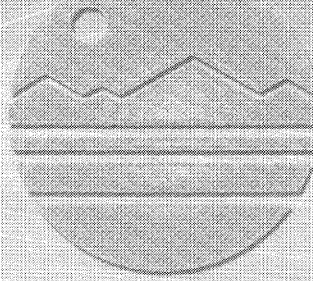


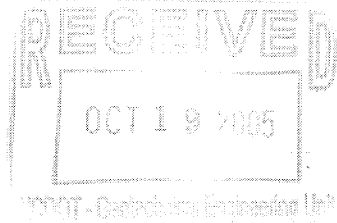
ENVIRONMENTAL



EI

**LIMITED PRELIMINARY SITE ASSESSMENT**

**Parcel 009  
Recycling Industries of Winston-Salem  
(Atlantic Scrap and Processing, LLC)  
3415 North Glenn Avenue  
Winston-Salem, NC 27105**



**WBS Element # 34871.1.1  
TIP # U-2826A  
EI Project No. ENMO050015.00**

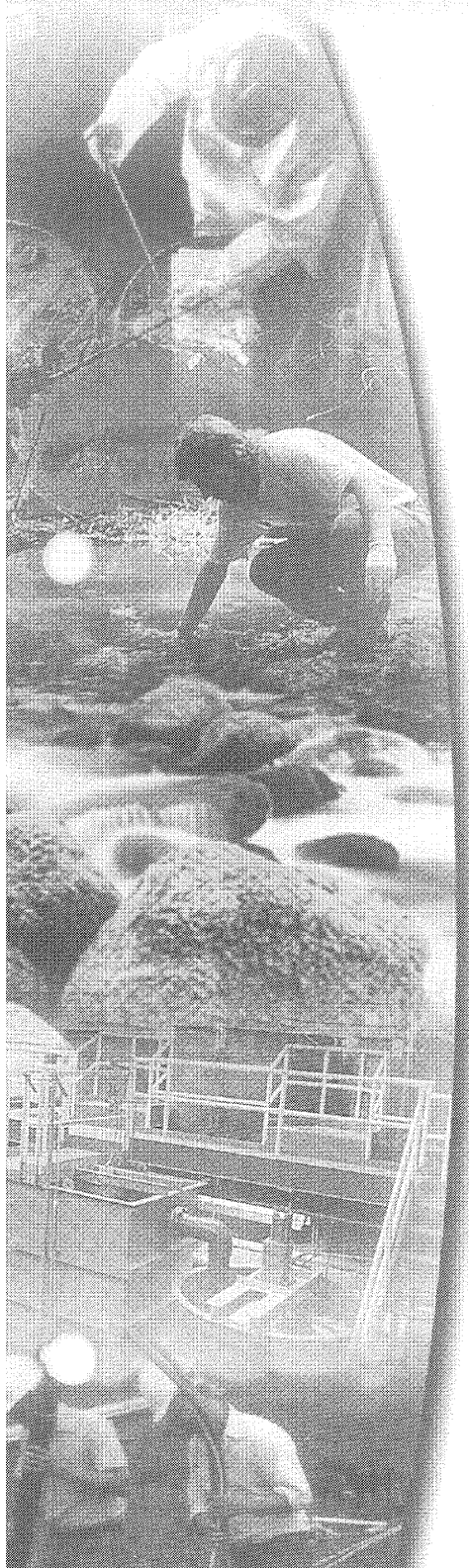
**Prepared For:**

**Gregory A. Smith  
State of North Carolina  
Department of Transportation  
Geotechnical Unit  
GeoEnvironmental Section  
1589 Mail Service Center  
Raleigh, NC 27699-1589**

**Prepared by:**

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PH (919) 657-7500 FAX (919) 544-2199**

October 19, 2005



**LIMITED PRELIMINARY SITE ASSESSMENT (PSA)**

**Conducted on**

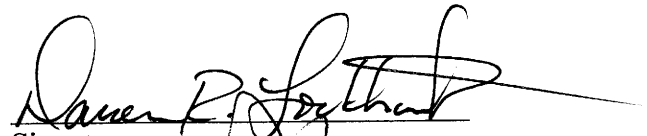
**Parcel 009**  
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**NCDOT TIP #U-2826A**  
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**EI Project No. ENMO050015.00**

For

Mr. Gregory A. Smith  
State of North Carolina  
Department of Transportation  
Geotechnical Engineering Unit  
GeoEnvironmental Section  
1589 Mail Service Center  
Raleigh, NC 27699-1589

Issue Date: October 19, 2005

Darren R. Lockhart  
Project Manager/Environmental Geologist

  
Signature

David C. Brewster, P.G.  
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## 1.0 INTRODUCTION

Environmental Investigations, Inc. (EI) conducted a *Limited Preliminary Site Assessment* (PSA) within the existing and proposed North Carolina Department of Transportation (NCDOT) *right-of-way* (ROW) adjacent to a parcel (identified by the NCDOT as Parcel 009) located east of the overpass of North Glenn Street by US Highway 52, in Winston-Salem, North Carolina.

Atlantic Scrap and Processing, LLC is currently located on the subject parcel (adjacent to ROW). This report documents the findings of the PSA that was conducted within the described ROW. For purposes of this report, the terms “subject property” and/or “site” include the *existing* NCDOT ROW and the *proposed* ROW, and/or the abutting property/parcel.

### 1.1 Report Organization

Mr. Darren R. Lockhart and Mr. Robert Michael Shaut, Environmental Geologists with EI conducted field activities from mid-August to early September 2005. This report summarizes the scope of work conducted, discusses sampling activities, and presents findings, conclusions and our recommendations. Two (2) tables entitled “Summary of Soil Analytical Results” and “Groundwater Analytical Results” are presented in “**Table 1**” and “**Table 2**”, respectively. A “Site Location Map”, an “Aerial Photograph”, a “Site Map” and “Soil Analytical Results Map” are presented in **Figures 1, 2, 3, and 4** respectively. A compilation of “Site Photographs” are presented in **Appendix A**, “Soil Boring Logs” are presented in **Appendix B**, and copies of the “Laboratory Analytical Reports” for soil and groundwater are included in **Appendices C and D**, respectively.

### 1.2 Background

EI received a “*Request for Technical and Cost Proposal*” (RFP), dated July 7, 2005 signed by Cyrus F. Parker, LG, GeoEnvironmental Project Manager with the NCDOT GeoTechnical Engineering Unit. The RFP solicited a technical and cost proposal to perform PSAs on a total of 10 Parcels located within a NCDOT Highway Project, identified as WBS Element 34871.1.1, TIP # U-2826A, located in Winston-Salem, NC. The RFP outlined site information on each of the 10 parcels and NCDOT Figures (Plan Sheets) were attached to the RFP. Mr. Gregory A. Smith, LG, PE, GeoEnvironmental Supervisor with the NCDOT, GeoTechnical Engineering Unit, GeoEnvironmental Section authorized EI to perform the PSAs, as documented in a “Notice to Proceed” dated July 28, 2005.

### 1.3 Objectives

The objective of performing the PSAs was to investigate parcel histories, locate potential underground storage tanks (USTs), and/or potential adverse sources of contamination and determine if these systems or sources have impacted the subsurface within the *existing* and *proposed* ROW.

The study (PSA) conducted on the referenced parcel (Parcel 009 – Recycling Industries of Winston-Salem, Inc. (Atlantic Scrap and Processing, LLC)) was performed with a reasonable effort to investigate and quantify potentially impacted subsurface soils. However, the findings documented in the report do not constitute a guarantee that all potential sources of environmental contamination have been assessed and subsequently analyzed.

This report is provided for the sole use of the NCDOT on the project for which it was prepared. All materials and information used for this project were obtained or provided to EI, Inc. Use of this report by any third parties other than the NCDOT will be at such party's sole risk. EI, Inc. disclaims liability for any use of or reliance on this report by third parties.

#### 1.4 Site History

The North Carolina Department of Environment and Natural Resources (NCDENR) maintains environmental records of all known and reported incidents throughout the state of North Carolina. The following summary of the site history was obtained from NCDENR's Division of Waste Management (DWM), Underground Storage Tank Section (UST) and the Division of Water Quality (DWQ), Aquifer Protection Section (APS), located in the Winston-Salem Regional Office (WSRO).

According to the public record, five (5) petroleum USTs were permanently closed by removal methods at the subject property in September 1989 by M & M Pump and Tank Service. Reportedly, at that time, the subject facility operated under the name, Brenner Iron & Metal Company. Eleven (11) UST closure soil samples were collected from the soils beneath the tank vessels. Residual petroleum hydrocarbons were detected in two of the 11 soil samples. The NCDENR issued a letter dated May 26, 1992 to Brenner Iron & Metal stating that the USTs had been closed in accordance with state and federal codes. The UST removal activities were remote to the study area for this project.

Reportedly, the Virginia Carolina Chemical Company operated a fertilizer facility near the study area in the early 1900s. Based on a review of the "*Comprehensive Site Assessment Addendum and Corrective Action Report*" by CLP Services (dated January 2005), the northeastern portion of the historical Virginia Carolina Chemical Company property boundary overlaps the current southeastern portion of the Atlantic Scrap and Processing facility. The Virginia Carolina Chemical Company appeared to have paralleled the Norfolk Southern Railroad ROW. Although the specifics of historical facility operations and the layout of the site were not reasonably ascertainable for this project, reportedly, there were furnaces and acid pits onsite.

Reportedly, the NC Superfund Section performed a preliminary screening of the Virginia Carolina Chemical Company site, but could not match information from historic resources correctly with actual field conditions. No additional information on the Virginia Carolina Chemical Company property was available at the time of this PSA. In addition to the Virginia Carolina Chemical Company operating a facility near the study area, reportedly, the Carolina Ore Company operated during the early 1900s and was said to have been an ore smelter. Reportedly, the foundation for the Carolina Ore Company's rotary kiln is situated adjacent to the former Virginia Carolina Chemical Company facility site.

## 2.0 SCOPE OF WORK & ENVIRONMENTAL SERVICES

### 2.1 Requested Scope of Work

Documented in the RFP, dated July 7, 2005, the NCDOT requested the following scope of work:

- Investigate site histories.
- Locate USTs and determine approximate size and contents, if any.
- Determine if contaminated soils are present.
- Investigate all proposed drainage areas on the project.
- If contamination is evident, estimate the quantity of impacted soils and indicate the approximate area of soil contamination on a site map.
- If groundwater is encountered and the project manager suspects the possibility of groundwater contamination, obtain a sample for analysis by converting one of the soil borings to a temporary monitoring well.
- Prepare a set of NCDOT plansheets (11”x 17”) as a separate deliverable showing a summary of suspected impacted areas of contamination.
- Prepare a report including field activities, findings, and recommendations for each site and submit and submit to this office in triplicate.

### 2.2 Scope of Services

To perform our scope-of-services, a field reconnaissance was performed to identify general site conditions, and a Direct Push Technology (DPT) was utilized to collect soil samples and install a temporary groundwater well (piezometer) and collect subsequent groundwater samples on the subject property.

To perform the requested *Limited PSA*, EI personnel visited the site on several occasions to supervise, oversee and/or perform site reconnaissance activities and/or collect appropriate samples to complete the project objectives. To complete the study on the subject parcel, EI performed the following scope of services:



- Supervision, direction and oversight of the advancement of thirty-seven (37) soil test borings utilizing DPT methods to depths ranging between 1.0 and 20.0 feet below the land surface (bls), plus ten (10) test pits for sampling utilizing a crane with a claw to depths ranging from 5.0 to 14.0 feet bls across the site.
- Collection and submittal forty-six (46) soil samples for laboratory analysis for 8 RCRA Metals, volatile and semi-volatile organics.
- Photo documentation of pertinent site features.
- Preparation of this *Limited PSA Report* in triplicate format, presenting our findings and conclusions along with our recommendations.

### 3.0 SITE CHARACTERIZATION

#### 3.1 Site Location

The subject property, Recycling Industries of Winston-Salem, Inc. (Atlantic Scrap and Processing, LLC) is addressed at 3411 North Glen Avenue, Winston-Salem, (Forsyth County), North Carolina (**Figures 1 and 2**). The subject property is currently located immediately adjacent to the DOT ROW as identified in DOT's U-2826A Plan Sheets 6 and 7. Digital site photographs are presented in **Appendix A**.

#### 3.2 Property Ownership

According to the Forsyth County, NC Tax Office Geo-Data Explorer website, the subject property has a Parcel Identification Number (PIN) – 6836-49-7898 and is currently owned by Atlantic Scrap and Processing, LLC. The subject parcel covers a total of 28.1 acres.

#### 3.3 Physical Setting

The subject site operates as a scrap metal processing facility and is developed with four buildings and several satellite structures. The 28.1-acre tract consists of office spaces, a warehouse building, storage bays for metal processing and re-distribution, and a scrap yard area. The subject property slopes gently towards the southwest from the entrance of the facility. The rear of the subject property abuts the NCDOT ROW is buffered from US Highway 52 by a wood line. See **Figure 3** for pertinent site features (**see photographs**).

City municipal water services and natural gas services were observed that supply the parcel via underground utility lines. Utility lines were marked both parallel and perpendicular to North Glenn Avenue that traverse the subject parcel. There was one electric line found servicing a highway billboard near the southeastern corner of the subject property. No other underground utility lines were marked in the NCDOT ROW at the time of field activities. Overhead utility lines are currently located along the northwest portion of the parcel that traverse parallel to North Glenn Avenue.

### 3.3.1 Number and Capacities of USTs

There were no indications of USTs were observed within the existing or proposed NCDOT ROW.

### 3.4 Site Topography

The subject property is found on the Walkertown Quadrangle published by the United States Geological Survey (USGS) Topographic Quadrangle Map (1980). The subject site is located at an elevation of approximately 960 feet above mean sea level (msl) (**Figure 1**). Topographically, the site slopes gently to the south. Surface water runoff is shown to flow to the southeast to a confluence with Brushy Fork Creek located approximately 1.8 miles from the site.

### 3.5 Land Use & Surrounding Properties

The subject property is located inside the city limits of Winston-Salem, NC. Land use in the immediate vicinity of the site is characterized mainly by commercial and industrial properties; however, residential properties are located north of the subject property. The site is bounded on the north by residences; to the south by US Highway 52; to the east by Norfolk Southern Railroad ROW, and to the west by residences and US Highway 52 (**see photographs**).

## 4.0 SUBSURFACE INVESTIGATION

### 4.1 Subsurface Soils Investigation

Subsurface Environmental Investigations, Inc., based in Statesville, North Carolina, was subcontracted to provide DPT services. An EI Geologist directed and supervised the advancement of 37 soil test borings (“GP-1” through “GP-30”, and “GP41” – “GP46”) in the existing and/or proposed DOT ROW for the referenced site. A crane equipped with a claw was used to collect soil samples “GP31” through “GP 40” in areas that were not accessible by an all terrain vehicle for DPT.

Overall, the soil sampling program was designed in order to evaluate the absence/presence of potential subsurface soil (vadose zone) impact and/or subsurface groundwater impact associated with potential current or historical onsite operations, or offsite impacts. The subsurface soils investigation ranged in depth from 1.0 feet to a depth of 20.0 feet bls.

Based on the absence of known former or present UST systems, EI investigated the subsurface for impact by conducting a series of targeted soil locations in a symmetrical pattern across the site parcel. Soil boring/sampling locations were advanced in three rows paralleling US 52 and staggered on approximately 100-foot to 150-foot centers. The soil sampling locations are shown on **Figure 3, 3A, and 3B**.

#### 4.1.1 Soil Sample Collection Procedures

Soil samples were collected as grab samples using powder-free nitrile gloves. The soils were placed in laboratory-prepared containers; then, placed in a cooler on ice. Soil samples retained for laboratory analyses were shipped, via overnight courier service (Federal Express) to Paradigm Analytical Laboratory, for laboratory analytical testing.

#### 4.1.2 Backfill Procedures

At the completion of the exploratory subsurface advancement activities, the test borings were backfilled to surface grade.

### **4.1.3 Subsurface Soil Lithology**

During boring advancement activities, soil samples were classified in the field by an EI geologist utilizing the Unified Soil Classification System (USCS). Subsurface soils encountered in the area of study were fairly consistent. Soils within the southeastern portion of the subject property, where the former Virginia Carolina Chemical Co. and the Carolina Ore Co. were formerly located, were described as follows: (SM) SAND, silty, medium to fine to approximately 2.0 feet bls, underlain by purple-stained sandy, (ML) SILT to approximately 4.0 feet bls and reddish-brown, micaceous, clayey, (ML) SILT. The remaining soils onsite were described as (SM) SAND, orange to tan, medium to fine, with trace silt, underlain by fine, sandy, tan to olive brown, clay (CL). Detailed descriptions are presented in Soil Boring Logs included in **Appendix B**. The boring logs include an interpretation of subsurface conditions based on field samples.

## **4.2 Groundwater Investigation**

### **4.2.1 Temporary Monitoring Well Installation**

On August 25<sup>th</sup> and 26<sup>th</sup>, 2005, groundwater samples were collected by NCDENR, DWQ-APS personnel (Collin Day) from two Type I (temporary) 1.0-inch diameter groundwater piezometers (“TW-7” and “PZ-10”) and submitted for laboratory analysis. Mr. Day provided EI with the laboratory analytical results for the groundwater analysis. According to Mr. Day, the depth to groundwater at the time of groundwater sampling activities was approximately 28.0 feet bls. The approximate locations of the groundwater monitoring wells are depicted in **Figures 3A and 3B**.

## 5.0 LABORATORY TESTING AND RESULTS

### 5.1 Subsurface Soil Analytical Methods

A total of fifty-three (53) soil samples (“P9GP1” through “P9GP53”) were submitted for laboratory analyses for 8 RCRA Metals by EPA Method 6010B, 7471 and/or 13 Priority Pollutant Metals. Seven (7) of the total fifty-three soil samples (“P9GP50” through “P9GP56”) were collected as background samples from onsite locations remote to the study area. For those soil samples that were obtained from proposed or existing drainage areas (“P9GP1”, “P9GP3”, “P9GP13”, “P9GP14”, “P9GP19”, “P9GP20”, “P9GP27”, “P9GP35”, “P9GP40”, and “P9GP41”), the laboratory analyses also included volatile and semi-volatile organics (VOCs and SVOCs) by EPA Methods 8260/5035 prep and 8270, respectively.

### 5.2 Laboratory Analytical Results - Soil

The laboratory analytical results indicated that twenty-seven (27) of the total fifty-three (53) soil samples contained elevated levels of metals above current state and/or federal regulatory standards. Specifically, total lead was detected at a maximum concentration of 12,300 mg/kg with a secondary maximum concentration value of 4,140 mg/kg. Arsenic was detected at a maximum concentration of 551 mg/kg with a secondary maximum concentration value of 355 mg/kg. Barium was detected at a maximum concentration of 1,540 mg/kg with a secondary maximum of 1,450 mg/kg. The results of the analytical testing of the soil samples for 8 RCRA Metals are summarized in **Table 1**. The results of the analytical testing for the background soil samples for 13 Priority Pollutant Metals are summarized in **Table 2**. The metals analyses were tabulated and compared to the Environmental Protection Agency (EPA), Region IX, Preliminary Remediation Guidelines (PRGs); the NC Hazardous Waste Section’s (HWS) Soil Screening Levels (SSLs); the NC DENR Groundwater (GW) Section Soil Clean-up Levels; and site-specific naturally occurring background levels for the metals. The laboratory results and Chain-of-Custody Records for soils are presented in **Appendix C**.

The naturally occurring background levels for the metals was determined by collecting seven (7) soil samples from locations remote to the study area and to facility operations; then by calculating the twice the arithmetic mean for each metal.

Based on the laboratory analytical results for total lead, three (3) soil samples (“P9GP1”, “P9GP7”, and “P9GP10”) were selected for further analysis using the Toxicity Characteristic Leaching Procedure (TCLP) to determine the extractability of the lead. This data is essential for waste characterization and disposal purposes. The laboratory analytical results of the TCLP analysis indicated that all three (3) samples (“P9GP1”, “P9GP7”, and “P9GP10”) contained extractable amounts of lead (0.183 to 123 mg/L), one sample of which contained extractable

amounts at nearly 25 times the Maximum Contaminant Concentration (MCC) for Toxicity Characteristic for lead of 5 mg/L. The laboratory analytical results of the TCLP analysis are summarized in **Table 3**.

The laboratory analytical results indicated that two (2) of the soil samples, “P9GP40-5” and “P9GP41-16”, collected from drainage areas contained tetrachloroethene at 0.0695 mg/kg and 0.0102 mg/kg, respectively. There were no detections in the samples for VOCs.

The laboratory analytical results indicated that three (3) of the soil samples collected from the southeastern portion of the subject property, “P9GP1-3”, “P9GP3-2”, and “P9GP13”, contained SVOCs at levels ranging from 17.5 to 109 times their respective regulatory standard. No VOCs were detected in the samples collected from the southeastern portion of the subject property. The laboratory analytical results for VOCs and SVOCs are summarized in **Table 4**.

