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*Additional Delineation Report
and
Remedial Action Work Plan,
Former Virginia-Carolina
Chemical Company
Phosphate/Fertilizer Plant,
Wadesboro, North Carolina*

**Exxon Mobil Corporation
Houston, Texas**

September 2002

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

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LIST OF ACRONYMS AND ABBREVIATIONS

AER	Alternatives Evaluation Report
AOC	Administrative Order on Consent
BBL	Blasland, Bouck & Lee, Inc.
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CLP	Contract Laboratory Program
cy	cubic yard
ExxonMobil	Exxon Mobil Corporation
FSP	Field Sampling Plan
mg/kg	milligrams per kilogram
NCDENR	North Carolina Department of the Environment and Natural Resources
OSC	On-Scene Coordinator
QAPP	Quality Assurance Project Plan
QC	quality control
RAWP	Remedial Action Work Plan
SARA	Superfund Amendments and Reauthorization Act
TCLP	Toxicity Characteristic Leaching Procedure
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VCC	Virginia-Carolina Chemical Company

1. Introduction

1.1 Introduction

This report presents the results of additional site delineation activities and the Remedial Action Work Plan (RAWP) for the former Virginia-Carolina Chemical Company (VCC) phosphate/fertilizer plant located in Wadesboro, North Carolina (the Site). Figure 1-1 identifies the site location on the U.S. Geological Survey (USGS) 7.5-minute quadrangle for Wadesboro, North Carolina.

The delineation activities and RAWP were completed in accordance with, and subject to, the terms, conditions, reservations of rights, denial of any admission of liability, and all other provisions of the Administrative Order on Consent (AOC) for Removal Action for the Site entered into voluntarily by Exxon Mobil Corporation (ExxonMobil), the successor in interest to the former VCC plant listed above and the United States Environmental Protection Agency (USEPA) pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The Docket Number for the AOC is 01-06-C. The effective date of the AOC is December 29, 2000. The delineation activities were performed in accordance with the requirements of the AOC and as outlined in the USEPA-approved document *Soil Arsenic and Lead Additional Delineation Work Plan for the Former Virginia-Carolina Chemical Company Phosphate/Fertilizer Plant, Wadesboro, North Carolina* (Work Plan) (Blasland, Bouck, and Lee [BBL], 2002a).

1.2 Project Objectives

The objective of the additional delineation activities was to more completely and accurately delineate the magnitude and horizontal and vertical extent of soil at the Site previously identified as containing arsenic and/or lead at concentrations above action levels. These data will be used to select the remedial action that will be performed at the site in accordance with the RAWP. All field activities were conducted as outlined in the Work Plan (BBL, 2002a). This report summarizes the activities that were undertaken to complete the project objectives and presents the data collected in support of these objectives.

1.3 Report Organization

The introduction provided in this section is followed by Section 2 with a description of the delineation activities that were performed. Section 3 summarizes the data generated from the delineation activities and Section 4 identifies the remedial action that will be performed at the site. Section 5 presents the RAWP and Section 6 lists the references cited in this report.

This report has one appendix. Appendix A contains the logs and photos for soil borings collected from the Site during the additional delineation activities.

2. Delineation Data Collection Activities

2.1 Introduction

Soil samples were collected to provide data for the delineation activities at the former VCC Phosphate/Fertilizer Plant, Wadesboro, North Carolina. Representatives of BBL implemented and oversaw all field activities in support of delineation activities, which took place from August 12 to August 28, 2002. All sampling and analysis activities were performed in accordance with the USEPA-approved Work Plan (BBL, 2002a).

2.2 Delineation Strategy

The Site is comprised of two principal processing areas located on the central and southern portions of the Site. The Central Processing Area was formerly comprised of a brick building, two tanks, a fire reservoir, and a concrete pad that was once apparently the foundation slab for a large packaging and distribution warehouse. The Southern Processing Area was formerly comprised of two utility buildings and the former acid chambers. A general site map is presented on Figure 2-1.

Initial characterization (Tetra Tech EMI, 2000; BBL, 2001b) of the magnitude and horizontal and vertical extent of soil containing arsenic and/or lead indicated that soil in the southern portion of the site in the vicinity of the former acid chambers generally contained the highest arsenic and lead concentrations.

Due to the past industrial use of the Site, the current zoning of the Site is for heavy industrial use, and the restricted access to the Site resulting from the installation of a fence during the Phase I Removal Action, Site-Specific Action Levels were developed for the on-site soils that reflect the industrial nature of the Site. On-Site soils are those soils located on the former VCC property currently owned by Mr. Weston. However, the close proximity of residences to the Site and the current unrestricted access to off-site soils that have been impacted by Site activities warranted the development of Site-Specific Action Levels for off-site soils that reflect the potential for exposure to local residents. Off-site soils refer to soil not located on Mr. Weston's property.

As described in the document *Alternatives Evaluation Report, Wadesboro VCC Site, Wadesboro North Carolina* (BBL, 2002b), the USEPA-approved action levels for the Site are as follows:

Analyte	Action Levels (mg/kg)	
	On-Site	Off-Site
Arsenic	27	22
Lead	750	400

Most of the soils at the Wadesboro VCC site that contain arsenic and/or lead at concentrations exceeding the site-specific action levels are concentrated in and around an area of discolored soil located in the southern portion of the site (Figure 2-1). This area is referred to as the "Contiguous Area". In addition, arsenic- and/or lead-containing soils are also present in the southern portion of the site at locations distinct from the Contiguous Area; these areas are referred to as "isolated areas". As described in the approved Work Plan (BBL, 2002a), the strategies employed for the delineation of each of these types of areas is described below.

2.2.1 Horizontal Delineation

Data from the site investigation indicated that the presence of arsenic- and/or lead-impacted soil was limited to the southern half of the site, at and to the south of borings SB9, SB11, and SB12 (Figure 2-1). Additional delineation was needed around these borings because data from individual soil borings were used to represent relatively large surface areas. Additional horizontal delineation was also needed around the borings along the southern perimeter of the property to fully define the extent of elevated arsenic and lead concentrations. Physical boundaries to soil transport exist in the form of the bed of the former railroad spur to the southwest and a hill to the southeast; however, additional delineation between the perimeter borings and these physical features was needed to fully characterize the limits of the arsenic- and lead-containing soil. Finally, additional delineation was needed around off-site boring SB20 and the access road to more closely define the limits of arsenic- and lead-containing soil around boring SB20 and in the access road, as well as in the dry drainage ditch that drains the southern portion of the Site (borings SD3 and SD4).

2.2.2 Vertical Delineation

During the site characterization (BBL, 2001a) soil samples were collected from each boring from the depths of 0 to 0.5 feet below ground surface (bgs), 2 to 4 feet bgs, 4 to 6 feet bgs, and in some borings 6 to 8 feet bgs and 8 to 10 feet bgs (Figure 2-1). The soil samples from the 0 to 0.5 foot bgs interval were collected as five-point composite samples of soil from the central soil boring and from four equally-spaced surficial soil samples located approximately 20 feet from the central boring. The 0 to 0.5 and 2 to 4 feet bgs samples from every boring were analyzed. In borings where the 2 to 4 feet bgs samples contained potentially elevated arsenic and/or lead concentrations, samples from deeper intervals were also analyzed until arsenic and/or lead concentrations were no longer elevated. In this manner it was determined that soil containing arsenic and/or lead at concentrations greater than action levels was limited primarily to the upper two feet of soil, with elevated concentrations extending to no more than 4 feet bgs in only a few borings.

While the lower depth boundary of elevated arsenic and/or lead concentrations was generally well defined across the Site, additional vertical delineation was needed to further define the depth of impact from the 0.5 to 2 feet bgs depth interval. No data were collected from this depth interval during the site characterization; therefore, soil volume estimates made during the evaluation of alternatives for the site (BBL, 2002b) made the assumption that the soil data from the 0 to 0.5 foot bgs soil interval was representative of the 0 to 2 feet bgs soil interval, which may have resulted in an overestimate of the volume of impacted soil that needs to be remediated. Therefore, additional delineation of the 0.5 to 2 foot bgs interval was conducted in numerous borings to determine the actual depth of impacted soil. Additional vertical delineation was performed in 6- to 12-inch increments.

2.3 Soil Sample Collection

2.3.1 Contiguous Area

The existing sampling data confirmed that the area of discolored soil in the southern portion of the site contains soil with arsenic and lead concentrations greater than the action levels. The objectives of the additional delineation activities were to delineate the perimeter of this area, as well as to more finely delineate the depth of arsenic- and/or lead-impacted soil within this area.

Several shallow trenches (approximately 1 to 4 feet deep) were excavated with a backhoe within the area of discolored soil to visually identify the limits of contamination via the observed presence of the pyrite slag and/or magenta-stained soil typically associated with the presence of elevated arsenic and/or lead concentrations at

these types of sites. Upon completion of the visual delineation, the outer limits were marked (and later surveyed) and the trenches were backfilled with the excavated material.

Soil samples were then collected from soil borings advanced at nine locations around the perimeter of the Contiguous Area (as identified by the trenching) to define the horizontal boundaries of the area. At several of these locations additional borings were incrementally added further away from the Contiguous Area until soil samples with arsenic and/or lead concentrations below action levels were collected. The locations of the trenches and soil borings are shown on Figure 2-2. The soil samples collected and analyzed from this area are presented in Table 2-1.

2.3.2 Isolated Areas

Samples from several soil borings located away from the area of discolored soil contained arsenic and/or lead concentrations greater than action levels. Arsenic and/or lead concentrations were delineated around the following isolated borings:

- VC-07-SS (Pb only)
- SB09 (Pb only)
- SB11 (As & Pb)
- SB12 (Pb only)
- SB13 (As only)
- SB14 (As & Pb)
- SB16 (As only)
- SB17 (As only)
- SB20 (As & Pb)
- SD03 (As & Pb)
- SD04 (As & Pb)

Delineation of arsenic and/or lead concentrations around these borings was performed only for the element that was detected in the samples from existing borings at a concentration greater than the site-specific action level, as listed above. Delineation was initiated by advancing four soil borings around the original boring. The four borings surrounded the existing boring in the centers of four 10 foot by 10 foot grids as shown on Figure 2-3 (locations A1, A2, A3, and A4). These four borings characterize an area of approximately 400 square feet (in a 20 foot by 20 foot grid) around the original boring. In some cases, grid spacing was expanded to 20-foot spacing to accommodate the expansion of some isolated areas.

Additional sampling was performed beyond the initial four borings as necessary to complete the delineation to concentrations that are below the action levels. The location and intervals for additional delineation was determined in the field based on an evaluation of the generated data and field conditions and as described in the Work Plan (BBL, 2002a).

Delineation borings were also collected in the southern drainage ditch. These included delineation borings at and around borings SD03 and SD04, as well as borings from three additional locations (SD05, SD06, and SD08). Samples were also collected from borings located along the access roadway leading into the site (RD-1 through RD-10). Finally, trenching was performed around boring SB20 to delineate the extent of the observed presence of magenta-stained soil in this area.

The locations of borings and trenches installed in the isolated areas, the drainage ditch, and along the access roadway are shown on Figure 2-2. Soil samples collected and analyzed are presented in Table 2-1.

2.4 Sample Analysis

Additional delineation was only performed for the metals that were present in the sample at concentrations above action levels (i.e., arsenic and/or lead). For example, at boring SB09, only lead was present in the soil samples at concentrations exceeding action levels; therefore, additional delineation in polygon SB9 was only performed for lead. Conversely, at boring SB16, only arsenic was present in the soil samples at concentrations

exceeding action levels; therefore, additional delineation around this boring was only performed for arsenic. Finally, both arsenic and lead was measured around borings with samples that contained both of these metals at concentrations above action levels. Samples collected in the access road and from the perimeter of the Contiguous Area were analyzed for both arsenic and lead.

At several of the soil samples collected from soil borings around the Contiguous Area either arsenic or lead concentrations was below the action level while the other remained above the action level. Therefore, the metal that was below the action level was considered to be delineated, and additional delineation outside of that boring was performed only for the metal that remained above the action level.

All samples were sent to TestAmerica Inc. of Nashville, Tennessee for expedited analyses. Sample analyses were performed in accordance with the USEPA-approved Work Plan (BBL, 2002a). Table 2-1 presents a summary of the soil samples collected and analyzed from the Wadesboro VCC Site during the delineation activities.

2.5 Data Validation

All laboratory analytical data generated from the sample analysis were validated in accordance with the procedures outlined in the Quality Assurance Project Plan (QAPP) contained in the USEPA-approved Work Plan (BBL, 2002a). Data validation entails a review of the quality control (QC) data and the raw data to verify that the laboratory was operating within required limits, the analytical results are correctly transcribed from the instrument read outs, and which, if any, environmental samples are related to any deficient QC samples. The objective of data validation is to identify any questionable or invalid laboratory measurements and to determine if the quality is sufficient to meet the data quality objectives.

The validation of the data found that the laboratory analyzed the samples using USEPA SW-846 Method 6010B (Inductively Coupled Plasma-Emission Spectrometry) instead of the Contract Laboratory Program (CLP) method specified in the QAPP (BBL, 2002a). However, because the method used was fully appropriate for the analysis of these samples for these analytes and the data were reported in accordance with CLP requirements, the use of SW-846 Method 6010B does not adversely affect the usability of the data in any way.

2.6 Surveying

Surveying was conducted by J.R. Harrington & Associates of Wadesboro, North Carolina, using standard instrument survey techniques. The location and elevation of each soil boring was measured. In addition, the location of the major physical features was also surveyed.

3. Summary of Results

3.1 Introduction

Soil samples were collected and analyzed as part of the delineation activities at the former VCC phosphate/fertilizer plant in Wadesboro, North Carolina. Tables 3-1 through 3-9 present the concentrations of arsenic and lead detected in the soil samples. Table 3-10 presents the concentrations of analytes detected in the associated field QC samples.

3.2 Contiguous Area

Trenches were advanced in the area of discolored soil to define the initial boundaries of the Contiguous Area. Soil borings were then advanced at nine "perimeter delineation stations" located around the Contiguous Area to facilitate the collection of soil samples.

Trenching was initiated in the center of the area of discolored soil near existing boring SB19, which consisted of a visually distinctive layer of magenta-colored soil. The trenches were extended outward from the center of the area of discolored soil until magenta-colored soil was no longer observed. The locations of the trenches are shown on Figure 3-1.

The depth of the trenches was a function of the depth of the magenta-colored soil observed at a particular location. In the center of the area of discolored soil, parent material (the orange brown silty clay present in unimpacted areas of the site) was present at 3 to 4 feet bgs. The depth to the parent soil typically decreased with increasing distance from the center of the previous boundaries of the area of discolored soil until magenta-colored soil was not observed in the trench. The trenches indicate that the maximum depth of impacted soil is approximately 3 to 4 feet; therefore additional vertical delineation data was not performed.

Once the general boundaries of the Contiguous Area had generally been defined by the trenching, soil borings were advanced at nine perimeter delineations stations spaced approximately 50 feet apart. Where necessary, additional soil borings were advanced at several delineation stations (further away from the Contiguous Area) if samples from the initial boring contained arsenic and/or lead at concentrations greater than action levels. The perimeter delineation stations and their associated soil borings are as follows:

Delineation Station	Soil Boring
S-1	S-1
S-2	S-2, S-2A
S-3	S-3, S-3A, S-3B, S-3C
S-4	S-4
S-5	S-5
S-6	S-6A, S-6B
S-7	S-7
S-8	S-8, S-8A, S-8B
S-9	S-9

The soil boring locations are shown on Figure 3-1. The analytical results from soil samples collected from these soil borings are presented in Table 3-1.

Arsenic and lead concentrations were below the action levels in borings S-1 and S-4. No additional delineation was needed in these areas. At perimeter delineation stations S-2, S-6, and S-8, multiple additional soil borings were necessary to collect soil samples that contained arsenic and lead concentrations below the action levels.

Arsenic and lead concentrations in samples from boring S-5, located at the southernmost end of the Contiguous Area, exceeded action levels. No additional delineation was performed in this area because the boring was located at the head of the drainage ditch, which also contains soil with elevated arsenic and lead concentrations. Therefore, the area of impacted soil in the Contiguous Area is considered to be connected to the ditch.

Arsenic concentrations slightly exceeded the action level in the surficial sample from the boring S-7, which was located in close proximity to borings SB17-B1, -A3, and -A4 from individual area SB17. The samples from these borings did not contain arsenic at concentrations greater than the action level; therefore, they will be used to bound the area of impacted soil at Contiguous Area station S-7.

Lead concentrations exceeded the action level at station S-9, which was located immediately adjacent to a remnant wall from the acid chambers. This physical barrier prevented the installation of additional borings east of boring S-9. No further delineation is needed in this area.

Finally, arsenic and/or lead concentrations exceeded action levels in soil samples collected from four soil borings advanced at perimeter delineation station S-3.

3.3 Drainage Ditch

Additional delineation of the drainage ditch was performed to determine how far downstream, e.g., away from the site, arsenic- and/or lead-impacted soil was present. This was done by advancing soil borings downstream of the furthest existing downstream sample (SD4). The sediment sample locations are shown on Figure 3-2. The analytical results from the sediment samples collected from these locations are presented in Table 3-2.

Two soil borings (SD5 and SD6) were advanced downstream of SD4; arsenic and lead were not present at concentrations greater than action levels in samples from the furthest downstream boring (SD6). Therefore, the area of impacted soil in the ditch ends between borings SD5 and SD6.

Soil borings were also advanced on the top of the ditch banks on each side of the ditch at existing borings SD3 and SD4 to define the width of impacted soil along the ditch. None of the top-of-bank soil samples contained arsenic or lead at concentrations greater than action levels. This indicates that impacted soil is contained within the ditch itself. Therefore, the width of the impacted area is the width of the ditch (a maximum of approximately 10 feet).

Vertical delineation data at borings SD3 and SD4 indicate that the depth of impacted soil is approximately 2 to 4 feet. Therefore, the area of impacted soil in the ditch extends from the origination of the ditch at the Contiguous Area to halfway between borings SD5 and SD6. The depth of the impacted soil in the ditch is 2 to 4 feet.

3.4 Access Road

Additional delineation of the access road was performed to determine the extent of arsenic- and lead-impacted soil in the roadway. This was done by advancing soil borings down the center of the access road. Several isolated areas (SB14, SB16, SB20, and SBXX) were incorporated into the roadway delineation due to their close proximity to the road. Data from these borings were used to delineate the eastern and western boundaries of impacted soil. The soil boring locations are shown on Figure 3-3. The analytical results from soil samples collected from these soil borings are presented in Table 3-3.

Ten soil borings (RD-1 through RD-10) were advanced down the center of the access road. A continuous layer of magenta-stained soil was observed in the roadway from approximately 2 to 3 feet bgs in borings RD1 through RD7. Samples from the magenta layer in these borings contained arsenic and/or lead at concentrations greater than action levels; however, samples from the parent soil located below the magenta soil layer did not contain arsenic or lead at concentrations greater than or equal to action levels. Arsenic and lead were not present at concentrations greater than action levels in samples from the northernmost borings (RD-9 and RD-10). Therefore, the area of impacted soil at the northern end of the access road ends at boring RD-9. No further delineation is needed in the northern section of the access road.

Additional soil borings were advanced around borings SB14, SB16, SB20, and SBXX that overlap with the access road delineation soil borings. These borings will be used to define the width of impacted soil in the access road. Soil boring RD-11 was advanced at the eastern edge of the access road and did not contain arsenic or lead concentrations greater than action levels. This location will be used as the northeast corner of the access road delineation. Soil borings SBXX-A2 and SBXX-A3 advanced at boring SBXX (the original SB16 location) did not contain arsenic or lead concentrations greater than action levels. These locations will be used to delineate the eastern edge of impacted soil in the access road.

Arsenic and/or lead concentrations were greater than the action levels in the soil sample collected from the southern most soil boring advanced at boring SB20 (SB20-A3), which was located immediately north of the end of the paved portion of the access road that approaches the site from Standback Ferry Road. However, installation of trenches around SB20 identified the limits of magenta-stained soil around this boring and at the southern area of the gravel road (Figure 3-3).

Finally, soil borings SB16-A4, SB20-A1, and SB20-A4 advanced around borings SB16 and SB20 did not contain arsenic and lead at concentrations greater than action levels. These locations will be used to delineate the western edge of impacted soil in the access road. Arsenic and/or lead concentrations exceeded action levels in the soil samples collected from four soil borings (SB14-A4, -B1, -B2, and -B3) advanced west of boring SB14.

Chemical and visual vertical delineation data indicate that the depth of impacted soil is approximately 2 to 4 feet in the access road. Therefore, the area of impacted soil (Figure 3-3) in the access road extends from the end of the paved portion of the access road north to soil boring RD-9 (approximately 140 feet). The width of the impacted area is the width of the access road (approximately 15 feet). The depth of the impacted soil is between 2 and 4 feet.

3.5 SB9

Additional delineation around isolated area SB9 was performed to determine the extent of lead-impacted soil in that area. This was done by advancing four soil borings (SB9-A1 through SB9-A4) around the existing boring in the centers of four 10 foot by 10 foot grids as described in Section 2.3.2. The soil sample locations are shown on Figure 3-4. The analytical results from the soil samples collected from these locations are presented in Table 3-4.

Delineation soil samples collected around SB9 did not contain arsenic or lead at concentrations greater than action levels. Vertical delineation data at boring SB9 indicate that the depth of impacted soil is 0.5 feet. Therefore, the area of impacted soil at SB9 is limited to the 10 foot by 10 foot area around SB9 to a depth of 0.5 feet (Figure 3-4).

3.6 SB11

Additional delineation around isolated area SB11 was performed to determine the extent of lead-impacted soil at boring SB11. This was done by advancing four soil borings (SB11-A1 through SB11-A4) around the existing boring in the centers of four 10 foot by 10 foot grids as described in Section 2.3.2. Lead concentrations at these borings dictated the collection of an additional 26 soil borings (SB11-B1 through -B12, SB11-C1 through SB11-C11, SB11-D2, SB11-D9, and SB11-E13) in the centers of an additional twenty-four 10 foot by 10 foot grids and three 20 foot by 20 foot grids. The soil sample locations are shown on Figure 3-5. The analytical results from the soil samples collected from these locations are presented in Table 3-5.

Lead concentrations exceeded the action level at boring SB11-E13, which was located immediately adjacent to a tall (approximately 20 feet high) retaining wall. This physical barrier prevented the installation of additional borings southeast of SB11-E13. Lead concentrations exceeded the action level at borings SB11-C5, -C6 and -C7, which were located immediately adjacent to a steep slope. This physical barrier prevented the installation of additional borings east and southeast; therefore, no further delineation is needed to the east or southeast.

Soil samples collected from soil borings SB11-B2 through -B4 and -C4 did not contain lead concentrations greater than the action level; therefore, they will be used to bound the area of impacted soil to the north. Soil samples collected from soil borings SB11-B10, -B11, and -C11 did not contain lead concentrations greater than the action level; therefore, they will be used to bound the area of impacted soil to the south.

Finally, the soil sample collected from soil boring SB11-D2 contained lead at a concentration greater than the action level. This location will be combined with the soil boring locations at isolated area SB12 to define the extent of impacted soil to the west.

Vertical delineation data at boring SB11 indicate that the depth of impacted soil is 2 feet. Therefore, the area of impacted soil at SB11 is defined as the area described above and shown on Figure 3-5 to a depth of 2 feet.

3.7 SB12

Additional delineation around isolated area SB12 was performed to determine the extent of lead-impacted soil around boring SB12. This was done by advancing four soil borings (SB12-A1 through SB12-A4) around the existing boring in the centers of four 10 foot by 10 foot grids as described in Section 2.3.2. Lead concentrations at these borings dictated the collection of an additional 28 soil borings (SB12-B1 through SB12-B10, SB12-C1 through SB12-C13, SB12-D1, SB12-D3, SB12-D9, SB12-D11, and SB12-D12) in the centers of an additional twenty-three 10 foot by 10 foot grids and five 20 foot by 20 foot grids. The soil sample locations are shown on Figure 3-5. The analytical results from the soil samples collected from these locations are presented in Table 3-6.

The soil sample collected from soil boring SB12-D9 did not contain lead at a concentration greater than the action level. Soil samples collected from soil borings SB12-C5, -C6, and -D3 did not contain lead at concentrations greater than the action level. These locations will be used to bound the area of impacted soil to the north and west, respectively.

The soil sample collected from soil boring SB12-D1 contained lead at concentrations greater than the action level. The southern boundary of impacted soil is the line between Contiguous Area sample S1 and road sample RD11, neither of which contained arsenic and/or lead at concentrations greater than action levels.

Finally, the soil sample collected from soil boring SB12-D12 contained lead at a concentration greater than the action level. The close proximity of this boring with SB11-D2 indicates that impacted soil around isolated areas SB11 and SB12 merge.

Vertical delineation data indicate that at boring SB12 the depth of impacted soil is 0.5 feet. Therefore, the area of impacted soil at SB11 is defined as the area described above to a depth of 0.5 feet.

3.8 SB13

Additional delineation around isolated area SB13 was performed to determine the extent of arsenic-impacted soil at boring SB13. This was done by advancing four soil borings (SB13-A1 through SB13-A4) around the existing boring in the centers of four 10 foot by 10 foot grids as described in Section 2.3.2. The soil sample locations are shown on Figure 3-1. The analytical results from the soil samples collected from these locations are presented in Table 3-7.

Arsenic concentrations were greater than the action level only at boring SB13-A2, which was located immediately adjacent to the concrete pad associated with the former acid chambers. This concrete pad prevented the installation of additional borings around SB13-A2; therefore, no further delineation could be performed in this area.

Vertical delineation data indicate that the depth of impacted soil is approximately 2 feet. Therefore, the area of impacted soil at SB13 is limited to the immediate vicinity of SB13 and SB13-A2 to a depth of 2 feet.

3.9 SB17

Additional delineation around isolated area SB17 was performed to determine the extent of arsenic-impacted soil at boring SB17. This was done by advancing four soil borings (SB17-A1 through SB17-A4) around the existing boring in the centers of four 10 foot by 10 foot grids as described in Section 2.3.2. The soil sample locations are shown on Figure 3-1. The analytical results from the soil samples collected from these locations are presented in Table 3-8.

Arsenic concentrations were greater than the action level at SB17-A1, which led to the collection of three additional borings (SB17-B1, -B2, and -B3). The samples from these borings did not contain arsenic at concentrations greater than the action level; therefore, they will be used to bound the area of impacted soil to the north. The area of impacted soil is bounded to the east and south by borings SB17-A2 and -A3, respectively.

Vertical delineation data indicate that the depth of impacted soil is approximately 1 foot. Therefore, the area of impacted soil at SB17 is limited to the immediate vicinity of SB17 and SB17-A1 to a depth of 1 foot.

3.10 VC-07-SS

Additional delineation around isolated area VC-07-SS was performed to determine the extent of lead-impacted soil at boring VC-07-SS. This was done by advancing three soil borings (VC-07-SS-A2 through VC-07-SS-A4) around the existing boring in the centers of four 10 foot by 10 foot grids as described in Section 2.3.2. A sample could not be collected from location VC-07-SS-A1 due to the presence of the shallow concrete pad associated with the former acid chambers. The soil sample locations are shown on Figure 3-1. The analytical results from the soil samples collected from these locations are presented in Table 3-9.

Lead concentrations were greater than the action level at boring VC-07-SS-A4, which led to the collection of three additional borings (VC-07-SS-B1, -B2, and -B3). The samples from these borings did not contain lead at concentrations greater than the action level; therefore, they will be used to bound the area of impacted soil to the south and west.

Vertical delineation data indicate that the depth of impacted soil is approximately 2 feet. Therefore, the area of impacted soil at VC-07-SS is limited to the immediate vicinity of VC-07-SS and VC-07-SS-A4 to a depth of 2 feet.

4. Remedial Action Alternative Selection

4.1 Remedial Action Alternative Selection

ExxonMobil intends to remediate arsenic- and lead-impacted soil at the Wadesboro VCC site in accordance with the requirements of the AOC for the site. ExxonMobil will implement the alternative identified in this section contingent upon agreement by USEPA and the North Carolina Department of the Environment and Natural Resources (NCDENR) that once the remedial action is successfully completed by ExxonMobil, no future additional investigation, remediation, maintenance, or monitoring activities will be performed at the Wadesboro VCC site.

