anthracene, mg/kg dw | 0.77 | ND | 0.79 | ND | 0.36 |
| Fluoranthene, mg/kg dw | 2.5 | 4.0 | 2.4 | 0.52 | 1.5 |
| Chrysene, mg/kg dw | 1.7 | 2.7 | 1.7 | ND | 0.93 |
| Benzo(a)Anthracene, mg/kg dw | 1.2 | 1.6 | 1.1 | ND | 0.57 |
| Benzo(b,k)fluoranthene, mg/kg dw | 4.1 | 5.9 | 4.1 | 0.80 | 2.2 |
| Benzo(a)pyrene, mg/kg dw | 1.0 | 1.1 | 1.0 | ND | 0.41 |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | 0.68 | 0.66 | 0.85 | ND | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | ND | ND | ND | ND |
| Carbazole, mg/kg dw | ND | 0.54 | 0.49 | ND | ND |
| Dilution factor | 1 | 1 | 1 | 1 | 1 |

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& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30896

Received: 27 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30896-1 | NTA-1 (# 9329) 2-26-91 | Client |
| 30896-2 | NTA-2 (# 9330) 2-26-91 | |
| 30896-3 | NTA-3 (# 9331) 2-26-91 | |
| 30896-4 | NTA-4 (# 9332) 2-26-91 | |
| 30896-5 | NTA-5 (# 9333) 2-26-91 | |

| PARAMETER | 30896-1 | 30896-2 | 30896-3 | 30896-4 | 30896-5 |
|---|---|---|---|---|---|
| Arsenic, mg/kg dw | 11 | 1.8 | 30 | 2.8 | 7.1 |
| Chromium, mg/kg dw | 8.4 | 3.8 | 15 | 5.1 | 4.7 |
| Copper, mg/kg dw | 72 | 11 | 300 | 4.5 | 56 |
| Percent Solids, % | 73 | 75 | 76 | 83 | 82 |

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Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30896-6 | NTA-6 (# 9334) 2-26-91 | Client |
| 30896-7 | NTA-7 (# 9335) 2-26-91 | |
| 30896-8 | NTA-8 (# 9336) 2-26-91 | |
| 30896-9 | NTA-9 (# 9337) 2-26-91 | |

| PARAMETER | 30896-6 | 30896-7 | 30896-8 | 30896-9 |
|---|---|---|---|---|
| K001 (Method 8270) | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | 0.99 | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | ND | ND |
| Acenaphthylene, mg/kg dw | ND | ND | 0.48 | ND |
| Phenanthrene, mg/kg dw | 0.44 | 1.1 | 0.47 | ND |
| Anthracene, mg/kg dw | 0.55 | 1.1 | 0.95 | ND |
| Fluoranthene, mg/kg dw | 1.3 | 1.7 | 2.0 | ND |
| Chrysene, mg/kg dw | 0.93 | 1.5 | 1.7 | ND |
| Benzo(a)Anthracene, mg/kg dw | 0.47 | 0.97 | 1.5 | ND |
| Benzo(b,k)fluoranthene, mg/kg dw | ND | 1.7 | 2.9 | ND |
| Benzo(a)pyrene, mg/kg dw | ND | 0.77 | 1.3 | ND |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | ND | ND | 0.58 | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | ND | ND | ND |
| Carbazole, mg/kg dw | ND | 1.1 | 1.0 | ND |
| Dilution factor | 1 | 1 | 1 | 1 |

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CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30896-6 | NTA-6 (# 9334) 2-26-91 | Client |
| 30896-7 | NTA-7 (# 9335) 2-26-91 | |
| 30896-8 | NTA-8 (# 9336) 2-26-91 | |
| 30896-9 | NTA-9 (# 9337) 2-26-91 | |

| PARAMETER | 30896-6 | 30896-7 | 30896-8 | 30896-9 |
|---|---|---|---|---|
| Arsenic, mg/kg dw | 25 | 63 | 10 | 54 |
| Chromium, mg/kg dw | 4.3 | 13 | 5.9 | 8.9 |
| Copper, mg/kg dw | 51 | 240 | 7.8 | 8.8 |
| Percent Solids, % | 82 | 62 | 78 | 82 |

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P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30896-10 | Rinse Blank (2-26-91) | Client |
| 30896-11 | Field Blank (2-26-91) | |

| PARAMETER | 30896-10 | 30896-11 |
|---|---|---|
| K001 (Method 8270) | | |
| 2-Chlorophenol, mg/l | ND | ND |
| Phenol, mg/l | ND | ND |
| 2,4-Dimethylphenol, mg/l | ND | ND |
| Trichlorophenols, mg/l | ND | ND |
| p-Chloro-m-cresol, mg/l | ND | ND |
| Tetrachlorophenols, mg/l | ND | ND |
| 2,4-Dinitrophenol, mg/l | ND | ND |
| Pentachlorophenol, mg/l | ND | ND |
| Naphthalene, mg/l | ND | ND |
| Acenaphthene, mg/l | ND | ND |
| Acenaphthylene, mg/l | ND | ND |
| Phenanthrene, mg/l | ND | ND |
| Anthracene, mg/l | ND | ND |
| Fluoranthene, mg/l | ND | ND |
| Chrysene, mg/l | ND | ND |
| Benzo(a)Anthracene, mg/l | ND | ND |
| Benzo(b,k)fluoranthene, mg/l | ND | ND |
| Benzo(a)pyrene, mg/l | ND | ND |
| Indeno(1,2,3-cd)pyrene, mg/l | ND | ND |
| Dibenzo(a,h)anthracene, mg/l | ND | ND |
| Carbazole, mg/l | ND | ND |
| Dilution factor | 1 | 1 |
| Arsenic, mg/l | ND | ND |
| Chromium, mg/l | ND | ND |

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Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30896-10 | Rinse Blank (2-26-91) | Client |
| 30896-11 | Field Blank (2-26-91) | |

| PARAMETER | 30896-10 | 30896-11 |
|---|---|---|
| Copper, mg/l | ND | ND |

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Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | SAMPLED BY |
|---|---|---|
| 30896-12 | Detection Limits - Soil | Client |
| 30896-13 | Accuracy (mean % recovery) - Soil | |
| 30896-14 | Precision (% RPD) - Soil | |

| PARAMETER | 30896-12 | 30896-13 | 30896-14 |
|---|---|---|---|
| K001 (Method 8270) | | | |
| 2-Chlorophenol, mg/kg dw | 0.33 | 87 % | 15 % |
| Phenol, mg/kg dw | 0.33 | 86 % | 14 % |
| 2,4-Dimethylphenol, mg/kg dw | 0.33 | 91 % | 19 % |
| Trichlorophenols, mg/kg dw | 0.33 | 91 % | 18 % |
| p-Chloro-m-cresol, mg/kg dw | 0.33 | 91 % | 19 % |
| Tetrachlorophenols, mg/kg dw | 0.33 | 102 % | 15 % |
| 2,4-Dinitrophenol, mg/kg dw | 1.7 | 43 % | 12 % |
| Pentachlorophenol, mg/kg dw | 1.7 | 67 % | 7.5 % |
| Naphthalene, mg/kg dw | 0.33 | 87 % | 15 % |
| Acenaphthene, mg/kg dw | 0.33 | 76 % | 16 % |
| Acenaphthylene, mg/kg dw | 0.33 | 85 % | 15 % |
| Phenanthrene, mg/kg dw | 0.33 | 80 % | 13 % |
| Anthracene, mg/kg dw | 0.33 | 80 % | 13 % |
| Fluoranthene, mg/kg dw | 0.33 | 89 % | 17 % |
| Chrysene, mg/kg dw | 0.33 | 70 % | 11 % |
| Benzo(a)Anthracene, mg/kg dw | 0.33 | 75 % | 13 % |
| Benzo(b,k)fluoranthene, mg/kg dw | 0.33 | 77 % | 18 % |
| Benzo(a)pyrene, mg/kg dw | 0.33 | 85 % | 19 % |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | 0.33 | 102 % | 15 % |
| Dibenzo(a,h)anthracene, mg/kg dw | 0.33 | 106 % | 17 % |
| Carbazole, mg/kg dw | 0.33 | 115 % | 17 % |
| Arsenic, mg/kg dw | 1.0 | 106 % | 1.9 % |
| Chromium, mg/kg dw | 1.0 | 82 % | 2.4 % |

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& ENVIRONMENTAL SERVICES, INC.