### 5.3 Laboratory Analytical Results - Groundwater

Review of the groundwater analytical data indicated that two (2) of two (2) samples collected from temporary monitoring wells installed for NCDENR showed concentrations of multiple volatile organic compounds (VOCs) analytes above the 15A NCAC 02L .0202 Groundwater Quality Standards. Specific results are summarized as follows:

Analytical results for TW-7 reported concentrations of the following analytes above the 2L Groundwater Quality Standards: 1,1-dichloroethene at 120 ug/L, chloroform at 3.2 ug/L, trichloroethene at 130 ug/L, and tetrachloroethene at 250 ug/L. In addition, the analysis reported the following metal concentrations above 2L standards for TW-7: iron at 42.42 mg/L and lead at 2.25 mg/L.

The analytical results for PZ-10 reported concentrations of the following analytes above the 2L Groundwater Quality Standards: 1,1-dichloroethene at 1.4 ug/L, chloroform at 1.3 ug/L, trichloroethene at 9.7 ug/L, and tetrachloroethene at 1000 ug/L. In addition, the analysis reported the following metal concentrations above 2L standards for PZ-10: copper at 2.18 mg/L. The remaining analytes did not show concentrations of additional VOCs, SVOCs, or metals at or above the laboratory detection limits. A copy of the laboratory analytical report for groundwater is included in **Appendix D**.

## 6.0 SUMMARY OF FINDINGS

EI has reviewed information gathered for the Limited PSA study including site reconnaissance activities, review of DOT plan sheets, review of former site investigations, review of site investigations including soil and groundwater collection activities, and review of the laboratory analytical report. Compiled below is a summarized list of the significant findings.

- A review of the public record indicated that five (5) petroleum USTs were permanently closed by removal methods in 1989. The NC DEHNR issued a letter of compliance for the UST closure proceedings in 1992. The UST closure proceedings were remote to the study area for this project.
- Further review indicated that Virginia Carolina Chemical Company operated a fertilizer facility and the Carolina Ore Company operated a smelting operation near the subject property in the early 1900s. Based on a review of the “*Comprehensive Site Assessment Addendum and Corrective Action Report*” by CLP Services (dated January 2005), the northeastern portion of the historical Virginia Carolina Chemical Company property boundary overlaps the current southeastern portion of the Atlantic Scrap and Processing facility. Although the specifics of historical facility operations and the layout of the site were not reasonably ascertainable for this project, reportedly, there were furnaces and acid pits onsite. Reportedly, the NC Superfund Section performed a preliminary screening of the Virginia Carolina Chemical Company site, but could not match information from historic resources correctly with actual field conditions. No additional information on the subject property was available at the time of this PSA. Note that the purple-stained soils observed during soil sampling activities for this PSA correspond to the area of the subject property that was formerly occupied by the Virginia Carolina Chemical Company and the Carolina Ore Company.
- Analyses of fifty-three (53) soil samples for metals, collected in the existing and proposed NCDOT ROW and within the vicinity of the *proposed or existing drainage areas* within the proposed ROW, showed elevated concentrations of total lead, barium, chromium, and arsenic, above current regulatory standards. The laboratory analysis showed total lead to be the predominate metal present in the subsurface above current regulatory standards, followed by arsenic, then by mercury.
- Based on the high levels of total lead detected in several soil samples, three (3) soil samples were selected for further analysis for extractable lead using the TCLP. The three (3) samples selected for the TCLP analysis corresponded to the maximum, mid-range, and minimum lead concentrations detected. The laboratory analytical results of the TCLP indicated that all three samples contained extractable amounts of lead, but only one (1) of the three (3) samples showed extractable lead above the respective, current MCC for

OK  
No TPH  
Samples



Toxicity Characteristic of 5 mg/L. Thus, the soils from sample location “P9GP7-3” had lead concentrations at levels that would exhibit characteristics of hazardous wastes upon removal.

- The laboratory analytical results indicated that two (2) of the soil samples, “P9GP40-5” and “P9GP41-16”, collected from drainage areas contained tetrachloroethene at 0.0695 mg/kg and 0.0102 mg/kg, respectively. There were no other detections in the samples for VOCs. The laboratory analytical results indicated that three (3) soil samples collected from the southeastern portion of the subject property, “P9GP1-3”, “P9GP3-2”, and “P9GP13”, contained SVOCs at levels ranging from 17.5 to 109 times their respective regulatory standard. There were no other detections in the samples for SVOCs.
- Review of the groundwater analytical data indicated that two (2) of two (2) samples collected from temporary monitoring wells showed concentrations of multiple VOCs analytes above the 15A NCAC 02L .0202 Groundwater Quality Standards.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

EI personnel have reviewed information obtained during the *Limited PSA* at the site and present the following conclusions and recommendations.

### Metal-Impacted-Soils

The vadose zone in the southeastern portion of the subject property and *within* the *proposed* ROW has been impacted by heavy metals including lead, arsenic, and mercury. Given the number of soil samples collected and the range of metal concentrations that were detected, total lead was selected for further analysis, toxicity/waste characterization, and quantification of general metal-impact to the study area. Based on the laboratory analytical results for total lead, three (3) soil samples were selected for further analysis using the Toxicity Characteristic Leaching Procedure (TCLP) to determine the extractability of the lead.

The TCLP results indicated that some of the lead-impacted soils would exhibit characteristics of hazardous wastes upon removal/disposal. For quantification purposes, the laboratory analytical data for total lead relative to the NC GW Section Soil Clean-up Level was used to depict the extent of impact and to quantify the impact to subsurface soils.

### Extent of Lead-Impacted Soils

**Figure 4A** depicts the distribution of lead-impacted soils for the southeastern portion of the site based on the laboratory analytical data. The distribution of lead on the subject property appears to correspond with the former location of the Virginia Carolina Chemical Company facility, and the soil sample depths collected in this area correspond to the purple-stained soils that were described in Section 4.1.3. The extent of lead-impacted soils with concentrations above the NCDENR GW Section's SCL for lead of 270 mg/kg appears to cover a total area of 34,350 ft<sup>2</sup> (0.78 acres) and includes three smaller, isolated areas. Note that the isolated areas correspond to the following soil sampling locations: "GP11", "GP13", and "GP23". For volumetric estimation of impacted soils, the isolated areas corresponding to "GP11" and "GP13" will be included in the estimate for impacted soils in the southeastern portion of the subject property; whereas, the isolated area of impacted soils corresponding to soil boring location "GP23" will remain separate. **Figure 4B** depicts the distribution of lead-impacted soils for the isolated area of impact that was detected at soil boring location "GP23".

Based on the sample depths for the lead-impacted soils in the southeastern portion of the subject property (including two of the three isolated areas), the affected soils appear to be within five (5) feet of the ground surface. Based on calculations determined from the estimated extent of impact, it appears that an estimated volume of **6,185 cubic yards (approximately 9,280 tons)** is present in

the southeastern portion of the study area. Based on the sample depth for lead-impacted soils corresponding to soil boring “GP23”, the affected soils appear to extend to at least 15.0 feet bgs. Based on calculations, it appears that there are approximately **528 cubic yards (approximately 792 tons)** of impacted soils are present in this area.

Should the NCDOT proceed with acquiring the ROW as proposed or otherwise that would encompass the lead-impacted soils as described, EI recommends that corrective actions be undertaken to minimize the risk to health and environment. It should be noted that the corrective action planning for lead-impacted soils should include the remediation of arsenic-, and mercury-impacted soils as well. Among other remedial options, immobilization technologies may prove effective for minimizing the remedial costs and the risk to health and environment.

#### VOC and SVOC-Impacted-Soils

The vadose zone in the southeastern portion of the subject property and *within the proposed* ROW has been impacted by SVOCs. Only three soil samples were collected and submitted for VOC and SVOC analysis in this area, give the historical usage of the land in this area. The laboratory analysis indicated that two (2) of the three (3) soil samples, “P9GP1-3” and “P9GP13”, contained SVOCs above current NC Soil-to-GW MSCCs. Note that for all practical purposes, the SVOC-impacted areas are within the lead-impacted area of the southeastern portion of the subject property (refer to **Figure 5A**).

In addition, the vadose zone at the northernmost proposed drainage area has been impacted by VOCs. Specifically, the laboratory analysis indicated that two (2) soil samples, “P9GP40-5” and “P9GP41-16”, contained tetrachloroethene above current NC Soil-to-GW MSCCs. In lieu of supplemental data from this area, a 15-foot buffer depicting the zone of impact has been transposed onto **Figure 5B** for this drainage area. There were no SVOCs detected in the samples from this area.

#### Extent of VOC and SVOC-Impacted Soils

**Figure 5A** depicts the distribution of SVOC-impacted soils for the southeastern portion of the site based on the laboratory analytical data. The distribution of SVOCs on the subject property appears to correspond with the former location of the Virginia Carolina Chemical Company facility, and the soil sample depths collected in this area correspond to the purple-stained soils. The extent of SVOC-impacted soils with concentrations above the NCDENR Soil-to-GW MSCCs appears to cover a total area of 1,900 ft<sup>2</sup> (0.043 acres) and is encompassed by the lead-impacted area of the southeastern portion of the subject property.

Based on the sample depths for VOCs and SVOCs in the southeastern portion of the subject property, the affected soils appear to be within five (5) feet of the ground surface. Based on calculations determined from the estimated extent of impact, it appears that an estimated volume of **351 cubic yards (approximately 527 tons)** is present in the southeastern portion of the study area.

**Figure 5B** shows a 15-foot buffer depicting the zone of impact for the northernmost proposed drainage area on the subject property. Based on the buffer, the extent of VOC-impacted soils with concentrations above the NCDENR Soil-to-GW MSCCs appears to cover a total area of 3,878 ft<sup>2</sup> (0.089 acres). Using an average depth of 10.5 feet bgs, it appears that an estimated volume of **1,508 cubic yards (approximately 2,262 tons)** of VOC-impacted soil is present at the northernmost proposed drainage area on the subject property.

#### Groundwater Impact

The saturated zone within the proposed ROW near “PZ-10” has been impacted by chlorinated hydrocarbons. The nearest proposed drainage area is located approximately 35 feet north of PZ-10. The proposed drainage area may lie within the zone of impacted groundwater depending upon the construction details of the drainage and the depth of the water table.

Prior to the NCDOT proceeding with installing drainage piping or cut areas of the parcel for construction purposes, since chlorinated hydrocarbons have been detected within the project path of the piping, and within the proposed ROW, EI recommends disposing of impacted groundwater/wastewater encountered during these activities.

Based on the data collected for this *Limited PSA* and the available information, the study area has been impacted by regulated substances above the current applicable standards; and thus, is reportable.

*Note: This report does not constitute a guarantee that all potential sources of environmental contamination have been assessed and subsequently analyzed.*

**TABLES**

**TABLE 1**  
**SUMMARY OF SOIL ANALYTICAL RESULTS for 8 RCRA Metals**  
**P009-Atlantic Scrap and Processing, LLC**  
**3415 North Glenn Avenue**  
**Winston-Salem (Forsyth Co.), NC**  
**EI Project No.: ENM0050015.00**

8 RCRA Metals 6010B & 7471	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
EPA Region 9 PRGs (mg/kg)	0.39	5400	37	210	400	23	390	390
NC HWS SSLs (mg/kg)	5.24	848	2.72	27.2	270	0.0154	12.2	0.223
NC DENR GW Section Soil Clean-up Levels (mg/kg)	NS	848	NS	27	270	NS	NS	NS
Background Concentrations (mg/kg)	5.75	NA	0	5.76	40.4	0	5.26	0
<b>Laboratory Analysis (mg/kg)</b>								
P9GP1-3*	551	1540	2.49	7.23	4140	7.87	6.39	9.08
P9GP2-1	6.87	93.4	BQL	49.7	94.2	0.140	3.03	BQL
P9GP3-2	47.5	376	1.54	2.10	2740	0.408	4.18	1.80
P9GP4-2	BQL	154	BQL	14.5	3.03	BQL	BQL	BQL
P9GP5-5	7.12	25.9	BQL	22.7	63.0	0.0502	BQL	BQL
P9GP6-2	8.51	54.7	BQL	5.26	303	0.134	2.29	BQL
P9GP7-3*	48.8	186	BQL	3.76	12300	0.378	10.5	BQL
P9GP8-10	2.50	35.9	BQL	5.49	31.3	BQL	BQL	BQL
P9GP9-10	3.13	BQL	BQL	4.49	17.9	BQL	BQL	BQL
P9GP10-1*	42.6	165	BQL	4.43	532	0.648	4.11	BQL
P9GP11-1	134	72.2	BQL	3.78	2000	BQL	4.30	BQL
P9GP12	2.99	16.1	BQL	1.14	25.4	BQL	BQL	BQL
P9GP13	355	1450	1.90	9.19	3010	0.688	3.61	14.0
P9GP14-14	2.57	BQL	BQL	1.16	348	BQL	BQL	BQL
P9GP15-15	1.09	BQL	BQL	BQL	22.8	BQL	BQL	BQL
P9GP16-5	1.60	BQL	BQL	BQL	56.9	BQL	BQL	BQL
P9GP17	2.37	26.3	BQL	BQL	7.34	BQL	BQL	BQL
P9GP18	1.83	29.7	BQL	BQL	16.5	BQL	BQL	BQL
P9GP19-15	5.40	60.5	BQL	BQL	6.43	BQL	BQL	BQL
P9GP20	1.59	10.9	BQL	BQL	21.3	BQL	BQL	BQL
P9GP21	4.95	14.8	BQL	BQL	46.1	BQL	2.73	BQL

NS = No Standard  
 BQL = Below Caution Limit  
 PRGs = Prelim. Remediation Goals  
 SSLs = Soil Screening Levels  
**BOLD Font = above one or more regulatory standards**

**TABLE 1**  
**SUMMARY OF SOIL ANALYTICAL RESULTS for 8 RCRA Metals**  
**P009-Atlantic Scrap and Processing, LLC**  
 3415 North Glenn Avenue  
 Winston-Salem (Forsyth Co.), NC  
 EI Project No.: ENM050015.00

8 RCRA Metals 6010B & 7471	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
EPA Region 9 PRGs (mg/kg)	0.39	5400	37	210	400	23	390	390
NC HWS SSLs (mg/kg)	5.24	848	2.72	27.2	270	0.0154	12.2	0.223
NC DENR GW Section Soil Cleanup Levels (mg/kg)	NS	848	NS	27	270	NS	NS	NS
Background Concentrations (mg/kg)	5.75	NA	0	5.76	40.4	0	5.26	0
<b>Laboratory Analysis (mg/kg)</b>								
Sample Identification								
P9GP22-15	3.15	15.4	BQL	BQL	28.0	BQL	2.22	BQL
P9GP23-14	7.01	14.4	BQL	BQL	343	BQL	2.59	BQL
P9GP24	5.47	13.1	BQL	1.16	82.0	BQL	BQL	BQL
P9GP25-2	4.73	BQL	BQL	2.34	24.2	BQL	2.52	BQL
P9GP26-2	2.22	267	BQL	53.4	30.6	BQL	BQL	BQL
P9GP27-3	1.45	48.6	BQL	27.2	15.5	BQL	BQL	BQL
P9GP28-12	BQL	26.3	BQL	2.84	34.8	BQL	BQL	BQL
P9GP29-12	1.93	BQL	BQL	4.43	14.9	BQL	BQL	BQL
P9GP30-12	3.91	12.3	BQL	3.76	14.9	0.0665	BQL	BQL
P9GP31-14	2.41	BQL	BQL	BQL	16.3	BQL	BQL	BQL
P9GP32-14	3.77	43.2	BQL	3.92	100	0.0267	2.30	BQL
P9GP33-14	5.92	45.0	BQL	14.7	136	BQL	BQL	BQL
P9GP34-14	3.60	BQL	BQL	BQL	116	0.133	BQL	BQL
P9GP35-9	3.07	18.5	BQL	4.37	19.2	0.0483	BQL	BQL
P9GP36-5	1.31	21.1	BQL	4.38	6.05	BQL	2.01	BQL
P9GP37-5	5.48	20.7	BQL	6.94	39.4	0.114	BQL	BQL
P9GP38-5	3.83	144	BQL	27.5	16.5	0.0268	2.63	BQL
P9GP39-5	8.76	85.6	BQL	11.0	59.7	0.0425	2.87	BQL
P9GP40-5	BQL	23.5	BQL	2.41	3.77	BQL	BQL	BQL
P9GP40-5	2.90	BQL	BQL	4.96	36.5	BQL	2.39	BQL
P9GP41-16	1.47	37.3	BQL	BQL	1.61	BQL	BQL	BQL
P9GP42	2.60	75.3	BQL	3.85	3.85	BQL	BQL	BQL
P9GP43-14	5.06	BQL	BQL	1.66	21.2	BQL	BQL	BQL
P9GP45-5	5.42	216	BQL	15.6	15.7	0.0543	2.18	BQL
P9GP44-20	4.89	14.3	BQL	BQL	4.07	BQL	BQL	BQL
P9GP46	1.33	16.5	BQL	BQL	228	0.0489	BQL	BQL

NS = No Standard  
 BQL = Below Quantitation Limit  
 PRGs = Prelim. Remediation Goals  
 SSLs = Soil Screening Levels  
**BOLD Font = above one or more regulatory standards**

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS for 13 Priority Pollutant Metals  
P009-Atlantic Scrap and Processing, LLC  
3415 North Glenn Avenue  
Winston-Salem (Forsyth Co.), NC  
EI Project No.: ENM0050015.00

8 RCRA Metals 6010B & 7471	Antimony	Arsenic	Berillium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
EPA Region 9 PRGs (mg/kg)	31	0.39	5400	37	210	3100	400	23	1600	390	390	390	390
NC HWS SSLs (mg/kg)	5.42	5.24	848	2.72	27.2	704	270	0.0154	56.4	12.2	0.223	0.223	0.223
NC DENR GW Section Soil Clean-up Levels (mg/kg)	NS	NS	848	NS	27	NS	270	NS	NS	NS	NS	NS	NS
Laboratory Analysis (mg/kg)													
Sample Identification													
P9GP50-20	BOL	3.49	BOL	BOL	BOL	BOL	8.89	BOL	BOL	2.69	BOL	BOL	7.03
P9GP51-20	BOL	2.43	BOL	BOL	7.89	6.06	9.13	BOL	BOL	2.78	BOL	BOL	15.0
P9GP52-15	BOL	1.87	1.18	BOL	2.61	BOL	10.3	BOL	BOL	2.84	BOL	BOL	60.5
P9GP53-15	BOL	2.74	BOL	BOL	BOL	BOL	23.8	BOL	BOL	2.47	BOL	BOL	8.01
P9GP54-15	BOL	5.01	1.27	BOL	2.00	10.1	30.9	BOL	BOL	3.03	BOL	BOL	69.8
P9GP55-20	BOL	2.90	BOL	BOL	4.96	5.40	36.5	BOL	BOL	2.39	BOL	BOL	60.2
P9GP56-15	BOL	1.70	1.44	BOL	2.71	4.37	21.9	BOL	BOL	2.42	BOL	BOL	74.3

NS = No Standard  
BOL = Below Quantitation Limit  
PRGs = Prelim. Remediation Goals  
SSLs = Soil Screening Levels  
**BOLD Font** = above one or more regulatory standards



TABLE 3

**SUMMARY OF SOIL ANALYTICAL RESULTS for Extractable Lead (TCLP)**

P009-Atlantic Scrap and Processing, LLC

3415 North Glenn Avenue

Winston-Salem (Forsyth Co.), NC

EI Project No.: ENMO050015.00

Sample Identification		P9GP1-3	P9GP7-3	P9GP10-1
Sample Date		8/23/2005	8/23/2005	8/23/2005
Sample Depth (feet)		3.0-3.5	3.0-3.5	1.0-1.5
Target Metal EPA Method 6010B	NC HWS SSLs GW Section SCL (mg/kg)	LABORATORY RESULTS (mg/kg)		
		<b>270</b>	<b>4,140</b>	<b>532</b>
Lead	Toxicity Characteristic Standards (mg/L)	LABORATORY RESULTS (mg/L)		
		<b>5*</b>	<b>0.183</b>	<b>123.0</b>
			<b>123.0</b>	<b>3.43</b>

NOTE:

**Bold Font** = In Excess of Toxicity Characteristic Regulatory Level

**Bold Font, *Italics*** = In Excess of HWS SSL

mg/kg, mg/L = parts per million (ppm)

\* = Standard established using the Toxicity Leaching Characteristic Procedure (TCLP)