In the document *Alternatives Evaluation Report, Wadesboro VCC Site, Wadesboro, NC* (AER) (BBL, 2002b), six alternatives for the remediation of on- and off-site arsenic- and lead-impacted soil were developed and comparatively evaluated. Alternative 3, Excavation of Off-Site Soil with Consolidation Under On-site Soil Cover and Institutional Controls, was selected for the site. This alternative was selected because it was protective of human health and the environment, minimized the potential for migration of impacted soils, and was the least-cost alternative of the alternatives that met the evaluation criteria.

The evaluation of the alternatives in the AER (BBL, 2002b) discussed above was performed based on the assumption that approximately 8,600 in-place cubic yards (cy) of soil at the site exceeded the action levels. This made alternatives involving the excavation and off-site disposal of soil at RCRA Subtitle C and D landfills cost ineffective. However, based on the data collected during the additional delineation activities that are presented in Section 3 of this report, the estimated volume of soil present at the site that exceeds action levels is now approximately 2,600 cy, which is approximately 30% of the original volume estimate (see Section 4.2 for a discussion of the of the volume estimates). This reduction in volume makes alternatives that include excavation and off-site disposal much more cost effective.

In addition, ExxonMobil recently received bids for remediation of the site from prospective contractors. In their bids the contractors were required to submit the results of treatability studies performed on site soils to test the ability of stabilization reagents to reduce the leachability of arsenic and lead in the soil to concentrations that would enable the disposal of the treated soil at a RCRA Subtitle D (non-hazardous waste) landfill. Treatability study results indicate that the soil can be successfully treated using phosphate-based reagents to achieve the necessary levels of arsenic and lead stabilization. Therefore, the need for disposal of some of the soils at a RCRA Subtitle C landfill, which was a significant cost element in the off-site disposal alternatives, can be eliminated with the appropriate on-site treatment of soil.

Based on the reduction in estimated soil volumes and the ability to easily and cost-effectively treat soil to reduce the leachability of arsenic and lead to acceptable levels (and therefore facilitate the disposal of all impacted soils at a Subtitle D landfill), excavation, on-site treatment of some or all excavated soil, and off-site disposal of the soil at a RCRA Subtitle D landfill is now considered to be the most appropriate and cost-effective option for the remedial action. Therefore, the remedial action for the Wadesboro VCC Site will consist of the excavation of on- and off-site soils that exceed their respective action levels, stabilization (as needed to facilitate disposal of the soil at a Subtitle D landfill) of impacted soil using a phosphate-based stabilization reagent, off-site disposal of the soil at the BFI Anson County Landfill, and backfill of the excavated areas with clean soil fill and topsoil. The backfilled areas will be graded to ensure proper drainage and seeded with grass to control erosion. Table 4-1 presents a summary of the surface areas and volumes of impacted soil that will be excavated, the estimated depth of each excavation, and the total volume to be excavated. The boundaries of the areas to be excavated are shown on a single map on Figure 4-1. The boundaries of the areas to be excavated shown on Figure 4-1 are the same as the shaded "Area of Impacted Soil" shown on Figures 3-1 through 3-5.

Finally, all three existing groundwater monitoring wells (wells WB-MW1, -MW2, and -MW3) present at the site will be abandoned. With the approval of this remedial action strategy by USEPA and NCDENR and its successful implementation by ExxonMobil, no future additional investigation, remediation, maintenance, or monitoring activities will be performed at the Wadesboro VCC site.

4.2 Description of Areas to be Excavated

This section describes the boundaries and depths of the areas to be excavated.

4.2.1 Contiguous Area

Data generated during the trenching and soil sample collection activities described in Section 3.2 were used to define the area of impacted soil in the Contiguous Area. The excavation area, shown on Figure 3-1, encompasses all of the soil borings that exceeded the action levels. Excavation at the southern end of the Contiguous Area will connect with the excavation area of the southern drainage ditch. Excavation to the east will connect with the excavation area at SB17. The wall that remains at the southern corner of the former acid chambers is used as an excavation boundary east and south of perimeter delineation station S9. The area of excavation has been extended west of boring S3C to bound the excavation on the west side of the contiguous area. Overall, an area of approximately 14,000 square feet at the Contiguous Area will be excavated to a maximum estimated depth of 3 feet for a total of approximately 1,550 cy removed (Table 4-1). The depth of the excavation will initially be guided by the depth of magenta-stained soil.

4.2.2 Drainage Ditch

Soil samples were collected in the drainage ditch south of the site and were used to define the area of impacted soil. The excavation area, shown on Figure 3-2, encompasses all of the soil borings that exceeded the action levels. The area of excavation in the drainage ditch is defined as a 250 foot length of the drainage ditch measured along the center with a maximum width of 10 feet and to an estimated maximum depth of 4 feet. A total of approximately 370 cy of soil will be excavated within the drainage ditch to the limits shown on Figure 3-2.

4.2.3 Access Road

Soil samples were collected in the access road leading into the site as well as at locations SB14, SB16, SB20, and SBXX. The area of excavation of the access road was determined to encompass a 140 ft length of the access road measured along the center of the road with a general width of 15 feet. Excavation will be guided by the presence or absence of magenta-stained soil. The northern section of road that encompasses soil borings RD-11, SB14, SB16, and their associated grid samples that exceed the action levels will be excavated to a depth of approximately 2 feet for a total of approximately 80 cy. The excavation area has been extended five feet west of boring SB14-B3 to bound lead-impacted soil in that area. The excavation area has been extended west of boring SB14-B3 to bound lead impacted soil in that area. The central section of road that encompasses soil borings RD-1 through RD-6, SBXX, and their associated grid samples that exceed the action levels will be excavated to a depth of approximately 3 feet for a total of approximately 140 cy. The southern section of the road that encompasses soil borings RD-7, SB20, and their associated grid samples that exceed the action levels will be excavated to a depth of approximately 4 feet for a total of approximately 60 cy. A total of approximately 280 cy of soil will be excavated from within the access road, around SB14, SB16, SB20, and SBXX to the limits shown on Figure 3-3.

4.2.4 SB9

Soil samples collected around SB9 in the 10 foot by 10 foot grids did not contain lead concentrations above the action level. The excavation area, shown on Figure 3-4, includes an area of approximately 100 square feet around soil boring SB9. Soil will be excavated to a depth of 0.5 feet for a total of approximately 2 cy removed.

4.2.5 SB11

Soil samples collected around SB11 resulted in many locations with concentrations of lead greater than the action level. Sampling at SB11 indicated that lead concentrations were greater than the action level to a depth of 2 feet. Excavation will consist of removing twenty-seven 10 foot by 10 foot grids and three 20 foot by 20 foot grids shown on Figure 3-5 to a depth of 2 feet. In addition, the area south of the line from the top of grid box SB11-C5 to the base of the hill and east of grid boxes SB11-C5, -C6, -C7, and -D9 is also considered to be impacted and will also be excavated. A total of approximately 300 cy of soil will be excavated at SB11.

4.2.6 SB12

Soil samples collected around SB12 resulted in many locations with lead concentrations greater than the action level. Sampling at SB12 indicated that lead concentrations were only greater than the action level in the 0 – 0.5 ft interval. Excavation will consist of removing twenty-seven 10 foot by 10 foot grids and five 20 foot by 20 foot grids shown on Figure 3-5 to a depth of 0.5 feet. In addition, the area between the line from the top corner of grid box SB11-C3 to the top corner of grid box SB12-D12 and the line from the southern corner of grid box SB11-D2 to the southern corner of grid box SB12-C13 is considered to be impacted and will be excavated. Finally, the soil north of the line between road boring RD11 and Contiguous Area boring S1 and east of the line from RD11 and the northwestern corner of grid box SB12-D1 is considered impacted and will also be excavated. A total of approximately 60 cy of soil will be excavated at SB12.

4.2.7 SB13

Soil samples collected around SB13 in the 10 foot by 10 foot grids resulted in one location (SB13-A2) with concentrations of arsenic greater than the action level. The excavation area, shown on Figure 3-1, includes a 10 foot by 10 foot box around SB13 as well as a 10 foot by 10 foot grid represented by SB13-A2. This area will be excavated to one foot for a total of approximately 6 cy of soil excavated at SB13.

4.2.8 SB17

Soil samples collected around SB17 in the 10 foot by 10 foot grids resulted in one location (SB17-A1) with concentrations of arsenic greater than the action level. The excavation area, shown on Figure 3-1, includes a 10 foot by 10 foot box around SB17 as well as a 10 foot by 10 foot grid represented by SB17-A1. This area will be excavated to one foot for a total of approximately 6 cy of soil excavated at SB17.

4.2.9 VC-07-SS

Soil samples collected around VC-07-SS in the 10 foot by 10 foot grids resulted in one location (VC-07-SS-A4) with concentrations of arsenic greater than the action level. The excavation area, shown on Figure 3-1, includes a 10 foot by 10 foot box around VC-07-SS as well as a 10 foot by 10 foot grid represented by VC-07-SS-A4. This area will be excavated to a depth of 2 feet for a total of approximately 13 cy of soil excavated at VC-07-SS.

5. Remedial Action Work Plan

5.1 Introduction

The RAWP presented in this section has been prepared to outline the technical approach and methods for conducting a remedial action at the former VCC facility in Wadesboro, North Carolina. The remedial action will entail the excavation, on-site stabilization (as needed), and off-site disposal of soils containing arsenic and/or lead at concentrations greater than or equal to the action levels listed in Section 2.2, followed by restoration of the site by backfilling and hydroseeding the excavated areas.

5.1.1 Work Plan Objectives

The overall objective of the remedial action, as described in the AOC, is to conduct remedial actions "to abate the imminent and substantial endangerment of the public health, welfare, or the environment that may be presented by the actual or threatened release of hazardous substances at or from the Site." Specific objectives are to:

- Excavate soil containing arsenic and/or lead at concentrations greater than or equal to site-specific on- and off-site action levels;
- Reduce the leachability of arsenic and/or lead (as needed) so that all excavated soil may be disposed of at a local RCRA Subtitle D landfill;
- Document via sampling of the bottom of the excavations that the soil containing arsenic and/or lead at concentrations greater than or equal to action levels has been excavated; and
- Restore the site to pre-excavation grades.

5.2 Project Organization

5.2.1 Regulator

The USEPA is the regulatory agency for this project. The USEPA On-Scene Coordinator (OSC) will be responsible for providing and coordinating regulatory oversight and direction, as necessary, including review, comment, and approval of all required submittals. The USEPA OSC for this project is Mr. Kevin Misenheimer of USEPA Region 4.

5.2.2 Respondent

ExxonMobil is the Respondent named in the AOC for the Site. While ExxonMobil's interests will be represented in the field by the Engineer and Remedial Action Contractor (as described below), ExxonMobil will maintain an active role in the project through periodic site visits, participation in project meeting updates, and review/approval of project activities and reports. The ExxonMobil Project Coordinator is Mr. Kyle Harris.

5.2.3 Engineer

BBL of Cary, North Carolina, on behalf of ExxonMobil, will be responsible for the engineering aspects of the remedial action. General BBL responsibilities will include, but are not limited to, the following:

- Preparing this RAWP and appendices;
- Reviewing materials prior to submittal to the USEPA;
- Interfacing with regulatory agency personnel;
- Collecting confirmatory and waste characterization samples;
- Preparing and submitting status reports to the USEPA;

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- Managing field activities; and
 - Preparing and submitting the final report to the USEPA.

BBL has designated a Project Coordinator to oversee implementation of the above activities. The BBL Project Coordinator is Mr. Geoffrey Germann, P.E.

5.2.4 Remedial Action Contractor

ExxonMobil will retain a contractor to perform the remedial action. Responsibilities of the remedial action contractor will include, but not be limited to, the following:

- Providing the labor, material, and equipment necessary to complete the remedial action activities in accordance with this RAWP;
- Coordinating the handling, transport, and disposal of waste material, including soils, residuals and personal protective equipment;
- Performing surveying as needed;
- Providing site health and safety monitoring for their own workers and subcontractors (if any); and
- Preparing submittals as required.

The remedial action contractor will appoint one member of its on-site remedial action team as the Site Supervisor. The Site Supervisor will be a qualified professional with experience in waste site cleanup and will coordinate all activities in accordance with the RAWP. In the event that an unexpected circumstance may hinder the Site Supervisor from adhering to the RAWP, the Site Supervisor will consult immediately with the Engineer.

5.2.5 Waste Disposal Facility

Excavated soil will be disposed of at the following RCRA Subtitle D landfill:

BFI - Anson County Landfill
Route 1, Box 235
Polkton, NC 28135
704-694-6900

All waste disposal subcontractors proposed to receive and accept Site waste shall be in compliance with the Off-site Rule prior to transporting the waste stream. Notifications for scheduled waste shipments shall be submitted to the USEPA OSC prior to shipment.

5.2.6 Analytical Laboratory

TestAmerica Incorporated (TestAmerica) of Nashville, Tennessee has been selected for the analysis of samples collected as part of this project. If additional laboratories are to be used to process samples from the Site approval will be requested from USEPA prior to the use of such laboratories.

5.3 Technical Approach and Scope of Work

The objective of the remedial action at the Site is to mitigate the current or potential future releases of hazardous substances to the environment. The remedial action will consist of the excavation of on- and off-site soils that exceed their respective action levels, stabilization of impacted soil using a phosphate-based stabilization reagent (as needed to facilitate disposal of the soil at a Subtitle D landfill), off-site disposal of the soil at the BFI Anson County Landfill, and backfill of the excavated areas with clean soil fill and topsoil. The following sections describe these activities in more detail.

5.3.1 Mobilization

Prior to mobilization, the remedial action contractor will submit an Operations Plan, Health and Safety Plan, and Project Schedule for review and approval. Equipment and personnel needed to implement the Remedial Action will then be mobilized to the Site. Local suppliers for goods and services (i.e., water, portable toilets, etc) will be identified upon mobilization to the Site.

5.3.2 Prepare Site for Remedial Action Activities

The following sections describe the activities that will be performed at the site in preparation of the remedial action.

5.3.2.1 Install Erosion and Sediment Control Measures

Erosion and sediment control (E&SC) measures will be installed at the Site to prevent migration of soil/sediment-bound contaminants to surface water bodies. The type and location of E&SC measures to be installed will be determined upon mobilization to the Site but may include silt fence, hay bales, etc. E&SC measures will be inspected daily by the Contractor to ensure their continued effectiveness. Additional E&SC measures will be installed as needed as the remedial action progresses to prevent the transport of eroded soil away from the site.

5.3.2.2 Clearing

Areas of the Site to be affected by the remedial action will be cleared to provide access. Trees and shrubs will be removed above ground surface. Tree roots and impacted debris will to be removed with the soil with which it is located. Specific areas of the site to be cleared will be determined upon mobilization but will likely include:

- Equipment staging areas;
- Haul roads;
- Soil staging/mixing areas;
- Soil areas to be excavated;
- Drainage ditch to be excavated; and
- Other areas as needed.

Woody vegetation that is cleared will be stockpiled on site at a location to be determined upon mobilization.

5.3.2.3 Locate Area of Soil to be Excavated

As described in Section 4.2, boundaries were established around the areas of impacted soils. No additional delineation of the areal extent of impacted soil is necessary. The boundaries of the "Area of Impacted Soil" shown on Figures 3-1 through 3-5, which are summarized on Figure 4-1 as the "Area of Excavation", depict the areal limits of the soil that will be excavated. No excavation will be performed outside of these boundaries.

The boundaries of the areas to be excavated will be marked in the field based on the surveyed locations of the appropriate soil borings. The stakes installed at all soil boring locations during the additional delineation activities were left in place and will be used when marking excavation boundaries. Excavation boundaries will be marked using hazard tape, pin flags, spray paint, or other appropriate means. The designated soils will be excavated as described below.

5.3.2.4 Monitoring Well Abandonment

The three existing monitoring wells at the site (WB-MW1, -MW2, and -MW3) will be abandoned in accordance with Title 15A, Subchapter 2C, Section .0214 of the North Carolina Administrative Code. Well abandonment will be performed by a North Carolina-licensed well driller. Wells will be completely filled with cement grout,

which shall be introduced to the well through a pipe that extends to the bottom of the well and raised as the well is filled.

5.3.3 Excavate/Stabilize Impacted Soil

Excavated soil will be stockpiled on-site at an area to be determined during removal activities. It has been determined that some or all of the soils may require treatment prior to off-site disposal at a RCRA Subtitle D landfill.

5.3.3.1 Soil Excavation

Soil will be excavated from the areas described in Section 4.2, listed in Table 4-1, and shown on Figures 3-1 through 3-5 and 4-1. The estimated aerial dimensions, depths, and in-place volumes for each excavated area are also shown on Table 4-1. In areas where magenta soil is present, e.g., the Contiguous Area and Road, the depth of the excavation will be to approximately 0.5 foot below the bottom of the magenta soil layer. In the other areas, the depth of the excavation will be to the depth (as determined by the existing vertical delineation data in that area) at which arsenic and/or lead are no longer present in the soil at concentrations greater than or equal to the action levels. These depths (and volumes) may be adjusted in the field based on the results of the excavation-bottom confirmation sampling (Section 5.3.6) to ensure that all soil within an area containing analytes at concentrations exceeding the Site-specific remedial action levels are excavated.

Excavated soil will be transported to another area of the site, likely the concrete pad for the former processing building, for staging and stabilization. The soil will be staged on impermeable plastic sheeting to minimize contact with the underlying pad.

5.3.3.2 Soil Arsenic/Lead Stabilization

Arsenic and/or lead contained in the excavated soil will be stabilized as needed to reduce the leachability of these metals to levels that will facilitate acceptance of the soil at a RCRA Subtitle D landfill. Pending approval of the waste profile by the landfill, stabilized soil will have leachable arsenic and/or lead concentrations that are below the following standards:

- Arsenic = 5.0 mg/L TCLP; and
- Lead = 5.0 mg/L TCLP.

The Universal Treatment Standards (UTS's) for lead and arsenic are 0.75 mg/L TCLP and 5.0 mg/L TCLP respectively. However, based on the federal alternative treatment standards for soil (promulgated at 40 CFR 268.49), which states that successful treatment of a characteristically hazardous soil such as the soil present at the Wadesboro site requires that the characteristic be eliminated and that the underlying hazardous constituents (UHCs) are reduced by 90%, or to concentrations less than ten times the UTS's. Therefore, the alternative treatment standards for soil at this site are 7.5 mg/L TCLP for lead and 50 mg/L TCLP for arsenic. However, since this soil is to be disposed of at a Subtitle D Landfill, the TCLP limits of 5.0 mg/L for lead and arsenic apply. Therefore, 5.0 mg/L TCLP for lead and arsenic will be used as the standard for treatment at the site. However, the final treatment standard will be determined by the landfill after its review of the waste profile.

Stabilization (as needed) will be achieved via the mixing of a phosphate-based stabilization reagent with the excavated soil. Mixing will be performed via mechanical means using equipment such as an excavator bucket. Soil samples will be collected to determine compliance with the above standards at a minimum frequency of one sample per 1,000 tons of soil disposed at the landfill. Each disposal compliance sample will consist of a composite of 10 subsamples collected from the soil pile. Each disposal compliance sample will be analyzed for TCLP arsenic and/or lead. The metal to be analyzed will be determined based on the area from which the soil was excavated and the metal present in that area (see Sections 2.3.1 and 2.3.2). If soil from two or more areas

containing different metals, e.g., one area's soil contains arsenic and the other area's soil contains lead, then the mixed soil pile will be tested for both TCLP arsenic and TCLP lead.

5.3.4 Transport to Disposal Facility

Treated and non-treated soils shown to be non-hazardous by analytical testing will be transported to the RCRA Subtitle D landfill for disposal. The remedial action contractor will be responsible for coordinating and scheduling the transport vehicles and loading the materials. All waste streams will be characterized before disposal as required by applicable federal, state, and local laws, rules, and regulations, as well as any additional requirements imposed by the receiving landfill or disposal facility (see Section 5.3.3.2).

Excavated soil will be loaded into dumptrucks for transport to the disposal facility. Traffic patterns will be established that prevent trucks hauling soil off-site from traversing bare soil in impacted areas to eliminate the need to decontaminate the trucks prior to exiting the site.

All containers used for off-site transport of materials will be covered with tarps prior to off-site transport. The remedial action contractor will be responsible for ensuring that all transportation containers are tarped, manifested, and placarded in accordance with appropriate RCRA and NCDOT requirements before leaving the site.

The weight of the transportation containers prior to departure from the site will be within its allowable loaded capacity for subsequent transport and in compliance with any and all NCDOT regulation. A daily log of information will be compiled that includes the date and time, container identification number, and measured weight of each loaded transportation container to have departed the site.

5.3.5 Confirmation Sampling

Confirmation sampling will be performed in all areas where soil was excavated to determine if the concentrations of analytes in the remaining soil are below the Site-specific remedial action levels. If the results of the confirmation sampling indicate that analyte concentrations in the soil or sediment continue to exceed the Site-specific remedial action levels then additional excavation and confirmation sampling will be performed.

Confirmation sampling will be achieved via the collection of one or more composite samples from the bottom of each excavated area. Samples will be analyzed for arsenic and/or lead based on the presence of these metals in the soil excavated from a particular area. The confirmation sampling program will be as follows:

Area	Number of Samples	Analyte(s)
Contiguous Area	2	As, Pb
Drainage Ditch	2	As, Pb
Access Road	2	As, Pb
SB9	1	Pb
SB11	1	Pb
SB12	1	Pb
SB13	1	As
SB17	1	As
VC-07-SS	1	Pb

Each confirmation sample will be a composite of 10 subsamples collected across the surface of the bottom of an excavation. In areas where two samples will be collected, each sample will be collected so that the subsamples for each are collected from approximately 50% of the surface area of the excavation. Samples, including field

quality control samples, will be collected and analyzed in accordance with the procedures in the Field Sampling Plan (FSP) and QAPP included in BBL (2001a).

5.3.6 Site Restoration

Upon completion of the remedial action the Site will be restored to minimize the potential for future erosion. Areas of excavation soil will be backfilled to pre-existing grade, compacted, and graded to ensure positive drainage. Excavation areas within the ditches will be backfilled (as necessary), and graded to ensure positive drainage. The need for installation of additional slope stabilization materials for the excavation ditches (e.g., rip rap) will be assessed in the field. All disturbed areas will be hydroseeded with a suitable local seed mixture.

5.4 Demobilization

All equipment will be decontaminated and demobilized from the Site upon completion of the site restoration activities. All containerized decontamination waste will be disposed off site at this time.

5.5 Reporting

5.5.1 Weekly Reports

Brief written progress reports that describe actions taken pursuant to the Order will be submitted to the USEPA OSC on a weekly basis. Each weekly report shall:

- Describe all significant developments during the preceding seven day period, including actions performed and any problems encountered;
- Include analytical data received during the reporting period;
- Describe developments anticipated during the next reporting period, including anticipated problems and a schedule of work to be performed; and
- Discuss planned resolutions of past and anticipated future problems.

5.5.2 Final Report

A final report summarizing the actions taken to comply with this Order will be submitted to USEPA for review and approval within sixty days after completion of the remedial action. The final report will conform with, at a minimum, the requirements of Section 300.165 (entitled OSC Reports) of the National Contingency Plan and will include the following:

- A listing of the quantities and types of materials removed off-site;
- A discussion of the removal and disposal options considered for removed materials;
- A listing of the ultimate destinations of all removed materials;
- A presentation of the analytical results of all sampling and analyses performed; and
- Appendices containing all relevant documentation generated during the remedial action (e.g., manifests, invoices, bills, contracts, and permits).

The final report shall also include the following certification signed by a person who supervised or directed the preparation of the report:

“Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations”.

5.6 Schedule

The project schedule, starting with USEPA approval of this RAWP and concluding with the submittal of the Final Report, is included as Figure 5-1.

6. References

- BBL. 2001a. Site Characterization Work Plan for the Former Virginia-Carolina Chemical Company Phosphate/Fertilizer Plant, Wadesboro, North Carolina. March 28, 2001.
- BBL. 2001b. Site Characterization Report for the Former Virginia-Carolina Chemical Company Phosphate/Fertilizer Plant, Wadesboro, North Carolina (Revision 1). December 2001. Prepared for Exxon Mobil Corporation.
- BBL. 2002a. Soil Arsenic and Lead Additional Delineation Work Plan for the Former Virginia-Carolina Chemical Company Phosphate/Fertilizer Plant, Wadesboro, North Carolina. July 25, 2002. Prepared for Exxon Mobil Corporation.
- BBL. 2002b. Alternatives Evaluation Report, Wadesboro VCC Site, Wadesboro, North Carolina. April 3, 2002. Prepared for Exxon Mobil Corporation.
- Tetra Tech EMI. 2000. Letter Report, Virginia Carolina Chemical Site, Wadesboro, Anson County, North Carolina. Letter from Steve Pierce, Tetra Tech EMI to John Nolen, USEPA. February 1, 2000.