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LOG NO: S1-30896

Received: 27 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | SAMPLED BY |
|---|---|---|
| 30896-12 | Detection Limits - Soil | Client |
| 30896-13 | Accuracy (mean % recovery) - Soil | |
| 30896-14 | Precision (% RPD) - Soil | |

| PARAMETER | 30896-12 | 30896-13 | 30896-14 |
|---|---|---|---|
| Copper, mg/kg dw | 2.5 | 85 % | 2.4 % |

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LOG NO: S1-30896

Received: 27 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , REPORT FOR LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30896-15 | Detection Limits | Client |

| PARAMETER | 30896-15 |
|---|---|
| K001 (Method 8270) | |
| 2-Chlorophenol, mg/l | 0.010 |
| Phenol, mg/l | 0.010 |
| 2,4-Dimethylphenol, mg/l | 0.010 |
| Trichlorophenols, mg/l | 0.010 |
| p-Chloro-m-cresol, mg/l | 0.010 |
| Tetrachlorophenols, mg/l | 0.010 |
| 2,4-Dinitrophenol, mg/l | 0.050 |
| Pentachlorophenol, mg/l | 0.050 |
| Naphthalene, mg/l | 0.010 |
| Acenaphthene, mg/l | 0.010 |
| Acenaphthylene, mg/l | 0.010 |
| Phenanthrene, mg/l | 0.010 |
| Anthracene, mg/l | 0.010 |
| Fluoranthene, mg/l | 0.010 |
| Chrysene, mg/l | 0.010 |
| Benzo(a)Anthracene, mg/l | 0.010 |
| Benzo(b,k)fluoranthene, mg/l | 0.010 |
| Benzo(a)pyrene, mg/l | 0.010 |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.010 |
| Dibenzo(a,h)anthracene, mg/l | 0.010 |
| Carbazole, mg/l | 0.010 |

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30896

Received: 27 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , REPORT FOR LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30896-16 | Report Completion Date | Client |

| PARAMETER | 30896-16 |
|---|---|
| Date Reported | 03.08.91 |

Methods: EPA SW-846
ND = Not Detected

J. W. Andrews

J. W. Andrews, Ph. D.

GERAGHTY & MILLER, INC.
*Environmental Services*

Laboratory Task Order No. N/a

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number NC09003

Project Location Wilmington, NC

Laboratory Savannah Laboratories

Sampler(s)/Affiliation P. JACOBS (G&M)
M. RADESKE (G&M)

SAMPLE BOTTLE / CONTAINER DESCRIPTION

| SAMPLE IDENTITY | Code | Date/Time Sampled | Lab ID | 500ml w/m glass 4°C KOOL | 500 ml w/m plastic 4°C metals Cu, Cr, As | 1 Liter amber glass 4°C KOOL | 500 ml plastic 4°C metals Cu, Cr, As HNO3 | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NTA-1/9329 | S | 2-26-91 13:40 | | 1 | 1 | | | | | | | | 2 |
| NTA-2/9330 | S | 2-26-91 13:50 | | 1 | 1 | | | | | | | | 2 |
| NTA-3/9331 | S | 2-26-91 14:35 | | 1 | 1 | | | | | | | | 2 |
| NTA-4/9332 | S | 2-26-91 14:40 | | 1 | 1 | | | | | | | | 2 |
| NTA-5/9333 | S | 2-26-91 15:10 | | 1 | 1 | | | | | | | | 2 |
| NTA-6/9334 | S | 2-26-91 15:10 | | 1 | 1 | | | | | | | | 2 |
| NTA-7/9335 | S | 2-26-91 16:05 | | 1 | 1 | | | | | | | | 2 |
| NTA-8/9336 | S | 2-26-91 16:05 | | 1 | 1 | | | | | | | | 2 |
| NTA-9/9337 | S | 2-26-91 16:35 | | 1 | 1 | | | | | | | | 2 |
| RB-1 | L | 2-26-91 15:45 | | | | 1 | 1 | | | | | | 2 |
| FB-1 | L | 2-26-91 15:45 | | | | 1 | 1 | | | | | | 2 |
| | | | | | | | | | | | | | |
| 30896 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 22

Relinquished by: [signature] Organization: Geraghty & Miller, Inc. 2-26-91 19:00
Received by: Sandra Johnson Organization: SAVANNAH LABS Date 2/27/91 Time 9:30
Seal Intact? (Yes) No N/A

Relinquished by: Organization:
Received by: Organization: Date / / Time
Seal Intact? Yes No N/A

Special Instructions/Remarks:

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express ☐ Lab Courier ☐ Other

SL SAVANNAH LABORATORIES
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5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

RECEIVED MAR 13 1991

LOG NO: S1-30925

Received: 28 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-1 | TWS-9B (# 9349) 2-27-91 | Client |
| 30925-2 | TWS-9A (# 9348) 2-27-91 | |
| 30925-3 | TWS-8B (# 9347) 2-27-91 | |
| 30925-4 | TWS-8A (# 9346) 2-27-91 | |
| 30925-5 | TWS-7B (# 9351) 2-27-91 | |

| PARAMETER | 30925-1 | 30925-2 | 30925-3 | 30925-4 | 30925-5 |
|---|---|---|---|---|---|
| K001 (Method 8270) | | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthylene, mg/kg dw | ND | ND | ND | ND | ND |
| Phenanthrene, mg/kg dw | ND | ND | ND | 0.74 | ND |
| Anthracene, mg/kg dw | ND | ND | ND | 1.2 | ND |
| Fluoranthene, mg/kg dw | ND | 1.3 | ND | 3.6 | ND |
| Chrysene, mg/kg dw | ND | 0.89 | ND | 2.5 | ND |
| Benzo(a)Anthracene, mg/kg dw | ND | ND | ND | 1.2 | ND |
| Benzo(b,k)fluoranthene, mg/kg dw | ND | 2.0 | ND | 4.9 | ND |
| Benzo(a)pyrene, mg/kg dw | ND | ND | ND | 0.89 | ND |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | ND | ND | ND | 0.64 | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | ND | ND | ND | ND |
| Carbazole, mg/kg dw | ND | ND | ND | 0.74 | ND |
| Dilution factor | 1 | 1 | 1 | 1 | 1 |

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5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30925

Received: 28 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-1 | TWS-9B (# 9349) 2-27-91 | Client |
| 30925-2 | TWS-9A (# 9348) 2-27-91 | |
| 30925-3 | TWS-8B (# 9347) 2-27-91 | |
| 30925-4 | TWS-8A (# 9346) 2-27-91 | |
| 30925-5 | TWS-7B (# 9351) 2-27-91 | |

| PARAMETER | 30925-1 | 30925-2 | 30925-3 | 30925-4 | 30925-5 |
|---|---|---|---|---|---|
| Arsenic, mg/kg dw | ND | ND | ND | 1.9 | ND |
| Chromium, mg/kg dw | 2.2 | 4.1 | 1.2 | 3.4 | 3.2 |
| Copper, mg/kg dw | 4.4 | 3.3 | ND | 4.4 | ND |
| Percent Solids, % | 80 | 80 | 85 | 79 | 77 |