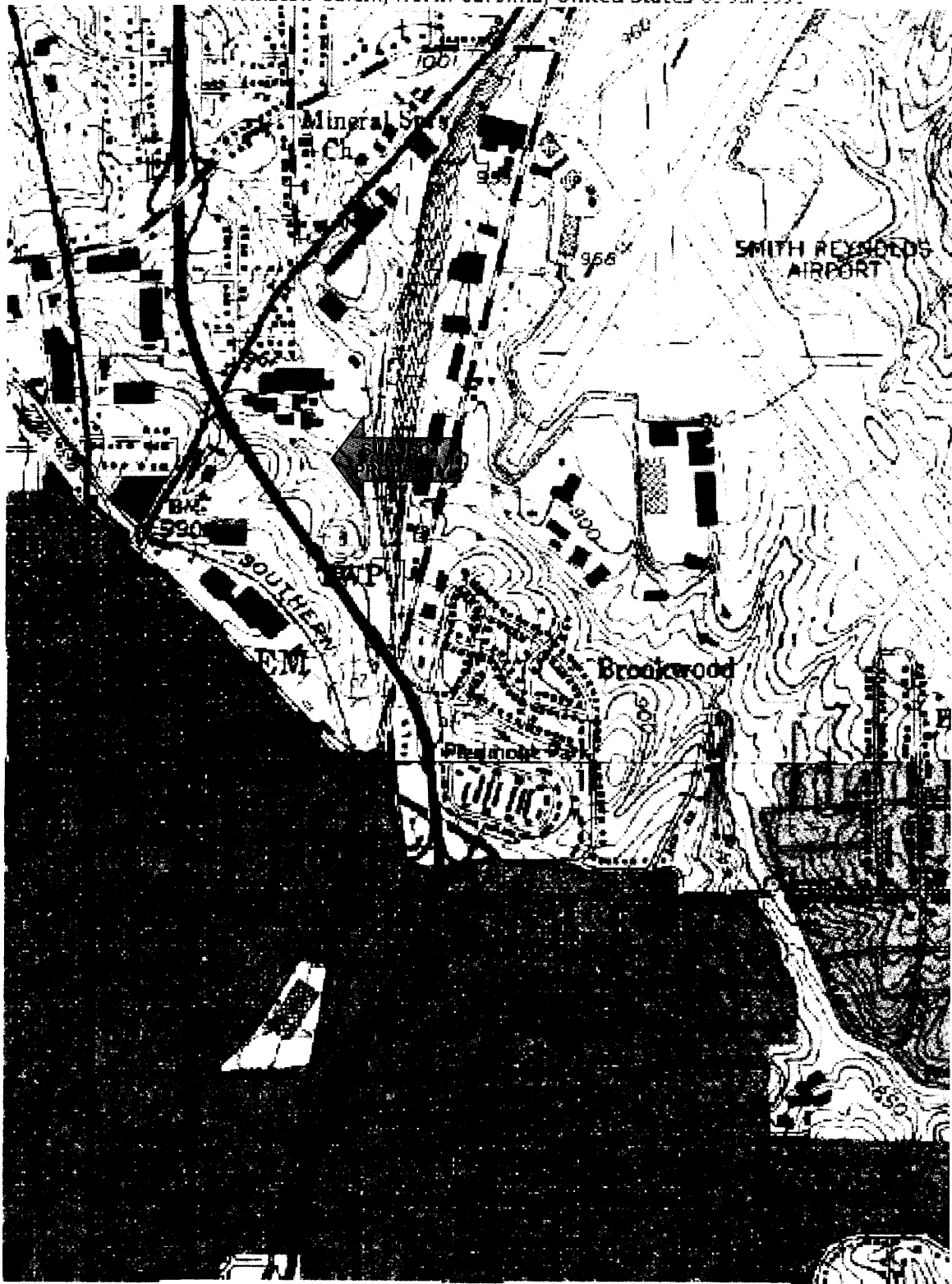
TABLE 4  
 Summary of Soil Analytical Results  
 VOCs and SVOCs  
 P009-Atlantic Scrap and Processing, LLC  
 3411 North Glenn Avenue  
 Winston-Salem (Forsyth Co.), NC  
 EI Project No.: ENMO050015.00

Laboratory Analysis	Sample Point Location										Soil-to-GW MSCCs (mg/kg)	
	Sample Depth - Feet											
	Sample Date	P9GP1-3	P9GP3-2	P9GP13	P9GP14-14	P9GP19-15	P9GP20	P9GP27-3	P9GP35-9	P9GP40-5		P9GP41-16
Field Screening Results-PID (ppm)												
Cleanup Standards (MSCC)												
Residential MSCCs (mg/kg)	Industrial/Commercial MSCCs (mg/kg)											
<b>VOC's</b>												
Benzene	22	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	3200	82000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	1560	40000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Xylene	32000	200000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Isopropylbenzene (Cumene)	1564	40880	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1,2,3-Trichloropropane	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
n-Propylbenzene	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1,3,5-Trimethylbenzene	782	20440	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1,2,4-Trimethylbenzene	782	20440	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
n-Butylbenzene	156	4088	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	63	1635	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Tetrachloroethene	12	110	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl Ether	156	4088	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
<b>Semi-VOC's GCMS 8270</b>												
Acenaphthene	940	24000	1.72	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	4600	12200	1.63	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Benzo[a]anthracene	0.88	8	5.95	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Benzo[a]pyrene	0.088	0.78	7.56	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Benzo[b]fluoranthene	0.88	8	9.01	0.446	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Benzo[g,h,i]perylene	469	12264	4.4	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Benzo[k]fluoranthene	9	78	3.04	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Chrysene	88	780	7.29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Dibenz[a,h]anthracene	NS	NS	9.66	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Dibenzofuran	62	1635	0.737	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluoranthene	620	16400	13	0.511	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	620	16400	1.14	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Indeno[1,2,3-cd]pyrene	0.88	8	4.6	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenol	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	63	1635	0.58	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	63	1635	3	1.06	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	620	16400	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
bis (2-Ethylhexyl)phthalate	46	410	6.67	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	469	12264	8.78	0.633	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	469	12264	9.38	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

\* = Health-based level > 100% NS = No Standard NA = Not Applicable BQL = Below Quantitation Limit

**FIGURES**

USGS Winston-Salem, North Carolina, United States 01 Jul 1991



0 0.5Km 0 0.5Mi



FIGURE NUMBER:	1
QUAD:	1980 Winston-Salem
PROJECT NUMBER:	ENMO050015.00
SCALE:	As Shown

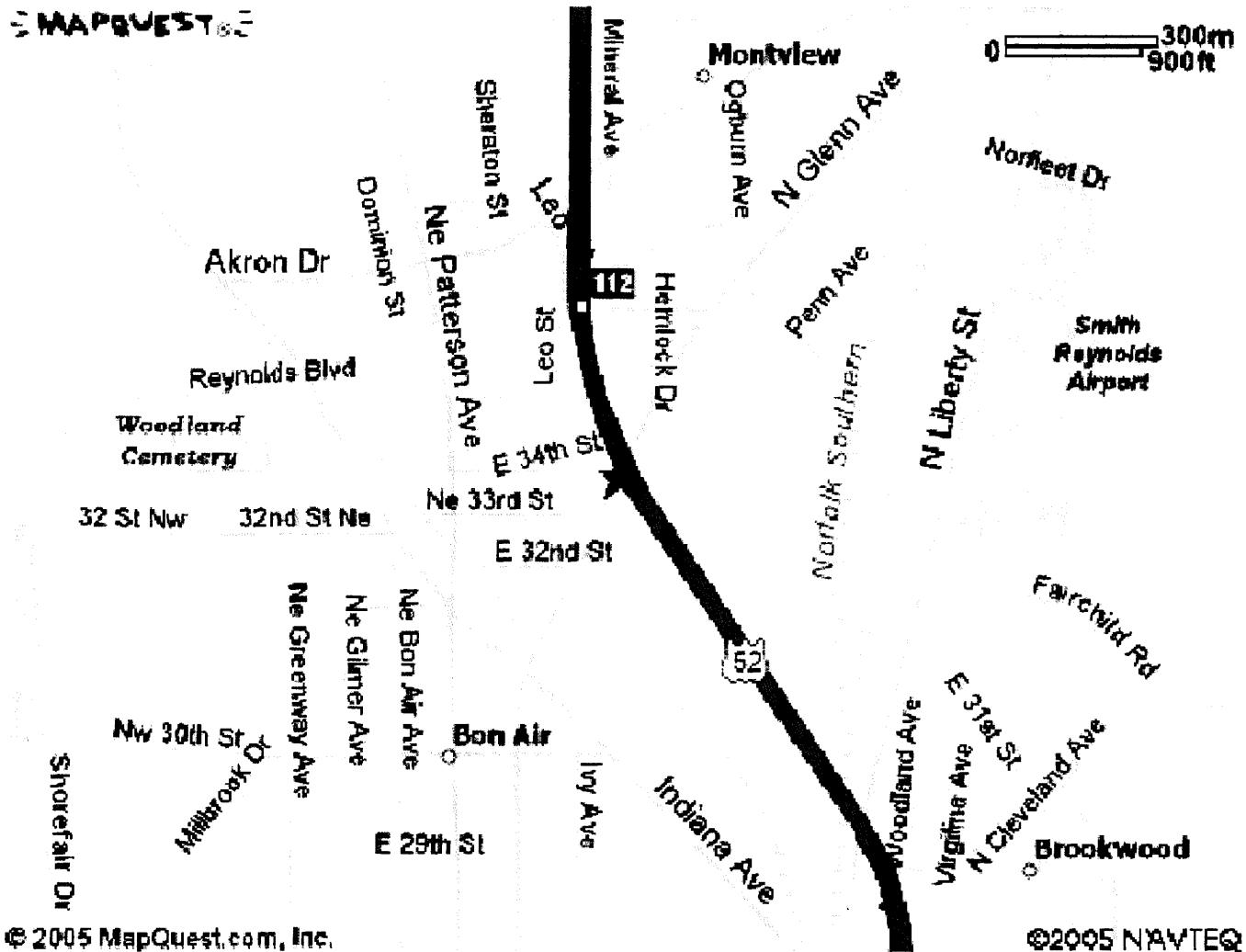
**SITE LOCATION MAP**  
Parcel # 009 – Recycling Industries of  
Winston-Salem Property  
3415 North Glenn Avenue  
Winston-Salem, North Carolina



ENVIRONMENTAL INVESTIGATIONS, INC

MAPQUEST

0 300m  
900ft



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FIGURE NUMBER:	1A
QUAD:	1980 Winston-Salem
PROJECT NUMBER:	ENMO050015.00
SCALE:	As Shown

**SITE LOCATION MAP**  
 Parcel # 009 – Recycling Industries of  
 Winston-Salem Property  
 3411 North Glenn Avenue  
 Winston-Salem, North Carolina




**EI**  
 ENVIRONMENTAL INVESTIGATIONS, INC



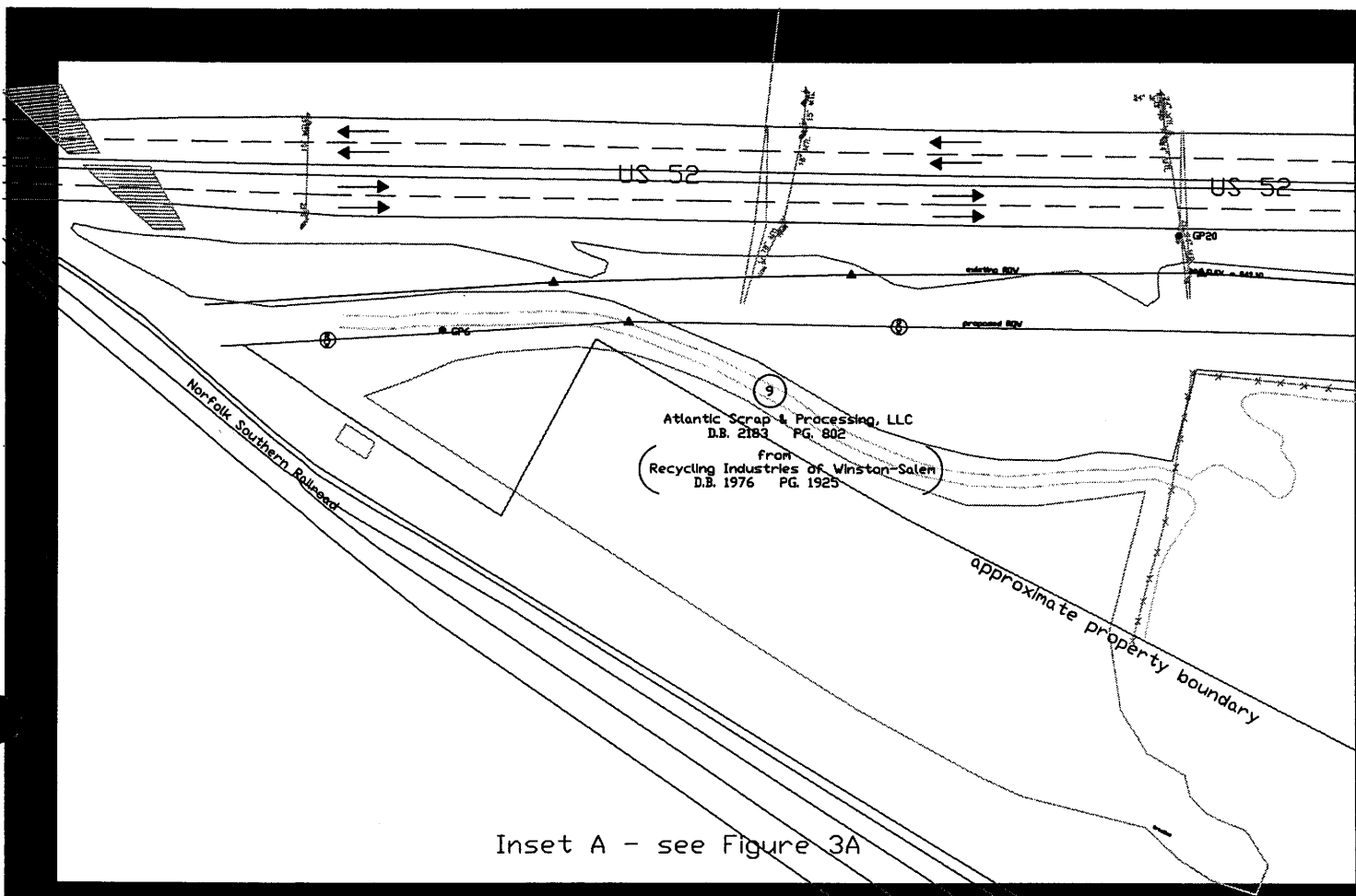
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SCALE 1: 11936

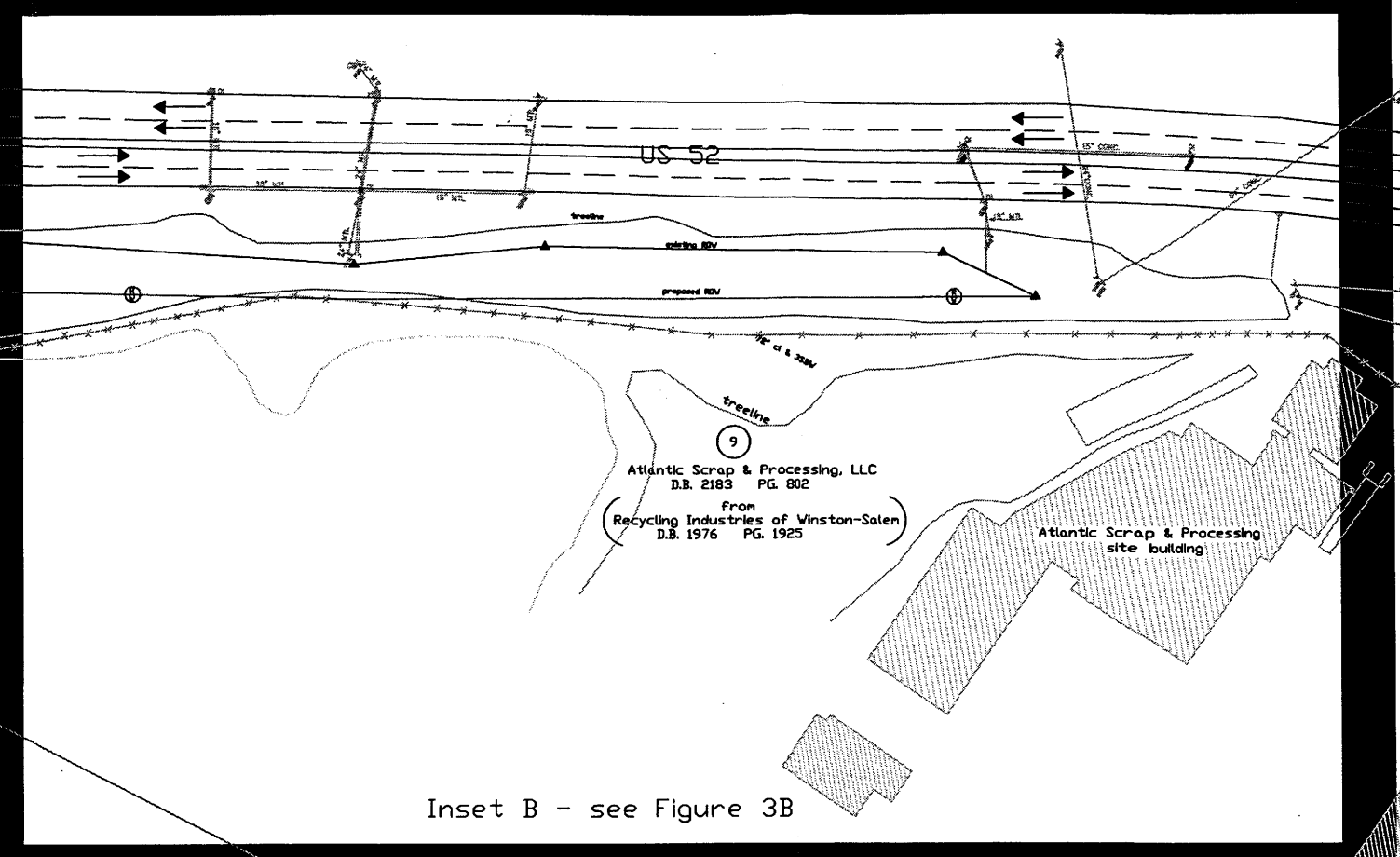


FIGURE NUMBER: 2	<b>AERIAL PHOTOGRAPH</b> Parcel #009—Recycling Industries of Winston-Salem Property 3411 North Glenn Avenue Winston-Salem, North Carolina	 <b>ENVIRONMENTAL INVESTIGATIONS, INC</b>
QUAD: 1991 Winston-Salem		
PROJECT NUMBER: ENMO050015.00		
SCALE: As Shown		

NAD 83











Inset A - see Figure 3A



Inset B - see Figure 3B

LEGEND:

-  building
-  property boundary
-  chain-link fence
-  proposed right-of-way
-  existing right-of-way
-  proposed drainage
-  soil test boring
-  monitoring well

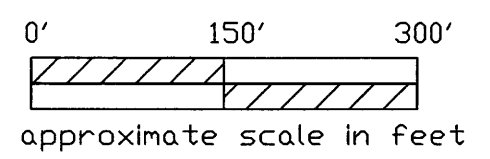
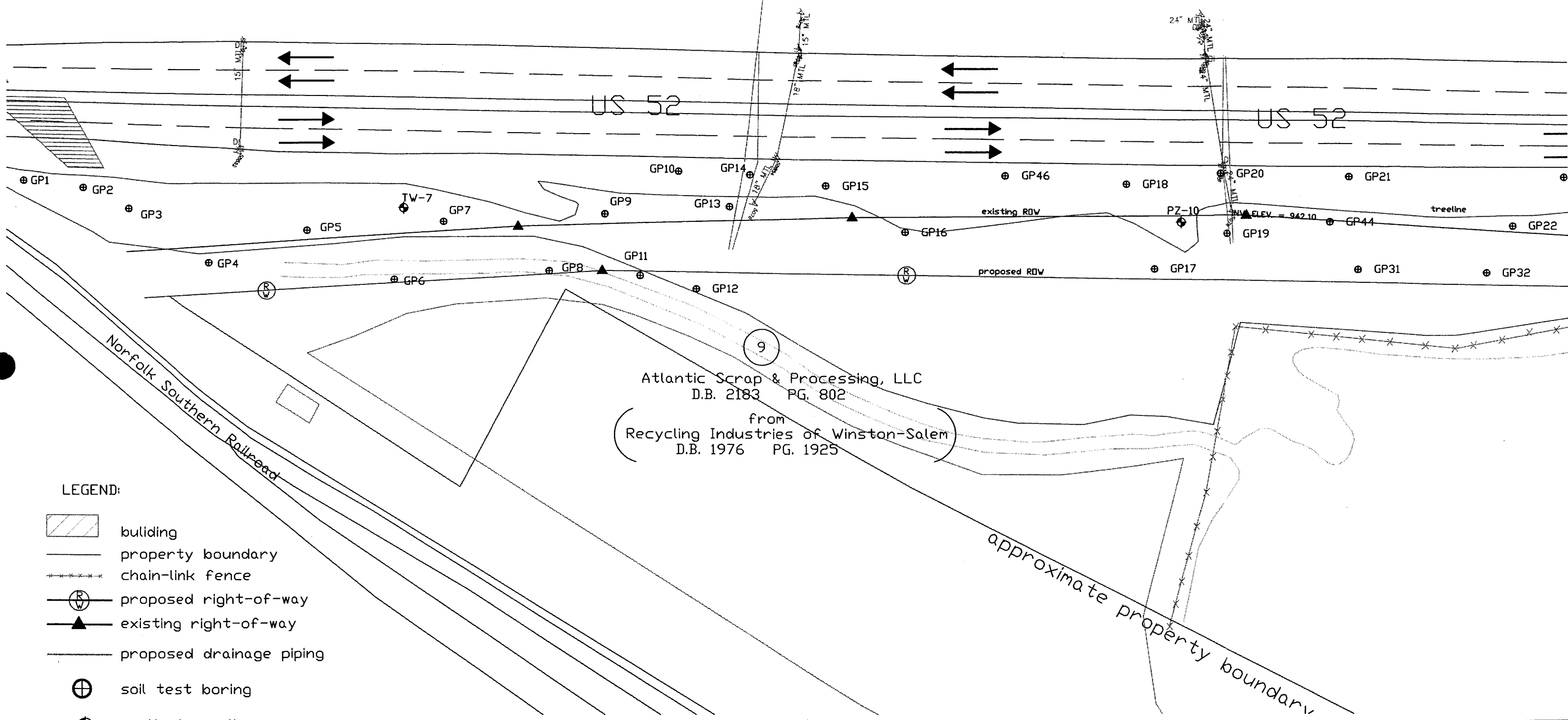
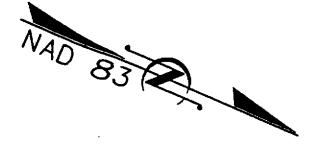