Tables

Table 2-1
Summary of Soil Samples Collected and Analyzed
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Matrix	Sample Depth Interval (ft bgs)	Sample Collection Date	Sample Analyses Performed		Comments
				Arsenic	Lead	
WB-SB11 (0.5-1.0)	Soil	0.5-1.0	8/12/02	X	X	
WB-SB11 (1.0-1.5)	Soil	1.0-1.5	8/12/02	X	X	
WB-SB11 (1.5-2.0)	Soil	1.5-2.0	8/12/02	X	X	
WB-SB11A1 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X	X	
WB-SB11-A2 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X	X	
WB-SB11-A3 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X	X	
WB-SB11-A4 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X	X	
WB-SB12 (0.5-1.0)	Soil	0.5-1.0	8/12/02		X	
WB-SB12 (1.0-1.5)	Soil	1.0-1.5	8/12/02		X	
WB-SB12 (1.5-2.0)	Soil	1.5-2.0	8/12/02		X	
WB-SB12-A1 (0.0-2.0)	Soil	0.0-2.0	8/12/02		X	
WB-SB12-A2 (0.0-2.0)	Soil	0.0-2.0	8/12/02		X	
WB-SB12-A3 (0.0-2.0)	Soil	0.0-2.0	8/12/02		X	
WB-SB12-A4 (0.0-2.0)	Soil	0.0-2.0	8/12/02		X	
WB-SB14 (0.5-1.0)	Soil	0.5-1.0	8/12/02	X	X	
WB-SB14 (1.0-1.5)	Soil	1.0-1.5	8/12/02	X	X	
WB-SB14 (1.5-2.0)	Soil	1.5-2.0	8/12/02	X	X	
WB-SB14-A1 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X	X	
WB-SB14-A2 (0.0-1.0)	Soil	0.0-1.0	8/12/02	X	X	
WB-SB14-A2 (1.0-2.0)	Soil	1.0-2.0	8/12/02	X	X	
DUP-081202-2	Soil		8/12/02	X	X	Blind Field Duplicate of WB-SB14-A2 (1.0-2.0)
WB-SB14-A3 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X	X	
WB-SB17 (0.5-1)	Soil	0.5-1.0	8/12/02	X		
WB-SB17 (1.0-1.5)	Soil	1.0-1.5	8/12/02	X		
WB-SB17 (1.5-2.0)	Soil	1.5-2.0	8/12/02	X		
WB-SB17-A1 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X		
WB-SB17-A2 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X		
WB-SB17-A3 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X		MS/MSD
WB-SB17-A4 (0.0-2.0)	Soil	0.0-2.0	8/12/02	X		
DUP-081202-1	Soil		8/12/02	X		Blind Field Duplicate of WB-SB17-A4 (0.0-2.0)
WB-SB16 (0.5-1.0)	Soil	0.5-1.0	8/13/02	X		
WB-SB16 (1.0-1.5)	Soil	1.0-1.5	8/13/02	X		
WB-SB16 (1.5-2.0)	Soil	1.5-2.0	8/13/02	X		
WB-SB16-A1 (0.0-1.0)	Soil	0.0-1.0	8/13/02	X		
WB-SB16-A1 (1.0-2.0)	Soil	1.0-2.0	8/13/02	X		
WB-SB16-A1 (2.0-3.0)	Soil	2.0-3.0	8/13/02	X		
WB-SB16-A2 (0.0-1.0)	Soil	0.0-1.0	8/13/02	X		
WB-SB16-A2 (1.0-2.0)	Soil	1.0-2.0	8/13/02	X		
WB-SB16-A2 (2.0-3.0)	Soil	2.0-3.0	8/13/02	X		
WB-SB16-A3 (0.0-1.0)	Soil	0.0-1.0	8/13/02	X		
WB-SB16-A3 (1.0-2.0)	Soil	1.0-2.0	8/13/02	X		
WB-SB16-A3 (2.0-3.0)	Soil	2.0-3.0	8/13/02	X		
WB-SB20 (2.0-2.5)	Soil	2.0-2.5	8/13/02	X	X	

Table 2-1
Summary of Soil Samples Collected and Analyzed
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Matrix	Sample Depth Interval (ft bgs)	Sample Collection Date	Sample Analyses Performed		Comments
				Arsenic	Lead	
WB-SB20 (2.5-3.0)	Soil	2.5-3.0	8/13/02	X	X	
WB-SB20 (3.0-3.5)	Soil	3.0-3.5	8/13/02	X	X	
WB-SB20 (3.5-4.0)	Soil	3.5-4.0	8/13/02	X	X	
WB-SB20-A1 (2.0-4.0)	Soil	2.0-4.0	8/13/02	X	X	MS/MSD
WB-SB20-A2 (2.0-4.0)	Soil	2.0-4.0	8/13/02	X	X	
DUP-081302-1	Soil		8/13/02	X	X	Blind Field Duplicate of WB-SB20-A2 (2.0-4.0)
WB-SB20-A3 (2.0-4.0)	Soil	2.0-4.0	8/13/02	X	X	
VC-07-SS (0.5-1.0)	Soil	0.5-1.0	8/13/02		X	
VC-07-SS (1.0-1.5)	Soil	1.0-1.5	8/13/02		X	
VC-07-SS (1.5-2.0)	Soil	1.5-2.0	8/13/02		X	
VC-07-SS-A2 (0.0-2.0)	Soil	0.0-2.0	8/13/02		X	
VC-07-SSA3 (0.0-2.0)	Soil	0.0-2.0	8/13/02		X	
VC-07-SSA4 (0.0-2.0)	Soil	0.0-2.0	8/13/02		X	
WB-SB09 (0.5-1.0)	Soil	0.5-1.0	8/14/02		X	
WB-SB09 (1.0-1.5)	Soil	1.0-1.5	8/14/02		X	
WB-SB09 (1.5-2.0)	Soil	1.5-2.0	8/14/02		X	
WB-SB09-A1 (0.0-2.0)	Soil	0.0-2.0	8/14/02		X	
WB-SB09-A2 (0.0-2.0)	Soil	0.0-2.0	8/14/02		X	
WB-SB09-A4 (0.0-2.0)	Soil	0.0-2.0	8/14/02		X	
WB-SB09-A3 (0.0-2.0)	Soil	0.0-2.0	8/14/02		X	
WB-SB14-A4 (0.0-2.0)	Soil	0.0-2.0	8/14/02	X	X	
WB-SB16-A4 (0.0-2.0)	Soil	0.0-2.0	8/14/02	X		
WB-SB19-A1	Soil		8/14/02	X	X	
WB-SB20-A4 (2.0-4.0)	Soil	2.0-4.0	8/14/02	X	X	
DUP-081402-1	Soil		8/14/02	X	X	MS/MSD; and Blind Field Duplicate of WB-SB20-A4 (2.0-4.0)
WB-SBXX (0.5-1.0)	Soil	0.5-1.0	8/15/02	X		
WB-SBXX (1.0-1.5)	Soil	1.0-1.5	8/15/02	X		
WB-SBXX (1.5-2.0)	Soil	1.5-2.0	8/15/02	X		
WB-SBXX-A1 (0.0-2.0)	Soil	0.0-2.0	8/15/02	X		MS/MSD
WB-SBXX-A2(0.0-2.0)	Soil	0.0-2.0	8/15/02	X		
DUP-081502-1	Soil		8/15/02	X		Blind Field Duplicate of WB-SBXX-A2 (0.0-2.0)
WB-SBXX-A3 (0.0-2.0)	Soil	0.0-2.0	8/15/02	X		
WB-SBXX-A4 (0.0-2.0)	Soil	0.0-2.0	8/15/02	X		
WB-SD03 (0.5-1.0)	Soil	0.5-1.0	8/15/02		X	
WB-SD03 (1.0-1.5)	Soil	1.0-1.5	8/15/02		X	
WB-SD03 (1.5-2.0)	Soil	1.5-2.0	8/15/02		X	
WB-SD03-A1 (0.0-0.5)	Soil	0.0-0.5	8/15/02		X	
WB-SD03-A1 (0.5-1.0)	Soil	0.5-1.0	8/15/02		X	
WB-SD03-A1 (1.0-1.5)	Soil	1.0-1.5	8/15/02		X	
WB-SD03-A1 (1.5-2.0)	Soil	1.5-2.0	8/15/02		X	
WB-SD03-A2 (0.0-0.5)	Soil	0.0-0.5	8/15/02		X	
WB-SD03-A2 (0.5-1.0)	Soil	0.5-1.0	8/15/02		X	

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Sample ID	Matrix	Sample Depth Interval (ft bgs)	Sample Collection Date	Sample Analyses Performed		Comments
				Arsenic	Lead	
WB-SD03-A2 (1.0-1.5)	Soil	1.0-1.5	8/15/02		X	
WB-SD03-A2 (1.5-2.0)	Soil	1.5-2.0	8/15/02		X	
WB-SD03-A3 (0.0-0.5)	Soil	0.0-0.5	8/15/02		X	
WB-SD03-A3 (0.5-1.0)	Soil	0.5-1.0	8/15/02		X	
WB-SD03-A3 (1.0-1.5)	Soil	1.0-1.5	8/15/02		X	
WB-SD03-A3 (1.5-2.0)	Soil	1.5-2.0	8/15/02		X	
WB-SD03-A4 (0.0-0.5)	Soil	0.0-0.5	8/15/02		X	
WB-SD03-A4 (0.5-1.0)	Soil	0.5-1.0	8/15/02		X	
WB-SD03-A4 (1.0-1.5)	Soil	1.0-1.5	8/15/02		X	
WB-SD03-A4 (1.5-2.0)	Soil	1.5-2.0	8/15/02		X	
WB-SD04 (0.5-1.0)	Soil	0.5-1.0	8/15/02	X	X	
WB-SD04 (1.0-1.5)	Soil	1.0-1.5	8/15/02	X	X	
WB-SD04 (1.5-2.0)	Soil	1.5-2.0	8/15/02	X	X	
WB-SD04-A1 (0.0-0.5)	Soil	0.0-0.5	8/15/02	X	X	
WB-SD04-A1 (0.5-1.0)	Soil	0.5-1.0	8/15/02	X	X	
WB-SD04-A1 (1.0-1.5)	Soil	1.0-1.5	8/15/02	X	X	
WB-SD04-A1 (1.5-2.0)	Soil	1.5-2.0	8/15/02	X	X	
WB-SD04-A2 (0.0-0.5)	Soil	0.0-0.5	8/15/02	X	X	
WB-SD04-A2 (0.5-1.0)	Soil	0.5-1.0	8/15/02	X	X	
WB-SD04-A2 (1.0-1.5)	Soil	1.0-1.5	8/15/02	X	X	
WB-SD04-A2 (1.5-2.0)	Soil	1.5-2.0	8/15/02	X	X	
WB-SD04-A3 (0.0-0.5)	Soil	0.0-0.5	8/15/02	X	X	
WB-SD04-A3 (0.5-1.0)	Soil	0.5-1.0	8/15/02	X	X	
WB-SD04-A3 (1.0-1.5)	Soil	1.0-1.5	8/15/02	X	X	
WB-SD04-A3 (1.5-2.0)	Soil	1.5-2.0	8/15/02	X	X	
WB-SD04-A4 (0.0-0.5)	Soil	0.0-0.5	8/15/02	X	X	
WB-SD04-A4 (0.5-1.0)	Soil	0.5-1.0	8/15/02	X	X	
WB-SD04-A4 (1.0-1.5)	Soil	1.0-1.5	8/15/02	X	X	
WB-SD04-A4 (1.5-2.0)	Soil	1.5-2.0	8/15/02	X	X	
WB-SB-RD-1 (0.0-1.0)	Soil	0.0-1.0	8/16/02	X	X	
WB-SB-RD-1 (1.0-2.0)	Soil	1.0-2.0	8/16/02	X	X	
WB-SB-RD-1 (2.0-3.0)	Soil	2.0-3.0	8/16/02	X	X	
WB-SB-RD-2 (0.0-1.0)	Soil	0.0-1.0	8/16/02	X	X	
WB-SB-RD-2 (1.0-2.0)	Soil	1.0-2.0	8/16/02	X	X	
DUP-081602-1	Soil		8/16/02	X	X	Blind Field Duplicate of WB-SB-RD-2 (1.0-2.0)
WB-SB-RD-2 (2.0-3.0)	Soil	2.0-3.0	8/16/02	X	X	MS/MSD
WB-SB-RD-2 (3.0-4.0)	Soil	3.0-4.0	8/16/02	X	X	
WB-SB-RD-3 (0.0-1.0)	Soil	0.0-1.0	8/16/02	X	X	
WB-SB-RD-3 (1.0-2.0)	Soil	1.0-2.0	8/16/02	X	X	
DUP-081602-2	Soil		8/16/02	X	X	Blind Field Duplicate of WB-SB-RD-3 (1.0-2.0)
WB-SB-RD-3 (2.0-3.0)	Soil	2.0-3.0	8/16/02	X	X	MS/MSD
WB-SB-RD-3 (3.0-4.0)	Soil	3.0-4.0	8/16/02	X	X	
WB-SB-RD-4 (0.0-1.0)	Soil	0.0-1.0	8/16/02	X	X	

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Sample ID	Matrix	Sample Depth Interval (ft bgs)	Sample Collection Date	Sample Analyses Performed		Comments
				Arsenic	Lead	
WB-SB-RD-4 (1.0-2.0)	Soil	1.0-2.0	8/16/02	X	X	
DUP-081602-3	Soil		8/16/02	X	X	Blind Field Duplicate of WB-SB-RD-4 (1.0-2.0)
WB-SB-RD-4 (2.0-3.0)	Soil	2.0-3.0	8/16/02	X	X	MS/MSD
WB-SB-RD-4 (3.0-4.0)	Soil	3.0-4.0	8/16/02	X	X	
WB-SB-RD-5 (0.0-1.0)	Soil	0.0-1.0	8/16/02	X	X	
WB-SB-RD-5 (1.0-2.0)	Soil	1.0-2.0	8/16/02	X	X	
WB-SB-RD-5 (2.0-3.0)	Soil	2.0-3.0	8/16/02	X	X	
WB-SB-RD-5 (3.0-4.0)	Soil	3.0-4.0	8/16/02	X	X	
WB-SB-RD-6 (0.0-1.0)	Soil	0.0-1.0	8/16/02	X	X	
WB-SB-RD-6 (1.0-2.0)	Soil	1.0-2.0	8/16/02	X	X	
WB-SB-RD-6 (2.0-3.0)	Soil	2.0-3.0	8/16/02	X	X	
WB-SB-RD-6 (3.0-4.0)	Soil	3.0-4.0	8/16/02	X	X	
WBS-1 (0.0-0.5)	Soil	0.0-0.5	8/19/02	X	X	
WBS-1 (0.5-1.0)	Soil	0.5-1.0	8/19/02	X	X	
WBS-1 (1.0-1.5)	Soil	1.0-1.5	8/19/02	X	X	
WBS-1 (1.5-2.0)	Soil	1.5-2.0	8/19/02	X	X	
WBS-2 (0.0-0.5)	Soil	0.0-0.5	8/19/02	X	X	
WBS-2 (0.5-1.0)	Soil	0.5-1.0	8/19/02	X	X	
WBS-2 (1.0-1.5)	Soil	1.0-1.5	8/19/02	X	X	
WBS-2 (1.5-2.0)	Soil	1.5-2.0	8/19/02	X	X	
WBS-3 (0.0-0.5)	Soil	0.0-0.5	8/19/02	X	X	
WBS-3 (0.5-1.0)	Soil	0.5-1.0	8/19/02	X	X	
WBS-3 (1.0-1.5)	Soil	1.0-1.5	8/19/02	X	X	
WBS-3 (1.5-2.0)	Soil	1.5-2.0	8/19/02	X	X	
WBS-4 (0.0-0.5)	Soil	0.0-0.5	8/19/02	X	X	
DUP-081902-1	Soil		8/19/02	X	X	Blind Field Duplicate of WBS-4 (0.0-0.5)
WBS-4 (0.5-1.0)	Soil	0.5-1.0	8/19/02	X	X	MS/MSD
WBS-4 (1.0-1.5)	Soil	1.0-1.5	8/19/02	X	X	
WBS-4 (1.5-2.0)	Soil	1.5-2.0	8/19/02	X	X	
WBS5 (0.0-0.5)	Soil	0.0-0.5	8/19/02	X	X	
DUP-081902-2	Soil		8/19/02	X	X	Blind Field Duplicate of WBS-5 (0.0-0.5)
WBS5 (0.5-1.0)	Soil	0.5-1.0	8/19/02	X	X	MS/MSD
WBS5 (1.0-1.5)	Soil	1.0-1.5	8/19/02	X	X	
WBS5 (1.5-2.0)	Soil	1.5-2.0	8/19/02	X	X	
DUP-081902-3	Soil		8/19/02	X	X	Blind Field Duplicate of WBS-6 (0.0-0.5)
WBS6 (0.0-0.5)	Soil	0.0-0.5	8/19/02	X	X	MS/MSD
WBS6 (0.5-1.0)	Soil	0.5-1.0	8/19/02	X	X	
WBS6 (1.0-1.5)	Soil	1.0-1.5	8/19/02	X	X	
WBS6 (1.5-2.0)	Soil	1.5-2.0	8/19/02	X	X	
WBS7 (0.0-0.5)	Soil	0.0-0.5	8/20/02	X	X	
WBS7 (0.5-1.0)	Soil	0.5-1.0	8/20/02	X	X	
WBS7 (1.0-1.5)	Soil	1.0-1.5	8/20/02	X	X	
WBS7 (1.5-2.0)	Soil	1.5-2.0	8/20/02	X	X	

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Sample ID	Matrix	Sample Depth Interval (ft bgs)	Sample Collection Date	Sample Analyses Performed		Comments
				Arsenic	Lead	
WBS8 (0.0-0.5)	Soil	0.0-0.5	8/20/02	X	X	
WBS8 (0.5-1.0)	Soil	0.5-1.0	8/20/02	X	X	
WBS8 (1.0-1.5)	Soil	1.0-1.5	8/20/02	X	X	
WBS8 (1.5-2.0)	Soil	1.5-2.0	8/20/02	X	X	
WBRD-10 (0.0-1.0)	Soil	0.0-1.0	8/20/02	X	X	
WBRD-10 (1.0-2.0)	Soil	1.0-2.0	8/20/02	X	X	
WBRD-7 (0.0-1.0)	Soil	0.0-1.0	8/20/02	X	X	
WBRD-7 (1.0-2.0)	Soil	1.0-2.0	8/20/02	X	X	
WBRD-8 (0.0-1.0)	Soil	1.0-1.5	8/20/02	X	X	
WBRD-8 (1.0-2.0)	Soil	1.0-2.0	8/20/02	X	X	
WBRD-9 (0.0-1.0)	Soil	0.0-1.0	8/20/02	X	X	
WBRD-9 (1.0-2.0)	Soil	0.5-1.0	8/20/02	X	X	
WB-SB11-B1 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
DUP-082002-1	Soil		8/20/02		X	Blind Field Duplicate of WB-SB11-B1 (0.0-2.0)
WB-SB11-B10 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	MS/MSD
WB-SB11-B11 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
WB-SB11-B12 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
WB-SB11-B2 (0.0-0.2)	Soil	0.0-2.0	8/20/02		X	MS/MSD
WB-SB11-B3 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
WB-SB11-B4 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
WB-SB11-B5 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
WB-SB11-B6 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
WB-SB11-B7 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
WB-SB11-B8 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
WB-SB11-B9 (0.0-2.0)	Soil	0.0-2.0	8/20/02		X	
DUP-082002-2	Soil		8/20/02		X	Blind Field Duplicate of WB-SB11-B9 (0.0-2.0)
WBS9 (0.0-0.5)	Soil	0.0-0.5	8/21/02	X	X	
WBS9 (0.5-1.0)	Soil	0.5-1.0	8/21/02	X	X	
WBS9 (1.0-1.5)	Soil	1.0-1.5	8/21/02	X	X	
WBS9 (1.5-2.0)	Soil	1.5-2.0	8/21/02	X	X	
WB-SB11 (2.0-3.0)	Soil	2.0-3.0	8/21/02			
WB-SB12-B1 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB12-B2 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB12-B3 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB12-B4 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB12-B5 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB12-B6 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB12-B7 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB12-B8 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB12-B9 (0.0-0.5)	Soil	0.0-0.5	8/21/02		X	
WB-SB17-B1 (0.0-1.0)	Soil	0.0-1.0	8/21/02	X		
WB-SB17-B2 (0.0-1.0)	Soil	0.0-1.0	8/21/02	X		
WB-SB17-B3 (0.0-1.0)	Soil	0.0-1.0	8/21/02	X		

Table 2-1
Summary of Soil Samples Collected and Analyzed
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Matrix	Sample Depth Interval (ft bgs)	Sample Collection Date	Sample Analyses Performed		Comments
				Arsenic	Lead	
WB-SD03 (2.0-4.0)	Soil	2.0-4.0	8/21/02		X	
WB-SD04 (2.0-4.0)	Soil	2.0-4.0	8/21/02	X	X	
WB-SD05 (0.0-2.0)	Soil	0.0-2.0	8/21/02	X	X	
WB-SD05 (2.0-4.0)	Soil	2.0-4.0	8/21/02	X	X	
WB-SD06 (0.0-2.0)	Soil	0.0-2.0	8/21/02	X	X	
WB-SD06 (2.0-4.0)	Soil	2.0-4.0	8/21/02	X	X	
WB-S2-A (0.5-1.0)	Soil	0.5-1.0	8/22/02	X		
WB-S2-A (0.0-0.5)	Soil	0.0-0.5	8/22/02	X		
WB-S3-A (0.5-1.0)	Soil	0.5-1.0	8/22/02	X		
WB-S3-A (0.0-0.5)	Soil	0.0-0.5	8/22/02	X	X	
WB-S3-A (1.0-1.5)	Soil	1.0-1.5	8/22/02	X		
WB-SB13 (0.0-1.0)	Soil	0.0-1.0	8/22/02	X		
WB-SB13-A1 (0.0-0.5)	Soil	0.0-0.5	8/22/02	X		
WB-SB13-A2 (0.0-0.5)	Soil	0.0-0.5	8/22/02	X		
WB-SB13-A3 (0.0-0.5)	Soil	0.0-0.5	8/22/02	X		
WB-SB13-A4 (0.0-0.5)	Soil	0.0-0.5	8/22/02	X		
WB-SB14-B1 (0.0-2.0)	Soil	0.0-2.0	8/22/02	X	X	
WB-SD08 (0.0-2.0)	Soil	0.0-2.0	8/22/02	X	X	
WB-SD08 (2.0-4.0)	Soil	2.0-4.0	8/22/02	X	X	
VC-07-SS (2.0-2.5)	Soil	2.0-2.5	8/22/02		X	
VC-07-SS-B1 (0.0-2.0)	Soil	0.0-2.0	8/22/02		X	
VC-07-SS-B2 (0.0-1.0)	Soil	0.0-1.0	8/22/02		X	
VC-07-SS-B3 (0.0-2.0)	Soil	0.0-2.0	8/22/02		X	
WB-SB11-C1 (0.0-2.0)	Soil	0.0-2.0	8/23/02		X	
DUP-082302-1	Soil		8/23/02		X	Blind Field Duplicate of WB-SB11-C1 (0.0-2.0)
WB-SB11-C4 (0.0-2.0)	Soil	0.0-2.0	8/23/02		X	MS/MSD
WB-SB11-C5 (0.0-2.0)	Soil	0.0-2.0	8/23/02		X	
WB-SB11-C6 (0.0-2.0)	Soil	0.0-2.0	8/23/02		X	
WB-SB11-C7 (0.0-2.0)	Soil	0.0-2.0	8/23/02		X	
WB-SB11-C8 (0.0-2.0)	Soil	0.0-2.0	8/23/02		X	
WB-S6-A (0.0-2.0)	Soil	0.0-2.0	8/26/02	X	X	
WB-S6-B (0.0-2.0)	Soil	0.0-2.0	8/26/02	X		
WB-SB11-C10 (0.0-2.0)	Soil	0.0-2.0	8/26/02		X	
WB-SB11-C11 (0.0-2.0)	Soil	0.0-2.0	8/26/02		X	
WB-SB11-C2 (0.0-2.0)	Soil	0.0-2.0	8/26/02		X	MS/MSD
WB-SB11-C3 (0.0-2.0)	Soil	0.0-2.0	8/26/02		X	
WB-SB11-C9 (0.0-2.0)	Soil	0.0-2.0	8/26/02		X	
WB-SB12-B10 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-SB12-C10 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-SB12-C11 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-SB12-C12 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-SB12-C13 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-SB12-C9 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	

Table 2-1
Summary of Soil Samples Collected and Analyzed
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Matrix	Sample Depth Interval (ft bgs)	Sample Collection Date	Sample Analyses Performed		Comments
				Arsenic	Lead	
WB-SB12-C4 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-SB12-C3 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-SB12-C2 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-SB12-C2 (0.5-2.0)	Soil	0.5-2.0	8/26/02		X	
WB-SB12-C1 (0.0-0.5)	Soil	0.0-0.5	8/26/02		X	
WB-S8-A (0.0-1.0)	Soil	0.0-1.0	8/26/02	X	X	
WB-S8-B (0.0-1.0)	Soil	0.0-1.0	8/26/02	X		
WB-SB12-C8 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB12-C8 (2.0-4.0)	Soil	2.0-4.0	8/27/02		X	
WB-SB12-C7 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB12-C6 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB12-C5 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-RD11 (0.0-1.0)	Soil	0.0-1.0	8/27/02	X	X	
WB-SB11-D2 (0.0-2.0)	Soil	0.0-2.0	8/27/02		X	
WB-SB12-D9 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB12-D11 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB12-D12 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB12-D1 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB12-D3 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB12-D5 (0.0-0.5)	Soil	0.0-0.5	8/27/02		X	
WB-SB14-B2 (0.0-2.0)	Soil	0.0-2.0	8/27/02			MS/MSD
DUP082702-1	Soil		8/27/02			Blind Field Duplicate of WB-SB14-B2 (0.0-2.0)
WB-SB14-B3 (0.0-2.0)	Soil	0.0-2.0	8/27/02	X	X	
WB-S3B (0.0-1.0)	Soil	0.0-1.0	8/28/02	X	X	
WB-S3C (0.0-1.0)	Soil	0.0-1.0	8/28/02	X	X	
WB-SB11-D9 (0.0-2.0)	Soil	0.0-2.0	8/28/02		X	
WB-SB11-E13 (0.0-2.0)	Soil	0.0-2.0	8/28/02		X	
EQ-081202-AQ1	Aqueous		8/12/02	X	X	Equipment Blank
EB-081302-1	Aqueous		8/13/02	X	X	Equipment Blank
EB-081402-1	Aqueous		8/14/02	X	X	Equipment Blank
EB-081502-1	Aqueous		8/15/02	X	X	Equipment Blank
EB-081602-1	Aqueous		8/16/02	X	X	Equipment Blank
EB-081902-1	Aqueous		8/19/02	X	X	Equipment Blank
EB-082002-1	Aqueous		8/20/02	X	X	Equipment Blank
EQ-082102-1	Aqueous		8/21/02	X	X	Equipment Blank
EB-082202-1	Aqueous		8/22/02	X	X	Equipment Blank
EB-082302-1	Aqueous		8/23/02	X	X	Equipment Blank
EB-082602-1	Aqueous		8/26/02	X	X	Equipment Blank
EB-082702-1	Aqueous		8/27/02	X	X	Equipment Blank
EB-082802-1	Aqueous		8/28/02	X	X	Equipment Blank

Note:

ft bgs = feet below ground surface.

MS/MSD = Matrix Spike/Matrix Spike Duplicate.