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Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-6 | TWS-7A (# 9350) 2-27-91 | Client |
| 30925-7 | TWS-10A (# 9344) 2-27-91 | |
| 30925-8 | TWS-10B (# 9345) 2-27-91 | |
| 30925-9 | TWS-11A (# 9342) 2-27-91 | |
| 30925-10 | TWS-11B (# 9343) 2-27-91 | |

| PARAMETER | 30925-6 | 30925-7 | 30925-8 | 30925-9 | 30925-10 |
|---|---|---|---|---|---|
| K001 (Method 8270) | | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | 2.8 | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | 0.87 | ND | ND | ND |
| Acenaphthene, mg/kg dw | ND | 0.93 | 2000 | ND | ND |
| Acenaphthylene, mg/kg dw | 0.50 | 2.5 | ND | 0.46 | ND |
| Phenanthrene, mg/kg dw | 0.73 | 4.2 | 4000 | 0.43 | ND |
| Anthracene, mg/kg dw | 1.2 | 14 | 2200 | 1.2 | ND |
| Fluoranthene, mg/kg dw | 4.2 | 33 | 3700 | 4.9 | 0.43 |
| Chrysene, mg/kg dw | 3.6 | 27 | 740 | 4.0 | 0.49 |
| Benzo(a)Anthracene, mg/kg dw | 2.4 | 23 | 800 | 2.9 | ND |
| Benzo(b,k)fluoranthene, mg/kg dw | 7.4 | 60 | 690 | 2.7 | 1.0 |
| Benzo(a)pyrene, mg/kg dw | 1.6 | 17 | 290 | 1.6 | ND |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | 1.0 | 7.2 | 88 | 0.68 | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | 2.4 | ND | ND | ND |
| Carbazole, mg/kg dw | 0.90 | 3.4 | 390 | 0.93 | ND |
| Dilution factor | 1 | 5 | 200 | 1 | 1 |

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5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30925

Received: 28 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-6 | TWS-7A (# 9350) 2-27-91 | Client |
| 30925-7 | TWS-10A (# 9344) 2-27-91 | |
| 30925-8 | TWS-10B (# 9345) 2-27-91 | |
| 30925-9 | TWS-11A (# 9342) 2-27-91 | |
| 30925-10 | TWS-11B (# 9343) 2-27-91 | |

| PARAMETER | 30925-6 | 30925-7 | 30925-8 | 30925-9 | 30925-10 |
|---|---|---|---|---|---|
| Arsenic, mg/kg dw | 2.7 | 1.3 | 6.1 | 31 | 2.2 |
| Chromium, mg/kg dw | 5.3 | 2.7 | 4.2 | 11 | 3.7 |
| Copper, mg/kg dw | 3.8 | 17 | 110 | 15 | ND |
| Percent Solids, % | 75 | 80 | 50 | 78 | 79 |

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Received: 28 FEB 91

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P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-11 | TWS-12A (# 9338) 2-27-91 | Client |
| 30925-12 | TWS-12B (# 9339) 2-27-91 | |
| 30925-13 | TWS-13A (# 9340) 2-27-91 | |
| 30925-14 | TWS-13B (# 9341) 2-27-91 | |

| PARAMETER | 30925-11 | 30925-12 | 30925-13 | 30925-14 |
|---|---|---|---|---|
| K001 (Method 8270) | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | ND | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | ND | ND |
| Acenaphthylene, mg/kg dw | ND | ND | ND | ND |
| Phenanthrene, mg/kg dw | ND | ND | ND | ND |
| Anthracene, mg/kg dw | ND | ND | ND | ND |
| Fluoranthene, mg/kg dw | ND | 42 | 0.66 | ND |
| Chrysene, mg/kg dw | ND | 19 | ND | ND |
| Benzo(a)Anthracene, mg/kg dw | ND | 12 | ND | ND |
| Benzo(b,k)fluoranthene, mg/kg dw | ND | 30 | ND | ND |
| Benzo(a)pyrene, mg/kg dw | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | ND | ND | ND |
| Carbazole, mg/kg dw | ND | ND | ND | ND |
| Dilution factor | 1 | 1 | 1 | 1 |

SL SAVANNAH LABORATORIES
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Ms. Sandra Watson
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Spartanburg, SC 29304

CC: Mark Radecke

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-11 | TWS-12A (# 9338) 2-27-91 | Client |
| 30925-12 | TWS-12B (# 9339) 2-27-91 | |
| 30925-13 | TWS-13A (# 9340) 2-27-91 | |
| 30925-14 | TWS-13B (# 9341) 2-27-91 | |

| PARAMETER | 30925-11 | 30925-12 | 30925-13 | 30925-14 |
|---|---|---|---|---|
| Arsenic, mg/kg dw | ND | 1.6 | 1.8 | ND |
| Chromium, mg/kg dw | 2.7 | 6.0 | 5.2 | 1.8 |
| Copper, mg/kg dw | ND | 4.2 | ND | ND |
| Percent Solids, % | 92 | 87 | 77 | 81 |

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Ms. Sandra Watson
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P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-15 | Rinse Blank (2-27-91) | Client |
| 30925-16 | Field Blank (2-27-91) | |

| PARAMETER | 30925-15 | 30925-16 |
|---|---|---|
| K001 (Method 8270) | | |
| 2-Chlorophenol, mg/l | ND | ND |
| Phenol, mg/l | ND | ND |
| 2,4-Dimethylphenol, mg/l | ND | ND |
| Trichlorophenols, mg/l | ND | ND |
| p-Chloro-m-cresol, mg/l | ND | ND |
| Tetrachlorophenols, mg/l | ND | ND |
| 2,4-Dinitrophenol, mg/l | ND | ND |
| Pentachlorophenol, mg/l | ND | ND |
| Naphthalene, mg/l | ND | ND |
| Acenaphthene, mg/l | ND | ND |
| Acenaphthylene, mg/l | ND | ND |
| Phenanthrene, mg/l | ND | ND |
| Anthracene, mg/l | ND | ND |
| Fluoranthene, mg/l | ND | ND |
| Chrysene, mg/l | ND | ND |
| Benzo(a)Anthracene, mg/l | ND | ND |
| Benzo(b,k)fluoranthene, mg/l | ND | ND |
| Benzo(a)pyrene, mg/l | ND | ND |
| Indeno(1,2,3-cd)pyrene, mg/l | ND | ND |
| Dibenzo(a,h)anthracene, mg/l | ND | ND |
| Carbazole, mg/l | ND | ND |
| Dilution factor | 1 | 1 |
| Arsenic, mg/l | ND | ND |
| Chromium, mg/l | ND | ND |