FIGURE NO.:	3
DRN BY:	DOT/DRL
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1' = 150'

**SITE MAP**

Parcel 9  
Atlantic Scrap and Processing, LLC  
3415 North Glenn Avenue  
Winston-Salem, North Carolina





9  
 Atlantic Scrap & Processing, LLC  
 D.B. 2183 PG. 802  
 from  
 Recycling Industries of Winston-Salem  
 D.B. 1976 PG. 1925

- LEGEND:
- building
  - property boundary
  - chain-link fence
  - proposed right-of-way
  - existing right-of-way
  - proposed drainage piping
  - soil test boring
  - monitoring well

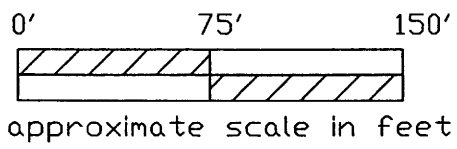
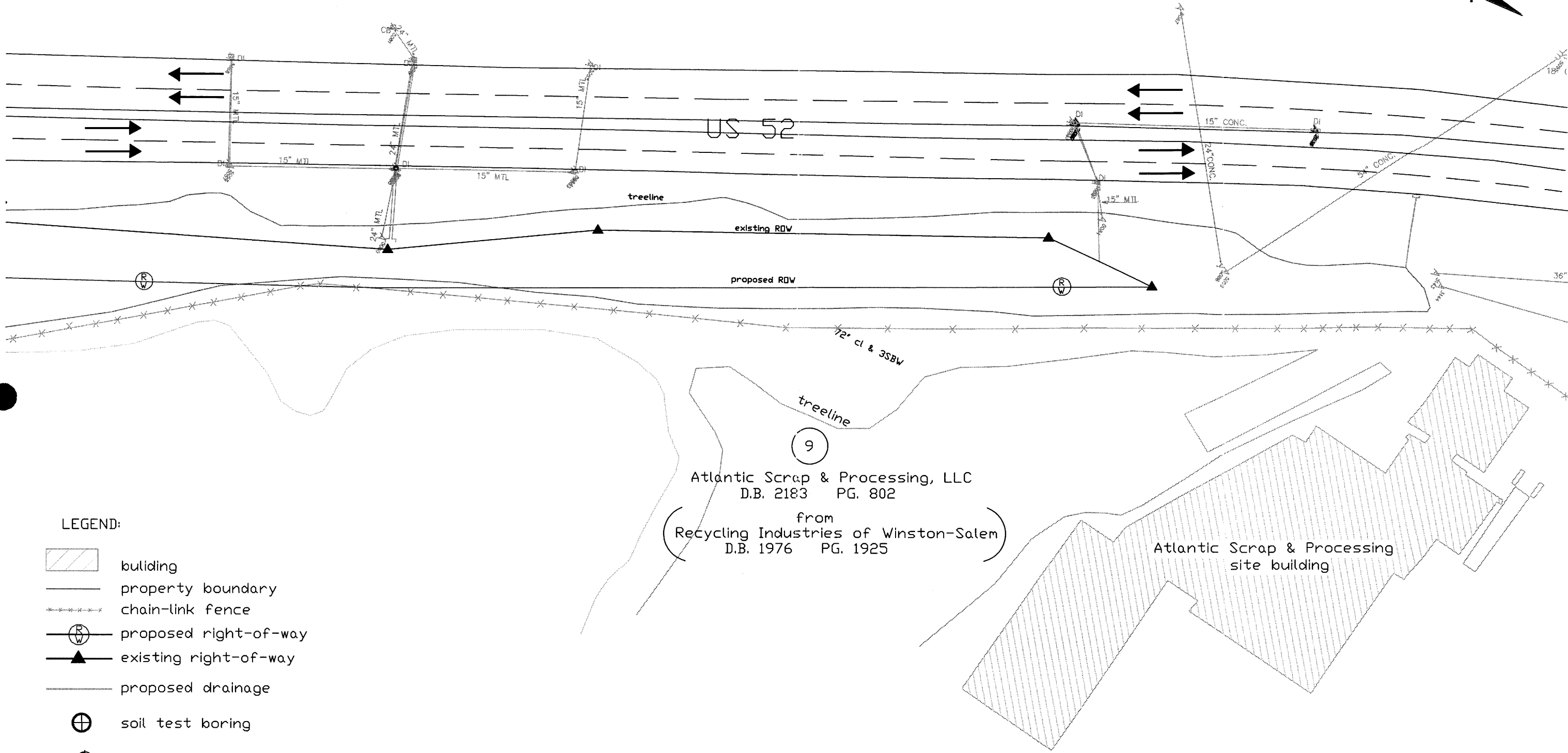
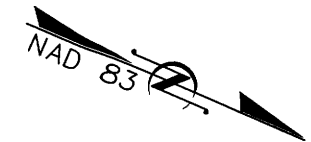


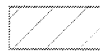

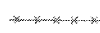





FIGURE NO.:	3A
DRN BY:	DOT/DRL
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 75'

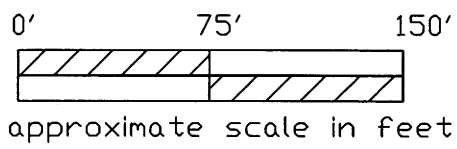
SITE MAP  
 (Inset A)  
 Parcel 9  
 Atlantic Scrap and Processing, LLC  
 3415 North Glenn Avenue  
 Winston-Salem, North Carolina







- LEGEND:**
-  building
  -  property boundary
  -  chain-link fence
  -  proposed right-of-way
  -  existing right-of-way
  -  proposed drainage
  -  soil test boring
  -  monitoring well



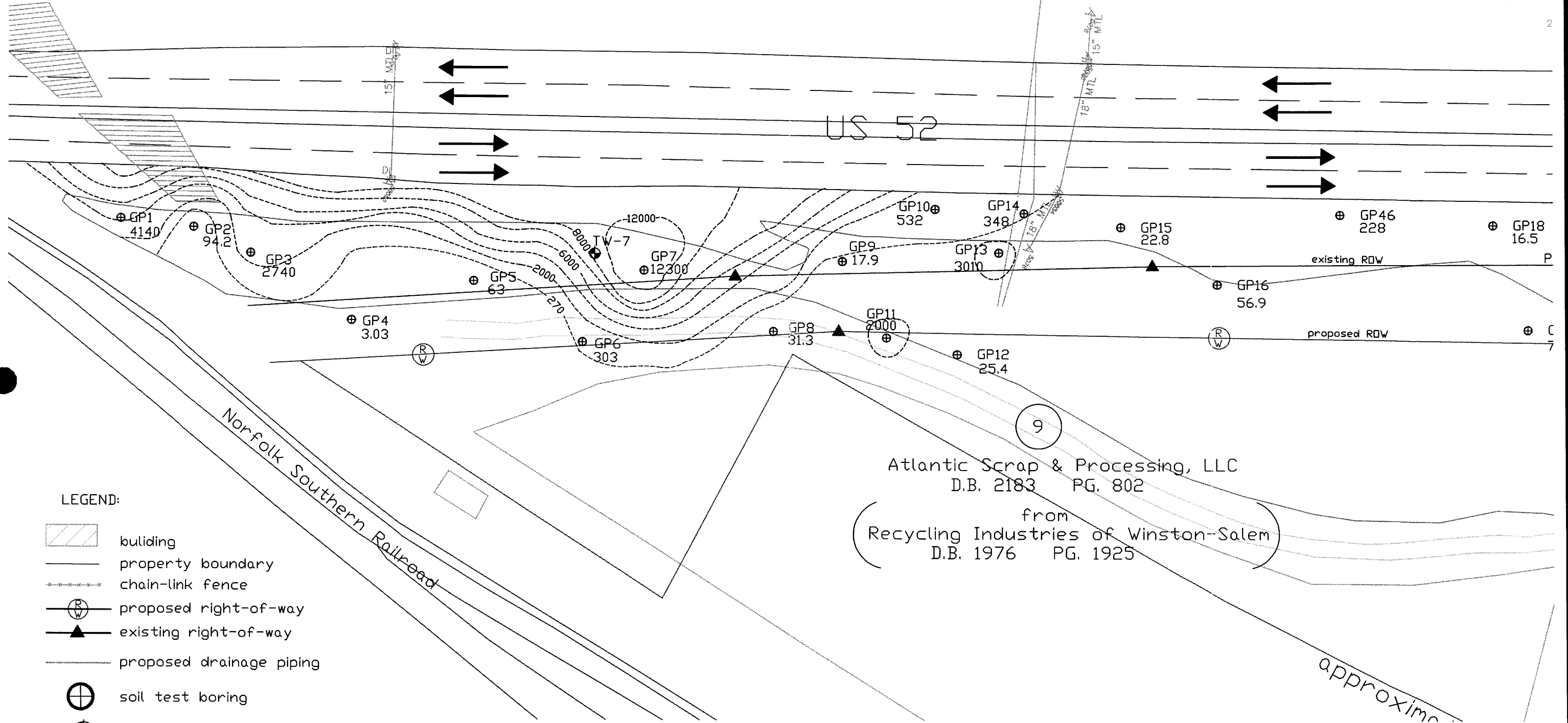
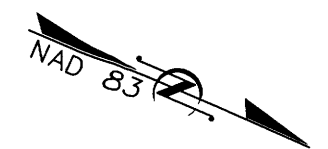
(9)  
 Atlantic Scrap & Processing, LLC  
 D.B. 2183 PG. 802  
 from  
 (Recycling Industries of Winston-Salem)  
 D.B. 1976 PG. 1925

Atlantic Scrap & Processing  
site building

FIGURE NO.:	3B
DRN BY:	DOT/DRL
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 75'

**SITE MAP**  
 (Inset B)  
 Parcel 9  
 Atlantic Scrap and Processing, LLC  
 3415 North Glenn Avenue  
 Winston-Salem, North Carolina





Atlantic Scrap & Processing, LLC  
 D.B. 2183 PG. 802  
 from  
 Recycling Industries of Winston-Salem  
 D.B. 1976 PG. 1925

- LEGEND:
- building
  - property boundary
  - chain-link fence
  - proposed right-of-way
  - existing right-of-way
  - proposed drainage piping
  - soil test boring
  - monitoring well
  - total lead isopleth (mg/kg)

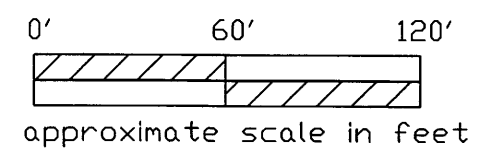
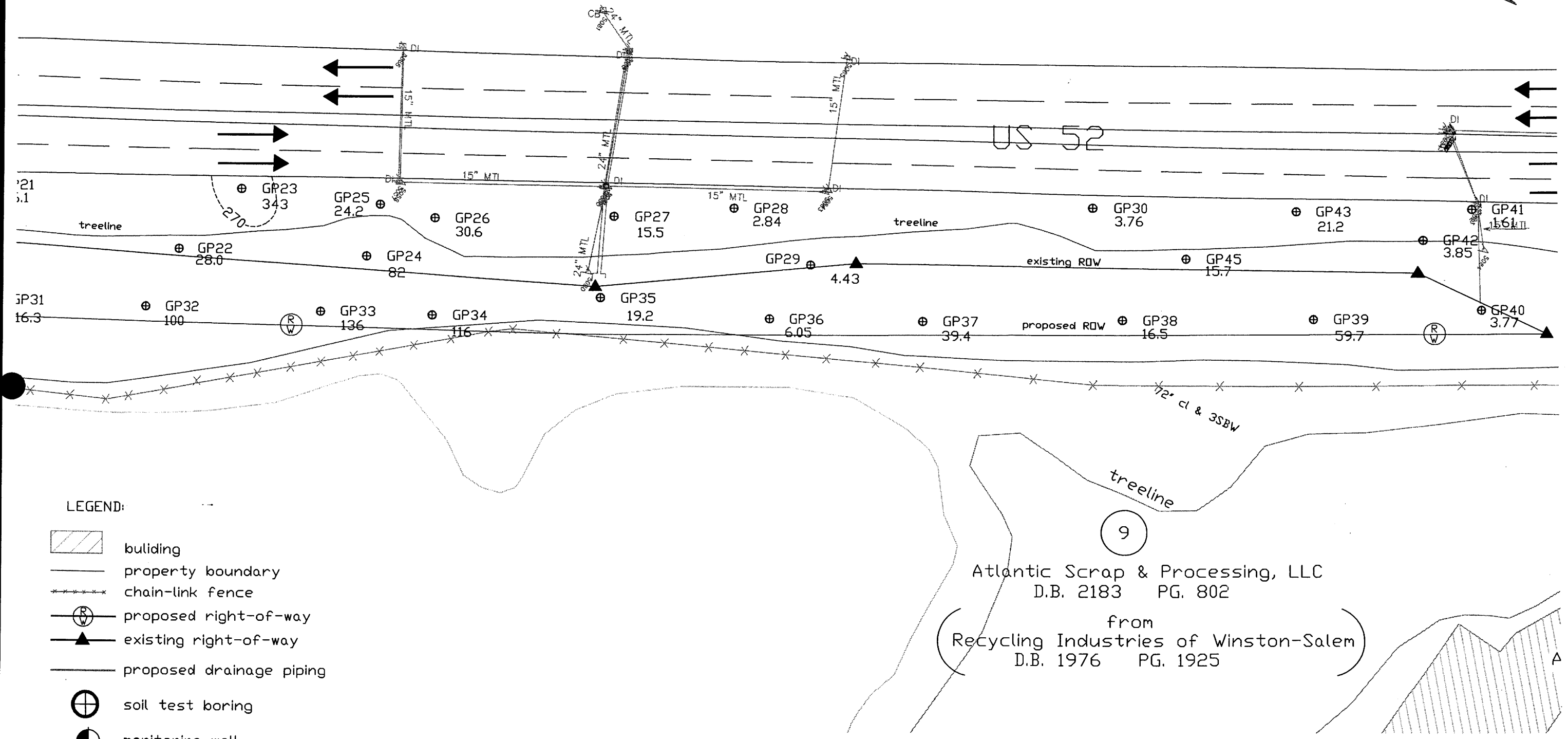
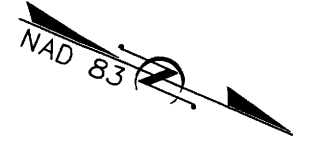


FIGURE NO.:	4A
DRN BY:	DOT/DRL
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 60'

DISTRIBUTION OF LEAD IN SOILS  
 (Inset A)  
 Parcel 9  
 Atlantic Scrap and Processing, LLC  
 3415 North Glenn Avenue  
 Winston-Salem, North Carolina





- LEGEND:
- building
  - property boundary
  - chain-link fence
  - proposed right-of-way
  - existing right-of-way
  - proposed drainage piping
  - soil test boring
  - monitoring well
  - total lead isopleth (mg/kg)

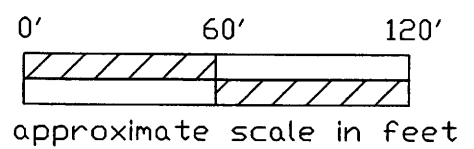
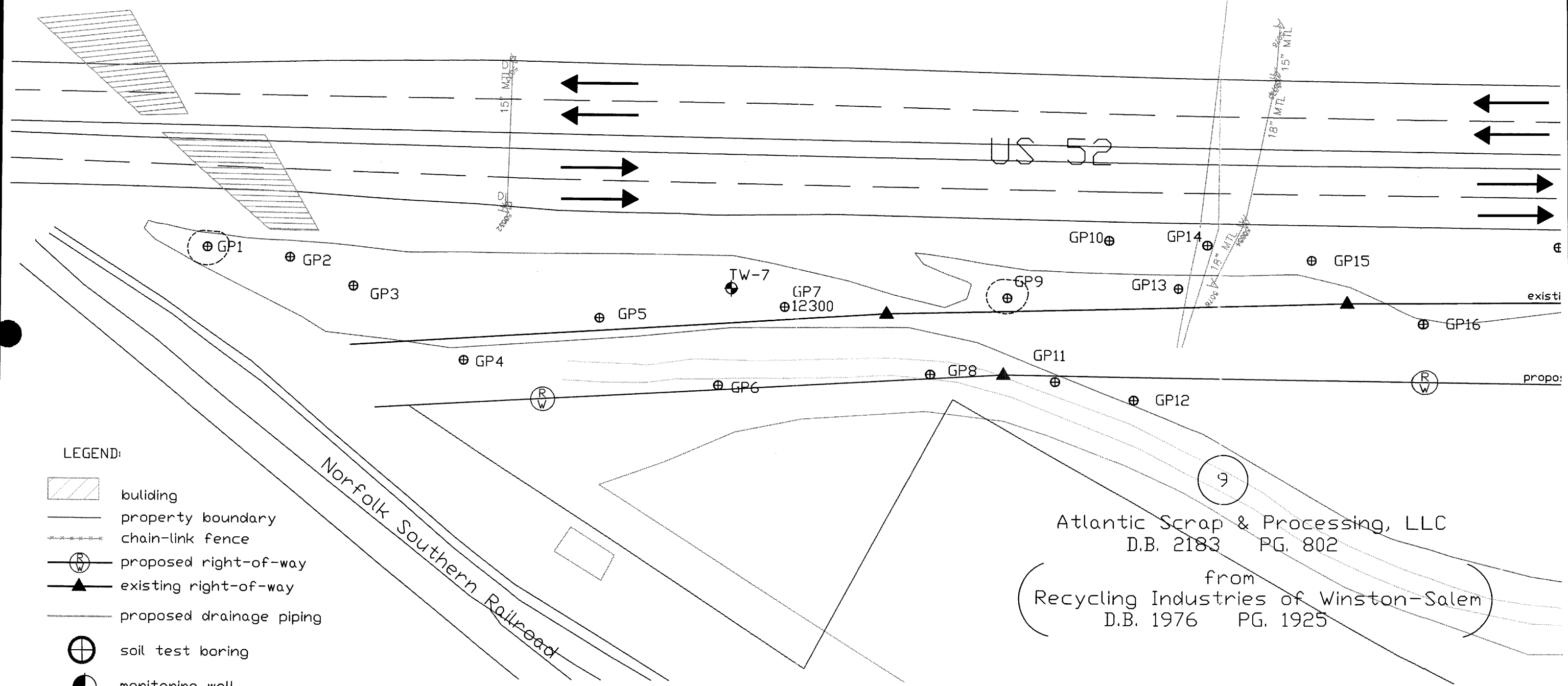
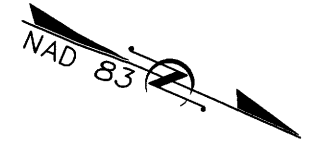


FIGURE NO.:	4B
DRN BY:	DOT/DRL
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 60'

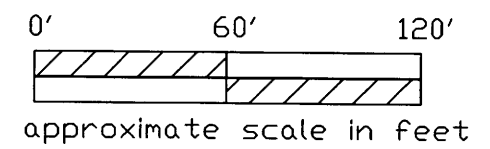
DISTRIBUTION OF LEAD IN SOILS  
(Inset B)

Parcel 9  
Atlantic Scrap and Processing, LLC  
3415 North Glenn Avenue  
Winston-Salem, North Carolina





- LEGEND:
- building
  - property boundary
  - chain-link fence
  - proposed right-of-way
  - existing right-of-way
  - proposed drainage piping
  - soil test boring
  - monitoring well
  - estimated extent of svocs