Table 3-1

**Summary of Arsenic and Lead Concentrations at the
Contiguous Area Perimeter Delineation Stations
Wadesboro VCC Site - Additional Delineation Report and RAWP**

Delineation Station	Sample ID	Sample Depth (ft bgs)	Date Collected	On Site or Off Site	Concentration (mg/kg)	
					Arsenic	Lead
S-1	S-1	0.0-0.5	8/19/02	On Site	8.54	254 J
		0.5-1.0	8/19/02		5.26	24.4 J
		1.0-1.5	8/19/02		7.48	15.7 J
		1.5-2.0	8/19/02		8.73	36.9 J
S-2	S-2	0.0-0.5	8/19/02	On Site	40.1	364 J
		0.5-1.0	8/19/02		28	212 J
		1.0-1.5	8/19/02		5.32	16.4 J
		1.5-2.0	8/19/02		6.27	13 J
	S-2A	0.0-0.5	8/22/02	On Site	13.4	NA
		0.5-1.0	8/22/02		6.56	NA
S-3	S-3	0.0-0.5	8/19/02	On Site	30.6	804 J
		0.5-1.0	8/19/02		20.5	529 J
		1.0-1.5	8/19/02		39.7	355 J
		1.5-2.0	8/19/02		15.4	77.3 J
	S-3A	0.0-0.5	8/22/02	On Site	29.4	1600 J
		0.5-1.0	8/22/02		52.8	NA
		1.0-1.5	8/22/02		5.94	NA
	S-3B	0.0-1.0	8/28/02	Off Site	239	12000
	S-3C	0.0-1.0	8/28/02	Off Site	82.9	2970
	S-4	S-4	0.0-0.5	8/19/02	On Site	3.82
0.5-1.0			8/19/02	2.25		42.7 J
1.0-1.5			8/19/02	3.89		54 J
1.5-2.0			8/19/02	6.81		85.6 J
DUP-081902-1 (duplicate of S-4)		0.0-0.5	8/19/02	On Site	4.38	443 J
S-5	S-5	0.0-0.5	8/19/02	On Site	5.78	1090 J
		0.5-1.0	8/19/02		2.73	542 J
		1.0-1.5	8/19/02		6.92	84.8 J
		1.5-2.0	8/19/02		31	26.6 J
	DUP-081902-2 (duplicate of S-5)	0.0-0.5	8/19/02	On Site	5.45	1190 J
S-6	S-6	0.0-0.5	8/19/02	On Site	239	757 J
		0.5-1.0	8/19/02		133	113
		1.0-1.5	8/19/02		35.6	91.7
		1.5-2.0	8/19/02		13.6	11.6
	DUP-081902-3 (duplicate of S-6)	0.0-0.5	8/19/02	On Site	282	963
	S-6A	0.0-2.0	8/26/02	On Site	30.6	225 J
S-6B	0.0-2.0	8/26/02	On Site	8.54	NA	
S-7	S-7	0.0-0.5	8/20/02	On Site	37.7	459 J
		0.5-1.0	8/20/02		4.46	19.2
		1.0-1.5	8/20/02		3.5	20.5
		1.5-2.0	8/20/02		3.78	20.3

Table 3-1

**Summary of Arsenic and Lead Concentrations at the
Contiguous Area Perimeter Delineation Stations
Wadesboro VCC Site - Additional Delineation Report and RAWP**

Delineation Station	Sample ID	Sample Depth (ft bgs)	Date Collected	On Site or Off Site	Concentration (mg/kg)	
					Arsenic	Lead
S-8	S-8	0.0-0.5	8/20/02	On Site	51.9	726 J
		0.5-1.0	8/20/02		35.6	570 J
		1.0-1.5	8/20/02		11.6	80.3 J
		1.5-2.0	8/20/02		7.76	15.5
	S-8A	0.0-1.0	8/26/02	On Site	152 J	NA
	S-8B	0.0-1.0	8/26/02	On Site	15.1	NA
S-9	S-9	0.0-0.5	8/21/02	On Site	3.89	398 J
		0.5-1.0	8/21/02		3.5	305 J
		1.0-1.5	8/21/02		24.4	3450 J
		1.5-2.0	8/21/02		26.1	2720 J
SB15	SB15	0.0-0.5	4/17/02	On Site	25.6	1410
		2.0-4.0	4/16/02		91.2	54.7 J
		4.0-6.0	4/16/02		6.4	15.1 J
	WB-SB90 (duplicate of SB15)	0.0-0.5	4/17/02	On Site	21.2	1490 J
	WB-SB91 (duplicate of SB15)	2.0-4.0	4/16/02	On Site	55.1	550 J
SB19	SB19	0.0-0.5	4/18/02	On Site	112 J	19800 J
		2.0-4.0	4/18/02		38.9 J	19.1 J
		4.0-6.0	4/18/02		6.2	194
	WB-SB92 (duplicate of SB19)	0.0-0.5	4/18/02	On Site	122 J	80300 J
	None	VC-01-SS	0.5	12/99	On Site	19.9
None	VC-02-SS	1.5	12/99	On Site	4.0	1080
None	VC-03-SS	2.5	12/99	On Site	11.5	1790
None	VC-04-SS	0.0-0.5	12/99	On Site	43.4	29700
None	VC-05-SS	0.0-0.5	12/99	On Site	965	8490
None	VC-08-SS	0.0-0.5	12/99	On Site	42.6	1940

Notes:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
On Site	27 mg/kg	750 mg/kg
Off Site	22 mg/kg	400 mg/kg

Table 3-2

**Summary of Arsenic and Lead Concentrations in the Drainage Ditch
Wadesboro VCC Site - Additional Delineation Report and RAWP**

Sample ID	Sample Depth (ft bgs)	Date Collected	Concentration (mg/kg)	
			Arsenic	Lead
SD03	0.0-0.5	4/16/02	17.7	408
	0.5-1.0	8/15/02	NA	1860
	1.0-1.5	8/15/02	NA	3800
	1.5-2.0	8/15/02	NA	1870
	2.0-4.0	8/21/02	NA	924 J
SD03-A1	0.0-0.5	8/15/02	NA	1150
	0.5-1.0	8/15/02	NA	3930
	1.0-1.5	8/15/02	NA	2430
	1.5-2.0	8/15/02	NA	2790
SD03-A2	0.0-0.5	8/15/02	NA	68.3
	0.5-1.0	8/15/02	NA	144
	1.0-1.5	8/15/02	NA	180
	1.5-2.0	8/15/02	NA	47.5
SD03-A3	0.0-0.5	8/15/02	NA	419
	0.5-1.0	8/15/02	NA	1410
	1.0-1.5	8/15/02	NA	2190
	1.5-2.0	8/15/02	NA	3750
SD03-A4	0.0-0.5	8/15/02	NA	373
	0.5-1.0	8/15/02	NA	99.4
	1.0-1.5	8/15/02	NA	87.8
	1.5-2.0	8/15/02	NA	131
SD04	0.0-0.5	4/18/02	51 J	611 J
	0.5-1.0	8/15/02	67.9	2510
	1.0-1.5	8/15/02	40.1	1150
	1.5-2.0	8/15/02	38.6	902
	2.0-4.0	8/21/02	17.9	167 J
SD04-A1	0.0-0.5	8/15/02	60.2	2520
	0.5-1.0	8/15/02	57.6	2500
	1.0-1.5	8/15/02	19.1	332
	1.5-2.0	8/15/02	31	1080
SD04-A2	0.0-0.5	8/15/02	2.1	37.2
	0.5-1.0	8/15/02	2.09	25.3
	1.0-1.5	8/15/02	3.94	29.6
	1.5-2.0	8/15/02	4.43	17.5
SD04-A3	0.0-0.5	8/15/02	42.7	1010
	0.5-1.0	8/15/02	71.3	2950
	1.0-1.5	8/15/02	49	1940
	1.5-2.0	8/15/02	21.5	769
SD04-A4	0.0-0.5	8/15/02	8.55	100
	0.5-1.0	8/15/02	7.68	105
	1.0-1.5	8/15/02	4.80	26.1
	1.5-2.0	8/15/02	5.27	33.4

Table 3-2

Summary of Arsenic and Lead Concentrations in the Drainage Ditch
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Sample Depth (ft bgs)	Date Collected	Concentration (mg/kg)	
			Arsenic	Lead
SD05	0.0-2.0	8/21/02	37.6	1220
	2.0-4.0	8/21/02	25.7	94.7
SD06	0.0-2.0	8/21/02	9.51	126
	2.0-4.0	8/21/02	8.99	37.6
SD08	0.0-2.0	8/22/02	38.6	1630 J
	2.0-4.0	8/22/02	43.2	1020 J

Notes:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
Off Site	22 mg/kg	400 mg/kg

Table 3-3

**Summary of Arsenic and Lead Concentrations at the Access Road,
SB14, SB16, SB20, and SBXX
Wadesboro VCC Site - Additional Delineation Report and RAWP**

Sample ID	Sample Depth (ft bgs)	Date Collected	On Site or Off Site	Concentration (mg/kg)	
				Arsenic	Lead
RD-1	0.0-1.0	8/16/02	Off Site	7.76 J	101 J
	1.0-2.0	8/16/02		129 J	2060 J
	2.0-3.0	8/16/02		8.16 J	51 J
RD-2	0.0-1.0	8/16/02	Off Site	32.9 J	301 J
	1.0-2.0	8/16/02		84 J	1020 J
	2.0-3.0	8/16/02		51.3 J	284 J
	3.0-4.0	8/16/02		5.23 J	9.26 J
DUP-081602-1 (duplicate of RD-2)	1.0-2.0	8/16/02	Off Site	82.5 J	1110 J
RD-3	0.0-1.0	8/16/02	Off Site	21.7 J	322 J
	1.0-2.0	8/16/02		48.7 J	316 J
	2.0-3.0	8/16/02		76.5 J	657 J
	3.0-4.0	8/16/02		3.92	10.3
DUP-081602-2 (duplicate of RD-3)	1.0-2.0	8/16/02	Off Site	64.3 J	350 J
RD-4	0.0-1.0	8/16/02	Off Site	28.2	369
	1.0-2.0	8/16/02		129	452
	2.0-3.0	8/16/02		106	520
	3.0-4.0	8/16/02		4.33	11.1
DUP-081602-3 (duplicate of RD-4)	1.0-2.0	8/16/02	Off Site	135	456
RD-5	0.0-1.0	8/16/02	Off Site	23.3	240
	1.0-2.0	8/16/02		54.5	257
	2.0-3.0	8/16/02		128	555
	3.0-4.0	8/16/02		2.79	11.6
RD-6	0.0-1.0	8/16/02	Off Site	18.7	214
	1.0-2.0	8/16/02		38.7	237
	2.0-3.0	8/16/02		73.5	373
	3.0-4.0	8/16/02		3.46	13.3
RD-7	0.0-1.0	8/20/02	Off Site	21.5	249
	1.0-2.0	8/20/02		25.5	204
RD-8	1.0-1.5	8/20/02	Off Site	10.1	133
	1.0-2.0	8/20/02		16.8	135
RD-9	0.0-1.0	8/20/02	On Site	9.5	79.8
	0.5-1.0	8/20/02		1.67	7.72
RD-10	0.0-1.0	8/20/02	On Site	12.6	150
	1.0-2.0	8/20/02		7.42	14.2
RD-11	0.0-1.0	8/27/02	On Site	7.27 J	40.6
SB14	0.0-0.5	4/18/02	On Site	84.1	1720 J
	0.5-1.0	8/12/02		11.4	125
	1.0-1.5	8/12/02		10.4	50.1 J
	1.5-2.0	8/12/02		6.89	18.0
	2.0-4.0	4/18/02		8.30	17.6 J
SB14-A1	0.0-2.0	8/12/02	On Site	8.57	179
SB14-A2	0.0-1.0	8/12/02	On Site	2130	1150
	1.0-2.0	8/12/02		84.3	93.9

Table 3-3

**Summary of Arsenic and Lead Concentrations at the Access Road,
SB14, SB16, SB20, and SBXX
Wadesboro VCC Site - Additional Delineation Report and RAWP**

Sample ID	Sample Depth (ft bgs)	Date Collected	On Site or Off Site	Concentration (mg/kg)	
				Arsenic	Lead
DUP-081202-2 (duplicate of SB14-A2)	1.0 - 2.0	8/12/02	On Site	84.5	84.5
SB14-A3	0.0-2.0	8/12/02	On Site	53.1 J	3230 J
SB14-A4	0.0-2.0	8/14/02	On Site	59.1	13400
SB14-B1	0.0-2.0	8/22/02	On Site	25.1	1250 J
SB14-B2	0.0-2.0	8/27/02	Off Site	27	3080
DUP-082702-1 (duplicate of SB14-B2)	0.0-2.0	8/27/02	Off Site	39.4	4250
SB14-B3	0.0-2.0	8/27/02	Off Site	41.3	1820
SB16	0.0-0.5	4/17/02	On Site	44.6	664
	0.5-1.0	8/13/02		59.5	NA
	1.0-1.5	8/13/02		63.4	NA
	1.5-2.0	8/13/02		73.0	NA
	2.0-4.0	4/16/02		4.7	8.4 J
SB16-A1	0.0-1.0	8/13/02	On Site	27.6	NA
	1.0-2.0	8/13/02		411	NA
	2.0-3.0	8/13/02		11.2	NA
SB16-A2	0.0-1.0	8/13/02	On Site	58.2	NA
	1.0-2.0	8/13/02		199	NA
	2.0-3.0	8/13/02		16.9	NA
SB16-A3	0.0-1.0	8/13/02	Off Site	49.2	NA
	1.0-2.0	8/13/02		81.2	NA
	2.0-3.0	8/13/02		138	NA
SB16-A4	0.0-2.0	8/14/02	Off Site	20.4	NA
SB20	0.0-0.5	4/17/02	Off Site	14.2	162
	2.0-4.0	4/18/02		72.4	478 J
	2.0-2.5	8/13/02		21.8	170 J
	2.5-3.0	8/13/02		13.4	139 J
	3.0-3.5	8/13/02		59.6 J	339 J
	3.5-4.0	8/13/02		33.7	228 J
	4.0-6.0	4/18/02		21.6	147
SB20-A1	2.0-4.0	8/13/02	Off Site	5.23	27.0
SB20-A2	2.0-4.0	8/13/02	Off Site	5.84	34.3
DUP-081302-1 (duplicate of SB20-A2)	2.0-4.0	8/13/02	Off Site	4.07	36.9 J
SB20-A3	2.0-4.0	8/13/02	Off Site	32.8	229 J
SB20-A4	2.0-4.0	8/14/02	Off Site	16.6	128
DUP-081402-2 (duplicate of SB20-A4)	2.0-4.0	8/14/02	Off Site	15.0	120

Table 3-3

Summary of Arsenic and Lead Concentrations at the Access Road,
SB14, SB16, SB20, and SBXX
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Sample Depth (ft bgs)	Date Collected	On Site or Off Site	Concentration (mg/kg)	
				Arsenic	Lead
SBXX	0.5-1.0	8/15/02	On Site	16 J	NA
	1.0-1.5	8/15/02		32 J	NA
	1.5-2.0	8/15/02		86.3 J	NA
SBXX-A1	0.0-2.0	8/15/02	On Site	46 J	NA
SBXX-A2	0.0-2.0	8/15/02	On Site	5.66 J	NA
DUP-081502-2 (duplicate of SBXX-A2)	0.0-2.0	8/15/02	On Site	4.84 J	NA
SBXX-A3	0.0-2.0	8/15/02	On Site	9.02 J	NA
SBXX-A4	0.0-2.0	8/15/02	Off Site	70.4 J	NA

Notes:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
On-Site	27 mg/kg	750 mg/kg
Off-Site	22 mg/kg	400 mg/kg

Table 3-4

Summary of Arsenic and Lead Concentrations at SB9
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Sample Depth (ft bgs)	Date Collected	Concentration (mg/kg)	Concentration (mg/kg)
			Arsenic	Lead
SB09	0.0-0.5	4/17/01	14.8 J	1370 J
	0.5-1.0	8/14/02	NA	93.4
	1.0-1.5	8/14/02	NA	93.8
	1.5-2.0	8/14/02	NA	31
	2.0-4.0	4/17/01	7.3	35
SB09-A1	0.0-2.0	8/14/02	NA	108
SB09-A2	0.0-2.0	8/14/02	NA	221
SB09-A3	0.0-2.0	8/14/02	NA	89.7
SB09-A4	0.0-2.0	8/14/02	NA	159

Note:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
On-Site	27 mg/kg	750 mg/kg

Table 3-5

**Summary of Arsenic and Lead Concentrations at SB11
Wadesboro VCC Site - Additional Delineation Report and RAWP**

Sample ID	Sample Depth (ft bgs)	Date Collected	Concentration (mg/kg)	Concentration (mg/kg)
			Arsenic	Lead
SB11	0.0-0.5	4/17/02	33.7	8520 J
	0.5-1.0	8/12/02	13.9	77900
	1.0-1.5	8/12/02	5.35	1570
	1.5-2.0	8/12/02	9.42	3330
	2.0-4.0	4/18/02	8.6 J	15.3 J
SB11-A1	0.0-2.0	8/12/02	7.54	2760
SB11-A2	0.0-2.0	8/12/02	9.83	1910
SB11-A3	0.0-2.0	8/12/02	11.6	6190
SB11-A4	0.0-2.0	8/12/02	14.8	3400
SB11-B1	0.0-2.0	8/20/02	NA	834
DUP-082002-1 (duplicate of SB11-B1)	0.0-2.0	8/20/02	NA	1200
SB11-B2	0.0-2.0	8/20/02	NA	472 J
SB11-B3	0.0-2.0	8/20/02	NA	339 J
SB11-B4	0.0-2.0	8/20/02	NA	254 J
SB11-B5	0.0-2.0	8/20/02	NA	1980 J
SB11-B6	0.0-2.0	8/20/02	NA	1480 J
SB11-B7	0.0-2.0	8/20/02	NA	94500 J
SB11-B8	0.0-2.0	8/20/02	NA	3070 J
SB11-B9	0.0-2.0	8/20/02	NA	4670 J
DUP-082002-2 (duplicate of SB11-B9)	0.0-2.0	8/20/02	NA	4950 J
SB11-B10	0.0-2.0	8/20/02	NA	308 J
SB11-B11	0.0-2.0	8/20/02	NA	473 J
SB11-B12	0.0-2.0	8/20/02	NA	2170 J
SB11-C1	0.0-2.0	8/23/02	NA	4830 J
DUP-082302-1 (duplicate of SB11-C1)	0.0-2.0	8/23/02	NA	4590 J
SB11-C2	0.0-2.0	8/26/02	NA	2100 J
SB11-C3	0.0-2.0	8/26/02	NA	2980 J
SB11-C4	0.0-2.0	8/23/02	NA	688 J
SB11-C5	0.0-2.0	8/23/02	NA	13300 J
SB11-C6	0.0-2.0	8/23/02	NA	3840 J
SB11-C7	0.0-2.0	8/23/02	NA	3190 J
SB11-C8	0.0-2.0	8/23/02	NA	2590 J
SB11-C9	0.0-2.0	8/26/02	NA	1530 J
SB11-C10	0.0-2.0	8/26/02	NA	2830 J
SB11-C11	0.0-2.0	8/26/02	NA	387 J
SB11-D2	0.0-2.0	8/27/02	NA	1360 J
SB11-D9	0.0-2.0	8/28/02	NA	2090 J
SB11-E13	0.0-2.0	8/28/02	NA	1090

Notes:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
On-Site	27 mg/kg	750 mg/kg

Table 3-6

**Summary of Arsenic and Lead Concentrations at SB12
Wadesboro VCC Site - Additional Delineation Report and RAWP**

Sample ID	Sample Depth (ft bgs)	Date Collected	Concentration (mg/kg)	Concentration (mg/kg)
			Arsenic	Lead
SB12	0.0-0.5	4/18/02	8.5	32100 J
	0.5-1.0	8/12/02	NA	171
	1.0-1.5	8/12/02	NA	140
	1.5-2.0	8/12/02	NA	29.8
	2.0-4.0	4/18/02	14.9	105 J
SB12-A1	0.0-2.0	8/12/02	NA	29400
SB12-A2	0.0-2.0	8/12/02	NA	1410
SB12-A3	0.0-2.0	8/12/02	NA	284
SB12-A4	0.0-2.0	8/12/02	NA	1090
SB12-B1	0.0-0.5	8/21/02	NA	242 J
SB12-B2	0.0-0.5	8/21/02	NA	2440 J
SB12-B3	0.0-0.5	8/21/02	NA	945
SB12-B4	0.0-0.5	8/21/02	NA	671
SB12-B5	0.0-0.5	8/21/02	NA	1330
SB12-B6	0.0-0.5	8/21/02	NA	2390
SB12-B7	0.0-0.5	8/21/02	NA	15000
SB12-B8	0.0-0.5	8/21/02	NA	1150
SB12-B9	0.0-0.5	8/21/02	NA	1770
SB12-B10	0.0-0.5	8/26/02	NA	260 J
SB12-C1	0.0-0.5	8/26/02	NA	5010
SB12-C2	0.0-0.5	8/26/02	NA	164
SB12-C3	0.0-0.5	8/26/02	NA	861
SB12-C4	0.0-0.5	8/26/02	NA	1730
SB12-C5	0.0-0.5	8/27/02	NA	48.8
SB12-C6	0.0-0.5	8/27/02	NA	167
SB12-C7	0.0-0.5	8/27/02	NA	1110
SB12-C8	0.0-0.5	8/27/02	NA	1270
SB12-C9	0.0-0.5	8/26/02	NA	3560 J
SB12-C10	0.0-0.5	8/26/02	NA	7100 J
SB12-C11	0.0-0.5	8/26/02	NA	1090 J
SB12-C12	0.0-0.5	8/26/02	NA	602 J
SB12-C13	0.0-0.5	8/26/02	NA	1780 J
SB12-D1	0.0-0.5	8/27/02	NA	4290 J
SB12-D3	0.0-0.5	8/27/02	NA	351 J
SB12-D9	0.0-0.5	8/27/02	NA	58 J
SB12-D11	0.0-0.5	8/27/02	NA	37.5 J
SB12-D12	0.0-0.5	8/27/02	NA	1870 J

Notes:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
On-Site	27 mg/kg	750 mg/kg

Table 3-7

Summary of Arsenic and Lead Concentrations at SB13
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Sample Depth (ft bgs)	Date Collected	Concentration (mg/kg)	Concentration (mg/kg)
			Arsenic	Lead
SB13	0.0-0.5	4/18/02	55	4.1
	0.0-1.0	8/22/02	78	NA
	2.0-4.0	4/18/02	453 J	7.7 J
SB13-A1	0.0-0.5	8/22/02	26.5	NA
SB13-A2	0.0-0.5	8/22/02	29.2	NA
SB13-A3	0.0-0.5	8/22/02	14.8	NA
SB13-A4	0.0-0.5	8/22/02	18.6	NA

Notes:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
On-Site	27 mg/kg	750 mg/kg

Table 3-8

Summary of Arsenic and Lead Concentrations at SB17
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Sample Depth (ft bgs)	Date Collected	Concentration (mg/kg)	Concentration (mg/kg)
			Arsenic	Lead
SB17	0.0-0.5	4/18/02	34.2 J	658 J
	0.5-1.0	8/12/02	187	NA
	1.0-1.5	8/12/02	12.9	NA
	1.5-2.0	8/12/02	10.4	NA
	2.0-4.0	4/18/02	6.4	20.7 J
SB17-A1	0.0-2.0	8/12/02	27.4	NA
SB17-A2	0.0-2.0	8/12/02	17.7	NA
SB17-A3	0.0-2.0	8/12/02	9.49	NA
SB17-A4	0.0-2.0	8/12/02	5.66	NA
DUP-081202-1 (duplicate of SB17-A4)	0.0-2.0	8/12/02	5.34	NA
SB17-B1	0.0-1.0	8/21/02	12.4	NA
SB17-B2	0.0-1.0	8/21/02	13.1	NA
SB17-B3	0.0-1.0	8/21/02	5.51	NA

Notes:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
On-Site	27 mg/kg	750 mg/kg

Table 3-9

Summary of Arsenic and Lead Concentrations at VC-07-SS
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Sample Depth (ft bgs)	Date Collected	Concentration (mg/kg)	
			Arsenic	Lead
VC-07-SS	0.0-0.5	12/99	23.8	1150
	0.5-1.0	8/13/02	NA	1220
	1.0-1.5	8/13/02	NA	1000
	1.5-2.0	8/13/02	NA	5380
	2.0-2.5	8/22/02	NA	28.1
VC-07-SS-A2	0.0-2.0	8/13/02	NA	76.2
VC-07-SS-A3	0.0-2.0	8/13/02	NA	81.5
VC-07-SS-A4	0.0-2.0	8/13/02	NA	1440
VC-07-SS-B1	0.0-2.0	8/22/02	NA	585 J
VC-07-SS-B2	0.0-1.0	8/22/02	NA	120 J
VC-07-SS-B3	0.0-2.0	8/22/02	NA	594 J

Notes:

NA = not analyzed.

J = The associated numerical value is an estimated concentration only.

Shaded concentrations are greater than the following standards:

Standard	As	Pb
On-Site	27 mg/kg	750 mg/kg

Table 3-10

Summary of Arsenic and Lead Concentrations in Quality Control Samples
Wadesboro VCC Site - Additional Delineation Report and RAWP

Sample ID	Date Collected	Concentration ($\mu\text{g/L}$)	
		Arsenic	Lead
EQ-081202-AQ1	8/12/02	< 5.0	< 5.0
EB-081302-1	8/13/02	< 5.0	< 5.0
EB-081402-1	8/14/02	< 5.0	< 5.0
EB-081502-1	8/15/02	< 5.0	< 5.0
EB-081602-1	8/16/02	< 5.0	< 5.0
EB-081902-1	8/19/02	< 5.0	< 5.0
EB-082002-1	8/20/02	< 5.0	< 5.0
EQ-082102-1	8/21/02	< 5.0	< 5.0
EB-082202-1	8/22/02	< 5.0	< 5.0
EB-082302-1	8/23/02	< 5.0	645 J
EB-082602-1	8/26/02	< 5.0	< 5.0
EB-082702-1	8/27/02	< 5.0	< 5.0
EB-082802-1	8/28/02	< 5.0	< 5.0

Note:

J= The associated numerical value is an estimated concentration only.

Table 4-1
Estimated Excavation Volumes
Wadesboro VCC Site - Additional Delineation Report and RAWP

Excavation Area	Samples Included in Excavation Area	Estimated ¹		Estimated ¹	
		Surface Area (ft ²)	Estimated ¹ Depth (ft)	In-Place Volume (CY)	Estimated Weight ² (tons)
SB9	WB-SB9 and associated SB9 grid samples	100	0.5	2	3
SB11	WB-SB11 and associated SB11 grid samples	4,000	2.0	296	444
SB12	WB-SB12 and associated SB12 grid samples.	3,400	0.5	63	94
SB13	WB-SB13 and associated SB13 grid samples	175	1.0	6	10
SB17	WB-SB17 and associated SB17 grid samples	175	1.0	6	10
Contiguous Area	VC-04-SS, SB19, SB15, VC-01-SS, VC-05-SS and all samples associated with WBS-1 through	14,000	3.0	1,556	2,333
Ditch	WB-SD3, -SD4, -SD5	2,500	4.0	370	556
Road	RD-11, SB14, and SB16	1,100	2.0	81	122
	RD-1 through RD-6, and SBXX	1,300	3.0	144	217
	SB20	400	4.0	59	89
VC-07	VC-07-SS and all associated grid samples	175	2.0	13	19
Totals		27,325	NA	2,598	3,897

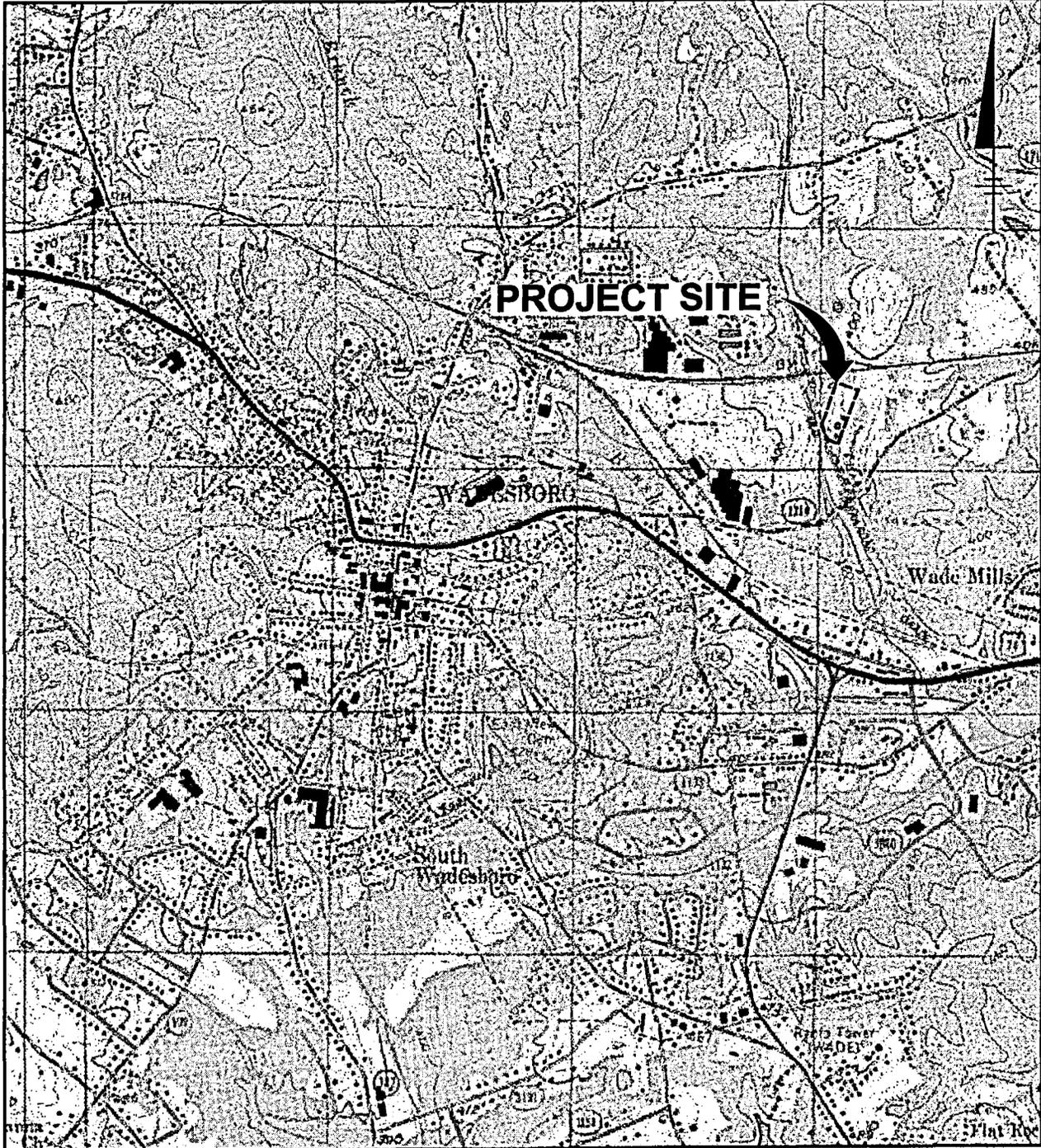
Notes:

\1 All surface areas, depths, and volumes are estimated and subject to change.