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LOG NO: S1-30925

Received: 28 FEB 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-15 | Rinse Blank (2-27-91) | Client |
| 30925-16 | Field Blank (2-27-91) | |

| PARAMETER | 30925-15 | 30925-16 |
|---|---|---|
| Copper, mg/l | ND | ND |

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LOG NO: S1-30925

Received: 28 FEB 91

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Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | SAMPLED BY |
|---|---|---|
| 30925-17 | Detection Limits - Soil | Client |
| 30925-18 | Accuracy (mean % recovery) - Soil | |
| 30925-19 | Precision (% RPD) - Soil | |

| PARAMETER | 30925-17 | 30925-18 | 30925-19 |
|---|---|---|---|
| K001 (Method 8270) | | | |
| 2-Chlorophenol, mg/kg dw | 0.33 | 94 % | 4.3 % |
| Phenol, mg/kg dw | 0.33 | 89 % | 5.1 % |
| 2,4-Dimethylphenol, mg/kg dw | 0.33 | 81 % | 11 % |
| Trichlorophenols, mg/kg dw | 0.33 | 87 % | 4.6 % |
| p-Chloro-m-cresol, mg/kg dw | 0.33 | 101 % | 2.0 % |
| Tetrachlorophenols, mg/kg dw | 0.33 | 111 % | 0.9 % |
| 2,4-Dinitrophenol, mg/kg dw | 1.7 | 78 % | 1.3 % |
| Pentachlorophenol, mg/kg dw | 1.7 | 26 % | 7.7 % |
| Naphthalene, mg/kg dw | 0.33 | 92 % | 1.1 % |
| Acenaphthene, mg/kg dw | 0.33 | 79 % | 0 % |
| Acenaphthylene, mg/kg dw | 0.33 | 88 % | 1.1 % |
| Phenanthrene, mg/kg dw | 0.33 | 87 % | 2.3 % |
| Anthracene, mg/kg dw | 0.33 | 86 % | 2.3 % |
| Fluoranthene, mg/kg dw | 0.33 | 98 % | 0 % |
| Chrysene, mg/kg dw | 0.33 | 78 % | 1.3 % |
| Benzo(a)Anthracene, mg/kg dw | 0.33 | 81 % | 0 % |
| Benzo(b,k)fluoranthene, mg/kg dw | 0.33 | 85 % | 2.4 % |
| Benzo(a)pyrene, mg/kg dw | 0.33 | 90 % | 4.4 % |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | 0.33 | 111 % | 4.5 % |
| Dibenzo(a,h)anthracene, mg/kg dw | 0.33 | 113 % | 3.5 % |
| Carbazole, mg/kg dw | 0.33 | 123 % | 0.8 % |
| Arsenic, mg/kg dw | 1.0 | 124 % | 8.5 % |
| Chromium, mg/kg dw | 1.0 | 101 % | 13 % |

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CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | SAMPLED BY |
|---|---|---|
| 30925-17 | Detection Limits - Soil | Client |
| 30925-18 | Accuracy (mean % recovery) - Soil | |
| 30925-19 | Precision (% RPD) - Soil | |

| PARAMETER | 30925-17 | 30925-18 | 30925-19 |
|---|---|---|---|
| Copper, mg/kg dw | 2.5 | 86 % | 7.0 |

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Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , REPORT FOR LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-20 | Detection Limits | Client |

| PARAMETER | 30925-20 |
|---|---|
| K001 (Method 8270) | |
| 2-Chlorophenol, mg/l | 0.010 |
| Phenol, mg/l | 0.010 |
| 2,4-Dimethylphenol, mg/l | 0.010 |
| Trichlorophenols, mg/l | 0.010 |
| p-Chloro-m-cresol, mg/l | 0.010 |
| Tetrachlorophenols, mg/l | 0.010 |
| 2,4-Dinitrophenol, mg/l | 0.050 |
| Pentachlorophenol, mg/l | 0.050 |
| Naphthalene, mg/l | 0.010 |
| Acenaphthene, mg/l | 0.010 |
| Acenaphthylene, mg/l | 0.010 |
| Phenanthrene, mg/l | 0.010 |
| Anthracene, mg/l | 0.010 |
| Fluoranthene, mg/l | 0.010 |
| Chrysene, mg/l | 0.010 |
| Benzo(a)Anthracene, mg/l | 0.010 |
| Benzo(b,k)fluoranthene, mg/l | 0.010 |
| Benzo(a)pyrene, mg/l | 0.010 |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.010 |
| Dibenzo(a,h)anthracene, mg/l | 0.010 |
| Carbazole, mg/l | 0.010 |

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Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , REPORT FOR LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30925-21 | Report Completion Date | Client |

| PARAMETER | 30925-21 |
|---|---|
| Date Reported | 03.07.91 |

Methods: EPA SW-846
ND = Not Detected

J. W. Andrews

J. W. Andrews, Ph. D.

GERAGHTY & MILLER, INC.
Environmental Services

Laboratory Task Order No. N7A

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number NC09203

Project Location Wilmington, N.C.

Laboratory Savannah Labs

Sampler(s)/Affiliation P. Jacobs (G&M)
M. Bodecke (G&M)

| SAMPLE IDENTITY | Code | Date/Time Sampled | Lab ID | 500mL w/m plastic metals (Cd, Cr, As) 4oC | 500mL w/m glass KOH 4oC | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TWS-9B/9349 | S | 2-27-91 15:55 | | 1 | 1 | | | | | | | | 2 |
| TWS-9A/9348 | S | 2-27-91 15:45 | | 1 | 1 | | | | | | | | 2 |
| TWS-8B/9347 | S | 2-27-91 16:20 | | 1 | 1 | | | | | | | | 2 |
| TWS-8A/9346 | S | 2-27-91 16:10 | | 1 | 1 | | | | | | | | 2 |
| TWS-7B/9351 | S | 2-27-91 17:15 | | 1 | 1 | | | | | | | | 2 |
| TWS-7A/9350 | S | 2-27-91 17:05 | | 1 | 1 | | | | | | | | 2 |
| 30925 | | | | | | | | | | | | | |

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 12

Relinquished by: P. Jacobs — Organization: Geraghty & Miller, Inc. — Date 2-27-91 Time 19:00
Received by: Tamara Johnson — Organization: SAVAH LABS — Date 2/28/91 Time 9:45
Seal Intact? Yes No N/A

Relinquished by: — Organization:
Received by: — Organization: — Date / / Time
Seal Intact? Yes No N/A

Special Instructions/Remarks:

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express ☐ Lab Courier ☐ Other

GERAGHTY & MILLER, INC.
*Environmental Services*

Laboratory Task Order No. N/A

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number NC09003

Project Location Wilmington, N.C.

Laboratory Savannah Labs

Sampler(s)/Affiliation P. Jacobs (G&M)
M. Radecke (G&M)

SAMPLE BOTTLE / CONTAINER DESCRIPTION

| SAMPLE IDENTITY | Code | Date/Time Sampled | Lab ID | 500ml wlm plastic metals (Cu, Cr, As) 4°C | 500ml wlm glass KOOL | 500ml plastic metals (Cu, Cr, As) HNO3 4°C | 1L Amber glass KOOL 4°C | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TWS-10A/9344 | S | 2-27-91 13:45 | | 1 | 1 | | | | | | | | 2 |
| TWS-10B/9345 | S | 2-27-91 13:55 | | 1 | 1 | | | | | | | | 2 |
| TWS-11A/9342 | S | 2-27-91 12:25 | | 1 | 1 | | | | | | | | 2 |
| TWS-11B/9343 | S | 2-27-91 12:30 | | 1 | 1 | | | | | | | | 2 |
| TWS-12A/9338 | S | 2-27-91 11:00 | | 1 | 1 | | | | | | | | 2 |
| TWS-12B/9339 | S | 2-27-91 11:10 | | 1 | 1 | | | | | | | | 2 |
| TWS-13A/9340 | S | 2-27-91 11:30 | | 1 | 1 | | | | | | | | 2 |
| TWS-13B/9341 | S | 2-27-91 11:35 | | 1 | 1 | | | | | | | | 2 |
| FB-2 | L | 2-27-91 15:30 | | | | 1 | 1 | | | | | | 2 |
| RB-2 | L | 2-27-91 15:25 | | | | 1 | 1 | | | | | | 2 |
| | | | | | | | | | | | | | |
| 30925 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 20

| | | | |
|---|---|---|---|
| Relinquished by: P. Jacobs | Organization: Geraghty & Miller, Inc. | 2-27-91 19:00 | Seal Intact? |
| Received by: Janice Johnson | Organization: SAVH J-LABS | Date 2/28/91 Time 9:45 | (Yes) No N/A |
| Relinquished by: | Organization: | | Seal Intact? |
| Received by: | Organization: | Date / / Time | Yes No N/A |