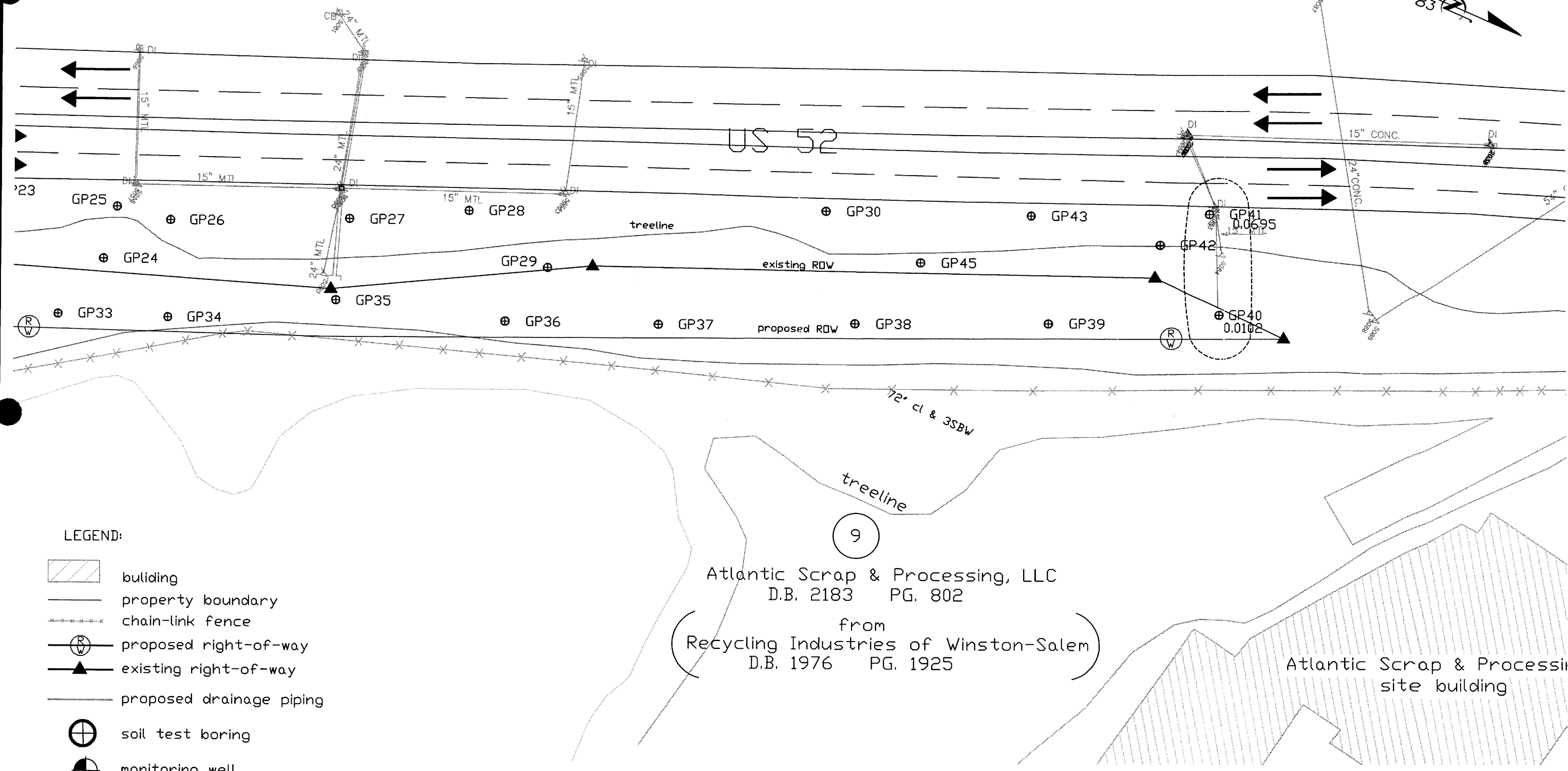
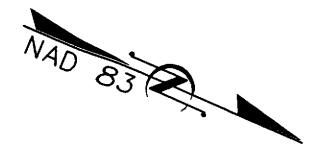


Atlantic Scrap & Processing, LLC  
 D.B. 2183 PG. 802  
 from  
 Recycling Industries of Winston-Salem  
 D.B. 1976 PG. 1925

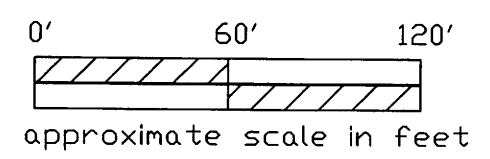
FIGURE NO.:	5A
DRN BY:	DOT/DRL
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 60'

ESTIMATED EXTENT OF SVOCs IN SOILS  
 (Inset A)  
 Parcel 9  
 Atlantic Scrap and Processing, LLC  
 3415 North Glenn Avenue  
 Winston-Salem, North Carolina





- LEGEND:
- building
  - property boundary
  - chain-link fence
  - proposed right-of-way
  - existing right-of-way
  - proposed drainage piping
  - soil test boring
  - monitoring well
  - estimated extent of PCE



9  
 Atlantic Scrap & Processing, LLC  
 D.B. 2183 PG. 802  
 from  
 Recycling Industries of Winston-Salem  
 D.B. 1976 PG. 1925

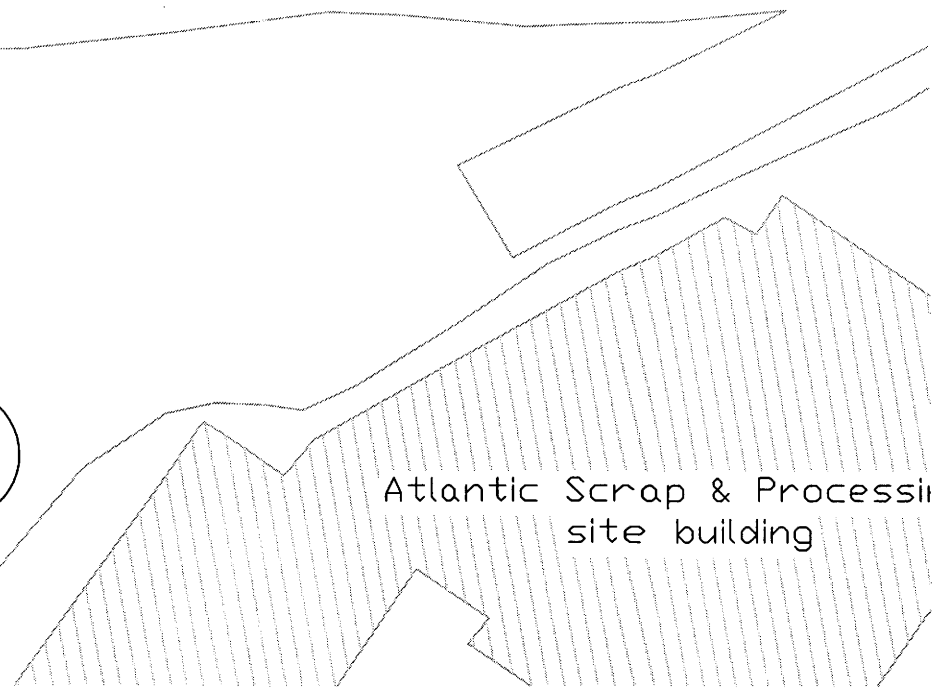


FIGURE NO.:	5B
DRN BY:	DOT/DRL
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 60'

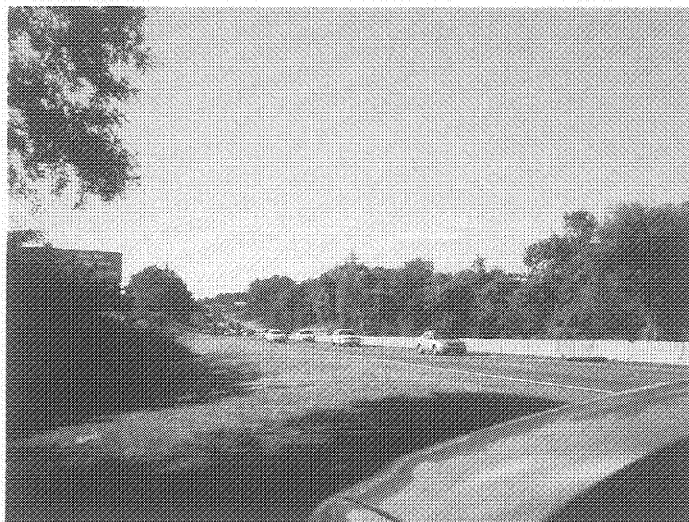
ESTIMATED EXTENT OF PCE IN SOILS  
 (Inset B)  
 Parcel 9  
 Atlantic Scrap and Processing, LLC  
 3415 North Glenn Avenue  
 Winston-Salem, North Carolina



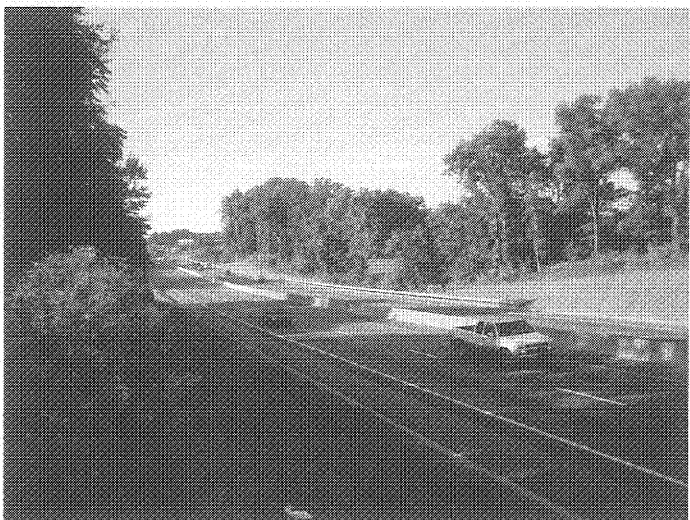
**APPENDIX A**  
**SITE PHOTOGRAPHS**



**Photograph 1: View of subject property.**



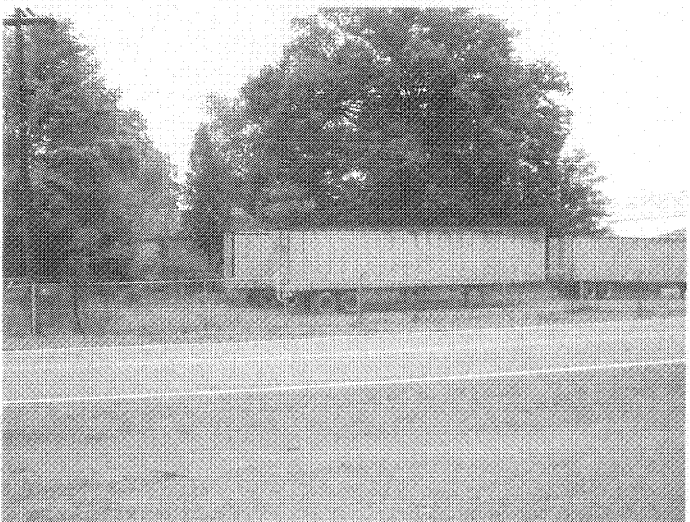
**Photograph 2: View of subject property & DOT ROW (across highway) looking north on US 52.**



**Photograph 3: View of subject parcel & DOT ROW across highway.**



**Photograph 4: View of subject property looking southeast.**



**Photograph 5: View subject property along N. Glenn Avenue.**



**Photograph 6: View of bridge (US 52) over N. Glenn Avenue.**

**APPENDIX B**  
**SOIL BORING LOGS**





















**APPENDIX C**

**LABORATORY ANALYTICAL REPORT - SOIL**

Mr. Darren Lockhart  
Environmental Investigations  
2101 Gateway Centre Boulevard  
Suite 200  
Morrisville NC 27560  
Report Number: G106-538  
Client Project: NCDOT-Parcel 9/Tip#U-2826A

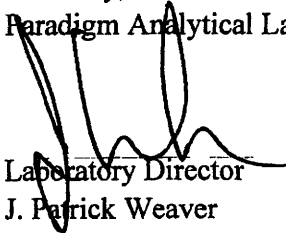
Dear Mr. Lockhart:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,  
Paradigm Analytical Laboratories, Inc.

  
Laboratory Director  
J. Patrick Weaver

  
Date

**Results for Metals**

Client Sample ID: P9GP1-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-31  
 Lab Project ID: G106-538  
 Batch ID: 3679

Analyzed By: PSW  
 Date Collected: 8/23/2005 00:00  
 Date Received: 8/26/05  
 Matrix: LEACHATE

Metals TCLP	Result	RL	DF	Units	Method	Date Analyzed
Lead	0.183	0.100	1	MG/L	6010B	9/21/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:       
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP7-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-32  
 Lab Project ID: G106-538  
 Batch ID: 3679

Analyzed By: PSW  
 Date Collected: 8/23/2005 00:00  
 Date Received: 8/26/2005  
 Matrix: LEACHATE

Metals TCLP	Result	RL	DF	Units	Method	Date Analyzed
Lead	123	0.100	1	MG/L	6010B	9/21/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: *[Signature]*  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP10-1  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-33  
 Lab Project ID: G106-538  
 Batch ID: 3679

Analyzed By: PSW  
 Date Collected: 8/23/2005 00:00  
 Date Received: 8/26/2005  
 Matrix: LEACHATE

Metals TCLP	Result	RL	DF	Units	Method	Date Analyzed
Lead	3.43	0.100	1	MG/L	6010B	9/21/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: PSW  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP1-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-1  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 09:15  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 69.21

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	551	1.31	1	MG/KG	6010B	9/13/2005
Barium	1540	131	10	MG/KG	6010B	9/14/2005
Cadmium	2.49	1.31	1	MG/KG	6010B	9/13/2005
Chromium	7.23	1.31	1	MG/KG	6010B	9/13/2005
Lead	4140	13.1	10	MG/KG	6010B	9/14/2005
Mercury	7.87	2.70	100	MG/KG	7471	9/12/2005
Selenium	6.39	2.63	1	MG/KG	6010B	9/13/2005
Silver	9.08	1.31	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: PSW  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP2-1  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-2  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 09:30  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids: 79.95

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	6.87	1.23	1	MG/KG	6010B	9/13/2005
Barium	93.4	12.3	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.23	1	MG/KG	6010B	9/13/2005
Chromium	49.7	1.23	1	MG/KG	6010B	9/13/2005
Lead	94.2	1.23	1	MG/KG	6010B	9/13/2005
Mercury	0.140	0.0219	1	MG/KG	7471	9/12/2005
Selenium	3.03	2.45	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.23	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:           
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP3-2  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-3  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 10:16  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 72.05

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	47.5	1.24	1	MG/KG	6010B	9/13/2005
Barium	376	12.4	1	MG/KG	6010B	9/13/2005
Cadmium	1.54	1.24	1	MG/KG	6010B	9/13/2005
Chromium	2.10	1.24	1	MG/KG	6010B	9/13/2005
Lead	2740	12.4	10	MG/KG	6010B	9/14/2005
Mercury	0.408	0.0262	1	MG/KG	7471	9/12/2005
Selenium	4.18	2.48	1	MG/KG	6010B	9/13/2005
Silver	1.80	1.24	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3



## Results for Metals

Client Sample ID: P9GP4-2  
Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
Lab Sample ID: G106-538-4  
Lab Project ID: G106-538  
Batch ID: 3633 3618  
Report Basis: Dry

Analyzed By: PSW  
Date Collected: 8/23/2005 10:30  
Date Received: 8/26/2005  
Matrix: SOIL  
Solids 83.68

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	BQL	1.17	1	MG/KG	6010B	9/13/2005
Barium	154	11.7	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.17	1	MG/KG	6010B	9/13/2005
Chromium	14.5	1.17	1	MG/KG	6010B	9/13/2005
Lead	3.03	1.17	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0215	1	MG/KG	7471	9/12/2005
Selenium	BQL	2.34	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.17	1	MG/KG	6010B	9/13/2005

## Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank &gt; RL

Reviewed By:                       
MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP5-5  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-5  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 11:05  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids: 79.08

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	7.12	1.26	1	MG/KG	6010B	9/13/2005
Barium	25.9	12.6	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.26	1	MG/KG	6010B	9/13/2005
Chromium	22.7	1.26	1	MG/KG	6010B	9/13/2005
Lead	63.0	1.26	1	MG/KG	6010B	9/13/2005
Mercury	0.0502	0.0226	1	MG/KG	7471	9/12/2005
Selenium	BQL	2.53	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.26	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP6-2  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-6  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 11:10  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 87.42

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	8.51	0.986	1	MG/KG	6010B	9/13/2005
Barium	54.7	9.86	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	0.986	1	MG/KG	6010B	9/13/2005
Chromium	5.26	0.986	1	MG/KG	6010B	9/13/2005
Lead	303	0.986	1	MG/KG	6010B	9/13/2005
Mercury	0.134	0.0201	1	MG/KG	7471	9/12/2005
Selenium	2.29	1.97	1	MG/KG	6010B	9/13/2005
Silver	BQL	0.986	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP7-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-7  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 11:15  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 81.66

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	48.8	1.18	1	MG/KG	6010B	9/13/2005
Barium	186	11.8	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.18	1	MG/KG	6010B	9/13/2005
Chromium	3.76	1.18	1	MG/KG	6010B	9/13/2005
Lead	12300	11.8	10	MG/KG	6010B	9/14/2005
Mercury	0.378	0.0233	1	MG/KG	7471	9/12/2005
Selenium	10.5	2.35	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.18	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP8-10  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-8  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 11:20  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 82.26

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	2.50	1.09	1	MG/KG	6010B	9/13/2005
Barium	35.9	10.9	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.09	1	MG/KG	6010B	9/13/2005
Chromium	5.49	1.09	1	MG/KG	6010B	9/13/2005
Lead	31.3	1.09	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0229	1	MG/KG	7471	9/12/2005
Selenium	BQL	2.17	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.09	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP9-10  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-9  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 11:30  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 83.42

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	3.13	1.18	1	MG/KG	6010B	9/13/2005
Barium	BQL	11.8	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.18	1	MG/KG	6010B	9/13/2005
Chromium	4.49	1.18	1	MG/KG	6010B	9/13/2005
Lead	17.9	1.18	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0237	1	MG/KG	7471	9/12/2005
Selenium	BQL	2.35	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.18	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: mw  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP10-1  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-10  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 13:30  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 88.07

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	42.6	1.14	1	MG/KG	6010B	9/13/2005
Barium	165	11.4	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.14	1	MG/KG	6010B	9/13/2005
Chromium	4.43	1.14	1	MG/KG	6010B	9/13/2005
Lead	532	1.14	1	MG/KG	6010B	9/13/2005
Mercury	0.648	0.0205	1	MG/KG	7471	9/12/2005
Selenium	4.11	2.27	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.14	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:                       
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP11-1  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-11  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 13:46  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 85.01

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	134	1.18	1	MG/KG	6010B	9/13/2005
Barium	72.2	11.8	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.18	1	MG/KG	6010B	9/13/2005
Chromium	3.78	1.18	1	MG/KG	6010B	9/13/2005
Lead	2000	11.8	10	MG/KG	6010B	9/14/2005
Mercury	BQL	0.0214	1	MG/KG	7471	9/12/2005
Selenium	4.30	2.35	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.18	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:                       
 MET\_LIMS\_3.3



**Results for Metals**

Client Sample ID: P9GP12  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-12  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 14:05  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids: 89.24

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	2.99	1.00	1	MG/KG	6010B	9/13/2005
Barium	16.1	10.0	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.00	1	MG/KG	6010B	9/13/2005
Chromium	1.14	1.00	1	MG/KG	6010B	9/13/2005
Lead	25.4	1.00	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0206	1	MG/KG	7471	9/12/2005
Selenium	BQL	2.00	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.00	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP13  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-13  
 Lab Project ID: G106-538  
 Batch ID: 3633 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/23/2005 14:30  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 81.40

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	355	1.23	1	MG/KG	6010B	9/13/2005
Barium	1450	123	10	MG/KG	6010B	9/14/2005
Cadmium	1.90	1.23	1	MG/KG	6010B	9/13/2005
Chromium	9.19	1.23	1	MG/KG	6010B	9/13/2005
Lead	3010	12.3	10	MG/KG	6010B	9/14/2005
Mercury	0.688	0.0239	1	MG/KG	7471	9/12/2005
Selenium	3.61	2.46	1	MG/KG	6010B	9/13/2005
Silver	14.0	1.23	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP14-14  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-14  
 Lab Project ID: G106-538  
 Batch ID: 3642 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 09:10  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 93.27

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	2.57	0.993	1	MG/KG	6010B	9/13/2005
Barium	BQL	9.93	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	0.993	1	MG/KG	6010B	9/13/2005
Chromium	1.16	0.993	1	MG/KG	6010B	9/13/2005
Lead	348	0.993	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0190	1	MG/KG	7471	9/13/2005
Selenium	BQL	1.99	1	MG/KG	6010B	9/13/2005
Silver	BQL	0.993	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:       
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP15-15  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-15  
 Lab Project ID: G106-538  
 Batch ID: 3642 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 09:25  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 89.20

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	1.09	1.04	1	MG/KG	6010B	9/13/2005
Barium	BQL	10.4	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.04	1	MG/KG	6010B	9/13/2005
Chromium	BQL	1.04	1	MG/KG	6010B	9/13/2005
Lead	22.8	1.04	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0208	1	MG/KG	7471	9/13/2005
Selenium	BQL	2.08	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.04	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP16-15  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-16  
 Lab Project ID: G106-538  
 Batch ID: 3642 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 09:53  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 81.87

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	1.60	1.09	1	MG/KG	6010B	9/13/2005
Barium	BQL	10.9	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.09	1	MG/KG	6010B	9/13/2005
Chromium	BQL	1.09	1	MG/KG	6010B	9/13/2005
Lead	56.9	1.09	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0220	1	MG/KG	7471	9/13/2005
Selenium	BQL	2.18	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.09	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: me  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP17  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-17  
 Lab Project ID: G106-538  
 Batch ID: 3642 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 10:15  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 92.23

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	2.37	0.935	1	MG/KG	6010B	9/13/2005
Barium	26.3	9.35	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	0.935	1	MG/KG	6010B	9/13/2005
Chromium	BQL	0.935	1	MG/KG	6010B	9/13/2005
Lead	7.34	0.935	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0195	1	MG/KG	7471	9/13/2005
Selenium	BQL	1.87	1	MG/KG	6010B	9/13/2005
Silver	BQL	0.935	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3



**Results for Metals**

Client Sample ID: P9GP19-15  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-19  
 Lab Project ID: G106-538  
 Batch ID: 3642 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 11:00  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 77.47