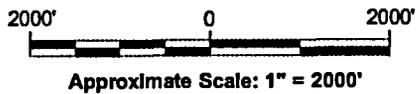
\2 Soil density assumed to be 1.5 tons/cubic yard

CY = cubic yards

Figures



REFERENCE: Base Map Source USGS 7.5 Minute Quads. Series Wadesboro, North Carolina, 1956, Photorevised 1988.



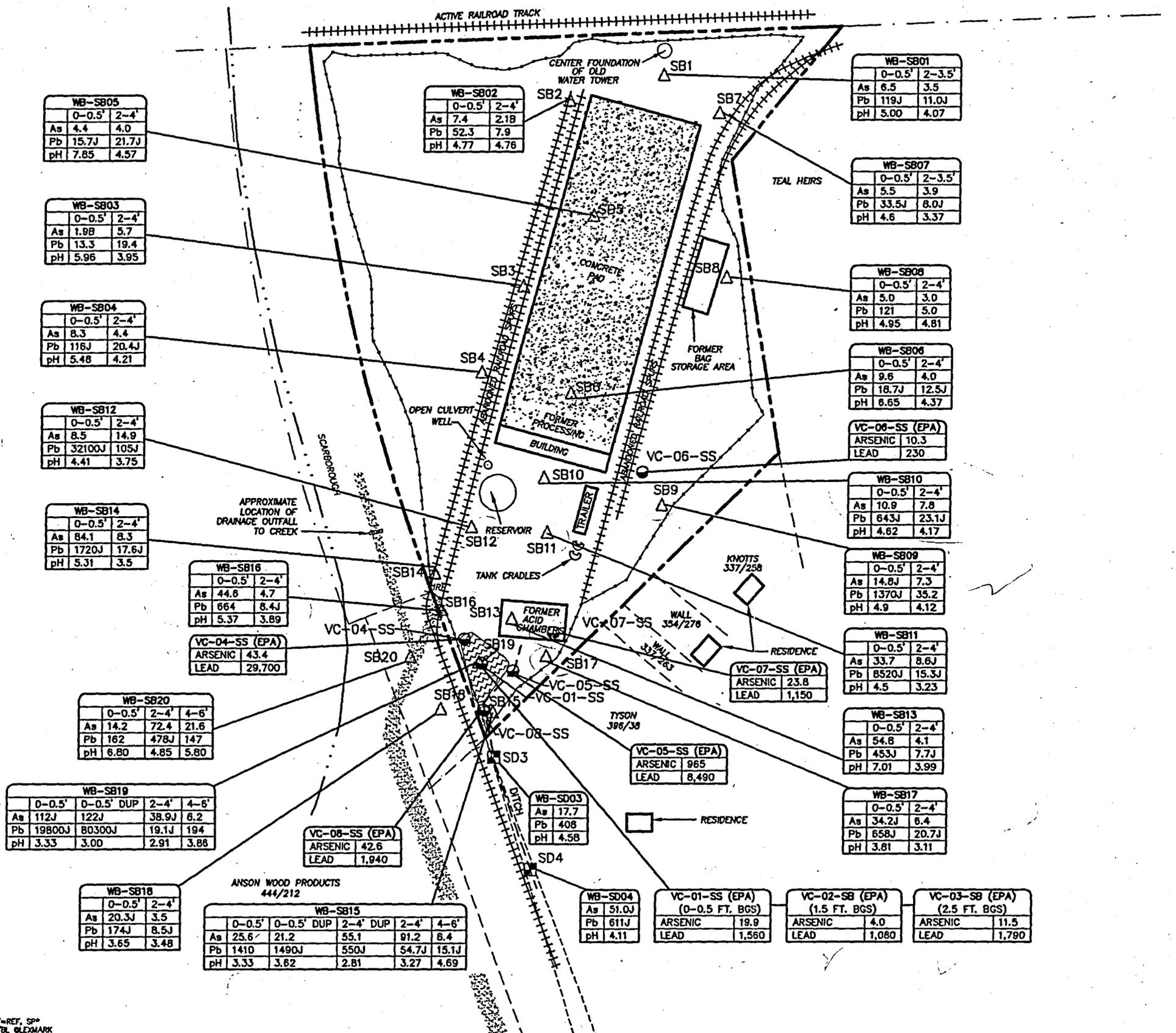
AREA LOCATION

VIRGINIA-CAROLINA CHEMICAL CO. SITE
WADESBORO, NORTH CAROLINA

SITE LOCATION MAP

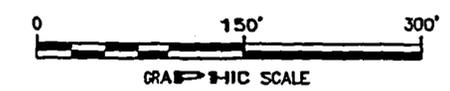
BBL[®]
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engineers & scientists

FIGURE
1-1



- LEGEND:**
- BUILDING
 - TANK
 - ROAD
 - ++++ RAILROAD
 - DITCH
 - - - - - STREAM
 - PROPERTY LINE
 - CHAIN LINK FENCE
 - ▨ ACCESS ROAD
 - ▨▨▨▨▨▨ DISCOLORED SOIL
 - △ SB1 SOIL BORING LOCATION
 - ▣ SD3 SEDIMENT SAMPLE LOCATION
 - VC-07-SS ○ USEPA SURFACE (0-0.5 FT.) SOIL SAMPLE (12/99)

- NOTES:**
1. BASE MAP BY JAMES R. HARRINGTON AND ASSOCIATES AT A SCALE OF 1" = 100' SUPPLEMENTED BY BBL WITH FEATURES DIGITIZED FROM A DRAWING ENTITLED "FIGURE 3 - SAMPLING LOCATION MAP" BY TETRA TECH EM (2000).
 2. ALL SAMPLING DEPTHS ARE IN FEET BELOW GROUND SURFACE.
 3. SD03 AND SD04 WERE TAKEN IN DRY DRAINAGE DITCH AND ARE ACTUALLY SOIL SAMPLES.
 4. USEPA SAMPLE LOCATIONS ARE APPROXIMATE.
 5. CONCENTRATIONS IN mg/kg.

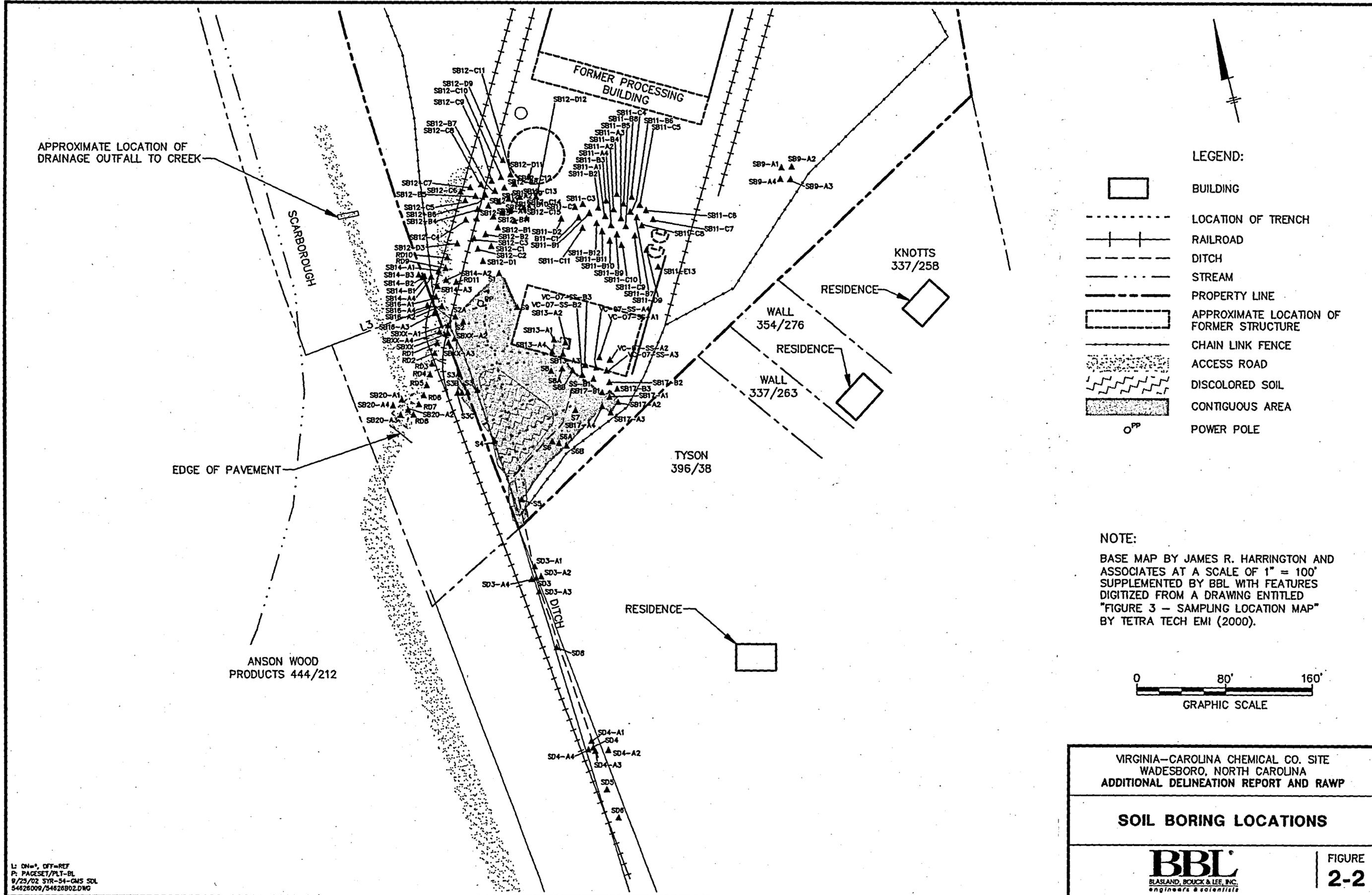


VIRGINIA-CAROLINA CHEMICAL CO. SITE
 WADESBORO, NORTH CAROLINA
 ADDITIONAL DELINEATION REPORT AND RAWP
**HISTORICAL ARSENIC AND LEAD
 CONCENTRATIONS AND pH IN SOIL**



FIGURE
2-1

L: ON-*, OFF-REF, SP*
 P: STD-PCP/BL GLEDMARK
 9/25/02 SYR-54-PQL RCA SDL
 54828009/54828001.DWG



APPROXIMATE LOCATION OF DRAINAGE OUTFALL TO CREEK

SCARBOROUGH

EDGE OF PAVEMENT

ANSON WOOD PRODUCTS 444/212

FORMER PROCESSING BUILDING

KNOTT'S 337/258

WALL 354/276

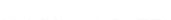
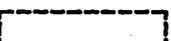
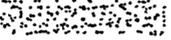
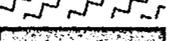
RESIDENCE

WALL 337/263

TYSON 396/38

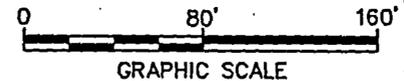
RESIDENCE

LEGEND:

-  BUILDING
-  LOCATION OF TRENCH
-  RAILROAD
-  DITCH
-  STREAM
-  PROPERTY LINE
-  APPROXIMATE LOCATION OF FORMER STRUCTURE
-  CHAIN LINK FENCE
-  ACCESS ROAD
-  DISCOLORED SOIL
-  CONTIGUOUS AREA
-  POWER POLE

NOTE:

BASE MAP BY JAMES R. HARRINGTON AND ASSOCIATES AT A SCALE OF 1" = 100' SUPPLEMENTED BY BBL WITH FEATURES DIGITIZED FROM A DRAWING ENTITLED "FIGURE 3 - SAMPLING LOCATION MAP" BY TETRA TECH EMI (2000).



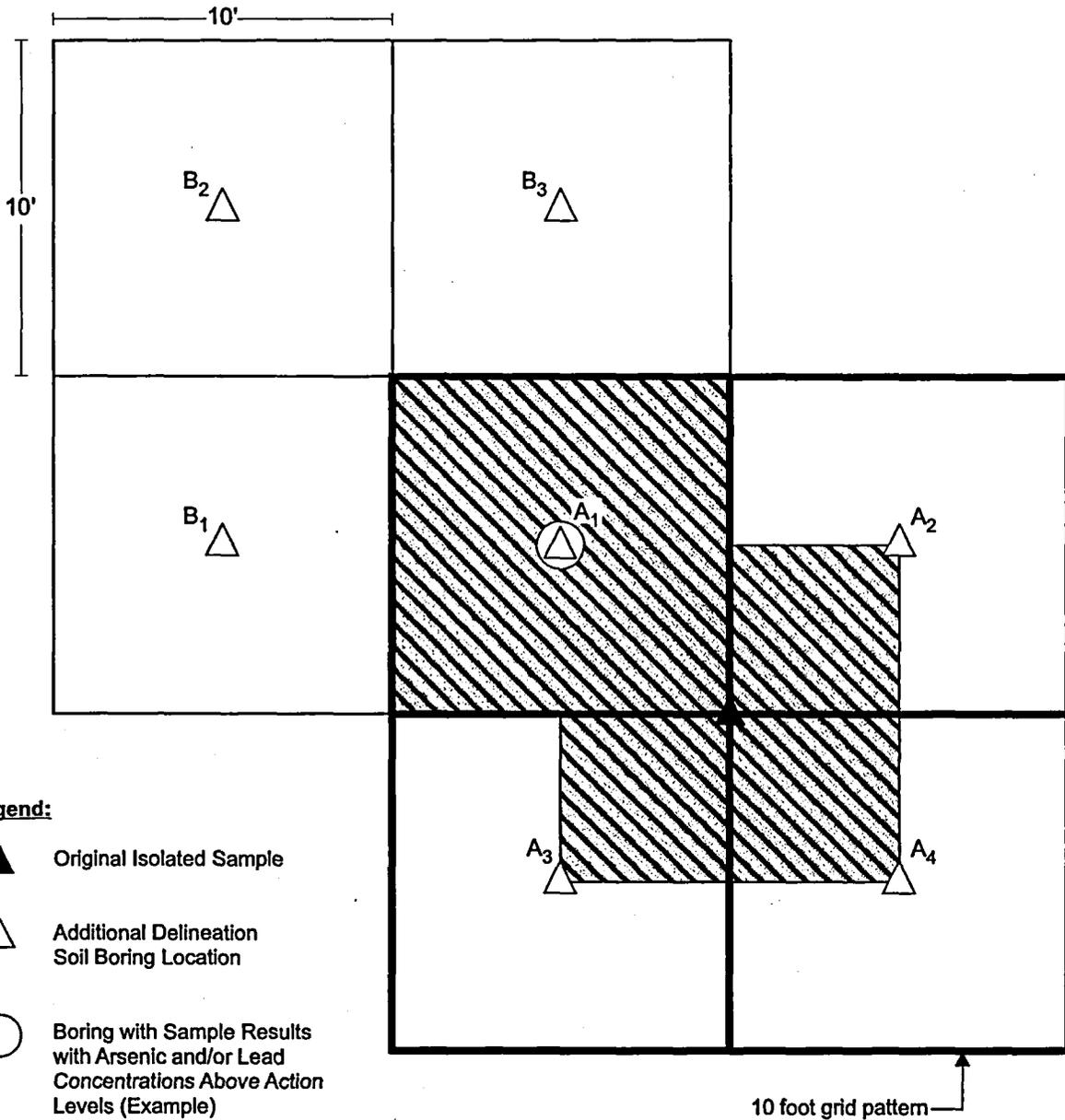
VIRGINIA-CAROLINA CHEMICAL CO. SITE
WADESBORO, NORTH CAROLINA
ADDITIONAL DELINEATION REPORT AND RAWP

SOIL BORING LOCATIONS



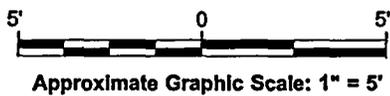
FIGURE 2-2

L: DN=*, OFF=REF
P: PACESET/PLT-BL
9/25/02 SYR-54-CMS SDL
54626009/54626002.DWG



Legend:

- ▲ Original Isolated Sample
- △ Additional Delineation Soil Boring Location
- Boring with Sample Results with Arsenic and/or Lead Concentrations Above Action Levels (Example)
- ▨ Area to be Remediated

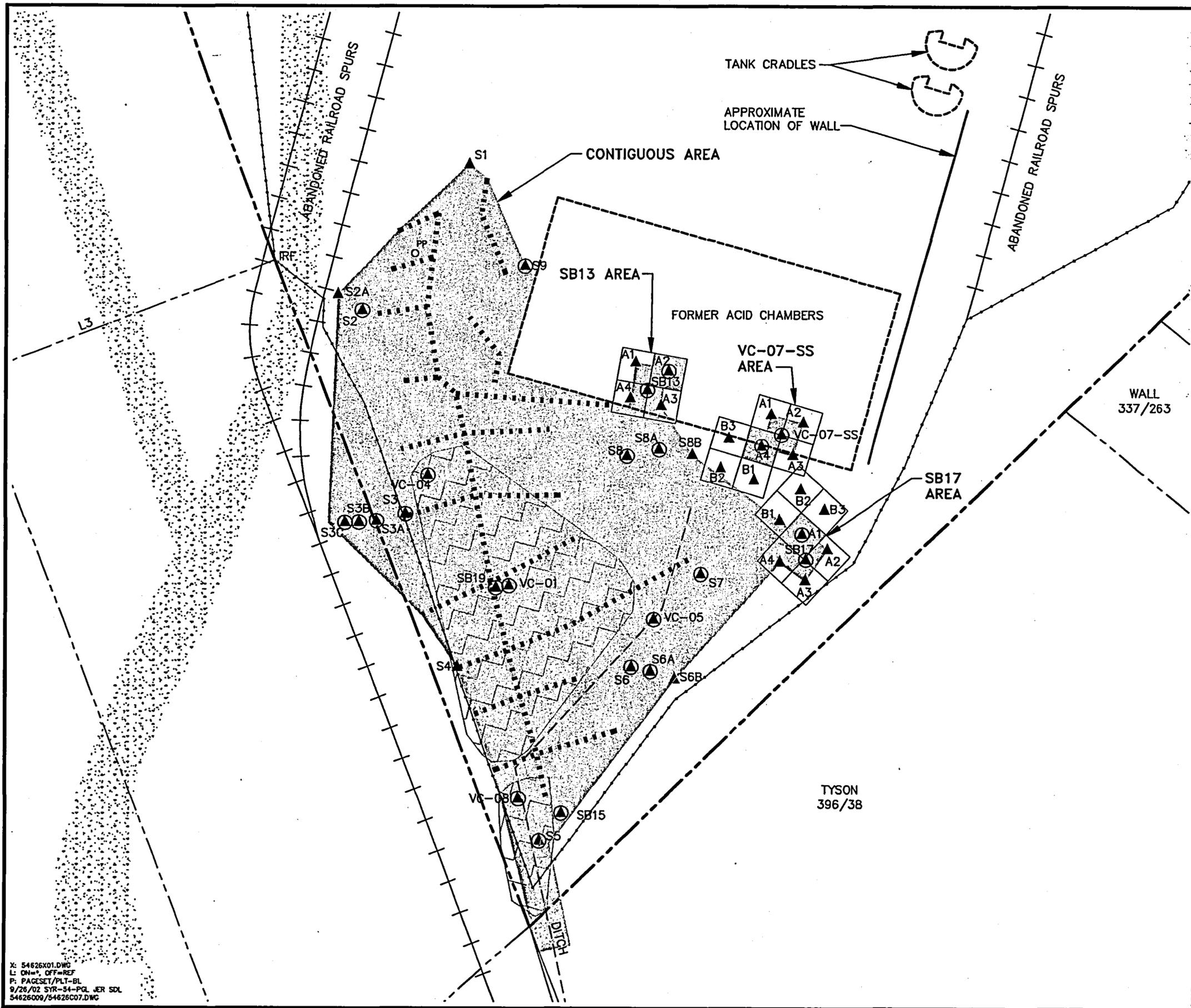


VIRGINIA-CAROLINA CHEMICAL CO. SITE
 WADESBORO, NORTH CAROLINA
ADDITIONAL DELINEATION REPORT AND RAWP

**EXAMPLE OF ISOLATED AREAS
 SOIL DELINEATION PATTERN**

BBL
 BLASLAND, BOUCK & LEE, INC.
 engineers & scientists

FIGURE
2-3

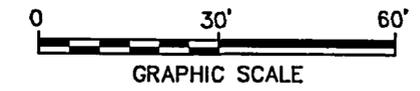


N

LEGEND:

- PP POWER POLE
- +—+—+ RAILROAD
- - - - - DITCH
- — — — — PROPERTY LINE
- LOCATION OF TRENCH
- APPROXIMATE LOCATION OF FORMER STRUCTURE
- - - - - CHAIN LINK FENCE
- ACCESS ROAD
- ▨ DISCOLORED SOIL
- ▩ AREA OF IMPACTED SOIL
- ▲ SOIL BORING WITH ARSENIC AND LEAD CONCENTRATIONS < ACTION LEVELS
- ⊙ SOIL BORING WITH ARSENIC AND/OR LEAD CONCENTRATIONS ≥ ACTION LEVELS

NOTE:
 BASE MAP BY JAMES R. HARRINGTON AND ASSOCIATES AT A SCALE OF 1" = 100' SUPPLEMENTED BY BBL WITH FEATURES DIGITIZED FROM A DRAWING ENTITLED "FIGURE 3 - SAMPLING LOCATION MAP" BY TETRA TECH EMI (2000).



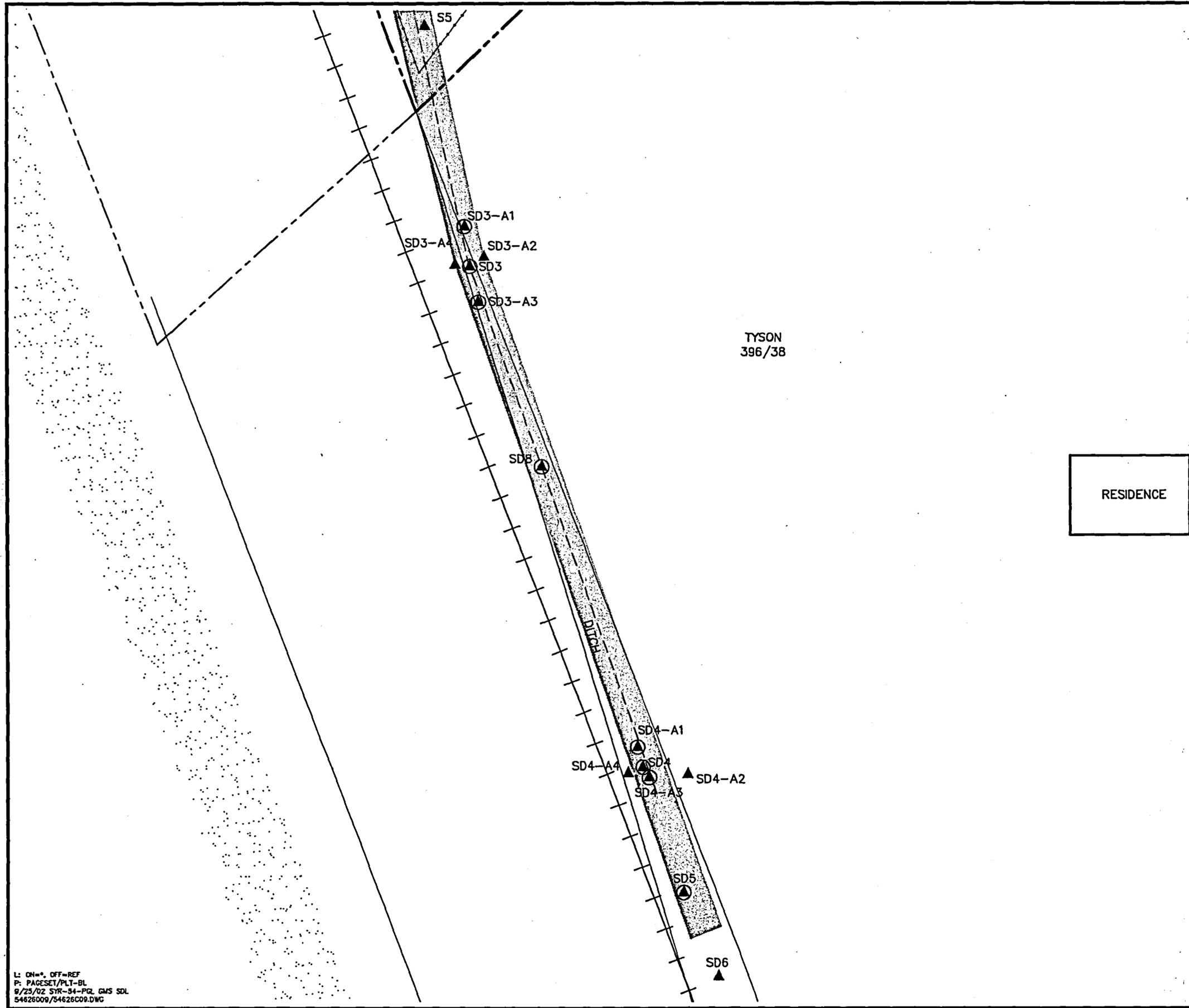
VIRGINIA-CAROLINA CHEMICAL CO. SITE
 WADESBORO, NORTH CAROLINA
 ADDITIONAL DELINEATION REPORT AND RAWP

**SOIL SAMPLE LOCATIONS AT
 THE CONTIGUOUS AREA, SB13,
 SB17, AND VC-07-SS**

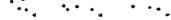
BBL
 BLASLAND, BOUCK & LEE, INC.
 engineers & scientists

FIGURE
3-1

X: 54626X01.DWG
 L: 01/11/02 OFF-REF
 P: PAGESET/PL1-BL
 9/26/02 SYR-34-PGL JER SDL
 54626009/54626007.DWG



LEGEND:

-  BUILDING
-  RAILROAD
-  DITCH
-  PROPERTY LINE
-  ACCESS ROAD
-  AREA OF IMPACTED SOIL
-  SOIL BORING WITH ARSENIC AND LEAD CONCENTRATIONS < ACTION LEVELS
-  SOIL BORING WITH ARSENIC AND/OR LEAD CONCENTRATIONS ≥ ACTION LEVELS

NOTE:

BASE MAP BY JAMES R. HARRINGTON AND ASSOCIATES AT A SCALE OF 1" = 100' SUPPLEMENTED BY BBL WITH FEATURES DIGITIZED FROM A DRAWING ENTITLED "FIGURE 3 - SAMPLING LOCATION MAP" BY TETRA TECH EMI (2000).