Special Instructions/Remarks:

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express ☐ Lab Courier ☐ Other

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

RECEIVED
MAR 15 1991
G & M RALEIGH

LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-1 | TWS-6A (# 9352) 2-28-91 | Client |
| 30948-2 | TWS-6B (# 9353) 2-28-91 | |
| 30948-3 | TWS-5A (# 9354) 2-28-91 | |
| 30948-4 | TWS-5B (# 9355) 2-28-91 | |
| 30948-5 | TWS-4A (# 9356) 2-28-91 | |

| PARAMETER | 30948-1 | 30948-2 | 30948-3 | 30948-4 | 30948-5 |
|---|---|---|---|---|---|
| K001 (Method 8270) | | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthylene, mg/kg dw | 0.66 | ND | ND | ND | 0.48 |
| Phenanthrene, mg/kg dw | 2.4 | ND | 0.64 | ND | 0.75 |
| Anthracene, mg/kg dw | 2.3 | ND | 1.1 | ND | 1.4 |
| Fluoranthene, mg/kg dw | 16 | ND | 1.2 | ND | 5.9 |
| Chrysene, mg/kg dw | 8.1 | ND | 0.95 | ND | 4.8 |
| Benzo(a)Anthracene, mg/kg dw | 5.0 | ND | 0.88 | ND | 2.6 |
| Benzo(b,k)fluoranthene, mg/kg dw | 13 | ND | 0.73 | ND | 8.2 |
| Benzo(a)pyrene, mg/kg dw | 3.5 | ND | 0.58 | ND | 1.4 |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | 1.9 | ND | ND | ND | 0.63 |
| Dibenzo(a,h)anthracene, mg/kg dw | 0.49 | ND | ND | ND | ND |
| Carbazole, mg/kg dw | 1.8 | ND | ND | ND | 1.0 |
| Dilution factor | 1 | 1 | 1 | 1 | 1 |

SL SAVANNAH LABORATORIES
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5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-1 | TWS-6A (# 9352) 2-28-91 | Client |
| 30948-2 | TWS-6B (# 9353) 2-28-91 | |
| 30948-3 | TWS-5A (# 9354) 2-28-91 | |
| 30948-4 | TWS-5B (# 9355) 2-28-91 | |
| 30948-5 | TWS-4A (# 9356) 2-28-91 | |

| PARAMETER | 30948-1 | 30948-2 | 30948-3 | 30948-4 | 30948-5 |
|---|---|---|---|---|---|
| Arsenic, mg/kg dw | 8.7 | 6.1 | 41 | 1.6 | 26 |
| Chromium, mg/kg dw | 13 | 27 | 19 | 4.1 | 8.4 |
| Copper, mg/kg dw | 7.2 | 3.9 | 71 | ND | 7.3 |
| Percent Solids, % | 83 | 55 | 70 | 79 | 74 |

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Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-6 | TWS-4B (# 9357) 2-28-91 | Client |
| 30948-7 | TWS-3A (# 9358) 2-28-91 | |
| 30948-8 | TWS-3B (# 9359) 2-28-91 | |
| 30948-9 | TWS-2A (# 9360) 2-28-91 | |
| 30948-10 | TWS-2B (# 9361) 2-28-91 | |

| PARAMETER | 30948-6 | 30948-7 | 30948-8 | 30948-9 | 30948-10 |
|---|---|---|---|---|---|
| K001 (Method 8270) | | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | 47 | ND | ND |
| Acenaphthylene, mg/kg dw | ND | 0.60 | ND | ND | ND |
| Phenanthrene, mg/kg dw | ND | 0.75 | 220 | ND | ND |
| Anthracene, mg/kg dw | ND | 1.7 | 51 | 0.68 | ND |
| Fluoranthene, mg/kg dw | 0.95 | 3.9 | 150 | 3.4 | 1.0 |
| Chrysene, mg/kg dw | ND | 3.2 | 13 | 3.5 | 0.73 |
| Benzo(a)Anthracene, mg/kg dw | ND | 1.7 | 17 | 2.2 | 0.66 |
| Benzo(b,k)fluoranthene, mg/kg dw | ND | 7.0 | 20 | 6.7 | ND |
| Benzo(a)pyrene, mg/kg dw | ND | 1.4 | ND | 1.3 | ND |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | ND | 0.84 | ND | 0.53 | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | ND | ND | ND | ND |
| Carbazole, mg/kg dw | ND | 0.77 | ND | ND | ND |
| Dilution factor | 1 | 1 | 10 | 1 | 1 |

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LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-6 | TWS-4B (# 9357) 2-28-91 | Client |
| 30948-7 | TWS-3A (# 9358) 2-28-91 | |
| 30948-8 | TWS-3B (# 9359) 2-28-91 | |
| 30948-9 | TWS-2A (# 9360) 2-28-91 | |
| 30948-10 | TWS-2B (# 9361) 2-28-91 | |

| PARAMETER | 30948-6 | 30948-7 | 30948-8 | 30948-9 | 30948-10 |
|---|---|---|---|---|---|
| Arsenic, mg/kg dw | 13 | 13 | 4.3 | 6.4 | 3.5 |
| Chromium, mg/kg dw | 29 | 7.0 | 3.8 | 8.8 | 6.1 |
| Copper, mg/kg dw | 16 | 8.2 | ND | ND | ND |
| Percent Solids, % | 56 | 72 | 72 | 71 | 55 |

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Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-11 | TWS-1A (# 9362) 2-28-91 | Client |
| 30948-12 | TWS-1B (# 9363) 2-28-91 | |
| 30948-13 | NTB-3 (# 9364) 2-28-91 | |
| 30948-14 | NTB-6 (# 9365) 2-28-91 | |
| 30948-15 | NTB-7 (# 9366) 2-28-91 | |

| PARAMETER | 30948-11 | 30948-12 | 30948-13 | 30948-14 | 30948-15 |
|---|---|---|---|---|---|
| K001 (Method 8270) | | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthylene, mg/kg dw | ND | ND | ND | ND | ND |
| Phenanthrene, mg/kg dw | 13 | ND | ND | ND | ND |
| Anthracene, mg/kg dw | 36 | ND | ND | ND | ND |
| Fluoranthene, mg/kg dw | 25 | ND | 0.39 | 0.91 | 0.83 |
| Chrysene, mg/kg dw | 8.0 | ND | 0.40 | 0.82 | 0.75 |
| Benzo(a)Anthracene, mg/kg dw | 6.2 | ND | ND | 0.38 | ND |
| Benzo(b,k)fluoranthene, mg/kg dw | 12 | ND | 0.45 | 1.7 | 1.5 |
| Benzo(a)pyrene, mg/kg dw | 5.1 | ND | ND | 0.39 | ND |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | ND | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | ND | ND | ND | ND |
| Carbazole, mg/kg dw | 7.1 | ND | ND | ND | ND |
| Dilution factor | 10 | 1 | 1 | 1 | 1 |

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LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-11 | TWS-1A (# 9362) 2-28-91 | Client |
| 30948-12 | TWS-1B (# 9363) 2-28-91 | |
| 30948-13 | NTB-3 (# 9364) 2-28-91 | |
| 30948-14 | NTB-6 (# 9365) 2-28-91 | |
| 30948-15 | NTB-7 (# 9366) 2-28-91 | |

| PARAMETER | 30948-11 | 30948-12 | 30948-13 | 30948-14 | 30948-15 |
|---|---|---|---|---|---|
| Arsenic, mg/kg dw | 6.8 | 2.0 | 4.8 | 5.0 | 9.4 |
| Chromium, mg/kg dw | 6.5 | 4.8 | 9.1 | 2.3 | 2.7 |
| Copper, mg/kg dw | 88 | 12 | 4.3 | 11 | 2.8 |
| Percent Solids, % | 89 | 79 | 88 | 87 | 79 |