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	5.40	1.22	1	MG/KG	6010B	9/13/2005
Barium	60.5	12.2	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.22	1	MG/KG	6010B	9/13/2005
Chromium	BQL	1.22	1	MG/KG	6010B	9/13/2005
Lead	6.43	1.22	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0233	1	MG/KG	7471	9/13/2005
Selenium	BQL	2.44	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.22	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:                       
 MET\_LIMS\_3.3



**Results for Metals**

Client Sample ID: P9GP20  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-20  
 Lab Project ID: G106-538  
 Batch ID: 3642 3618  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 13:50  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 88.64

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	1.59	1.08	1	MG/KG	6010B	9/13/2005
Barium	10.9	10.8	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.08	1	MG/KG	6010B	9/13/2005
Chromium	BQL	1.08	1	MG/KG	6010B	9/13/2005
Lead	21.3	1.08	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0217	1	MG/KG	7471	9/13/2005
Selenium	BQL	2.17	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.08	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP21  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-21  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 14:05  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids: 85.36

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	4.95	1.17	1	MG/KG	6010B	9/13/2005
Barium	14.8	11.7	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.17	1	MG/KG	6010B	9/13/2005
Chromium	BQL	1.17	1	MG/KG	6010B	9/13/2005
Lead	46.1	1.17	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0217	1	MG/KG	7471	9/13/2005
Selenium	2.73	2.34	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.17	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP22-15  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-22  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 14:15  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 91.65

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	3.15	1.09	1	MG/KG	6010B	9/13/2005
Barium	15.4	10.9	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.09	1	MG/KG	6010B	9/13/2005
Chromium	BQL	1.09	1	MG/KG	6010B	9/13/2005
Lead	28.0	1.09	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0208	1	MG/KG	7471	9/13/2005
Selenium	2.22	2.18	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.09	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP23-14  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-23  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 14:30  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 87.24

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	7.01	1.10	1	MG/KG	6010B	9/13/2005
Barium	14.4	11.0	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.10	1	MG/KG	6010B	9/13/2005
Chromium	BQL	1.10	1	MG/KG	6010B	9/13/2005
Lead	343	1.10	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0208	1	MG/KG	7471	9/13/2005
Selenium	2.59	2.20	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.10	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: ml  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP24  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-24  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 14:45  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 88.80

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	5.47	0.988	1	MG/KG	6010B	9/13/2005
Barium	13.1	9.88	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	0.988	1	MG/KG	6010B	9/13/2005
Chromium	1.16	0.988	1	MG/KG	6010B	9/13/2005
Lead	82.0	0.988	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0212	1	MG/KG	7471	9/13/2005
Selenium	BQL	1.98	1	MG/KG	6010B	9/13/2005
Silver	BQL	0.988	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: lw  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP25-2  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-25  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 15:15  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 88.42

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	4.73	1.01	1	MG/KG	6010B	9/13/2005
Barium	BQL	10.1	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.01	1	MG/KG	6010B	9/13/2005
Chromium	2.34	1.01	1	MG/KG	6010B	9/13/2005
Lead	24.2	1.01	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0215	1	MG/KG	7471	9/13/2005
Selenium	2.52	2.02	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.01	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:             
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP26-2  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-26  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 15:39  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 86.51

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	2.22	0.996	1	MG/KG	6010B	9/13/2005
Barium	267	9.96	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	0.996	1	MG/KG	6010B	9/13/2005
Chromium	53.4	0.996	1	MG/KG	6010B	9/13/2005
Lead	30.6	0.996	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0205	1	MG/KG	7471	9/13/2005
Selenium	BQL	1.99	1	MG/KG	6010B	9/13/2005
Silver	BQL	0.996	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: me  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP27-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-27  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 15:59  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 97.13

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	1.45	0.990	1	MG/KG	6010B	9/13/2005
Barium	48.6	9.90	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	0.990	1	MG/KG	6010B	9/13/2005
Chromium	27.2	0.990	1	MG/KG	6010B	9/13/2005
Lead	15.5	0.990	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0192	1	MG/KG	7471	9/13/2005
Selenium	BQL	1.98	1	MG/KG	6010B	9/13/2005
Silver	BQL	0.990	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: wl  
 MET\_LIMS\_3.3



**Results for Metals**

Client Sample ID: P9GP28-12  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-28  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 16:15  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids: 79.60

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	BQL	1.08	1	MG/KG	6010B	9/13/2005
Barium	26.3	10.8	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.08	1	MG/KG	6010B	9/13/2005
Chromium	2.84	1.08	1	MG/KG	6010B	9/13/2005
Lead	34.8	1.08	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0222	1	MG/KG	7471	9/13/2005
Selenium	BQL	2.17	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.08	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: ML  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP29-12  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-29  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 16:40  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids: 85.89

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	1.93	1.06	1	MG/KG	6010B	9/13/2005
Barium	BQL	10.6	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.06	1	MG/KG	6010B	9/13/2005
Chromium	4.43	1.06	1	MG/KG	6010B	9/13/2005
Lead	14.9	1.06	1	MG/KG	6010B	9/13/2005
Mercury	BQL	0.0222	1	MG/KG	7471	9/13/2005
Selenium	BQL	2.12	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.06	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:                       
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP30-12  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-30  
 Lab Project ID: G106-538  
 Batch ID: 3642 3619  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/24/2005 17:00  
 Date Received: 8/26/2005  
 Matrix: SOIL  
 Solids 82.19

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	3.91	1.17	1	MG/KG	6010B	9/13/2005
Barium	12.3	11.7	1	MG/KG	6010B	9/13/2005
Cadmium	BQL	1.17	1	MG/KG	6010B	9/13/2005
Chromium	3.76	1.17	1	MG/KG	6010B	9/13/2005
Lead	14.9	1.17	1	MG/KG	6010B	9/13/2005
Mercury	0.0665	0.0234	1	MG/KG	7471	9/13/2005
Selenium	BQL	2.34	1	MG/KG	6010B	9/13/2005
Silver	BQL	1.17	1	MG/KG	6010B	9/13/2005

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: h7  
 MET\_LIMS\_3.3

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP1-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-1B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-23-2005 09:15  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 69.2

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	70.8	1	8/30/2005
Benzene	BQL	7.08	1	8/30/2005
Bromobenzene	BQL	7.08	1	8/30/2005
Bromochloromethane	BQL	7.08	1	8/30/2005
Bromodichloromethane	BQL	7.08	1	8/30/2005
Bromoform	BQL	7.08	1	8/30/2005
Bromomethane	BQL	7.08	1	8/30/2005
2-Butanone	BQL	35.4	1	8/30/2005
n-Butylbenzene	BQL	7.08	1	8/30/2005
sec-Butylbenzene	BQL	7.08	1	8/30/2005
tert-Butylbenzene	BQL	7.08	1	8/30/2005
Carbon disulfide	BQL	7.08	1	8/30/2005
Carbon tetrachloride	BQL	7.08	1	8/30/2005
Chlorobenzene	BQL	7.08	1	8/30/2005
Chloroethane	BQL	7.08	1	8/30/2005
Chloroform	BQL	7.08	1	8/30/2005
Chloromethane	BQL	7.08	1	8/30/2005
2-Chlorotoluene	BQL	7.08	1	8/30/2005
4-Chlorotoluene	BQL	7.08	1	8/30/2005
Dibromochloromethane	BQL	7.08	1	8/30/2005
1,2-Dibromo-3-chloropropane	BQL	7.08	1	8/30/2005
Dibromomethane	BQL	7.08	1	8/30/2005
1,2-Dibromoethane (EDB)	BQL	7.08	1	8/30/2005
1,2-Dichlorobenzene	BQL	7.08	1	8/30/2005
1,3-Dichlorobenzene	BQL	7.08	1	8/30/2005
1,4-Dichlorobenzene	BQL	7.08	1	8/30/2005
trans-1,4-Dichloro-2-butene	BQL	7.08	1	8/30/2005
1,1-Dichloroethane	BQL	7.08	1	8/30/2005
1,1-Dichloroethene	BQL	7.08	1	8/30/2005
1,2-Dichloroethane	BQL	7.08	1	8/30/2005
cis-1,2-Dichloroethene	BQL	7.08	1	8/30/2005
trans-1,2-dichloroethene	BQL	7.08	1	8/30/2005
1,2-Dichloropropane	BQL	7.08	1	8/30/2005
1,3-Dichloropropane	BQL	7.08	1	8/30/2005
2,2-Dichloropropane	BQL	7.08	1	8/30/2005
1,1-Dichloropropene	BQL	7.08	1	8/30/2005
cis-1,3-Dichloropropene	BQL	7.08	1	8/30/2005
trans-1,3-Dichloropropene	BQL	7.08	1	8/30/2005
Dichlorodifluoromethane	BQL	7.08	1	8/30/2005
Diisopropyl ether (DIPE)	BQL	7.08	1	8/30/2005
Ethylbenzene	BQL	7.08	1	8/30/2005
Hexachlorobutadiene	BQL	7.08	1	8/30/2005
2-Hexanone	BQL	7.08	1	8/30/2005
Iodomethane	BQL	7.08	1	8/30/2005

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP1-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-1B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-23-2005 09:15  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 69.2

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	7.08	1	8/30/2005
4-Isopropyltoluene	BQL	7.08	1	8/30/2005
Methylene chloride	BQL	28.3	1	8/30/2005
4-Methyl-2-pentanone	BQL	7.08	1	8/30/2005
Methyl-tert-butyl ether (MTBE)	BQL	7.08	1	8/30/2005
Naphthalene	BQL	7.08	1	8/30/2005
n-Propyl benzene	BQL	7.08	1	8/30/2005
Styrene	BQL	7.08	1	8/30/2005
1,1,1,2-Tetrachloroethane	BQL	7.08	1	8/30/2005
1,1,2,2-Tetrachloroethane	BQL	7.08	1	8/30/2005
Tetrachloroethene	BQL	7.08	1	8/30/2005
Toluene	BQL	7.08	1	8/30/2005
1,2,3-Trichlorobenzene	BQL	7.08	1	8/30/2005
1,2,4-Trichlorobenzene	BQL	7.08	1	8/30/2005
Trichloroethene	BQL	7.08	1	8/30/2005
1,1,1-Trichloroethane	BQL	7.08	1	8/30/2005
1,1,2-Trichloroethane	BQL	7.08	1	8/30/2005
Trichlorofluoromethane	BQL	7.08	1	8/30/2005
1,2,3-Trichloropropane	BQL	7.08	1	8/30/2005
1,2,4-Trimethylbenzene	BQL	7.08	1	8/30/2005
1,3,5-Trimethylbenzene	BQL	7.08	1	8/30/2005
Vinyl chloride	BQL	7.08	1	8/30/2005
m-,p-Xylene	BQL	14.2	1	8/30/2005
o-Xylene	BQL	7.08	1	8/30/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	48.7	97
1,2-Dichloroethane-d4	50	50.2	100
Toluene-d8	50	53.3	107

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: mc

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP3-2  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-3B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-23-2005 10:16  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 72.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	67.8	1	8/30/2005
Benzene	BQL	6.78	1	8/30/2005
Bromobenzene	BQL	6.78	1	8/30/2005
Bromochloromethane	BQL	6.78	1	8/30/2005
Bromodichloromethane	BQL	6.78	1	8/30/2005
Bromoform	BQL	6.78	1	8/30/2005
Bromomethane	BQL	6.78	1	8/30/2005
2-Butanone	BQL	33.9	1	8/30/2005
n-Butylbenzene	BQL	6.78	1	8/30/2005
sec-Butylbenzene	BQL	6.78	1	8/30/2005
tert-Butylbenzene	BQL	6.78	1	8/30/2005
Carbon disulfide	BQL	6.78	1	8/30/2005
Carbon tetrachloride	BQL	6.78	1	8/30/2005
Chlorobenzene	BQL	6.78	1	8/30/2005
Chloroethane	BQL	6.78	1	8/30/2005
Chloroform	BQL	6.78	1	8/30/2005
Chloromethane	BQL	6.78	1	8/30/2005
2-Chlorotoluene	BQL	6.78	1	8/30/2005
4-Chlorotoluene	BQL	6.78	1	8/30/2005
Dibromochloromethane	BQL	6.78	1	8/30/2005
1,2-Dibromo-3-chloropropane	BQL	6.78	1	8/30/2005
Dibromomethane	BQL	6.78	1	8/30/2005
1,2-Dibromoethane (EDB)	BQL	6.78	1	8/30/2005
1,2-Dichlorobenzene	BQL	6.78	1	8/30/2005
1,3-Dichlorobenzene	BQL	6.78	1	8/30/2005
1,4-Dichlorobenzene	BQL	6.78	1	8/30/2005
trans-1,4-Dichloro-2-butene	BQL	6.78	1	8/30/2005
1,1-Dichloroethane	BQL	6.78	1	8/30/2005
1,1-Dichloroethene	BQL	6.78	1	8/30/2005
1,2-Dichloroethane	BQL	6.78	1	8/30/2005
cis-1,2-Dichloroethene	BQL	6.78	1	8/30/2005
trans-1,2-dichloroethene	BQL	6.78	1	8/30/2005
1,2-Dichloropropane	BQL	6.78	1	8/30/2005
1,3-Dichloropropane	BQL	6.78	1	8/30/2005
2,2-Dichloropropane	BQL	6.78	1	8/30/2005
1,1-Dichloropropene	BQL	6.78	1	8/30/2005
cis-1,3-Dichloropropene	BQL	6.78	1	8/30/2005
trans-1,3-Dichloropropene	BQL	6.78	1	8/30/2005
Dichlorodifluoromethane	BQL	6.78	1	8/30/2005
Diisopropyl ether (DIPE)	BQL	6.78	1	8/30/2005
Ethylbenzene	BQL	6.78	1	8/30/2005
Hexachlorobutadiene	BQL	6.78	1	8/30/2005
2-Hexanone	BQL	6.78	1	8/30/2005
Iodomethane	BQL	6.78	1	8/30/2005

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP3-2  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-3B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-23-2005 10:16  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 72.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	6.78	1	8/30/2005
4-Isopropyltoluene	BQL	6.78	1	8/30/2005
Methylene chloride	BQL	27.1	1	8/30/2005
4-Methyl-2-pentanone	BQL	6.78	1	8/30/2005
Methyl-tert-butyl ether (MTBE)	BQL	6.78	1	8/30/2005
Naphthalene	BQL	6.78	1	8/30/2005
n-Propyl benzene	BQL	6.78	1	8/30/2005
Styrene	BQL	6.78	1	8/30/2005
1,1,1,2-Tetrachloroethane	BQL	6.78	1	8/30/2005
1,1,2,2-Tetrachloroethane	BQL	6.78	1	8/30/2005
Tetrachloroethene	BQL	6.78	1	8/30/2005
Toluene	BQL	6.78	1	8/30/2005
1,2,3-Trichlorobenzene	BQL	6.78	1	8/30/2005
1,2,4-Trichlorobenzene	BQL	6.78	1	8/30/2005
Trichloroethene	BQL	6.78	1	8/30/2005
1,1,1-Trichloroethane	BQL	6.78	1	8/30/2005
1,1,2-Trichloroethane	BQL	6.78	1	8/30/2005
Trichlorofluoromethane	BQL	6.78	1	8/30/2005
1,2,3-Trichloropropane	BQL	6.78	1	8/30/2005
1,2,4-Trimethylbenzene	BQL	6.78	1	8/30/2005
1,3,5-Trimethylbenzene	BQL	6.78	1	8/30/2005
Vinyl chloride	BQL	6.78	1	8/30/2005
m-,p-Xylene	BQL	13.6	1	8/30/2005
o-Xylene	BQL	6.78	1	8/30/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	50.8	102
1,2-Dichloroethane-d4	50	50.4	101
Toluene-d8	50	51.7	103

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP13  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-13B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-23-2005 14:30  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 81.4

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	53.7	1	8/30/2005
Benzene	BQL	5.37	1	8/30/2005
Bromobenzene	BQL	5.37	1	8/30/2005
Bromochloromethane	BQL	5.37	1	8/30/2005
Bromodichloromethane	BQL	5.37	1	8/30/2005
Bromoform	BQL	5.37	1	8/30/2005
Bromomethane	BQL	5.37	1	8/30/2005
2-Butanone	BQL	26.8	1	8/30/2005
n-Butylbenzene	BQL	5.37	1	8/30/2005
sec-Butylbenzene	BQL	5.37	1	8/30/2005
tert-Butylbenzene	BQL	5.37	1	8/30/2005
Carbon disulfide	BQL	5.37	1	8/30/2005
Carbon tetrachloride	BQL	5.37	1	8/30/2005
Chlorobenzene	BQL	5.37	1	8/30/2005
Chloroethane	BQL	5.37	1	8/30/2005
Chloroform	BQL	5.37	1	8/30/2005
Chloromethane	BQL	5.37	1	8/30/2005
2-Chlorotoluene	BQL	5.37	1	8/30/2005
4-Chlorotoluene	BQL	5.37	1	8/30/2005
Dibromochloromethane	BQL	5.37	1	8/30/2005
1,2-Dibromo-3-chloropropane	BQL	5.37	1	8/30/2005
Dibromomethane	BQL	5.37	1	8/30/2005
1,2-Dibromoethane (EDB)	BQL	5.37	1	8/30/2005
1,2-Dichlorobenzene	BQL	5.37	1	8/30/2005
1,3-Dichlorobenzene	BQL	5.37	1	8/30/2005
1,4-Dichlorobenzene	BQL	5.37	1	8/30/2005
trans-1,4-Dichloro-2-butene	BQL	5.37	1	8/30/2005
1,1-Dichloroethane	BQL	5.37	1	8/30/2005
1,1-Dichloroethene	BQL	5.37	1	8/30/2005
1,2-Dichloroethane	BQL	5.37	1	8/30/2005
cis-1,2-Dichloroethene	BQL	5.37	1	8/30/2005
trans-1,2-dichloroethene	BQL	5.37	1	8/30/2005
1,2-Dichloropropane	BQL	5.37	1	8/30/2005
1,3-Dichloropropane	BQL	5.37	1	8/30/2005
2,2-Dichloropropane	BQL	5.37	1	8/30/2005
1,1-Dichloropropene	BQL	5.37	1	8/30/2005
cis-1,3-Dichloropropene	BQL	5.37	1	8/30/2005
trans-1,3-Dichloropropene	BQL	5.37	1	8/30/2005
Dichlorodifluoromethane	BQL	5.37	1	8/30/2005
Diisopropyl ether (DIPE)	BQL	5.37	1	8/30/2005
Ethylbenzene	BQL	5.37	1	8/30/2005
Hexachlorobutadiene	BQL	5.37	1	8/30/2005
2-Hexanone	BQL	5.37	1	8/30/2005
Iodomethane	BQL	5.37	1	8/30/2005



**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP13  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-13B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-23-2005 14:30  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 81.4

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.37	1	8/30/2005
4-Isopropyltoluene	BQL	5.37	1	8/30/2005
Methylene chloride	BQL	21.5	1	8/30/2005
4-Methyl-2-pentanone	BQL	5.37	1	8/30/2005
Methyl-tert-butyl ether (MTBE)	BQL	5.37	1	8/30/2005
Naphthalene	BQL	5.37	1	8/30/2005
n-Propyl benzene	BQL	5.37	1	8/30/2005
Styrene	BQL	5.37	1	8/30/2005
1,1,1,2-Tetrachloroethane	BQL	5.37	1	8/30/2005
1,1,2,2-Tetrachloroethane	BQL	5.37	1	8/30/2005
Tetrachloroethene	BQL	5.37	1	8/30/2005
Toluene	BQL	5.37	1	8/30/2005
1,2,3-Trichlorobenzene	BQL	5.37	1	8/30/2005
1,2,4-Trichlorobenzene	BQL	5.37	1	8/30/2005
Trichloroethene	BQL	5.37	1	8/30/2005
1,1,1-Trichloroethane	BQL	5.37	1	8/30/2005
1,1,2-Trichloroethane	BQL	5.37	1	8/30/2005
Trichlorofluoromethane	BQL	5.37	1	8/30/2005
1,2,3-Trichloropropane	BQL	5.37	1	8/30/2005
1,2,4-Trimethylbenzene	BQL	5.37	1	8/30/2005
1,3,5-Trimethylbenzene	BQL	5.37	1	8/30/2005
Vinyl chloride	BQL	5.37	1	8/30/2005
m,p-Xylene	BQL	10.7	1	8/30/2005
o-Xylene	BQL	5.37	1	8/30/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	49.9	100
1,2-Dichloroethane-d4	50	52.2	104
Toluene-d8	50	51.7	103

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP14-14  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-14B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-24-2005 09:10  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 93.3