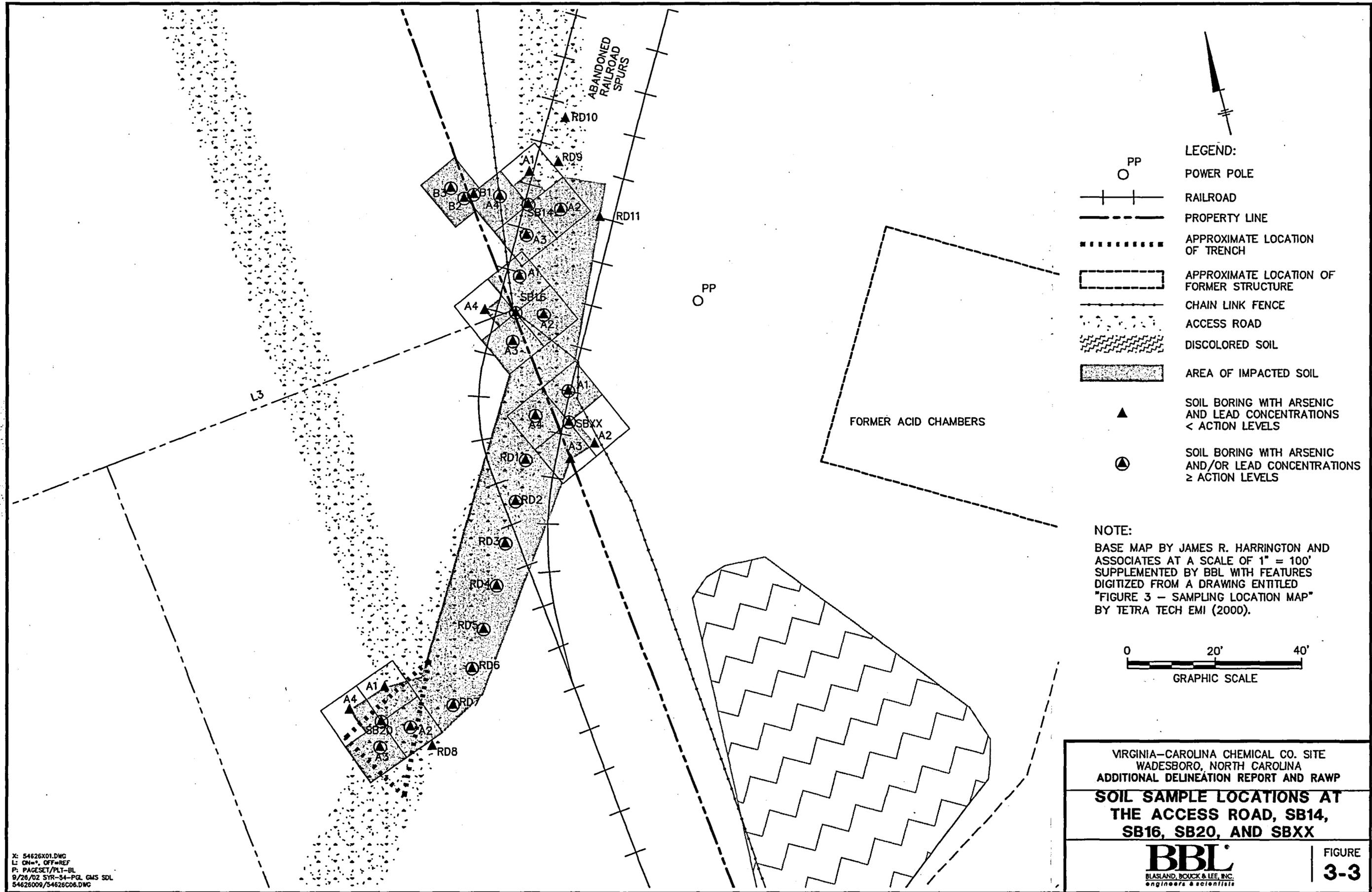
VIRGINIA-CAROLINA CHEMICAL CO. SITE
WADESBORO, NORTH CAROLINA
ADDITIONAL DELINEATION REPORT AND RAWP

SOIL SAMPLE LOCATIONS
AT THE DRAINAGE DITCH



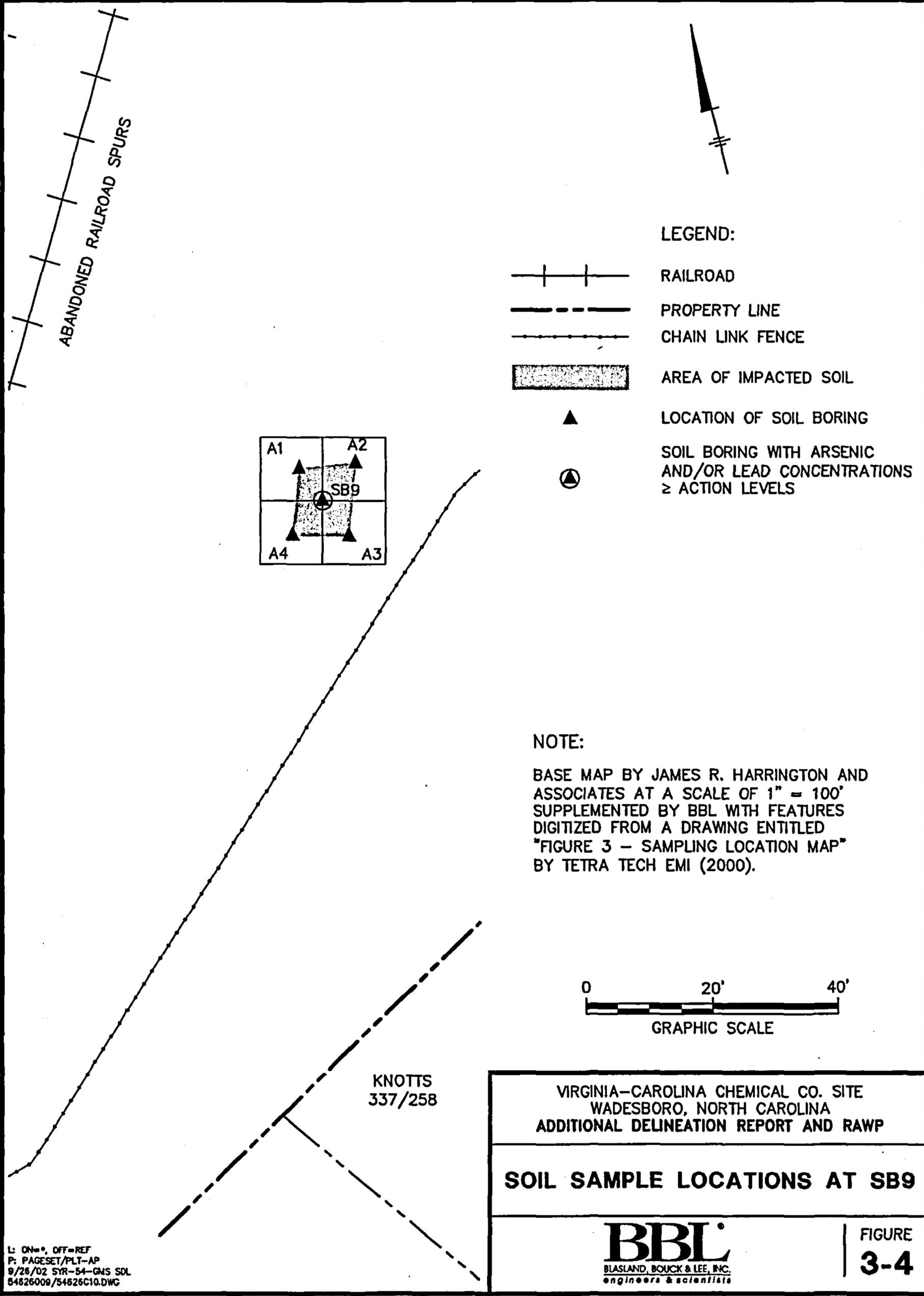
FIGURE
3-2

L: ON=*, OFF=REF
P: PAGESET/PLT-BL
9/25/02 SYR-94-PGL GMS SDL
54626009/54626009.DWG

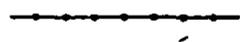


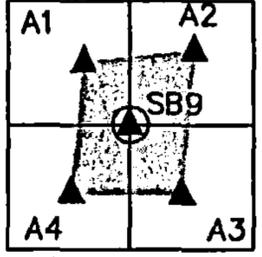
X: 54626X01.DWG
 L: ON=*, OFF=REF
 P: PAGESET/PLT-BL
 9/28/02 SYR-S4-PGL GMS SDL
 54626009/54626006.DWG

VIRGINIA-CAROLINA CHEMICAL CO. SITE WADESBORO, NORTH CAROLINA ADDITIONAL DELINEATION REPORT AND RAWP	
SOIL SAMPLE LOCATIONS AT THE ACCESS ROAD, SB14, SB16, SB20, AND SBXX	
	FIGURE 3-3



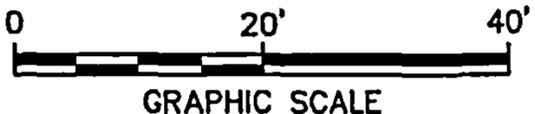
LEGEND:

-  RAILROAD
-  PROPERTY LINE
-  CHAIN LINK FENCE
-  AREA OF IMPACTED SOIL
-  LOCATION OF SOIL BORING
-  SOIL BORING WITH ARSENIC AND/OR LEAD CONCENTRATIONS ≥ ACTION LEVELS



NOTE:

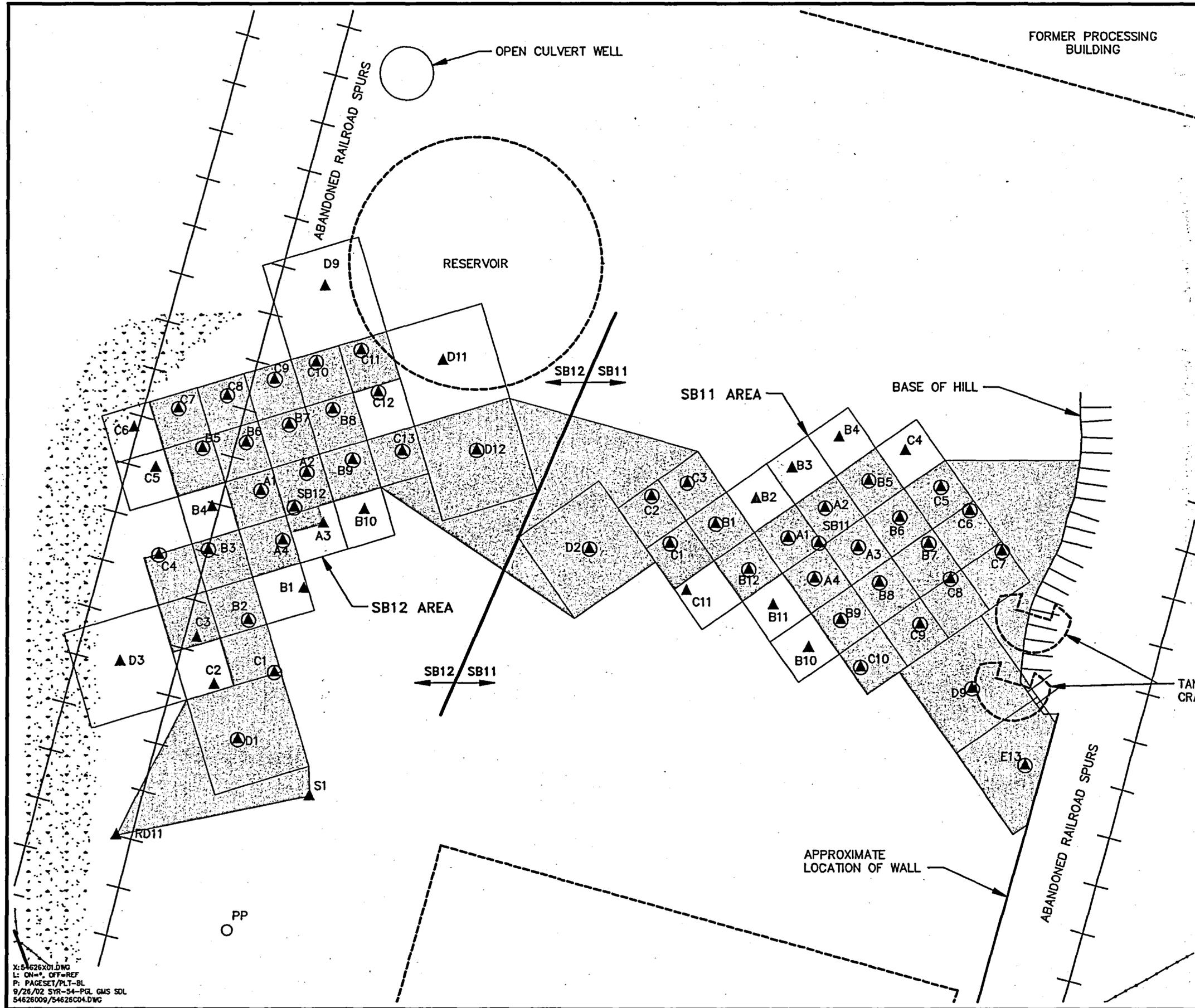
BASE MAP BY JAMES R. HARRINGTON AND ASSOCIATES AT A SCALE OF 1" = 100' SUPPLEMENTED BY BBL WITH FEATURES DIGITIZED FROM A DRAWING ENTITLED "FIGURE 3 - SAMPLING LOCATION MAP" BY TETRA TECH EMI (2000).



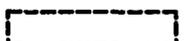
KNOTTS
337/258

VIRGINIA-CAROLINA CHEMICAL CO. SITE WADESBORO, NORTH CAROLINA ADDITIONAL DELINEATION REPORT AND RAWP	
SOIL SAMPLE LOCATIONS AT SB9	
	FIGURE 3-4

L: ON=*, OFF=REF
 P: PAGESET/PLT-AP
 9/26/02 SYR-54-GMS SDL
 54626009/54626C10.DWG

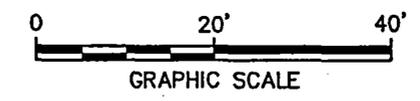


LEGEND:

-  BUILDING
-  RAILROAD
-  APPROXIMATE LOCATION OF FORMER STRUCTURE
-  CHAIN LINK FENCE
-  AREA OF IMPACTED SOIL
-  ACCESS ROAD
-  SOIL BORING WITH ARSENIC AND LEAD CONCENTRATIONS < ACTION LEVELS
-  SOIL BORING WITH ARSENIC AND/OR LEAD CONCENTRATIONS ≥ ACTION LEVELS
-  POWER POLE

NOTE:

BASE MAP BY JAMES R. HARRINGTON AND ASSOCIATES AT A SCALE OF 1" = 100' SUPPLEMENTED BY BBL WITH FEATURES DIGITIZED FROM A DRAWING ENTITLED "FIGURE 3 - SAMPLING LOCATION MAP" BY TETRA TECH EMI (2000).



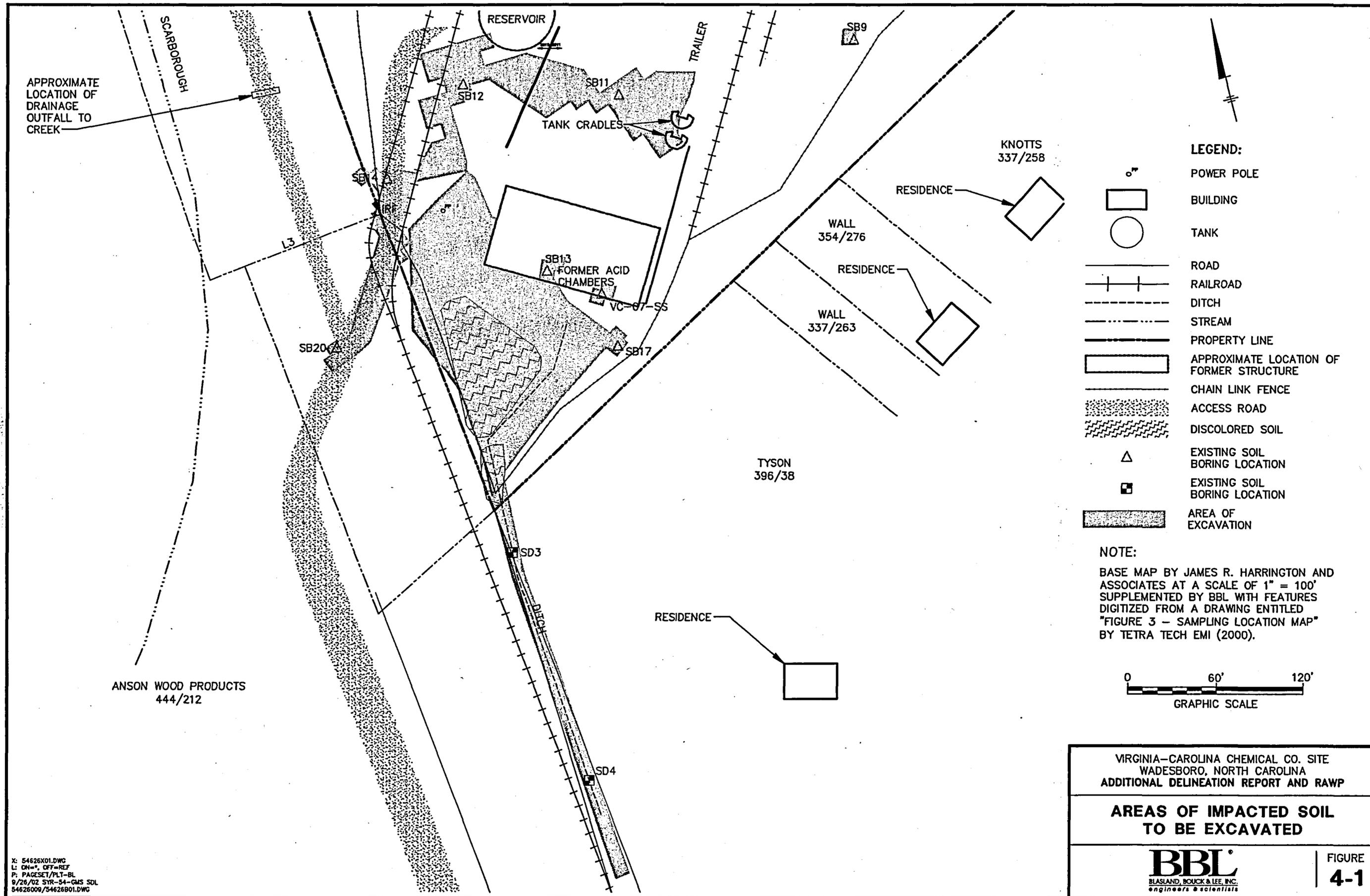
VIRGINIA-CAROLINA CHEMICAL CO. SITE
 WADESBORO, NORTH CAROLINA
 ADDITIONAL DELINEATION REPORT AND RAWP

**SOIL SAMPLE LOCATIONS AT
 SB11 AND SB12**

BBL
 BLASLAND, BOUCK & LEE, INC.
 engineers & scientists

FIGURE
3-5

X:54626X01.DWG
 L: ON=, OFF=REF
 P: PAGESET/PLT-BL
 9/28/02 SYR-54-PGL GMS SOL
 54626009/54626004.DWG



APPROXIMATE LOCATION OF DRAINAGE OUTFALL TO CREEK

SCARBOROUGH

RESERVOIR

TRAILER

TANK CRADLES

KNOTTS 337/258

RESIDENCE

WALL 354/276

RESIDENCE

WALL 337/263

SB13 FORMER ACID CHAMBERS

VC-87-SS

SB20

SB17

TYSON 396/38

SD3

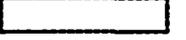
RESIDENCE

ANSON WOOD PRODUCTS 444/212

DITCH

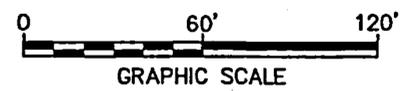
SD4

LEGEND:

-  POWER POLE
-  BUILDING
-  TANK
-  ROAD
-  RAILROAD
-  DITCH
-  STREAM
-  PROPERTY LINE
-  APPROXIMATE LOCATION OF FORMER STRUCTURE
-  CHAIN LINK FENCE
-  ACCESS ROAD
-  DISCOLORED SOIL
-  EXISTING SOIL BORING LOCATION
-  EXISTING SOIL BORING LOCATION
-  AREA OF EXCAVATION

NOTE:

BASE MAP BY JAMES R. HARRINGTON AND ASSOCIATES AT A SCALE OF 1" = 100' SUPPLEMENTED BY BBL WITH FEATURES DIGITIZED FROM A DRAWING ENTITLED "FIGURE 3 - SAMPLING LOCATION MAP" BY TETRA TECH EMI (2000).



VIRGINIA-CAROLINA CHEMICAL CO. SITE
WADESBORO, NORTH CAROLINA
ADDITIONAL DELINEATION REPORT AND RAWP

AREAS OF IMPACTED SOIL TO BE EXCAVATED

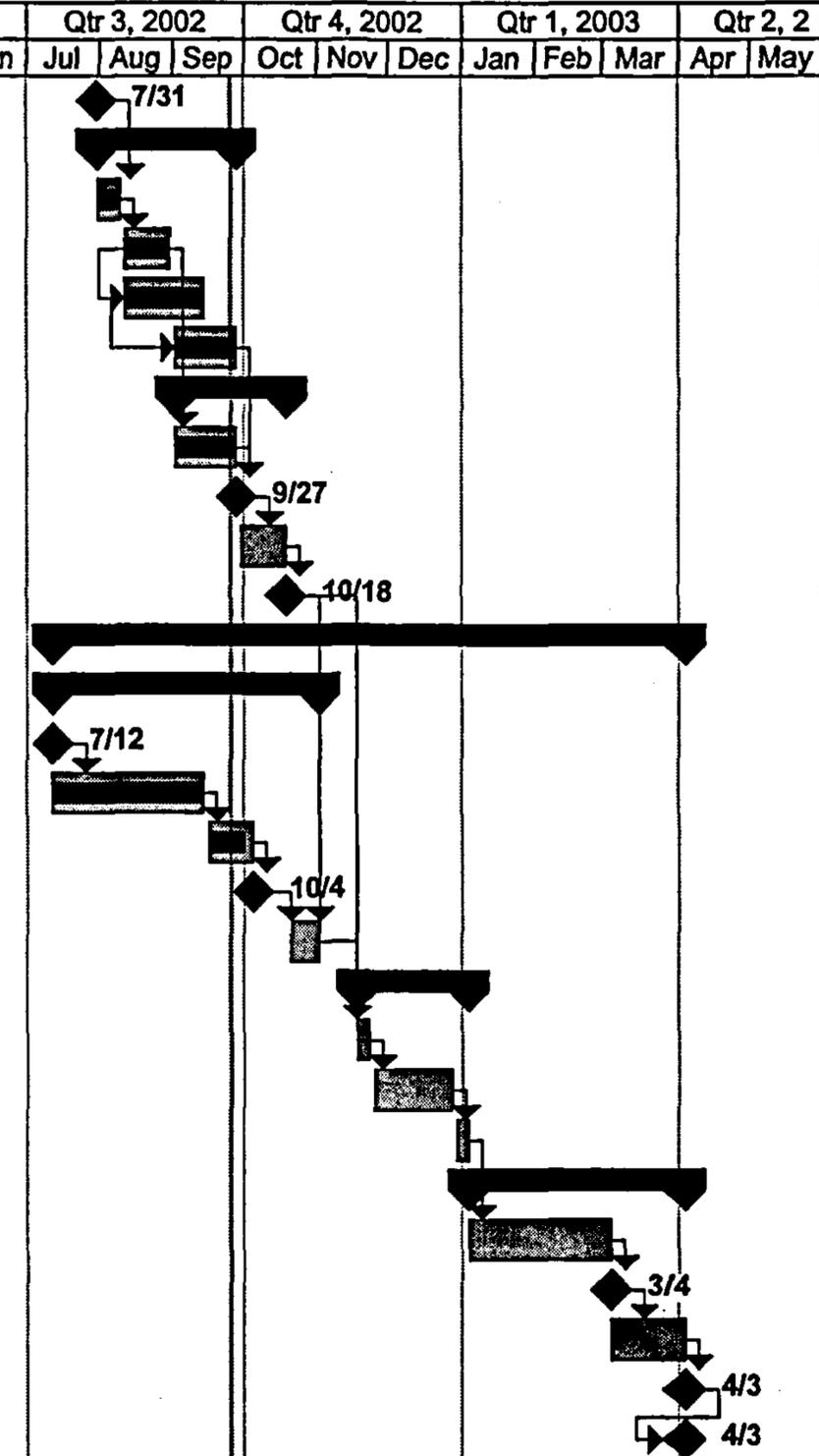


FIGURE 4-1

X: 54626X01.DWG
L: ON=*, OFF=REF
P: PAGESET/PLT-BL
9/26/02 SYR-54-GMS SDL
54626009/54626901.DWG

**Figure 5-1
Project Schedule for Wadesboro VCC Site Remediation
Additional Delineation Report and RAWP**

ID	☐	Task Name	Duration	Start	Finish	Predecessors	02	Qtr 3, 2002			Qtr 4, 2002			Qtr 1, 2003			Qtr 2, 2003	
							Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	✓	Additional Delineation WP Approved	0 days	7/31/02	7/31/02			◆										
2	✓	Field Data Collection	43 days	7/31/02	9/27/02			▬										
3	✓	Mobilization	8 days	7/31/02	8/9/02	1		▬										
4	✓	Field Data Collection	15 days	8/12/02	8/30/02	3		▬										
5	✓	Sample Analysis/Data Package Preparation	25 days	8/12/02	9/13/02	4SS		▬										
6	✓	Data Validation	20 days	9/2/02	9/27/02	5SS+15 days		▬										
7		Data Summary Report and RAWP	35 days	9/2/02	10/18/02			▬										
8	✓	Prepare Report	20 days	9/2/02	9/27/02	4		▬										
9	✓	Submit Report to USEPA	0 days	9/27/02	9/27/02	8,6				◆								
10		USEPA Review	15 days	9/30/02	10/18/02	9				▬								
11		USEPA Approval of Report	0 days	10/18/02	10/18/02	10					◆							
12		Removal Action	190 days	7/12/02	4/3/03			▬										
13		Contractor Selection	81 days	7/12/02	11/1/02			▬										
14	✓	Request Contractor Bids	0 days	7/12/02	7/12/02			◆										
15	✓	Receive Contractor Bids	46 days	7/12/02	9/13/02	14		▬										
16		Evaluate Contractor Bids	15 days	9/16/02	10/4/02	15				▬								
17		Select Contractor	0 days	10/4/02	10/4/02	16					◆							
18		Execute Contract with Contractor	10 days	10/21/02	11/1/02	17,11					▬							
19		Implement Removal Action	35 days	11/18/02	1/3/03						▬							
20		Mobilize to Site	5 days	11/18/02	11/22/02	18FS+10 days,11					▬							
21		Perform Removal Action	25 days	11/25/02	12/27/02	20					▬							
22		Demobilize from Site	5 days	12/30/02	1/3/03	21					▬							
23		Removal Action Summary Report	64 days	1/3/03	4/3/03							▬						
24		Prepare Report	60 edays	1/3/03	3/4/03	22						▬						
25		Submit Report to USEPA	0 days	3/4/03	3/4/03	24							◆					
26		USEPA Reviews Report	30 edays	3/4/03	4/3/03	25							▬					
27		USEPA Approves Report	0 days	4/3/03	4/3/03	26								◆				
28		Project Completion	0 days	4/3/03	4/3/03	27												◆



Blasland, Bouck & Lee, Inc. 3700 Regency Parkway, Suite 130 Cary, NC 27511	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	

Appendices

Appendix A

Soil Boring Logs and Photos

Appendix A

Soil Boring Logs and Photos for Road Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB-RD1



Depth Interval (feet)	Soil Lithology/Characteristics
0 - 1	Grayish brown gravel and sand (roadbase) with some brown/red silty sand
1 - 2	Brown and red medium sand with gravel and rocks
2 - 3	Medium brown silty clay with trace sand and orange brown fractured clay
3 - 3.7	Medium brown silty clay, trace sand
3.7 - 4	Tan to grey sandy silt

SB-RD2



Depth Interval (feet)	Soil Lithology/Characteristics
0 - 1	Brown and red gravelly sand with gravel at top (roadbase)
1 - 2	Brown and red medium coarse sand with some gravel and rocks
2 - 3	Brown to red clay to medium sand and medium brown silty clay
3 - 3.7	Medium brown silty clay, trace sand
3.7 - 4	Tan to grey sandy silt

SB-RD3



Depth Interval (feet)	Soil Lithology/Characteristics
0 - 1	Medium brown gravelly sand with gravel at top (roadbase)
1 - 2	Dark brown to black gravelly sand with ash/slag
2 - 3	Brown and red gravelly sand with some rocks and orange-brown medium clay
3 - 3.7	Medium brown silty clay, trace sand with wood fragments
3.7 - 4	Tan to grey sandy silt

Appendix A

Soil Boring Logs and Photos for Road Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB-RD4



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown gravelly sand with brick fragments at bottom with trace slag
1-2	Medium brown and red brown coarse sand with gravel
2-3	Brown and red medium sand some gravel
3.-3.6	Orange brown medium clay, with trace slag
3.6-4	Tan to yellow clayey silt with some fine sand

SB-RD5



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium to dark brown sand with gravel (roadbase) with trace slag
1-2	Medium brown gravelly sand with slag and trace brown regular gravelly sand.
2-3	Brown and red medium sand with some gravel, trace slag, tan to medium orange clay
3-4	Brown to orange medium clay with tan to yellow sandy silt