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LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-16 | Rinse Blank (2-28-91) | Client |
| 30948-17 | Field Blank (2-28-91) | |

| PARAMETER | 30948-16 | 30948-17 |
|---|---|---|
| K001 (Method 8270) | | |
| 2-Chlorophenol, mg/l | ND | ND |
| Phenol, mg/l | ND | ND |
| 2,4-Dimethylphenol, mg/l | ND | ND |
| Trichlorophenols, mg/l | ND | ND |
| p-Chloro-m-cresol, mg/l | ND | ND |
| Tetrachlorophenols, mg/l | ND | ND |
| 2,4-Dinitrophenol, mg/l | ND | ND |
| Pentachlorophenol, mg/l | ND | ND |
| Naphthalene, mg/l | ND | ND |
| Acenaphthene, mg/l | ND | ND |
| Acenaphthylene, mg/l | ND | ND |
| Phenanthrene, mg/l | ND | ND |
| Anthracene, mg/l | ND | ND |
| Fluoranthene, mg/l | ND | ND |
| Chrysene, mg/l | ND | ND |
| Benzo(a)Anthracene, mg/l | ND | ND |
| Benzo(b,k)fluoranthene, mg/l | ND | ND |
| Benzo(a)pyrene, mg/l | ND | ND |
| Indeno(1,2,3-cd)pyrene, mg/l | ND | ND |
| Dibenzo(a,h)anthracene, mg/l | ND | ND |
| Carbazole, mg/l | ND | ND |
| Dilution factor | 1 | 1 |
| Arsenic, mg/l | ND | ND |
| Chromium, mg/l | ND | ND |

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

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LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-16 | Rinse Blank (2-28-91) | Client |
| 30948-17 | Field Blank (2-28-91) | |

| PARAMETER | 30948-16 | 30948-17 |
|---|---|---|
| Copper, mg/l | ND | ND |

SL SAVANNAH LABORATORIES
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LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | SAMPLED BY |
|---|---|---|
| 30948-18 | Detection Limits - Soil | Client |
| 30948-19 | Accuracy (mean % recovery) - Soil | |
| 30948-20 | Precision (% RPD) - Soil | |

| PARAMETER | 30948-18 | 30948-19 | 30948-20 |
|---|---|---|---|
| K001 (Method 8270) | | | |
| 2-Chlorophenol, mg/kg dw | 0.33 | 101 % | 1.0 % |
| Phenol, mg/kg dw | 0.33 | 85 % | 5.2 % |
| 2,4-Dimethylphenol, mg/kg dw | 0.33 | 57 % | 18 % |
| Trichlorophenols, mg/kg dw | 0.33 | 64 % | 7.8 % |
| p-Chloro-m-cresol, mg/kg dw | 0.33 | 88 % | 2.3 % |
| Tetrachlorophenols, mg/kg dw | 0.33 | 76 % | 7.9 % |
| 2,4-Dinitrophenol, mg/kg dw | 1.7 | 79 % | 10 % |
| Pentachlorophenol, mg/kg dw | 1.7 | 93 % | 14 % |
| Naphthalene, mg/kg dw | 0.33 | 91 % | 1.1 % |
| Acenaphthene, mg/kg dw | 0.33 | 89 % | 2.2 % |
| Acenaphthylene, mg/kg dw | 0.33 | 107 % | 1.9 % |
| Phenanthrene, mg/kg dw | 0.33 | 89 % | 2.2 % |
| Anthracene, mg/kg dw | 0.33 | 84 % | 7.1 % |
| Fluoranthene, mg/kg dw | 0.33 | 89 % | 4.5 % |
| Chrysene, mg/kg dw | 0.33 | 72 % | 1.4 % |
| Benzo(a)Anthracene, mg/kg dw | 0.33 | 80 % | 3.8 % |
| Benzo(b,k)fluoranthene, mg/kg dw | 0.33 | 76 % | 3.9 % |
| Benzo(a)pyrene, mg/kg dw | 0.33 | 84 % | 1.2 % |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | 0.33 | 90 % | 1.1 % |
| Dibenzo(a,h)anthracene, mg/kg dw | 0.33 | 84 % | 13 % |
| Carbazole, mg/kg dw | 0.33 | 93 % | 7.2 % |
| Arsenic, mg/kg dw | 1.0 | 111 % | 5.4 % |
| Chromium, mg/kg dw | 1.0 | 119 % | 0.84 % |

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

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LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | SAMPLED BY |
|---|---|---|
| 30948-18 | Detection Limits - Soil | Client |
| 30948-19 | Accuracy (mean % recovery) - Soil | |
| 30948-20 | Precision (% RPD) - Soil | |

| PARAMETER | 30948-18 | 30948-19 | 30948-20 |
|---|---|---|---|
| Copper, mg/kg dw | 2.5 | 117 % | 2.6 % |

SL SAVANNAH LABORATORIES
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LOG NO: S1-30948

Received: 01 MAR 91

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Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , REPORT FOR LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-21 | Detection Limits - Liquid | Client |

| PARAMETER | 30948-21 |
|---|---|
| K001 (Method 8270) | |
| 2-Chlorophenol, mg/l | 0.010 |
| Phenol, mg/l | 0.010 |
| 2,4-Dimethylphenol, mg/l | 0.010 |
| Trichlorophenols, mg/l | 0.010 |
| p-Chloro-m-cresol, mg/l | 0.010 |
| Tetrachlorophenols, mg/l | 0.010 |
| 2,4-Dinitrophenol, mg/l | 0.050 |
| Pentachlorophenol, mg/l | 0.050 |
| Naphthalene, mg/l | 0.010 |
| Acenaphthene, mg/l | 0.010 |
| Acenaphthylene, mg/l | 0.010 |
| Phenanthrene, mg/l | 0.010 |
| Anthracene, mg/l | 0.010 |
| Fluoranthene, mg/l | 0.010 |
| Chrysene, mg/l | 0.010 |
| Benzo(a)Anthracene, mg/l | 0.010 |
| Benzo(b,k)fluoranthene, mg/l | 0.010 |
| Benzo(a)pyrene, mg/l | 0.010 |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.010 |
| Dibenzo(a,h)anthracene, mg/l | 0.010 |
| Carbazole, mg/l | 0.010 |
| Arsenic, mg/l | 0.010 |
| Chromium, mg/l | 0.010 |
| Copper, mg/l | 0.025 |

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30948

Received: 01 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: Wilmington, NC

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , REPORT FOR LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30948-22 | Report Completion Date | Client |

| PARAMETER | 30948-22 |
|---|---|
| Date Reported | 03.13.91 |

Methods: EPA SW-846
ND = Not Detected

J. W. Andrews, Ph. D.

GERAGHTY & MILLER, INC. Laboratory Task Order No. [illegible] CHAIN-OF-CUSTODY RECORD Page 1 of 1