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	55.7	1	8/30/2005
Benzene	BQL	5.57	1	8/30/2005
Bromobenzene	BQL	5.57	1	8/30/2005
Bromochloromethane	BQL	5.57	1	8/30/2005
Bromodichloromethane	BQL	5.57	1	8/30/2005
Bromoform	BQL	5.57	1	8/30/2005
Bromomethane	BQL	5.57	1	8/30/2005
2-Butanone	BQL	27.9	1	8/30/2005
n-Butylbenzene	BQL	5.57	1	8/30/2005
sec-Butylbenzene	BQL	5.57	1	8/30/2005
tert-Butylbenzene	BQL	5.57	1	8/30/2005
Carbon disulfide	BQL	5.57	1	8/30/2005
Carbon tetrachloride	BQL	5.57	1	8/30/2005
Chlorobenzene	BQL	5.57	1	8/30/2005
Chloroethane	BQL	5.57	1	8/30/2005
Chloroform	BQL	5.57	1	8/30/2005
Chloromethane	BQL	5.57	1	8/30/2005
2-Chlorotoluene	BQL	5.57	1	8/30/2005
4-Chlorotoluene	BQL	5.57	1	8/30/2005
Dibromochloromethane	BQL	5.57	1	8/30/2005
1,2-Dibromo-3-chloropropane	BQL	5.57	1	8/30/2005
Dibromomethane	BQL	5.57	1	8/30/2005
1,2-Dibromoethane (EDB)	BQL	5.57	1	8/30/2005
1,2-Dichlorobenzene	BQL	5.57	1	8/30/2005
1,3-Dichlorobenzene	BQL	5.57	1	8/30/2005
1,4-Dichlorobenzene	BQL	5.57	1	8/30/2005
trans-1,4-Dichloro-2-butene	BQL	5.57	1	8/30/2005
1,1-Dichloroethane	BQL	5.57	1	8/30/2005
1,1-Dichloroethene	BQL	5.57	1	8/30/2005
1,2-Dichloroethane	BQL	5.57	1	8/30/2005
cis-1,2-Dichloroethene	BQL	5.57	1	8/30/2005
trans-1,2-dichloroethene	BQL	5.57	1	8/30/2005
1,2-Dichloropropane	BQL	5.57	1	8/30/2005
1,3-Dichloropropane	BQL	5.57	1	8/30/2005
2,2-Dichloropropane	BQL	5.57	1	8/30/2005
1,1-Dichloropropene	BQL	5.57	1	8/30/2005
cis-1,3-Dichloropropene	BQL	5.57	1	8/30/2005
trans-1,3-Dichloropropene	BQL	5.57	1	8/30/2005
Dichlorodifluoromethane	BQL	5.57	1	8/30/2005
Diisopropyl ether (DIPE)	BQL	5.57	1	8/30/2005
Ethylbenzene	BQL	5.57	1	8/30/2005
Hexachlorobutadiene	BQL	5.57	1	8/30/2005
2-Hexanone	BQL	5.57	1	8/30/2005
Iodomethane	BQL	5.57	1	8/30/2005

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP14-14  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-14B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-24-2005 09:10  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 93.3

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.57	1	8/30/2005
4-Isopropyltoluene	BQL	5.57	1	8/30/2005
Methylene chloride	BQL	22.3	1	8/30/2005
4-Methyl-2-pentanone	BQL	5.57	1	8/30/2005
Methyl-tert-butyl ether (MTBE)	BQL	5.57	1	8/30/2005
Naphthalene	BQL	5.57	1	8/30/2005
n-Propyl benzene	BQL	5.57	1	8/30/2005
Styrene	BQL	5.57	1	8/30/2005
1,1,1,2-Tetrachloroethane	BQL	5.57	1	8/30/2005
1,1,2,2-Tetrachloroethane	BQL	5.57	1	8/30/2005
Tetrachloroethene	BQL	5.57	1	8/30/2005
Toluene	BQL	5.57	1	8/30/2005
1,2,3-Trichlorobenzene	BQL	5.57	1	8/30/2005
1,2,4-Trichlorobenzene	BQL	5.57	1	8/30/2005
Trichloroethene	BQL	5.57	1	8/30/2005
1,1,1-Trichloroethane	BQL	5.57	1	8/30/2005
1,1,2-Trichloroethane	BQL	5.57	1	8/30/2005
Trichlorofluoromethane	BQL	5.57	1	8/30/2005
1,2,3-Trichloropropane	BQL	5.57	1	8/30/2005
1,2,4-Trimethylbenzene	BQL	5.57	1	8/30/2005
1,3,5-Trimethylbenzene	BQL	5.57	1	8/30/2005
Vinyl chloride	BQL	5.57	1	8/30/2005
m,p-Xylene	BQL	11.1	1	8/30/2005
o-Xylene	BQL	5.57	1	8/30/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	56.6	113
1,2-Dichloroethane-d4	50	54.8	110
Toluene-d8	50	53.5	107

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: me

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP19-15  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-19C  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-24-2005 11:00  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 77.5

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	68.1	1	8/31/2005
Benzene	BQL	6.81	1	8/31/2005
Bromobenzene	BQL	6.81	1	8/31/2005
Bromochloromethane	BQL	6.81	1	8/31/2005
Bromodichloromethane	BQL	6.81	1	8/31/2005
Bromoform	BQL	6.81	1	8/31/2005
Bromomethane	BQL	6.81	1	8/31/2005
2-Butanone	BQL	34.0	1	8/31/2005
n-Butylbenzene	BQL	6.81	1	8/31/2005
sec-Butylbenzene	BQL	6.81	1	8/31/2005
tert-Butylbenzene	BQL	6.81	1	8/31/2005
Carbon disulfide	BQL	6.81	1	8/31/2005
Carbon tetrachloride	BQL	6.81	1	8/31/2005
Chlorobenzene	BQL	6.81	1	8/31/2005
Chloroethane	BQL	6.81	1	8/31/2005
Chloroform	BQL	6.81	1	8/31/2005
Chloromethane	BQL	6.81	1	8/31/2005
2-Chlorotoluene	BQL	6.81	1	8/31/2005
4-Chlorotoluene	BQL	6.81	1	8/31/2005
Dibromochloromethane	BQL	6.81	1	8/31/2005
1,2-Dibromo-3-chloropropane	BQL	6.81	1	8/31/2005
Dibromomethane	BQL	6.81	1	8/31/2005
1,2-Dibromoethane (EDB)	BQL	6.81	1	8/31/2005
1,2-Dichlorobenzene	BQL	6.81	1	8/31/2005
1,3-Dichlorobenzene	BQL	6.81	1	8/31/2005
1,4-Dichlorobenzene	BQL	6.81	1	8/31/2005
trans-1,4-Dichloro-2-butene	BQL	6.81	1	8/31/2005
1,1-Dichloroethane	BQL	6.81	1	8/31/2005
1,1-Dichloroethene	BQL	6.81	1	8/31/2005
1,2-Dichloroethane	BQL	6.81	1	8/31/2005
cis-1,2-Dichloroethene	BQL	6.81	1	8/31/2005
trans-1,2-dichloroethene	BQL	6.81	1	8/31/2005
1,2-Dichloropropane	BQL	6.81	1	8/31/2005
1,3-Dichloropropane	BQL	6.81	1	8/31/2005
2,2-Dichloropropane	BQL	6.81	1	8/31/2005
1,1-Dichloropropene	BQL	6.81	1	8/31/2005
cis-1,3-Dichloropropene	BQL	6.81	1	8/31/2005
trans-1,3-Dichloropropene	BQL	6.81	1	8/31/2005
Dichlorodifluoromethane	BQL	6.81	1	8/31/2005
Diisopropyl ether (DIPE)	BQL	6.81	1	8/31/2005
Ethylbenzene	BQL	6.81	1	8/31/2005
Hexachlorobutadiene	BQL	6.81	1	8/31/2005
2-Hexanone	BQL	6.81	1	8/31/2005
Iodomethane	BQL	6.81	1	8/31/2005

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP19-15  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-19C  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-24-2005 11:00  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 77.5

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	6.81	1	8/31/2005
4-Isopropyltoluene	BQL	6.81	1	8/31/2005
Methylene chloride	BQL	27.2	1	8/31/2005
4-Methyl-2-pentanone	BQL	6.81	1	8/31/2005
Methyl-tert-butyl ether (MTBE)	BQL	6.81	1	8/31/2005
Naphthalene	BQL	6.81	1	8/31/2005
n-Propyl benzene	BQL	6.81	1	8/31/2005
Styrene	BQL	6.81	1	8/31/2005
1,1,1,2-Tetrachloroethane	BQL	6.81	1	8/31/2005
1,1,2,2-Tetrachloroethane	BQL	6.81	1	8/31/2005
Tetrachloroethene	BQL	6.81	1	8/31/2005
Toluene	BQL	6.81	1	8/31/2005
1,2,3-Trichlorobenzene	BQL	6.81	1	8/31/2005
1,2,4-Trichlorobenzene	BQL	6.81	1	8/31/2005
Trichloroethene	BQL	6.81	1	8/31/2005
1,1,1-Trichloroethane	BQL	6.81	1	8/31/2005
1,1,2-Trichloroethane	BQL	6.81	1	8/31/2005
Trichlorofluoromethane	BQL	6.81	1	8/31/2005
1,2,3-Trichloropropane	BQL	6.81	1	8/31/2005
1,2,4-Trimethylbenzene	BQL	6.81	1	8/31/2005
1,3,5-Trimethylbenzene	BQL	6.81	1	8/31/2005
Vinyl chloride	BQL	6.81	1	8/31/2005
m-p-Xylene	BQL	13.6	1	8/31/2005
o-Xylene	BQL	6.81	1	8/31/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	54.1	108
1,2-Dichloroethane-d4	50	49.1	98
Toluene-d8	50	52.6	105

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: me

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP20  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-20B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-24-2005 13:50  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 88.6

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	61.6	1	8/30/2005
Benzene	BQL	6.16	1	8/30/2005
Bromobenzene	BQL	6.16	1	8/30/2005
Bromochloromethane	BQL	6.16	1	8/30/2005
Bromodichloromethane	BQL	6.16	1	8/30/2005
Bromoform	BQL	6.16	1	8/30/2005
Bromomethane	BQL	6.16	1	8/30/2005
2-Butanone	BQL	30.8	1	8/30/2005
n-Butylbenzene	BQL	6.16	1	8/30/2005
sec-Butylbenzene	BQL	6.16	1	8/30/2005
tert-Butylbenzene	BQL	6.16	1	8/30/2005
Carbon disulfide	BQL	6.16	1	8/30/2005
Carbon tetrachloride	BQL	6.16	1	8/30/2005
Chlorobenzene	BQL	6.16	1	8/30/2005
Chloroethane	BQL	6.16	1	8/30/2005
Chloroform	BQL	6.16	1	8/30/2005
Chloromethane	BQL	6.16	1	8/30/2005
2-Chlorotoluene	BQL	6.16	1	8/30/2005
4-Chlorotoluene	BQL	6.16	1	8/30/2005
Dibromochloromethane	BQL	6.16	1	8/30/2005
1,2-Dibromo-3-chloropropane	BQL	6.16	1	8/30/2005
Dibromomethane	BQL	6.16	1	8/30/2005
1,2-Dibromoethane (EDB)	BQL	6.16	1	8/30/2005
1,2-Dichlorobenzene	BQL	6.16	1	8/30/2005
1,3-Dichlorobenzene	BQL	6.16	1	8/30/2005
1,4-Dichlorobenzene	BQL	6.16	1	8/30/2005
trans-1,4-Dichloro-2-butene	BQL	6.16	1	8/30/2005
1,1-Dichloroethane	BQL	6.16	1	8/30/2005
1,1-Dichloroethene	BQL	6.16	1	8/30/2005
1,2-Dichloroethane	BQL	6.16	1	8/30/2005
cis-1,2-Dichloroethene	BQL	6.16	1	8/30/2005
trans-1,2-dichloroethene	BQL	6.16	1	8/30/2005
1,2-Dichloropropane	BQL	6.16	1	8/30/2005
1,3-Dichloropropane	BQL	6.16	1	8/30/2005
2,2-Dichloropropane	BQL	6.16	1	8/30/2005
1,1-Dichloropropene	BQL	6.16	1	8/30/2005
cis-1,3-Dichloropropene	BQL	6.16	1	8/30/2005
trans-1,3-Dichloropropene	BQL	6.16	1	8/30/2005
Dichlorodifluoromethane	BQL	6.16	1	8/30/2005
Diisopropyl ether (DIPE)	BQL	6.16	1	8/30/2005
Ethylbenzene	BQL	6.16	1	8/30/2005
Hexachlorobutadiene	BQL	6.16	1	8/30/2005
2-Hexanone	BQL	6.16	1	8/30/2005
Iodomethane	BQL	6.16	1	8/30/2005

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP20  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-20B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-24-2005 13:50  
 Date Received: 8/26/2005  
 Matrix: Soil  
 %Solids: 88.6

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	6.16	1	8/30/2005
4-Isopropyltoluene	BQL	6.16	1	8/30/2005
Methylene chloride	BQL	24.6	1	8/30/2005
4-Methyl-2-pentanone	BQL	6.16	1	8/30/2005
Methyl-tert-butyl ether (MTBE)	BQL	6.16	1	8/30/2005
Naphthalene	BQL	6.16	1	8/30/2005
n-Propyl benzene	BQL	6.16	1	8/30/2005
Styrene	BQL	6.16	1	8/30/2005
1,1,1,2-Tetrachloroethane	BQL	6.16	1	8/30/2005
1,1,2,2-Tetrachloroethane	BQL	6.16	1	8/30/2005
Tetrachloroethene	BQL	6.16	1	8/30/2005
Toluene	BQL	6.16	1	8/30/2005
1,2,3-Trichlorobenzene	BQL	6.16	1	8/30/2005
1,2,4-Trichlorobenzene	BQL	6.16	1	8/30/2005
Trichloroethene	BQL	6.16	1	8/30/2005
1,1,1-Trichloroethane	BQL	6.16	1	8/30/2005
1,1,2-Trichloroethane	BQL	6.16	1	8/30/2005
Trichlorofluoromethane	BQL	6.16	1	8/30/2005
1,2,3-Trichloropropane	BQL	6.16	1	8/30/2005
1,2,4-Trimethylbenzene	BQL	6.16	1	8/30/2005
1,3,5-Trimethylbenzene	BQL	6.16	1	8/30/2005
Vinyl chloride	BQL	6.16	1	8/30/2005
m-,p-Xylene	BQL	12.3	1	8/30/2005
o-Xylene	BQL	6.16	1	8/30/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	51.9	104
1,2-Dichloroethane-d4	50	48.8	98
Toluene-d8	50	52.7	105

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: me

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP27-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-27B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-24-2005 15:59  
 Date Received: 8/26/05  
 Matrix: Soil  
 %Solids: 97.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	51.5	1	8/30/05
Benzene	BQL	5.15	1	8/30/05
Bromobenzene	BQL	5.15	1	8/30/05
Bromochloromethane	BQL	5.15	1	8/30/05
Bromodichloromethane	BQL	5.15	1	8/30/05
Bromoform	BQL	5.15	1	8/30/05
Bromomethane	BQL	5.15	1	8/30/05
2-Butanone	BQL	25.7	1	8/30/05
n-Butylbenzene	BQL	5.15	1	8/30/05
sec-Butylbenzene	BQL	5.15	1	8/30/05
tert-Butylbenzene	BQL	5.15	1	8/30/05
Carbon disulfide	BQL	5.15	1	8/30/05
Carbon tetrachloride	BQL	5.15	1	8/30/05
Chlorobenzene	BQL	5.15	1	8/30/05
Chloroethane	BQL	5.15	1	8/30/05
Chloroform	BQL	5.15	1	8/30/05
Chloromethane	BQL	5.15	1	8/30/05
2-Chlorotoluene	BQL	5.15	1	8/30/05
4-Chlorotoluene	BQL	5.15	1	8/30/05
Dibromochloromethane	BQL	5.15	1	8/30/05
1,2-Dibromo-3-chloropropane	BQL	5.15	1	8/30/05
Dibromomethane	BQL	5.15	1	8/30/05
1,2-Dibromoethane (EDB)	BQL	5.15	1	8/30/05
1,2-Dichlorobenzene	BQL	5.15	1	8/30/05
1,3-Dichlorobenzene	BQL	5.15	1	8/30/05
1,4-Dichlorobenzene	BQL	5.15	1	8/30/05
trans-1,4-Dichloro-2-butene	BQL	5.15	1	8/30/05
1,1-Dichloroethane	BQL	5.15	1	8/30/05
1,1-Dichloroethene	BQL	5.15	1	8/30/05
1,2-Dichloroethane	BQL	5.15	1	8/30/05
cis-1,2-Dichloroethene	BQL	5.15	1	8/30/05
trans-1,2-dichloroethene	BQL	5.15	1	8/30/05
1,2-Dichloropropane	BQL	5.15	1	8/30/05
1,3-Dichloropropane	BQL	5.15	1	8/30/05
2,2-Dichloropropane	BQL	5.15	1	8/30/05
1,1-Dichloropropene	BQL	5.15	1	8/30/05
cis-1,3-Dichloropropene	BQL	5.15	1	8/30/05
trans-1,3-Dichloropropene	BQL	5.15	1	8/30/05
Dichlorodifluoromethane	BQL	5.15	1	8/30/05
Diisopropyl ether (DIPE)	BQL	5.15	1	8/30/05
Ethylbenzene	BQL	5.15	1	8/30/05
Hexachlorobutadiene	BQL	5.15	1	8/30/05



**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP27-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-538-27B  
 Lab Project ID: G106-538  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-24-2005 15:59  
 Date Received: 8/26/05  
 Matrix: Soil  
 %Solids: 97.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
2-Hexanone	BQL	5.15	1	8/30/05
Iodomethane	BQL	5.15	1	8/30/05
Isopropylbenzene	BQL	5.15	1	8/30/05
4-Isopropyltoluene	BQL	5.15	1	8/30/05
Methylene chloride	BQL	20.6	1	8/30/05
4-Methyl-2-pentanone	BQL	5.15	1	8/30/05
Methyl-tert-butyl ether (MTBE)	BQL	5.15	1	8/30/05
Naphthalene	BQL	5.15	1	8/30/05
n-Propyl benzene	BQL	5.15	1	8/30/05
Styrene	BQL	5.15	1	8/30/05
1,1,1,2-Tetrachloroethane	BQL	5.15	1	8/30/05
1,1,2,2-Tetrachloroethane	BQL	5.15	1	8/30/05
Tetrachloroethene	BQL	5.15	1	8/30/05
Toluene	BQL	5.15	1	8/30/05
1,2,3-Trichlorobenzene	BQL	5.15	1	8/30/05
1,2,4-Trichlorobenzene	BQL	5.15	1	8/30/05
Trichloroethene	BQL	5.15	1	8/30/05
1,1,1-Trichloroethane	BQL	5.15	1	8/30/05
1,1,2-Trichloroethane	BQL	5.15	1	8/30/05
Trichlorofluoromethane	BQL	5.15	1	8/30/05
1,2,3-Trichloropropane	BQL	5.15	1	8/30/05
1,2,4-Trimethylbenzene	BQL	5.15	1	8/30/05
1,3,5-Trimethylbenzene	BQL	5.15	1	8/30/05
Vinyl chloride	BQL	5.15	1	8/30/05
m-,p-Xylene	BQL	10.3	1	8/30/05
o-Xylene	BQL	5.15	1	8/30/05

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	45.8	92
1,2-Dichloroethane-d4	50	53.9	108
Toluene-d8	50	51.4	103

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.  
 J = Detected below the quantitation limit.