SB-RD6



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium dark brown coarse sand with gravel (roadbase)
1-2	Medium brown sand with gravel and trace slag
2-3	Medium brown sand with trace red brown sand with gravel and trace slag
3-3.5	Orange to brown medium clay
3.5-4	Tan to yellow clayey silt

Appendix A

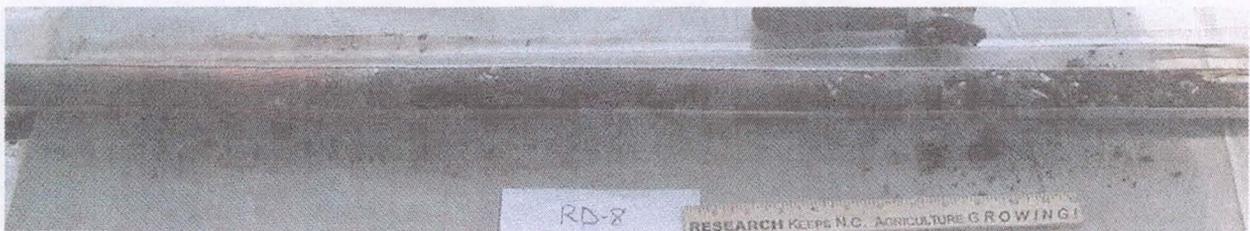
Soil Boring Logs and Photos for Road Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB-RD7



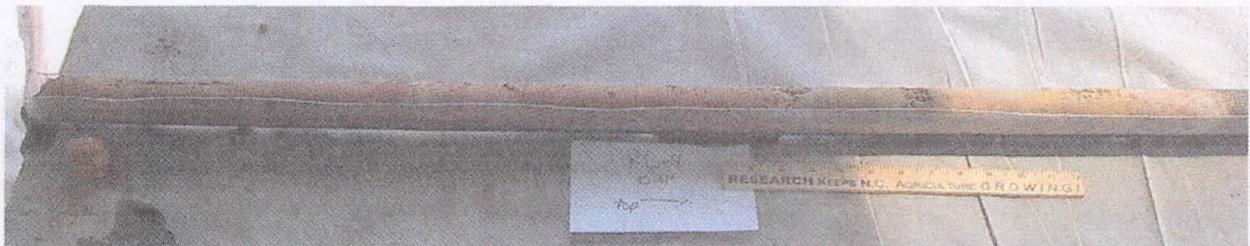
Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium to dark brown sand with gravel (roadbase)
1-2	Medium to dark brown sand with gravel (roadbase) with some ash/slag
2-3	Dark brown to black sand and gravel with significant slag
3-4	Orange-brown sandy clay with rock and slag at 3-3.5'. 3.5-4 is a grey-tan silt with clay

SB-RD8



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Dark brown medium sand with gravel (roadbase)
1-2	Dark brown to black sand with gravel, ash, slag
2-3	Dark brown to black sand with gravel, ash, slag with orange-brown clay at bottom
3-4	Orange-brown to brown sandy clay with gravel

SB-RD9



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Light brown to tan silty sand with gravel (roadbase)
1-2	Light brown to tan silty sand with gravel (roadbase) with orange-brown clay at bottom
2-3	Orange brown medium clay
3-4	Orange brown medium clay

Appendix A

Soil Boring Logs and Photos for Road Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB-RD10



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Orange-brown sandy clay with dark brown sand/gravel at top (road)
1-2	Orange-brown mottled clay with trace gravel
2-3	Orange-brown mottled clay with trace gravel to 2.3' Tan gray silt
3-3.7	Tan-gray silt
3.7-4	Orange brown clay

SB-RD11

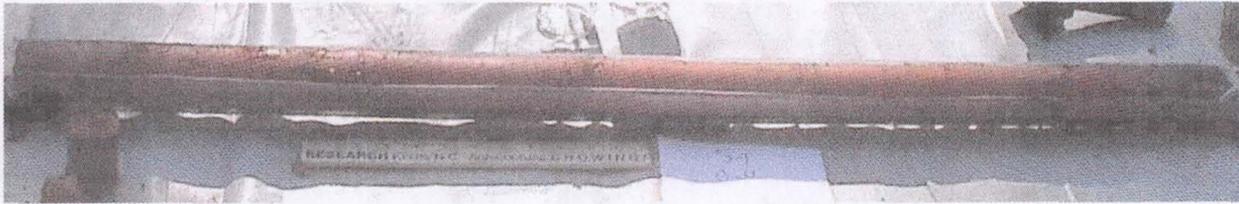


Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light brown, loamy sand
0.5-1	Orange-brown silty clay, some organic matter
1-2	Orange brown silty clay, trace gravel
2-3	Orange brown silty clay, trace gravel and wood with some light brown silt
3-4	Orange brown silty clay, trace gravel and wood with some light brown silt

Appendix A

Soil Boring Logs and Photos for Contiguous Area Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

S-1



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange brown stiff medium clay with brown silty sand at top
0.5-1	Orange brown stiff medium clay
1-1.5	Orange brown stiff medium clay
1.5-2	Orange brown stiff medium clay
2-2.5	Orange brown stiff medium clay
2.5-3	Orange brown stiff medium clay
3-3.5	Orange brown stiff medium clay
3.5-4	Orange brown stiff medium clay with some silt

S-2



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand with gravel, organics and trace slag
0.5-1	Medium brown sand with gravel, organics and trace slag with less organics
1-1.5	Orange-brown medium silty clay
1.5-2	Orange-brown medium silty clay with some tan silt and clay, trace gravel
2-2.5	Orange-brown medium silty clay
2.5-3	Orange-brown medium silty clay
3-3.5	Orange-brown medium silty clay
3.5-4	Orange-brown medium silty clay

S2-A



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sandy silt, trace organics with gravel
0.5-1	Medium brown sandy silt, trace organics with gravel
1-1.5	Orange-brown silty and clay
1.5-2	Orange-brown silty and clay
2-3	Yellow-brown silt with clay
3-4	Orange-brown silt with clay

Appendix A

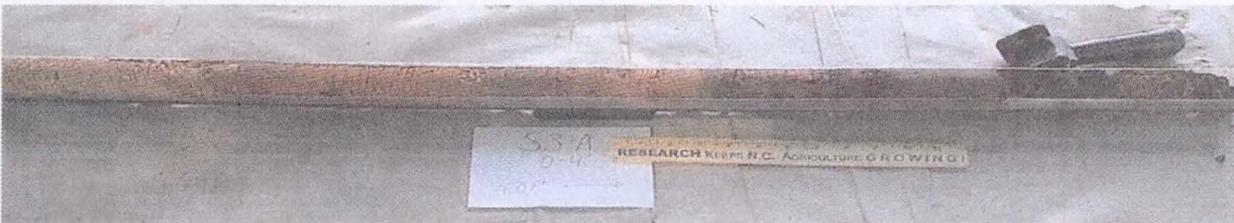
Soil Boring Logs and Photos for Contiguous Area Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

S-3



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand with gravel and organics/trace slag
0.5-1	Medium brown sand with gravel and organics/trace slag
1-1.5	Medium brown sand with gravel and organics/trace slag
1.5-2	Orange brown clay, stiff, trace rock
2-2.5	Orange-brown medium clay
2.5-3	Orange-brown medium clay, trace rock
3-3.5	Orange-brown medium clay, trace rock
3.5-4	Orange-tan medium clay, trace rock

S3-A



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium to dark brown silty sand with organics and trace gravel
0.5-1	Medium to dark brown sand with gravel and slag
1-1.5	Orange-brown silt and clay, gravel and trace slag
1.5-2	Orange-brown silt and clay, gravel and trace slag
2-3	Orange-brown silt and clay, trace gravel
3-4	Light brown to tan silt and trace gravel

S3-B

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Orange-brown silt and clay with medium brown loamy silt and organics at top
1-2	Orange-brown silt and clay, trace gravel

S3-C

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Orange-brown silt and clay with medium brown loamy silt and organics at top
1-2	Orange-brown silt and clay, trace gravel and concrete

Appendix A

Soil Boring Logs and Photos for Contiguous Area Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

S-4



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Grayish white sandy silt, some organics
0.5-1	Grayish white sandy silt, some organics
1-1.5	Grayish white sandy silt, some organics
1.5-2	Grayish white sandy silt, some organics
2-2.5	Medium brown orange medium clay
2.5-3	Orange brown medium clay
3-3.5	Orange brown medium clay
3.5-4	Orange brown medium clay

S-5



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light brown to grey sandy silt, trace gravel and organics
0.5-1	Light brown to grey sandy silt, trace gravel and organics, trace to red brown sand
1-1.5	Light brown to grey sandy silt, trace gravel and organics
1.5-2	Brown-grey sandy silt with orange-brown clay
2-2.5	Orange-brown medium clay
2.5-3	Orange-brown medium clay
3-3.5	Orange-brown medium clay
3.5-4	Orange-brown medium clay

S-6



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with organics
0.5-1	Orange-brown silty clay
1-1.5	Orange-brown silty clay
1.5-2	Orange-brown silty clay with white-grey silt at 2'
2-2.5	Orange-brown medium clay
2.5-3	Orange-brown silty clay, trace organics and gravel
3-3.5	Orange-brown silty clay, trace organics and gravel
3.5-4	Orange-brown silty, clay, trace gravel

Appendix A

Soil Boring Logs and Photos for Contiguous Area Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

S6-A



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown silty clay with organics at top

S6B



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown silty clay with organics at top

S7



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown silty clay, trace organics, small rocks
0.5-1	Orange-brown silty clay, trace organics, trace sand
1-1.5	Medium to light brown sandy silt with trace clay
1.5-2	Light brown sandy silt
2-2.5	Light to medium brown sandy silt, trace clay
2.5-3	Light to medium brown sandy silt
3-3.5	Light to medium brown sandy silt transitions to orange-brown clay
3.5-4	Orange-brown clay

Appendix A

Soil Boring Logs and Photos for Contiguous Area Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

S-8



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with brick and rocks
0.5-1	Orange-brown silty sand with brick fragments and trace gravel
1-1.5	Orange-brown silty clay
1.5-2	Orange-brown medium clay, trace gravel
2-2.5	Orange-brown medium clay, trace gravel
2.5-3	Gray silt with orange-brown medium clay
3-3.5	Orange-brown medium clay
3.5-4	Orange-brown silty clay, trace gravel

S-8A

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Concrete
0.5-1	Medium brown sand with gravel
1-1.5	Medium brown sand with gravel
1.5-4	Orange-brown medium to stiff clay, trace sand, rocks

S-8B

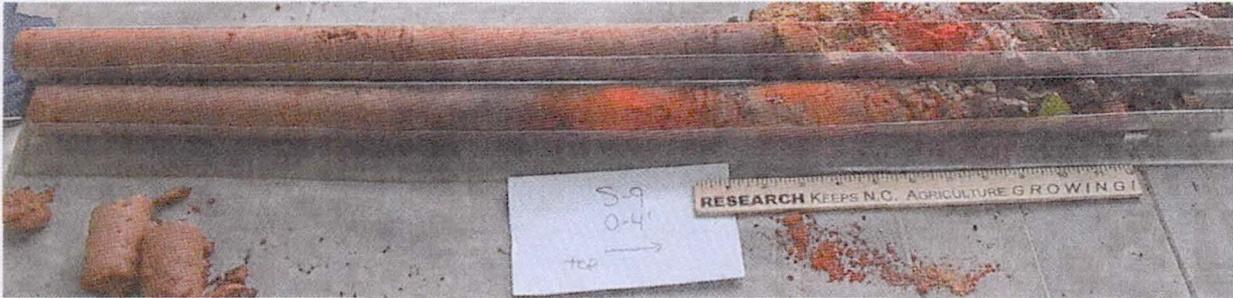
NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Light brown sand with organic material transition to orange-brown medium clay with gravel
	Concrete on bottom of core.

Appendix A

Soil Boring Logs and Photos for Contiguous Area Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

S-9



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand with brick, concrete and small organics
0.5-1	Orange-brown sand with brick
1-1.5	Medium brown silty clay with brick and trace organics
1.5-2	Orange-brown silty clay with brick
2-2.5	Medium brown silty with clay and trace gravel
2.5-3	Medium brown silt with clay
3-3.5	Medium brown silty clay
3.5-4	Medium brown silty clay

Appendix A

Soil Boring Logs and Photos for SB9 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB9

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0.5-1	Light to medium brown silty sand
1-1.5	Light to medium brown silty sand
1.5-2	Orange-red medium clay

SB9-A1

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Light to medium brown silty sand

SB9-A2

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Light to medium brown silty sand

SB9-A3

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Light to medium brown silty sand

SB9-A4

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Light to medium brown silty sand

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11



Depth Interval (feet)	Soil Lithology/Characteristics
0.5-1	Medium brown silty sand with rock fragments
1-1.5	White and grey silty sand with some gravel
1.5-2	Medium brown silty sand and gravel
2-4	Reddish brown, clay, some silt and gravel

SB11-A1



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Reddish brown, clay and silt with roots, trace gravel, trace garbage/trash
2-4	Reddish brown clay with silt

SB11-A2

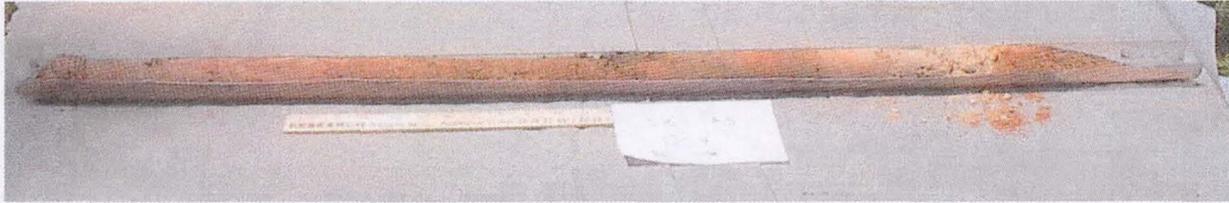


Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Reddish brown clay with silty sand, some gravel, and organics
2-4	Reddish brown clay with some silt

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-A3



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Reddish brown, clay with light brown sandy silt, some gravel, some organics
2-4	Medium brown, sandy silt, some organics

SB11-A4



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Reddish brown clay and sandy silt with some concrete/rock fragments
2-4	Reddish brown clay and silty sand

SB11-B1



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown sand and clay with gravel at 1.5'
2-4	Orange-brown medium to stiff clay

Appendix A

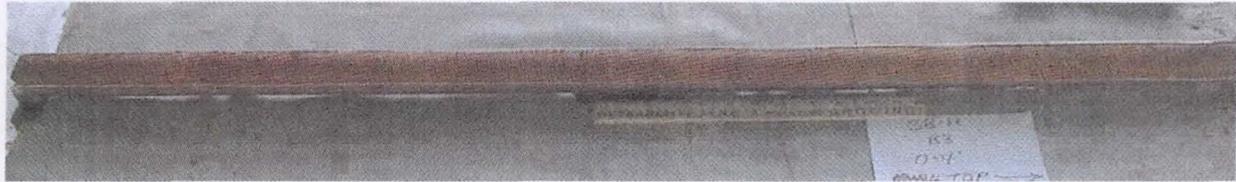
Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-B2



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silt and orange-brown silty clay, trace gravel
2-4	Orange-brown silty clay

SB11-B3



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown-orange clay, trace gravel
2-4	Medium orange-brown clay

SB11-B4

NO PHOTO AVAILABLE (PHOTO FILE CORRUPT)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown silty clay, trace organics, trace gravel
2-4	Tan to orange-brown silty clay

SB11-B5



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown silty clay with organics, gravel and trace slag
2-4	Orange-brown with gray silty clay (mottled)

Appendix A

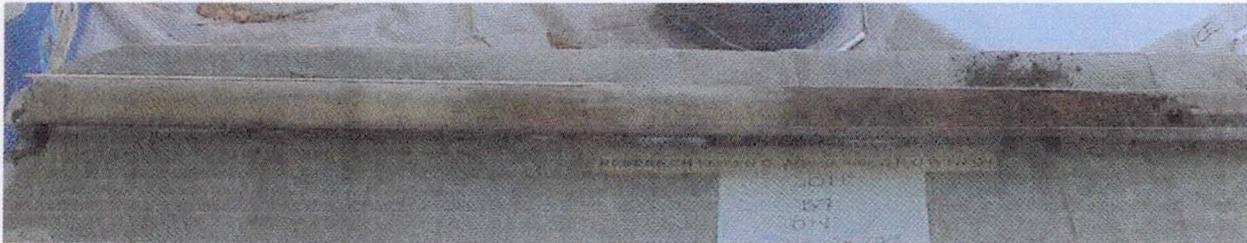
Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-B6



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown sandy clay with trace gravel and organics and slag with medium brown silt at top
2-4	Orange-brown silty clay

SB11-B7



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand
0-1	Medium brown sandy silt with organics
1-2	White-grey silty sand with organics, gravel, slag
2-4	White-grey-tan silty sand with trace organics

SB11-B8

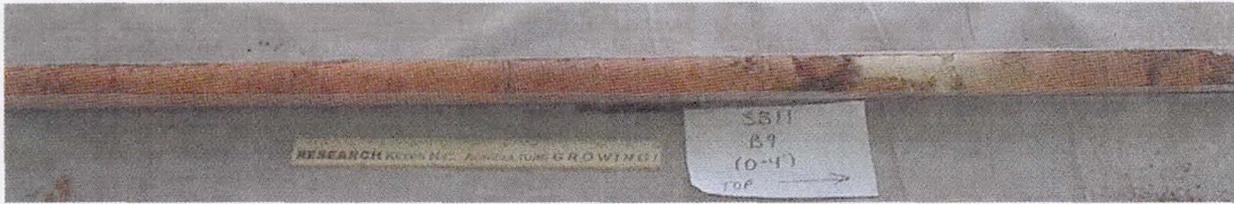


Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand
0.5-2	Medium brown silt with some gravel and organics
2-3	Orange-brown silty clay
3-4	Orange-brown medium clay

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-B9



Depth Interval (feet)	Soil Lithology/Characteristics
0-1.5	Medium brown silt with organics/gravel
1.5-2	Orange-brown stiff clay
2-4	Orange-brown medium clay

SB11-B10



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown stiff clay with some organics, trace rocks
2-4	Orange-brown medium stiff clay with some gravel at 3'

SB11-B11

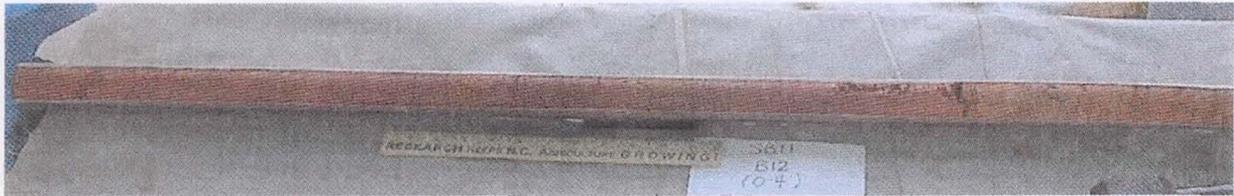


Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown medium-stiff silty clay with fractured clay pieces
2-4	Orange-brown medium-stiff clay

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-B12



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange brown stiff clay with organics and trace rocks
2-4	Orange brown stiff clay with organics and trace rocks

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-C1



Depth Interval (feet)	Soil Lithology/Characteristics
0-1.5	Medium brown sand with gravel and rocks at top
1.5-2	Quartz gravel and white sand
2-4	Orange-brown medium clay

SB11-C2



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown silty sand, trace organics, gravel and slag
1-2	Orange brown medium to stiff clay

SB11-C3

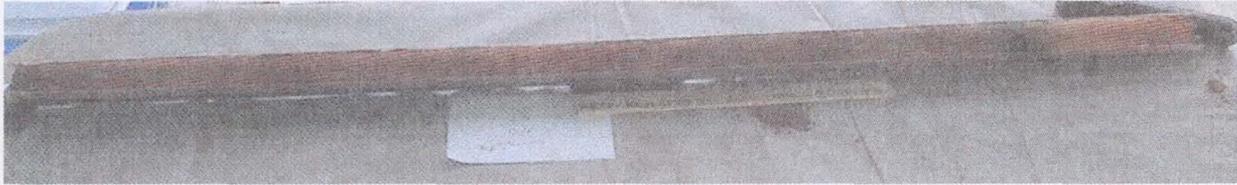


Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand
0.5-2	Orange brown medium to stiff clay

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-C4



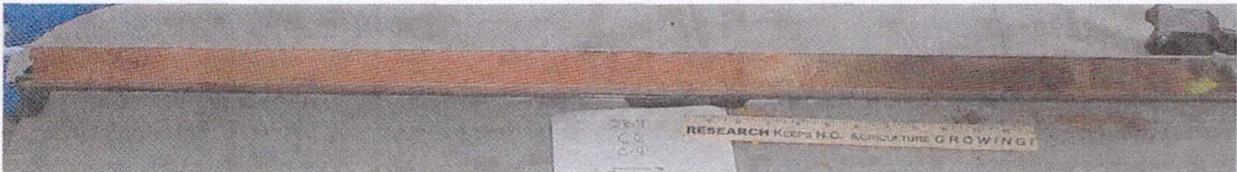
Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown silty clay, trace gravel, trace medium brown silty sand
2-4	Orange-brown silty clay

SB11-C5



Depth Interval (feet)	Soil Lithology/Characteristics
0-1.5	Medium brown silty sand with gravel
1.5-1	White and tan sand and gravel
2-3.5	Tan silt
3.5-4	Orange-brown sandy silt

SB11-C6



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown sandy silt with organics and small rocks transitioning to tan silt with gravel at 1.5'
2-4	Tan silt

Appendix A

Soil Boring Logs and Photos for SB11 Borings Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-C7



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Dark brown silty sand with organics
1-1.5	White sandy gravel with wood and slag
1.5-2	Brown and tan silt and sand with wood and slag
2-2.5	Brown and tan silt and sand with wood and slag
2.5-4	Orange-brown medium clay, mottled

SB11-C8



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Dark brown silty sand with organics
0.5-2	Tan sandy silt and gravel, trace slag, trace glass
2-3.5	Tan sandy silt and gravel, trace slag, trace glass
3.5-4	White silt

SB11-C9



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Light to medium brown silt and sand with organics and trace gravel

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-C10



Depth Interval (feet)	Soil Lithology/Characteristics
0-1.7	Medium to orange brown silty clay with organics at top
1.7-2	Light brown and grey sand with gravel and brick

SB11-C11



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Orange-brown medium silt and sand, trace gravel
1-2	Orange-brown stiff clay with trace gravel and some grey sandy silt

Appendix A

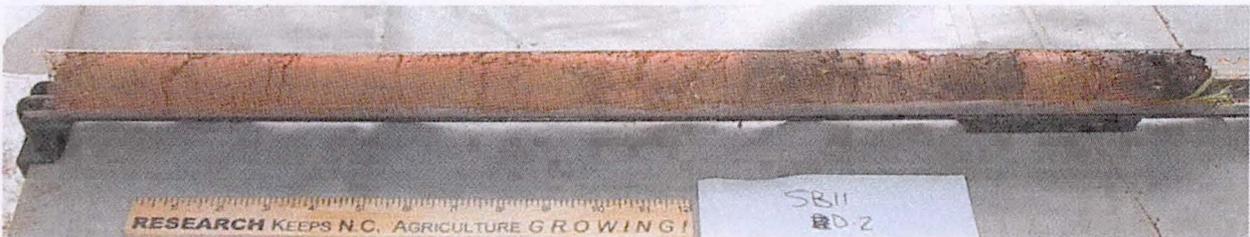
Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-D1



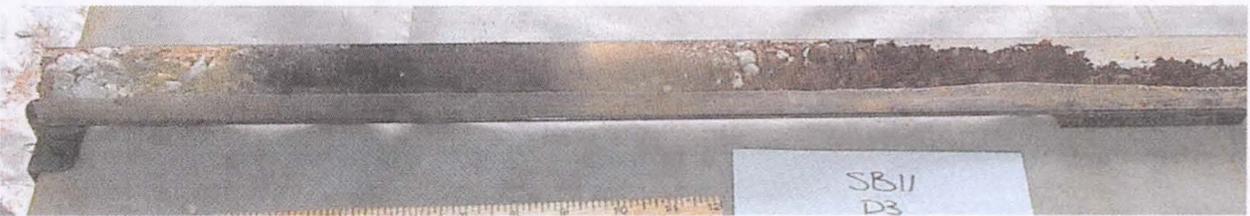
Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange brown silt and clay with trace gravel medium brown silty sand with organics at top

SB11-D2



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange brown and light brown silty clay, trace gravel and organics at top

SB11-D3



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Light brown and black silt and sand with gravel, slag and trace organics

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-D4



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown sandy silt with trace clay, gravel and some organics at top

SB11-D5



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange brown/medium brown/dark brown silty sand, trace gravel, slag and organics

SB11-D6



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown sandy silt with organics

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-D7



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silty sand with gravel and organics and trace slag, some orange-brown clay

SB11-D8



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silty sand with trace gravel and some organics

SB11-D9



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown to orange brown sandy silt with organics, trace gravel and trace slag

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-E5



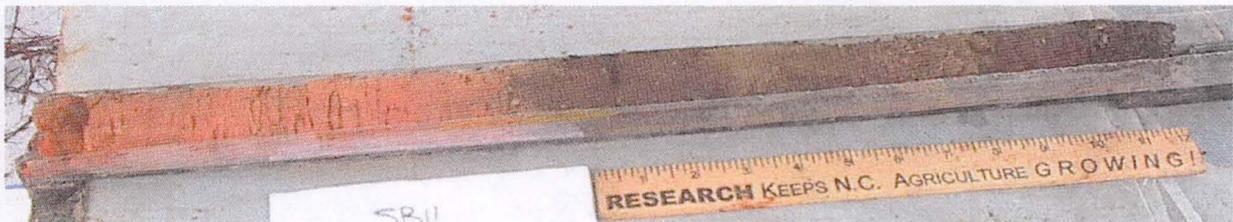
Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silty sand, trace clay, some organics, trace gravel

SB11-E6



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange brown silt and clay with dark brown silty sand and organics at top

SB11-E7



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Dark brown sandy silt, organics, trace gravel
1-2	Orange and brown silt and clay, concrete

Appendix A

Soil Boring Logs and Photos for SB11 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB11-E8



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown sandy silt, gravel (trace), some organics

SB11-E13

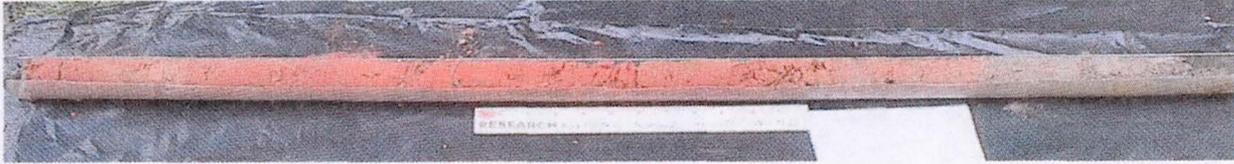


Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Dark brown sandy silt with organics, trace gravel
1-2	White sandy silt

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12



Depth Interval (feet)	Soil Lithology/Characteristics
0.5-1.0	Red/orange, dry clayey silt, with gravel and trace organics
1.0-1.5	Red/orange, dry clayey silt, with gravel and trace organics
1.5-2.0	Red/orange, dry clayey silt, with gravel and trace organics, rock chips at 2'

SB12-A1



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown to orange silt with some gravel and organics

SB12-A2



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown to orange silt with some gravel, trace organics

SB12-A3

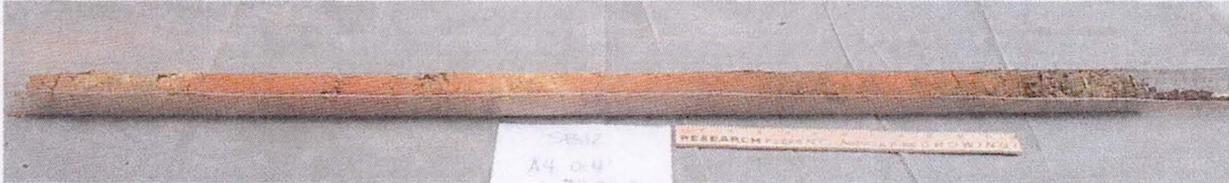


Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown to red, silt and clay, some organics, trace gravel
2-2.5	Medium brown to red, silt and clay, some organics, trace gravel
2.5-4	White to grey silt