Project Number NC 09003

Project Location Wilmington, NC

Laboratory Saranna Labs

Sampler(s)/Affiliation P. Jacobs (G+M)
M. Radecke (G+M)

| SAMPLE IDENTITY | Code | Date/Time Sampled | Lab ID | 500 ml w/m plastic metals Cu, Cr, As 4°C | 500 ml w/m glass KOD1 4°C | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TWS-6A/9352 | S | 2-28-91 8:35 | | 1 | 1 | | | | | | | | 2 |
| TWS-6B/9353 | S | 2-28-91 8:45 | | 1 | 1 | | | | | | | | 2 |
| TWS-5A/9354 | S | 2-28-91 9:15 | | 1 | 1 | | | | | | | | 2 |
| TWS-5B/9355 | S | 2-28-91 9:20 | | 1 | 1 | | | | | | | | 2 |
| TWS-4A/9356 | S | 2-28-91 10:10 | | 1 | 1 | | | | | | | | 2 |
| TWS-4B/9357 | S | 2-28-91 10:15 | | 1 | 1 | | | | | | | | 2 |
| TWS-3A/9358 | S | 2-28-91 11:10 | | 1 | 1 | | | | | | | | 2 |
| TWS-3B/9359 | S | 2-28-91 11:15 | | 1 | 1 | | | | | | | | 2 |
| TWS-2A/9360 | S | 2-28-91 12:15 | | 1 | 1 | | | | | | | | 2 |
| TWS-2B/9361 | S | 2-28-91 12:25 | | 1 | 1 | | | | | | | | 2 |
| TWS-1A/9362 | S | 2-28-91 13:05 | | 1 | 1 | | | | | | | | 2 |
| TWS-1B/9363 | S | 2-28-91 13:15 | | 1 | 1 | | | | | | | | 2 |
| 30948 | | | | | | | | | | | | | |

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 24

Relinquished by: P. Jacobs Organization: Geraghty + Miller, Inc. Date 2-28-91 Time 19:00
Received by: Sandra Johnson Organization: SAVH LABS Date 3/1/91 Time 9:45
Seal Intact? Yes No N/A

Relinquished by: Organization: Date / / Time
Received by: Organization:
Seal Intact? Yes No N/A

Special Instructions/Remarks: Log in under Southern Wood Piedmont

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

G&M Form 00-100 Southpoint 90-0120

[redacted] MILLER, INC. [redacted] Laboratory Task Order No. [redacted] CHAIN-OF-CUSTODY RECORD [redacted] Page [redacted]
Environmental Services

Project Number NC09003

Project Location Wilmington, NC

Laboratory Savannah Labs

Sampler(s)/Affiliation P. Jacobs (G+M)
M. Rodecke (G+M)

| SAMPLE IDENTITY | Code | Date/Time Sampled | Lab ID | 500ml w/m plastic metals Cu,Cr,As 4°C | 500ml wlm glass KOH 4°C | 500ml plastic metals Cu,Cr,As HNO3 4°C | 1L Amber glass KOH 4°C | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NTB-3/9364 | S | 2-28-91 17:16 | | 1 | 1 | | | | | | | | 2 |
| NTB-6/9365 | S | 2-28-91 17:30 | | 1 | 1 | | | | | | | | 2 |
| NTB-7/9366 | S | 2-28-91 17:30 | | 1 | 1 | | | | | | | | 2 |
| FB-3 | L | 2-28-91 16:50 | | | | 1 | 1 | | | | | | 2 |
| RB-3 | L | 2-28-91 16:48 | | | | 1 | 1 | | | | | | 2 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 30948 | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | |

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 10

Relinquished by: P. Jacobs Organization: Geraghty + Miller, Inc. Date 2-28-91 Time 19:00
Received by: Jamera Johnson Organization: SAVH LABS Date 3/1/91 Time 9:45
Seal Intact? Yes No N/A

Relinquished by: Organization:
Received by: Organization: Date / / Time 9
Seal Intact? Yes No N/A

Special Instructions/Remarks:
Log in under Southern Wood Piedmont

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

G&M Form 09 1-90 Southpoint 90-0136

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.
5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

Mark

RECEIVED MAR 21 1991 G & M

LOG NO: S1-30966

Received: 02 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: NC09003 Wilmington

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30966-1 | NTB-2 (# 9367) 3-1-91 | Client |
| 30966-2 | NTB-5 (# 9368) 3-1-91 | |
| 30966-3 | NTB-1 (# 9370) 3-1-91 | |
| 30966-4 | NTB-4 (# 9369) 3-1-91 | |
| 30966-5 | NTB-8 (# 9371) 3-1-91 | |

| PARAMETER | 30966-1 | 30966-2 | 30966-3 | 30966-4 | 30966-5 |
|---|---|---|---|---|---|
| K001 (Method 8270) | | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | ND | 0.93 | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthylene, mg/kg dw | ND | ND | 1.6 | ND | ND |
| Phenanthrene, mg/kg dw | 1.0 | ND | 2.0 | 54 | ND |
| Anthracene, mg/kg dw | 3.7 | ND | 7.6 | 84 | ND |
| Fluoranthene, mg/kg dw | 1.3 | 0.70 | 7.5 | 97 | 0.68 |
| Chrysene, mg/kg dw | 0.74 | 0.49 | 4.6 | 52 | 0.79 |
| Benzo(a)Anthracene, mg/kg dw | 0.56 | ND | 3.1 | 25 | ND |
| Benzo(b,k)fluoranthene, mg/kg dw | 1.0 | ND | 11 | 50 | 1.2 |
| Benzo(a)pyrene, mg/kg dw | ND | ND | 4.3 | 17 | ND |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | ND | ND | 3.8 | ND | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | ND | 1.3 | ND | ND |
| Carbazole, mg/kg dw | 2.2 | ND | 1.6 | 11 | ND |
| Dilution factor | 1 | 1 | 1 | 20 | 1 |

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30966

Received: 02 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: NC09003 Wilmington

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30966-1 | NTB-2 (# 9367) 3-1-91 | Client |
| 30966-2 | NTB-5 (# 9368) 3-1-91 | |
| 30966-3 | NTB-1 (# 9370) 3-1-91 | |
| 30966-4 | NTB-4 (# 9369) 3-1-91 | |
| 30966-5 | NTB-8 (# 9371) 3-1-91 | |

| PARAMETER | 30966-1 | 30966-2 | 30966-3 | 30966-4 | 30966-5 |
|---|---|---|---|---|---|
| Arsenic, mg/kg dw | ND | 1.8 | 7.0 | 1.7 | 5.3 |
| Chromium, mg/kg dw | 1.8 | 3.2 | 8.0 | 2.9 | 5.6 |
| Copper, mg/kg dw | ND | 3.9 | 30 | 9.7 | 90 |
| Percent Solids, % | 91 | 78 | 68 | 87 | 78 |

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& ENVIRONMENTAL SERVICES, INC.

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LOG NO: S1-30966

Received: 02 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: NC09003 Wilmington

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30966-6 | NTB-9 (# 9372) 3-1-91 | Client |
| 30966-7 | NTB-10 (# 9374) 3-1-91 | |
| 30966-8 | NTB-11 (# 9373) 3-1-91 | |
| 30966-9 | NTB-12 (# 9375) 3-1-91 | |
| 30966-10 | NTB-13 (# 9376) 3-1-91 | |

| PARAMETER | 30966-6 | 30966-7 | 30966-8 | 30966-9 | 30966-10 |
|---|---|---|---|---|---|
| K001 (Method 8270) | | | | | |
| 2-Chlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Phenol, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dimethylphenol, mg/kg dw | ND | ND | ND | ND | ND |
| Trichlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| p-Chloro-m-cresol, mg/kg dw | ND | ND | ND | ND | ND |
| Tetrachlorophenols, mg/kg dw | ND | ND | ND | ND | ND |
| 2,4-Dinitrophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Pentachlorophenol, mg/kg dw | ND | ND | ND | ND | ND |
| Naphthalene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthene, mg/kg dw | ND | ND | ND | ND | ND |
| Acenaphthylene, mg/kg dw | ND | ND | ND | ND | ND |
| Phenanthrene, mg/kg dw | ND | 3.0 | ND | ND | ND |
| Anthracene, mg/kg dw | ND | 1.3 | ND | ND | ND |
| Fluoranthene, mg/kg dw | 1.0 | 5.8 | 0.63 | 0.58 | 0.86 |
| Chrysene, mg/kg dw | 1.2 | 4.5 | 0.76 | 0.59 | 0.93 |
| Benzo(a)Anthracene, mg/kg dw | ND | 3.1 | 0.50 | ND | 0.69 |
| Benzo(b,k)fluoranthene, mg/kg dw | 2.0 | 5.5 | 1.7 | 1.2 | 1.3 |
| Benzo(a)pyrene, mg/kg dw | ND | 1.2 | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | ND | 0.57 | ND | ND | ND |
| Dibenzo(a,h)anthracene, mg/kg dw | ND | ND | ND | ND | ND |
| Carbazole, mg/kg dw | ND | 0.51 | ND | ND | ND |
| Dilution factor | 1 | 1 | 1 | 1 | 1 |

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30966

Received: 02 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: NC09003 Wilmington

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | SAMPLED BY |
|---|---|---|
| 30966-6 | NTB-9 (# 9372) 3-1-91 | Client |
| 30966-7 | NTB-10 (# 9374) 3-1-91 | |
| 30966-8 | NTB-11 (# 9373) 3-1-91 | |
| 30966-9 | NTB-12 (# 9375) 3-1-91 | |
| 30966-10 | NTB-13 (# 9376) 3-1-91 | |

| PARAMETER | 30966-6 | 30966-7 | 30966-8 | 30966-9 | 30966-10 |
|---|---|---|---|---|---|
| Arsenic, mg/kg dw | 12 | 4.7 | 8.1 | 3.2 | 13 |
| Chromium, mg/kg dw | 5.7 | 2.2 | 4.6 | 1.4 | 22 |
| Copper, mg/kg dw | 130 | 8.6 | 81 | 3.1 | 20 |
| Percent Solids, % | 71 | 71 | 89 | 72 | 51 |

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30966

Received: 02 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: NC09003 Wilmington

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | SAMPLED BY |
|---|---|---|
| 30966-11 | Detection Limits | Client |
| 30966-12 | Accuracy (mean % recovery) | |
| 30966-13 | Precision (% RPD) | |

| PARAMETER | 30966-11 | 30966-12 | 30966-13 |
|---|---|---|---|
| K001 (Method 8270) | | | |
| 2-Chlorophenol, mg/kg dw | 0.33 | 98 % | 1.0 % |
| Phenol, mg/kg dw | 0.33 | 98 % | 5.1 % |
| 2,4-Dimethylphenol, mg/kg dw | 0.33 | 88 % | 2.3 % |
| Trichlorophenols, mg/kg dw | 0.33 | 75 % | 8.0 % |
| p-Chloro-m-cresol, mg/kg dw | 0.33 | 82 % | 2.4 % |
| Tetrachlorophenols, mg/kg dw | 0.33 | 76 % | 12 % |
| 2,4-Dinitrophenol, mg/kg dw | 1.7 | 33 % | 42 % |
| Pentachlorophenol, mg/kg dw | 1.7 | 41 % | 47 % |
| Naphthalene, mg/kg dw | 0.33 | 84 % | 4.8 % |
| Acenaphthene, mg/kg dw | 0.33 | 83 % | 2.4 % |
| Acenaphthylene, mg/kg dw | 0.33 | 93 % | 4.3 % |
| Phenanthrene, mg/kg dw | 0.33 | 89 % | 3.4 % |
| Anthracene, mg/kg dw | 0.33 | 82 % | 11 % |
| Fluoranthene, mg/kg dw | 0.33 | 83 % | 8.5 % |
| Chrysene, mg/kg dw | 0.33 | 87 % | 5.8 % |
| Benzo(a)Anthracene, mg/kg dw | 0.33 | 87 % | 6.9 % |
| Benzo(b,k)fluoranthene, mg/kg dw | 0.33 | 83 % | 6.1 % |
| Benzo(a)pyrene, mg/kg dw | 0.33 | 86 % | 3.5 % |
| Indeno(1,2,3-cd)pyrene, mg/kg dw | 0.33 | 90 % | 1.1 % |
| Dibenzo(a,h)anthracene, mg/kg dw | 0.33 | 89 % | 1.1 % |
| Carbazole, mg/kg dw | 0.33 | 110 % | 5.5 % |
| Arsenic, mg/kg dw | 1.0 | 111 % | 10 % |
| Chromium, mg/kg dw | 1.0 | 98 % | 4.1 % |

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30966

Received: 02 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: NC09003 Wilmington

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | SAMPLED BY |
|---|---|---|
| 30966-11 | Detection Limits | Client |
| 30966-12 | Accuracy (mean % recovery) | |
| 30966-13 | Precision (% RPD) | |

| PARAMETER | 30966-11 | 30966-12 | 30966-13 |
|---|---|---|---|
| Copper, mg/kg dw | 2.5 | 95 % | 11 % |

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& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S1-30966

Received: 02 MAR 91

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Mark Radecke

Project: NC09003 Wilmington

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , REPORT FOR LIQUID SAMPLES | SAMPLED BY |
|---|---|---|
| 30966-14 | Report Completion Date | Client |

| PARAMETER | 30966-14 |
|---|---|
| Date Reported | 03.20.91 |

Methods: EPA SW-846
ND = Not Detected

J. W. Andrews, Ph. D.

GERAGHTY & MILLER, INC.
Environmental Services

Laboratory Task Order No. N/A

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number NC09003

Project Location Wilmington, NC

Laboratory Savannah Labs

Sampler(s)/Affiliation P. Jacobs (G&M)
M. Radecke (G&M)

SAMPLE BOTTLE / CONTAINER DESCRIPTION

| SAMPLE IDENTITY | Code | Date/Time Sampled | Lab ID | 500ml w/m plastic metals Cu, Cr, As 4°C | 500ml w/m glass KOD 4°C | 500ml w/m plastic metals Cu, Cr, As 4°C | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NTB-2/9367 | S | 3-1-91 9:15 | | 1 | 1 | | | | | | | | 2 |
| NTB-5/9368 | S | 3-1-91 9:15 | | 1 | 1 | | | | | | | | 2 |
| NTB-1/9370 | S | 3-1-91 9:40 | | 1 | 1 | | | | | | | | 2 |
| NTB-4/9369 | S | 3-1-91 9:35 | | 1 | 1 | | | | | | | | 2 |
| NTB-8/9371 | S | 3-1-91 10:15 | | 1 | 1 | | | | | | | | 2 |
| NTB-9/9372 | S | 3-1-91 10:15 | | 1 | 1 | | | | | | | | 2 |
| NTB-10/9374 | S | 3-1-91 10:45 | | | 1 | 1 | | | | | | | 2 |
| NTB-11/9373 | S | 3-1-91 10:50 | | | 1 | 1 | | | | | | | 2 |
| NTB-12/9375 | S | 3-1-91 11:15 | | | 1 | 1 | | | | | | | 2 |
| NTB-13/9376 | S | 3-1-91 11:40 | | | 1 | 1 | | | | | | | 2 |
| 30966 | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 20

| | | | |
|---|---|---|---|
| Relinquished by: P. Jacobs | Organization: Geraghty & Miller, Inc. | 3-1-91 17:30 | Seal Intact? (Yes) No N/A |
| Received by: L. Bond | Organization: South Lab | Date 3/2/91 Time 11:40am | |
| Relinquished by: | Organization: | | Seal Intact? |
| Received by: | Organization: | Date / / Time | Yes No N/A |

Special Instructions/Remarks:
Login under Southern Wood Piedmont

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express ☐ Lab Courier ☐ Other