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-A4



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Brownish Red, silt and clay, some gravel, some organics
2-3	Brownish Red, silt and clay, some gravel, some organics
3-4	Reddish brown, mottled clay and silt with some organics, rock fragments

SB12-B1

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown sandy silt with trace gravel and organics

SB12-B2

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sandy silt with organics

SB12-B3

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand with gravel, trace organics

SB12-B4

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with gravel, trace organics

SB12-B5

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with gravel, trace organics with trace slag

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-B6

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with gravel, trace organics B134

SB12-B7

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with gravel, trace organics, trace slag

SB12-B8

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with gravel, trace organics, trace slag

SB12-B9

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

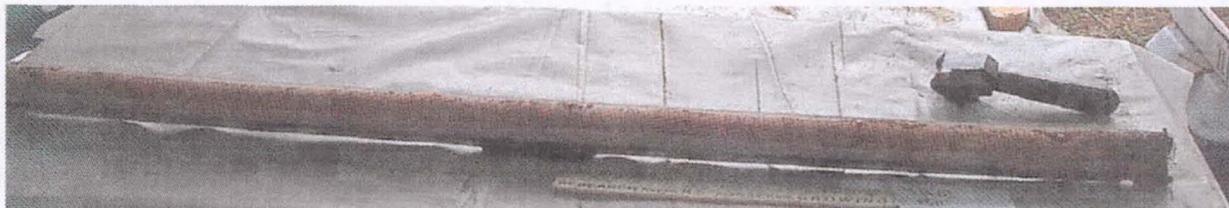
Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with gravel, trace organics, trace slag

SB12-B10

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sandy silt with organics and trace gravel
0.5-2	Orange brown clay with silt and some mottling

SB12-B11

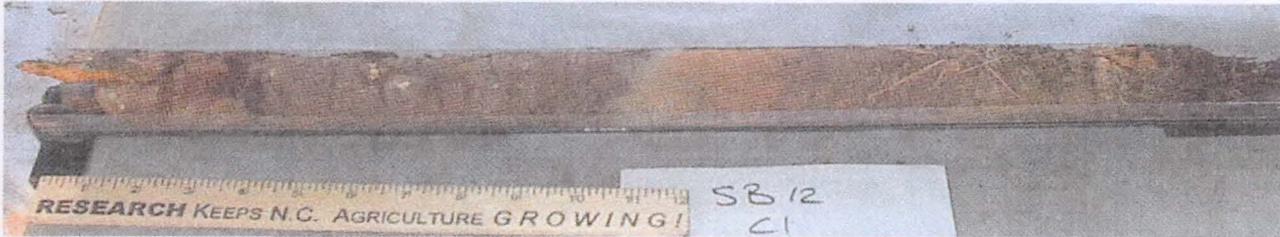


Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange brown silty clay, trace gravel with some brown silt and organic matter at top
0.5-4	Orange brown silty clay, trace gravel

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-C1



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown loamy silt with sand, trace gravel, some organics
0.5-1	Medium brown loamy silt with sand, trace gravel, some organics,
1-2	Orange brown clay, some sand, rock and wood

SB12-C2



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Dark brown sand, rocks and organic material (root) trace slag
0.5-2.0	Dark brown gravelly sand with rocks, and some slag

SB12-C3



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand with organics, gravel and slag
0.5-2.0	Medium brown and black sand with orange brown clay, some gravel and slag

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-C4



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand with organics and trace gravel, transitioning to brown and red/black medium sand with slag
0.5-1	Black medium sand with slag
1-2	Orange and brown clay (medium) with some gravel and rocks

SB12-C5



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand with gravel and slag and some orange brown clay
0.5-2.5	Orange brown silty clay

SB12-C6



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand with gravel and some orange brown silty clay
0.5-2.5	Orange-brown medium clay, trace gravel

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-C7



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Dark brown sand with gravel some organics (roadbase) trace slag
0.5-1.5	Dark brown sand with gravel some organics (roadbase) trace slag transition to orange brown silty clay at 1'
1.5-4	Orange brown medium clay with trace gravel, trace slag

SB12-C8



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium to dark brown, silty sand with rocks, wood, trace slag
0.5-2	Brown and black medium sand with gravel, transition to orange-brown silty clay at 1.5', some slag
2-4	Orange brown silty clay, trace sand and gravel

SB12-C9



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light brown silty sand with gravel with some organics
0.5-1	Light brown silty sand with gravel with some organics
1-2	Orange-brown medium clay with sand

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-C10



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light brown to grey silty sand with gravel
0.5-1	Light brown to grey silty sand with gravel
1-2	Orange-brown silty clay, trace gravel

SB12-C11



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with organics and trace gravel
0.5-2	Orange-brown medium clay with some silt

SB12-C12



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with organics and some gravel
0.5-2	Orange-brown stiff clay with some silt

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-C13



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silt and sand with orange-brown clay with some organics, trace gravel
0.5-2	Orange-brown clay with silt and some mottling

SB12-C14



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand, with organics and gravel
0.5-2.0	Light brown sandy silt, trace gravel and clay

SB12-C15



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown medium clay with brown silty sand, organic and gravel at top
0.5-2	Orange-brown medium clay, trace gravel

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-D1



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown loamy sand and silt
0.5-1	Medium brown loamy sand and silt
1-2	Orange-brown silty clay

SB12-D2



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown silty clay some medium brown silty sand and organics at top, trace gravel
0.5-2.0	Orange-brown silty clay some medium brown silty sand and organics at top, trace gravel, silty sand on top

SB12-D3

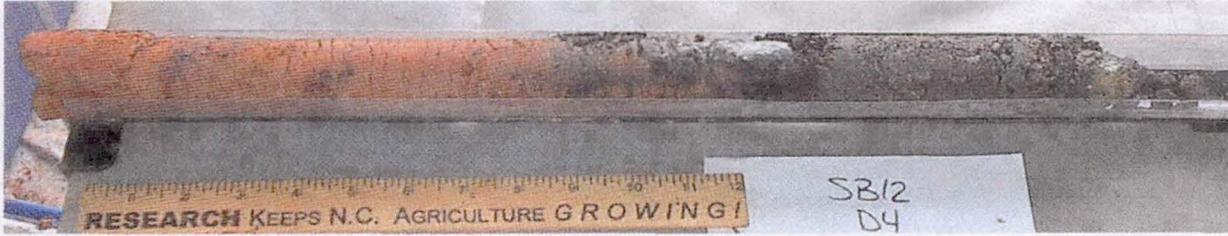


Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium to dark brown silty sand, gravel, slag and organics
0.5-2.0	Orange-brown and brown silty clay and trace gravel

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-D4



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown medium clay with grey and black gravel and sand (roadbase) at top
0.5-2.0	Orange-brown medium clay

SB12-D5



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium to dark brown silty sand with gravel, organics and trace slag and trace brick
0.5-1.5	Orange-brown sand and fractured clay from
1.5-2	Concrete

SB12-D6

NO PHOTO AVAILABLE (PHOTO FILE CORRUPT)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown medium clay with medium brown silty sand and organics with trace gravel at top
0.5-2	Orange-brown and brown silt and clay

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-D7



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange and brown silt with clay, gravel at top
0.5-2	Orange and brown silt with clay

SB12-D8



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sand and silt with gravel, organics, and trace slag
0.5-2	Medium brown sand and silt with gravel, organics, and trace slag transition to orange brown silt at 1'

SB12-D9



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown to medium brown silt, trace gravel and organics
0.5-2	Orange-brown silt and clay

Appendix A

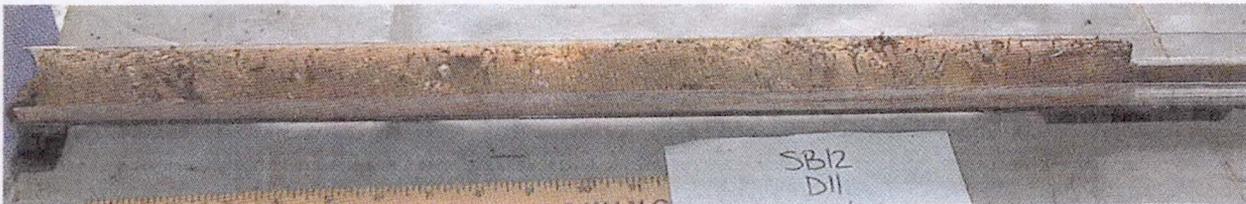
Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-D10



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand, trace rocks, some organics
0.5-1.5	White and brown silty sand, trace gravel, bottom orange brown medium clay, trace gravel
1.5-2	Orange brown medium clay, trace gravel

SB12-D11



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with organics and gravel
0.5-2	Medium brown silty sand with organics and gravel

SB12-D12

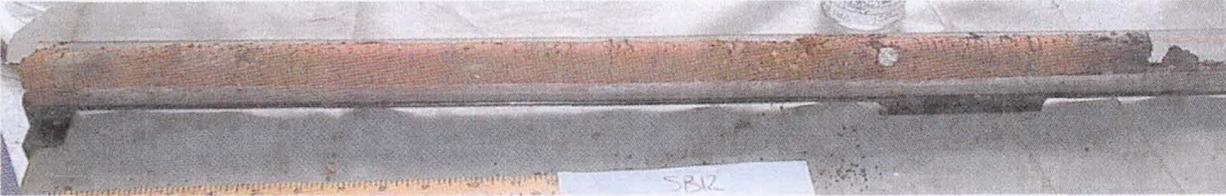


Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium to dark brown silty sand with gravel, organics, and slag
0.5-1	Medium to dark brown silty sand with gravel, organics, and slag
1-2	Orange-brown and tan clay and silt with gravel

Appendix A

Soil Boring Logs and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-D13



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown medium to stiff silty clay, trace organics, gravel at top
0.5-2	Orange-brown medium to stiff silty clay, trace organics, gravel at top

Appendix A

Soil Log Borings and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-E1



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Brown silty sand with concrete and dark brown sand and organic matter at top
0.5-2	Medium brown to orange brown sandy silt

SB12-E2



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Orange-brown silty clay with dark brown silt and organic matter at top
0.5-2	Orange-brown silt and clay, trace gravel

SB12-E3



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown sandy silt with organics, trace gravel, rocks at 0.5'
0.5-1.5	Black coal and ash (slag)
1.5-2	Orange-brown medium clay with slag

Appendix A

Soil Log Borings and Photos for SB12 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB12-E4



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with gravel, some organics, trace slag
0.5-0.8	Medium brown sand with slag
0.8-2	Orange-brown medium clay with trace slag

SB12-E5



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with organics, trace gravel
0.5-1.5	Medium brown silty sand with organics, trace gravel, concrete at bottom
	Refusal at 1.5'

Appendix A

Soil Boring Logs and Photos for SB13 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB13



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Light to medium brown sand, silt and construction debris (rock, brick)

SB13-A1

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light to medium brown sand, silt and construction debris (rock, brick)

SB13-A2

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light to medium brown sand, silt and construction debris (rock, brick)

SB13-A3

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown and orange-brown sand, silt and construction debris (rock, brick)

SB13-A4

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light to medium brown sand, silt and construction debris (rock, brick)

Appendix A

**Soil Boring Logs and Photos for SB14 Borings
Wadesboro Additional Delineation Report and RAWP**

SB14

NO PHOTO AVAILABLE (PHOTO FILE CORRUPTED)

Depth Interval (feet)	Soil Lithology/Characteristics
0.5-1	Orange-brown silty clay, trace organics and gravel
1-1.5	Orange-brown silty clay, some fine sand
1.5-2	Orange-brown silty clay, some fine sand trace gravel
2-4	Orange-brown silty clay, some fine sand trace gravel

SB14-A1



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown sandy silt, with brick fragments
1-2	Light to medium brown silty sand with some gravel
2-4	Brown and tan, sandy clay, some gravel

SB14-A2



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Dark brown sand with yellow sandy clay with rock fragments (quartz, brick)
1-2	Orange brown silty clay with some sand, trace gravel
2-4	Orange yellow medium clay with some sand and gravel

Appendix A

Soil Boring Logs and Photos for SB14 Borings
Wadesboro Additional Delineation Report and RAWP

SB14-A3



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown orange sand and gravel
2-4	Light brown and orange mottled silty clay with sand and gravel

SB14-A4

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silty sand with trace organics and gravel

SB14-B1

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown silty sand
1-2	Orange-brown silty clay at 1-2' bgs

SB14-B2

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silty sand, some orange-brown clay, trace gravel and roots/organic matter

SB14-B3

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silty sand, some orange-brown clay, trace gravel and roots/organic matter

Appendix A

Soil Boring Logs and Photos for SB16 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB16



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium to light brown, silty sand with gravel
0.5-1	Medium brown, silty sand and gravel with some slag
1-1.5	Medium brown, silty sand and gravel with some slag
1.5-2	Medium brown silty sand with some gravel
2-3	Medium brown and red silty sand with gravel
3-4	Orange and brown medium clay

SB16-A1



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown sand and gravel with some organics
1-2	Brown to red sand and yellow orange clay with brick and gravel
2-3	Orange-brown mottled clay with silty sand and gravel
3-4	Orange-brown mottled clay with silty sand and gravel

SB16-A2



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Brown and red sand with gravel
1-2	Brown and red sand with gravel
2-3	Orange and brown medium clay, with gravel and fractured brick
3-4	Orange and brown medium clay

Appendix A

Soil Boring Logs and Photos for SB16 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB16-A3



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown sand with gravel and trace slag
1-2	Brown and red sand with gravel, some slag
2-3	Orange and brown clay with brown and red sand and gravel with slag
3-4	Orange and brown medium clay

SB16-A4

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange-brown medium silty sand and clay with trace organics and gravel

Appendix A

Soil Boring Logs and Photos for SB17 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB17



Depth Interval (feet)	Soil Lithology/Characteristics
0.5-1	Reddish brown clayey silt, with some gravel and wood chips
1-1.5	Red brown stiff silty clay
1.5-2	Red brown stiff silty clay with trace gravel
2-4	Red brown stiff silty clay with rock fragments throughout

SB17-A1



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Reddish brown to brown clay and sandy silt with gravel and organics
2-4	Reddish brown sandy clay with gravel and rock fragments

SB17-A2



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown sandy silt with roots, gravel, and crushed brick
2-4	Reddish brown, sandy clay with gravel and organics, some mottled clay.

Appendix A

Soil Boring Logs and Photos for SB17 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB17-A3



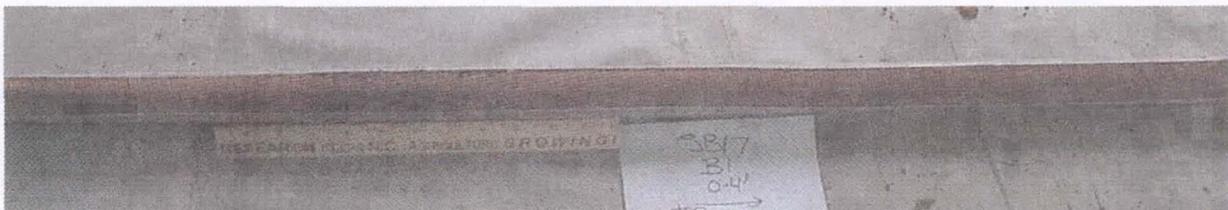
Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Reddish brown, silty clay with trace organics and gravel
2-4	Reddish brown, silty clay with trace organics and gravel

SB17-A4



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Reddish brown, stiff silty clay, trace rocks and organics
2-4	Reddish brown, stiff silty clay, trace rocks and organics

SB17-B1

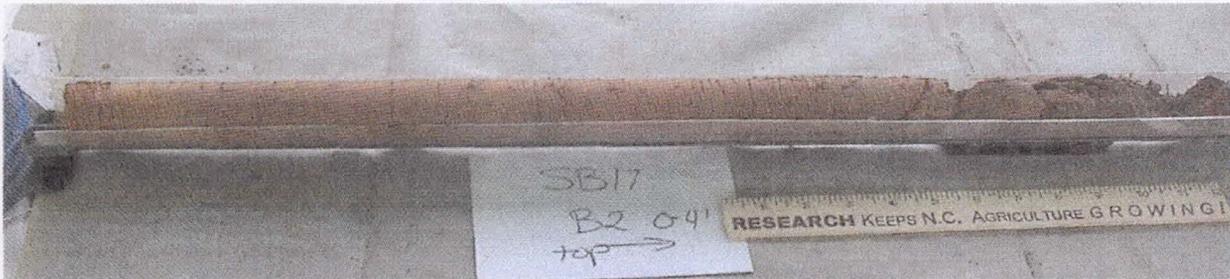


Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown sandy silt with orange-brown sandy clay with organics and trace gravel, trace metal
1-4	Orange-brown silty clay

Appendix A

Soil Boring Logs and Photos for SB17 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB17-B2



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown sandy silt with organics and rocks transition to orange-brown clay
1-4	Orange brown clay

SB17-B3

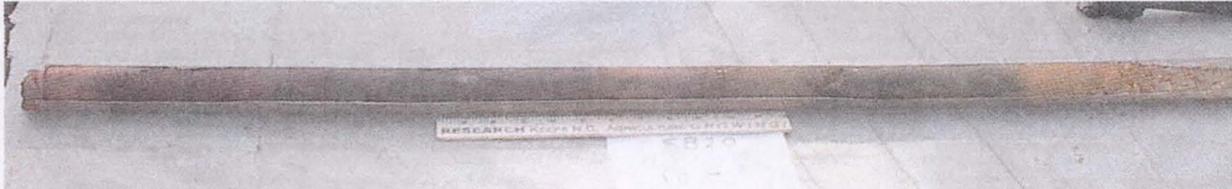


Depth Interval (feet)	Soil Lithology/Characteristics
0-0.9	Orange-brown silty and sandy clay
0.9-2.5	Light brown/tan silt
2.5-4	Red brown stiff clay

Appendix A

**Soil Boring Logs and Photos for SB20 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP**

SB20



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Light brown sand and gravel, trace slag
1-2	Medium - dark brown sand and gravel, trace slag
2-2.5	Light - medium brown sand and gravel, trace slag
2.5-3	Medium - brown sand with gravel
3-3.5	Medium - brown sand with gravel, trace red/brown sand
3.5-3.7	Brown and red medium sand
3.7-4	Orange-tan medium clay

SB20-A1

NO PHOTO AVAILABLE (SSAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Light brown-tan sand and gravel
1-2	Black sand and ash
2-4	Orange and tan sandy clay with some light brown silt and some gravel

SB20-A2

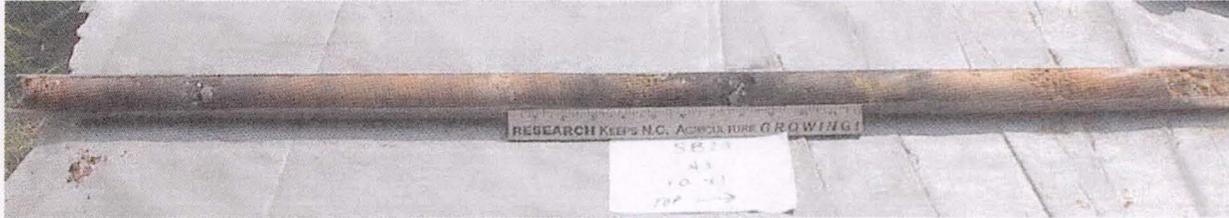


Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Black and brown silt, sand and ash with gravel
2-4	Orange and brown medium clay with silt sand, and gravel

Appendix A

Soil Boring Logs and Photos for SB20 Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SB20-A3



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Yellow-tan sand and silt with gravel
1-2	Dark brown and black coarse sand and ash with gravel
2-4	Medium brown sand with trace orange clay and gravel

SB20-A4

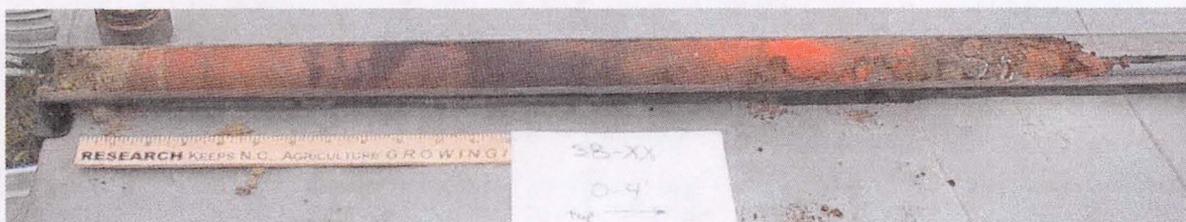


Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silty sand with trace roots and gravel
2-4	Medium brown silty sand with trace roots and gravel

Appendix A

Soil Boring Logs and Photos for SBXX Borings Wadesboro VCC Site - Additional Delineation Report and RAWP

SBXX



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light to medium brown silty sand with gravel
0.5-1	Medium brown, silty sand with some gravel and orange clay fragments
1-1.5	Medium brown silty sand, trace gravel
1.5-2	Brown to red silty sand, trace gravel and slag
2-3	Orange-brown medium clay with trace brown and red medium sand
3-3.5	Orange and Brown medium clay
3.5-4	Tan silty sand

SBXX-A1



Depth Interval (feet)	Soil Lithology/Characteristics
0-1.5	Orange and brown silt with clay and trace gravel
1.5-2	Brown and red silty sand
2-3	Orange and brown medium clay

SBXX-A2



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange and brown silty clay with organic material at top
2-3.5	Orange and brown medium clay, trace gravel
3.5-4	Tan sandy silt

Appendix A

Soil Boring Logs and Photos for SBXX Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SBXX-A3



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Orange and brown silty clay with some rocks
2-3.5	Orange and brown silty clay with some rocks
3.5-4	Tan sandy silt

SBXX-A4



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Grey sand with gravel
0.5-2	Red brown medium sand
2-3	Orange brown medium clay with brown and red medium sand
3-4	Orange brown medium clay

Appendix A

Soil Boring Logs and Photos for Ditch Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SD03

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0.5-1	Medium brown silty sand and organics
1-1.5	Medium brown silty sand and organics
1.5-2	Medium brown silty sand and organics, some orange clay
2-4	Light brown to tan sandy silt

SD03-A1

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light brown silty sand and organics
0.5-1	Light brown silty sand and organics
1-1.5	Light brown silty sand
1.5-2	Medium brown silty sand

SD03-A2

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light brown sandy silt with organics
0.5-1	Light brown sandy silt with organics
1-1.5	Light brown sandy silt with organics
1.5-2	Light brown sandy silt

SD03-A3

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light brown sandy silt with organics
0.5-1	Light brown sandy silt with organics
1-1.5	Medium brown silty sand
1.5-2	Medium brown silty sand

Appendix A

Soil Boring Logs and Photos for Ditch Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SD03-A4

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand
0.5-1	Medium brown silty sand
1-1.5	Medium brown silty sand
1.5-2	Medium brown silty sand

SD04

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0.5-1	Light brown silty sand and organics
1-1.5	Light brown silty sand and organics
1.5-2	Light brown silty sand and organics with increasing amounts of orange clay
2-4	Orange-brown to tan silt

SD04-A1

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with organics
0.5-1	Light brown silty sand and organics
1-1.5	Light brown silty sand
1.5-2	Light brown silty sand with some orange clay

SD04-A2

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Light brown silty sand and organics
0.5-1	Light brown silty sand and organics
1-1.5	Medium brown silty sand
1.5-2	Medium brown silty sand

Appendix A

Soil Boring Logs and Photos for Ditch Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

SD04-A3

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand with organics
0.5-1	Medium brown silty sand
1-1.5	Medium brown silty sand
1.5-2	Brown silty sand with orange clay

SD04-A4

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium-dark brown silty sand and organics
0.5-1	Medium-dark brown silty sand with trace orange clay
1-1.5	Medium brown silty sand with some orange clay
1.5-2	Orange clay

SD05

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown silty sand with organics and trash
2-4	Light brown to tan sandy silt with trace orange-brown clay at bottom

SD06

NO PHOTO AVAILABLE (SAMPLE COLLECTED VIA HAND AUGER)

Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown and orange-brown silt and clay
2-4	Orange-brown silty clay

Appendix A

Soil Boring Logs and Photos for VC-07-SS Borings Wadesboro VCC Site - Additional Delineation Report and RAWP

VC-07-SS



Depth Interval (feet)	Soil Lithology/Characteristics
0.5-1	Red-orange medium sandy clay, trace gravel
1-1.5	Red-orange medium sandy clay, trace gravel
1.5-2	Red-orange medium sandy clay, trace gravel
2-4	Red-orange medium sandy clay, trace gravel

VC-07-SS-A2



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Red-orange sandy clay, with gravel and wood
2-4	Red-orange sandy clay, some mottled orange/grey clay

VC-07-SS-A3

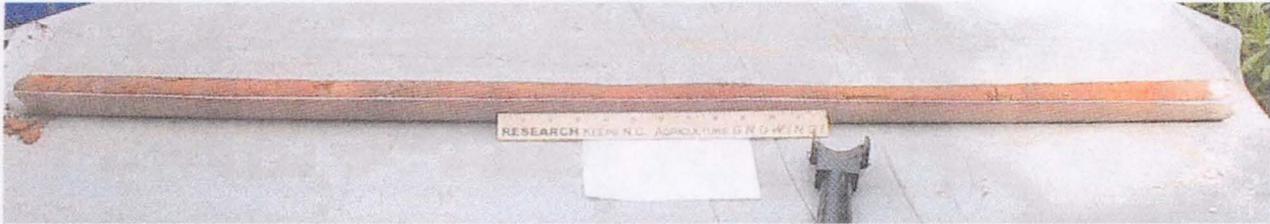


Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Red-orange medium clay with trace sand
2-4	Red-orange medium clay with trace sand

Appendix A

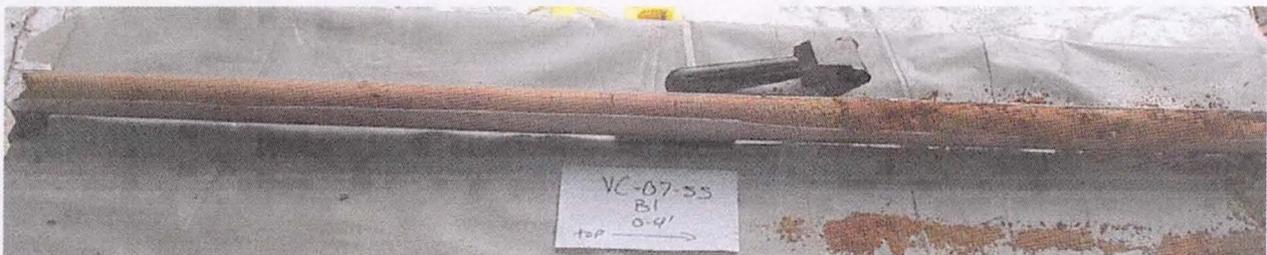
Soil Boring Logs and Photos for VC-07-SS Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

VC-07-SS-A4



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.5	Medium brown silty sand
0.5-1.5	Medium brown stiff clay
1.5-4	Orange-brown sandy silt with clay

VC-07-SS-B1



Depth Interval (feet)	Soil Lithology/Characteristics
0-2	Medium brown to orange brown sandy silt with trace organics/gravel
2-4	Orange brown medium clay

VC-07-SS-B2



Depth Interval (feet)	Soil Lithology/Characteristics
0-1	Medium brown sand with construction debris (concrete, brick)

Appendix A

Soil Boring Logs and Photos for VC-07-SS Borings
Wadesboro VCC Site - Additional Delineation Report and RAWP

VC-07-SS-B3



Depth Interval (feet)	Soil Lithology/Characteristics
0-0.8	Tan silty sand and organics
0.8-2	Orange brown clay, stiff with gravel
2-4	Orange brown silty sand and rocks, trace clay