Reviewed By: me

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP1-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-1H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/23/2005 9:15  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 69.21

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	1720	417	1	9/1/2005
Acenaphthylene	BQL	417	1	9/1/2005
Anthracene	1630	417	1	9/1/2005
Benzo[a]anthracene	5950	417	1	9/1/2005
Benzo[a]pyrene	7560	417	1	9/1/2005
Benzo[b]fluoranthene	9010	417	1	9/1/2005
Benzo[g,h,i]perylene	4400	417	1	9/1/2005
Benzo[k]fluoranthene	3040	417	1	9/1/2005
Benzoic Acid	BQL	833	1	9/1/2005
Bis(2-chloroethoxy)methane	BQL	417	1	9/1/2005
Bis(2-chloroethyl)ether	BQL	417	1	9/1/2005
Bis(2-chloroisopropyl)ether	BQL	417	1	9/1/2005
Bis(2-ethylhexyl)phthalate	BQL	417	1	9/1/2005
4-bromophenyl phenyl ether	BQL	417	1	9/1/2005
Butylbenzylphthalate	BQL	417	1	9/1/2005
2-Chloronaphthalene	BQL	417	1	9/1/2005
2-Chlorophenol	BQL	417	1	9/1/2005
4-Chloro-3-methylphenol	BQL	417	1	9/1/2005
4-Chloroaniline	BQL	2080	1	9/1/2005
4-Chlorophenyl phenyl ether	BQL	417	1	9/1/2005
Chrysene	7290	417	1	9/1/2005
Dibenzo[a,h]anthracene	966	417	1	9/1/2005
Dibenzofuran	737	417	1	9/1/2005
Di-n-Butylphthalate	BQL	417	1	9/1/2005
1,2-Dichlorobenzene	BQL	417	1	9/1/2005
1,3-Dichlorobenzene	BQL	417	1	9/1/2005
1,4-Dichlorobenzene	BQL	417	1	9/1/2005
3,3'-Dichlorobenzidine	BQL	833	1	9/1/2005
2,4-Dichlorophenol	BQL	417	1	9/1/2005
Diethylphthalate	BQL	417	1	9/1/2005
Dimethylphthalate	BQL	417	1	9/1/2005
2,4-Dimethylphenol	BQL	417	1	9/1/2005
Di-n-octylphthalate	BQL	417	1	9/1/2005
4,6-Dinitro-2-methylphenol	BQL	2080	1	9/1/2005
2,4-Dinitrophenol	BQL	2080	1	9/1/2005
2,4-Dinitrotoluene	BQL	417	1	9/1/2005
2,6-Dinitrotoluene	BQL	417	1	9/1/2005
Diphenylamine *	BQL	417	1	9/1/2005
Fluoranthene	13000	417	1	9/1/2005
Fluorene	1140	417	1	9/1/2005
Hexachlorobenzene	BQL	417	1	9/1/2005
Hexachlorobutadiene	BQL	417	1	9/1/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP1-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-1H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/23/2005 9:15  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 69.21

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	833	1	9/1/2005
Hexachloroethane	BQL	417	1	9/1/2005
Indeno(1,2,3-c,d)pyrene	4600	417	1	9/1/2005
Isophorone	BQL	417	1	9/1/2005
2-Methylnaphthalene	BQL	417	1	9/1/2005
2-Methylphenol	BQL	417	1	9/1/2005
3- & 4-Methylphenol	BQL	417	1	9/1/2005
Naphthalene	BQL	417	1	9/1/2005
2-Nitroaniline	BQL	417	1	9/1/2005
3-Nitroaniline	BQL	2080	1	9/1/2005
4-Nitroaniline	BQL	2080	1	9/1/2005
Nitrobenzene	BQL	417	1	9/1/2005
2-Nitrophenol	BQL	417	1	9/1/2005
4-Nitrophenol	BQL	2080	1	9/1/2005
N-Nitrosodi-n-propylamine	BQL	417	1	9/1/2005
Pentachlorophenol	BQL	2080	1	9/1/2005
Phenanthrene	8780	417	1	9/1/2005
Phenol	BQL	417	1	9/1/2005
Pyrene	9380	417	1	9/1/2005
1,2,4-Trichlorobenzene	BQL	417	1	9/1/2005
2,4,5-Trichlorophenol	BQL	417	1	9/1/2005
2,4,6-Trichlorophenol	BQL	417	1	9/1/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.2	82
2-Fluorophenol	10	10.8	108
Nitrobenzene-d5	10	9.6	96
Phenol-d6	10	10.5	105
2,4,6-Tribromophenol	10	6.9	69
4-Terphenyl-d14	10	7.4	74

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:     mrc

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP3-2  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-3H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/23/2005 10:16  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 72.05

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	429	1	9/1/2005
Acenaphthylene	BQL	429	1	9/1/2005
Anthracene	BQL	429	1	9/1/2005
Benzo[a]anthracene	BQL	429	1	9/1/2005
Benzo[a]pyrene	BQL	429	1	9/1/2005
Benzo[b]fluoranthene	446	429	1	9/1/2005
Benzo[g,h,i]perylene	BQL	429	1	9/1/2005
Benzo[k]fluoranthene	BQL	429	1	9/1/2005
Benzoic Acid	BQL	858	1	9/1/2005
Bis(2-chloroethoxy)methane	BQL	429	1	9/1/2005
Bis(2-chloroethyl)ether	BQL	429	1	9/1/2005
Bis(2-chloroisopropyl)ether	BQL	429	1	9/1/2005
Bis(2-ethylhexyl)phthalate	627	429	1	9/1/2005
4-bromophenyl phenyl ether	BQL	429	1	9/1/2005
Butylbenzylphthalate	BQL	429	1	9/1/2005
2-Chloronaphthalene	BQL	429	1	9/1/2005
2-Chlorophenol	BQL	429	1	9/1/2005
4-Chloro-3-methylphenol	BQL	429	1	9/1/2005
4-Chloroaniline	BQL	2150	1	9/1/2005
4-Chlorophenyl phenyl ether	BQL	429	1	9/1/2005
Chrysene	BQL	429	1	9/1/2005
Dibenzo[a,h]anthracene	BQL	429	1	9/1/2005
Dibenzofuran	BQL	429	1	9/1/2005
Di-n-Butylphthalate	BQL	429	1	9/1/2005
1,2-Dichlorobenzene	BQL	429	1	9/1/2005
1,3-Dichlorobenzene	BQL	429	1	9/1/2005
1,4-Dichlorobenzene	BQL	429	1	9/1/2005
3,3'-Dichlorobenzidine	BQL	858	1	9/1/2005
2,4-Dichlorophenol	BQL	429	1	9/1/2005
Diethylphthalate	BQL	429	1	9/1/2005
Dimethylphthalate	BQL	429	1	9/1/2005
2,4-Dimethylphenol	BQL	429	1	9/1/2005
Di-n-octylphthalate	BQL	429	1	9/1/2005
4,6-Dinitro-2-methylphenol	BQL	2150	1	9/1/2005
2,4-Dinitrophenol	BQL	2150	1	9/1/2005
2,4-Dinitrotoluene	BQL	429	1	9/1/2005
2,6-Dinitrotoluene	BQL	429	1	9/1/2005
Diphenylamine *	BQL	429	1	9/1/2005
Fluoranthene	511	429	1	9/1/2005
Fluorene	BQL	429	1	9/1/2005
Hexachlorobenzene	BQL	429	1	9/1/2005
Hexachlorobutadiene	BQL	429	1	9/1/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP3-2  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-3H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/23/2005 10:16  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 72.05

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	858	1	9/1/2005
Hexachloroethane	BQL	429	1	9/1/2005
Indeno(1,2,3-c,d)pyrene	BQL	429	1	9/1/2005
Isophorone	BQL	429	1	9/1/2005
2-Methylnaphthalene	BQL	429	1	9/1/2005
2-Methylphenol	BQL	429	1	9/1/2005
3- & 4-Methylphenol	BQL	429	1	9/1/2005
Naphthalene	BQL	429	1	9/1/2005
2-Nitroaniline	BQL	429	1	9/1/2005
3-Nitroaniline	BQL	2150	1	9/1/2005
4-Nitroaniline	BQL	2150	1	9/1/2005
Nitrobenzene	BQL	429	1	9/1/2005
2-Nitrophenol	BQL	429	1	9/1/2005
4-Nitrophenol	BQL	2150	1	9/1/2005
N-Nitrosodi-n-propylamine	BQL	429	1	9/1/2005
Pentachlorophenol	BQL	2150	1	9/1/2005
Phenanthrene	BQL	429	1	9/1/2005
Phenol	BQL	429	1	9/1/2005
Pyrene	BQL	429	1	9/1/2005
1,2,4-Trichlorobenzene	BQL	429	1	9/1/2005
2,4,5-Trichlorophenol	BQL	429	1	9/1/2005
2,4,6-Trichlorophenol	BQL	429	1	9/1/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.2	102
2-Fluorophenol	10	11.7	117
Nitrobenzene-d5	10	11.2	112
Phenol-d6	10	11.2	112
2,4,6-Tribromophenol	10	8.6	86
4-Terphenyl-d14	10	10.3	103

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP13  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-13H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/23/2005 14:30  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 81.4

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	377	1	9/1/2005
Acenaphthylene	BQL	377	1	9/1/2005
Anthracene	BQL	377	1	9/1/2005
Benzo[a]anthracene	BQL	377	1	9/1/2005
Benzo[a]pyrene	BQL	377	1	9/1/2005
Benzo[b]fluoranthene	BQL	377	1	9/1/2005
Benzo[g,h,i]perylene	BQL	377	1	9/1/2005
Benzo[k]fluoranthene	BQL	377	1	9/1/2005
Benzoic Acid	BQL	754	1	9/1/2005
Bis(2-chloroethoxy)methane	BQL	377	1	9/1/2005
Bis(2-chloroethyl)ether	BQL	377	1	9/1/2005
Bis(2-chloroisopropyl)ether	BQL	377	1	9/1/2005
Bis(2-ethylhexyl)phthalate	BQL	377	1	9/1/2005
4-bromophenyl phenyl ether	BQL	377	1	9/1/2005
Butylbenzylphthalate	BQL	377	1	9/1/2005
2-Chloronaphthalene	BQL	377	1	9/1/2005
2-Chlorophenol	BQL	377	1	9/1/2005
4-Chloro-3-methylphenol	BQL	377	1	9/1/2005
4-Chloroaniline	BQL	1880	1	9/1/2005
4-Chlorophenyl phenyl ether	BQL	377	1	9/1/2005
Chrysene	BQL	377	1	9/1/2005
Dibenzo[a,h]anthracene	BQL	377	1	9/1/2005
Dibenzofuran	BQL	377	1	9/1/2005
Di-n-Butylphthalate	BQL	377	1	9/1/2005
1,2-Dichlorobenzene	BQL	377	1	9/1/2005
1,3-Dichlorobenzene	BQL	377	1	9/1/2005
1,4-Dichlorobenzene	BQL	377	1	9/1/2005
3,3'-Dichlorobenzidine	BQL	754	1	9/1/2005
2,4-Dichlorophenol	BQL	377	1	9/1/2005
Diethylphthalate	BQL	377	1	9/1/2005
Dimethylphthalate	BQL	377	1	9/1/2005
2,4-Dimethylphenol	BQL	377	1	9/1/2005
Di-n-octylphthalate	BQL	377	1	9/1/2005
4,6-Dinitro-2-methylphenol	BQL	1880	1	9/1/2005
2,4-Dinitrophenol	BQL	1880	1	9/1/2005
2,4-Dinitrotoluene	BQL	377	1	9/1/2005
2,6-Dinitrotoluene	BQL	377	1	9/1/2005
Diphenylamine *	BQL	377	1	9/1/2005
Fluoranthene	BQL	377	1	9/1/2005
Fluorene	BQL	377	1	9/1/2005
Hexachlorobenzene	BQL	377	1	9/1/2005
Hexachlorobutadiene	BQL	377	1	9/1/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP13  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-13H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/23/2005 14:30  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 81.4

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	754	1	9/1/2005
Hexachloroethane	BQL	377	1	9/1/2005
Indeno(1,2,3-c,d)pyrene	BQL	377	1	9/1/2005
Isophorone	BQL	377	1	9/1/2005
2-Methylnaphthalene	1060	377	1	9/1/2005
2-Methylphenol	BQL	377	1	9/1/2005
3- & 4-Methylphenol	BQL	377	1	9/1/2005
Naphthalene	735	377	1	9/1/2005
2-Nitroaniline	BQL	377	1	9/1/2005
3-Nitroaniline	BQL	1880	1	9/1/2005
4-Nitroaniline	BQL	1880	1	9/1/2005
Nitrobenzene	BQL	377	1	9/1/2005
2-Nitrophenol	BQL	377	1	9/1/2005
4-Nitrophenol	BQL	1880	1	9/1/2005
N-Nitrosodi-n-propylamine	BQL	377	1	9/1/2005
Pentachlorophenol	BQL	1880	1	9/1/2005
Phenanthrene	633	377	1	9/1/2005
Phenol	BQL	377	1	9/1/2005
Pyrene	BQL	377	1	9/1/2005
1,2,4-Trichlorobenzene	BQL	377	1	9/1/2005
2,4,5-Trichlorophenol	BQL	377	1	9/1/2005
2,4,6-Trichlorophenol	BQL	377	1	9/1/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.1	91
2-Fluorophenol	10	10.7	107
Nitrobenzene-d5	10	10.1	101
Phenol-d6	10	10.3	103
2,4,6-Tribromophenol	10	7.8	78
4-Terphenyl-d14	10	10.9	109

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP14-14  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-14H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/24/2005 9:10  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 93.27

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	328	1	9/1/2005
Acenaphthylene	BQL	328	1	9/1/2005
Anthracene	BQL	328	1	9/1/2005
Benzo[a]anthracene	BQL	328	1	9/1/2005
Benzo[a]pyrene	BQL	328	1	9/1/2005
Benzo[b]fluoranthene	BQL	328	1	9/1/2005
Benzo[g,h,i]perylene	BQL	328	1	9/1/2005
Benzo[k]fluoranthene	BQL	328	1	9/1/2005
Benzoic Acid	BQL	656	1	9/1/2005
Bis(2-chloroethoxy)methane	BQL	328	1	9/1/2005
Bis(2-chloroethyl)ether	BQL	328	1	9/1/2005
Bis(2-chloroisopropyl)ether	BQL	328	1	9/1/2005
Bis(2-ethylhexyl)phthalate	BQL	328	1	9/1/2005
4-bromophenyl phenyl ether	BQL	328	1	9/1/2005
Butylbenzylphthalate	BQL	328	1	9/1/2005
2-Chloronaphthalene	BQL	328	1	9/1/2005
2-Chlorophenol	BQL	328	1	9/1/2005
4-Chloro-3-methylphenol	BQL	328	1	9/1/2005
4-Chloroaniline	BQL	1640	1	9/1/2005
4-Chlorophenyl phenyl ether	BQL	328	1	9/1/2005
Chrysene	BQL	328	1	9/1/2005
Dibenzo[a,h]anthracene	BQL	328	1	9/1/2005
Dibenzofuran	BQL	328	1	9/1/2005
Di-n-Butylphthalate	BQL	328	1	9/1/2005
1,2-Dichlorobenzene	BQL	328	1	9/1/2005
1,3-Dichlorobenzene	BQL	328	1	9/1/2005
1,4-Dichlorobenzene	BQL	328	1	9/1/2005
3,3'-Dichlorobenzidine	BQL	656	1	9/1/2005
2,4-Dichlorophenol	BQL	328	1	9/1/2005
Diethylphthalate	BQL	328	1	9/1/2005
Dimethylphthalate	BQL	328	1	9/1/2005
2,4-Dimethylphenol	BQL	328	1	9/1/2005
Di-n-octylphthalate	BQL	328	1	9/1/2005
4,6-Dinitro-2-methylphenol	BQL	1640	1	9/1/2005
2,4-Dinitrophenol	BQL	1640	1	9/1/2005
2,4-Dinitrotoluene	BQL	328	1	9/1/2005
2,6-Dinitrotoluene	BQL	328	1	9/1/2005
Diphenylamine *	BQL	328	1	9/1/2005
Fluoranthene	BQL	328	1	9/1/2005
Fluorene	BQL	328	1	9/1/2005
Hexachlorobenzene	BQL	328	1	9/1/2005
Hexachlorobutadiene	BQL	328	1	9/1/2005



**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP14-14  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-14H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/24/2005 9:10  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 93.27

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	656	1	9/1/2005
Hexachloroethane	BQL	328	1	9/1/2005
Indeno(1,2,3-c,d)pyrene	BQL	328	1	9/1/2005
Isophorone	BQL	328	1	9/1/2005
2-Methylnaphthalene	BQL	328	1	9/1/2005
2-Methylphenol	BQL	328	1	9/1/2005
3- & 4-Methylphenol	BQL	328	1	9/1/2005
Naphthalene	BQL	328	1	9/1/2005
2-Nitroaniline	BQL	328	1	9/1/2005
3-Nitroaniline	BQL	1640	1	9/1/2005
4-Nitroaniline	BQL	1640	1	9/1/2005
Nitrobenzene	BQL	328	1	9/1/2005
2-Nitrophenol	BQL	328	1	9/1/2005
4-Nitrophenol	BQL	1640	1	9/1/2005
N-Nitrosodi-n-propylamine	BQL	328	1	9/1/2005
Pentachlorophenol	BQL	1640	1	9/1/2005
Phenanthrene	BQL	328	1	9/1/2005
Phenol	BQL	328	1	9/1/2005
Pyrene	BQL	328	1	9/1/2005
1,2,4-Trichlorobenzene	BQL	328	1	9/1/2005
2,4,5-Trichlorophenol	BQL	328	1	9/1/2005
2,4,6-Trichlorophenol	BQL	328	1	9/1/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.7	97
2-Fluorophenol	10	11.3	113
Nitrobenzene-d5	10	10.6	106
Phenol-d6	10	10.8	108
2,4,6-Tribromophenol	10	7.2	72
4-Terphenyl-d14	10	11.9	119

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: mc

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP19-15  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-19H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/24/2005 11:00  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 77.47

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	393	1	9/1/2005
Acenaphthylene	BQL	393	1	9/1/2005
Anthracene	BQL	393	1	9/1/2005
Benzo[a]anthracene	BQL	393	1	9/1/2005
Benzo[a]pyrene	BQL	393	1	9/1/2005
Benzo[b]fluoranthene	BQL	393	1	9/1/2005
Benzo[g,h,i]perylene	BQL	393	1	9/1/2005
Benzo[k]fluoranthene	BQL	393	1	9/1/2005
Benzoic Acid	BQL	787	1	9/1/2005
Bis(2-chloroethoxy)methane	BQL	393	1	9/1/2005
Bis(2-chloroethyl)ether	BQL	393	1	9/1/2005
Bis(2-chloroisopropyl)ether	BQL	393	1	9/1/2005
Bis(2-ethylhexyl)phthalate	BQL	393	1	9/1/2005
4-bromophenyl phenyl ether	BQL	393	1	9/1/2005
Butylbenzylphthalate	BQL	393	1	9/1/2005
2-Chloronaphthalene	BQL	393	1	9/1/2005
2-Chlorophenol	BQL	393	1	9/1/2005
4-Chloro-3-methylphenol	BQL	393	1	9/1/2005
4-Chloroaniline	BQL	1970	1	9/1/2005
4-Chlorophenyl phenyl ether	BQL	393	1	9/1/2005
Chrysene	BQL	393	1	9/1/2005
Dibenzo[a,h]anthracene	BQL	393	1	9/1/2005
Dibenzofuran	BQL	393	1	9/1/2005
Di-n-Butylphthalate	BQL	393	1	9/1/2005
1,2-Dichlorobenzene	BQL	393	1	9/1/2005
1,3-Dichlorobenzene	BQL	393	1	9/1/2005
1,4-Dichlorobenzene	BQL	393	1	9/1/2005
3,3'-Dichlorobenzidine	BQL	787	1	9/1/2005
2,4-Dichlorophenol	BQL	393	1	9/1/2005
Diethylphthalate	BQL	393	1	9/1/2005
Dimethylphthalate	BQL	393	1	9/1/2005
2,4-Dimethylphenol	BQL	393	1	9/1/2005
Di-n-octylphthalate	BQL	393	1	9/1/2005
4,6-Dinitro-2-methylphenol	BQL	1970	1	9/1/2005
2,4-Dinitrophenol	BQL	1970	1	9/1/2005
2,4-Dinitrotoluene	BQL	393	1	9/1/2005
2,6-Dinitrotoluene	BQL	393	1	9/1/2005
Diphenylamine *	BQL	393	1	9/1/2005
Fluoranthene	BQL	393	1	9/1/2005
Fluorene	BQL	393	1	9/1/2005
Hexachlorobenzene	BQL	393	1	9/1/2005
Hexachlorobutadiene	BQL	393	1	9/1/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP19-15  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-19H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/24/2005 11:00  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 77.47

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	787	1	9/1/2005
Hexachloroethane	BQL	393	1	9/1/2005
Indeno(1,2,3-c,d)pyrene	BQL	393	1	9/1/2005
Isophorone	BQL	393	1	9/1/2005
2-Methylnaphthalene	BQL	393	1	9/1/2005
2-Methylphenol	BQL	393	1	9/1/2005
3- & 4-Methylphenol	BQL	393	1	9/1/2005
Naphthalene	BQL	393	1	9/1/2005
2-Nitroaniline	BQL	393	1	9/1/2005
3-Nitroaniline	BQL	1970	1	9/1/2005
4-Nitroaniline	BQL	1970	1	9/1/2005
Nitrobenzene	BQL	393	1	9/1/2005
2-Nitrophenol	BQL	393	1	9/1/2005
4-Nitrophenol	BQL	1970	1	9/1/2005
N-Nitrosodi-n-propylamine	BQL	393	1	9/1/2005
Pentachlorophenol	BQL	1970	1	9/1/2005
Phenanthrene	BQL	393	1	9/1/2005
Phenol	BQL	393	1	9/1/2005
Pyrene	BQL	393	1	9/1/2005
1,2,4-Trichlorobenzene	BQL	393	1	9/1/2005
2,4,5-Trichlorophenol	BQL	393	1	9/1/2005
2,4,6-Trichlorophenol	BQL	393	1	9/1/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9	90
2-Fluorophenol	10	10.9	109
Nitrobenzene-d5	10	10	99
Phenol-d6	10	10.1	101
2,4,6-Tribromophenol	10	6.3	63
4-Terphenyl-d14	10	11	110

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP20  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-20H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/24/2005 13:50  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 88.64

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	348	1	9/1/2005
Acenaphthylene	BQL	348	1	9/1/2005
Anthracene	BQL	348	1	9/1/2005
Benzo[a]anthracene	BQL	348	1	9/1/2005
Benzo[a]pyrene	BQL	348	1	9/1/2005
Benzo[b]fluoranthene	BQL	348	1	9/1/2005
Benzo[g,h,i]perylene	BQL	348	1	9/1/2005
Benzo[k]fluoranthene	BQL	348	1	9/1/2005
Benzoic Acid	BQL	696	1	9/1/2005
Bis(2-chloroethoxy)methane	BQL	348	1	9/1/2005
Bis(2-chloroethyl)ether	BQL	348	1	9/1/2005
Bis(2-chloroisopropyl)ether	BQL	348	1	9/1/2005
Bis(2-ethylhexyl)phthalate	BQL	348	1	9/1/2005
4-bromophenyl phenyl ether	BQL	348	1	9/1/2005
Butylbenzylphthalate	BQL	348	1	9/1/2005
2-Chloronaphthalene	BQL	348	1	9/1/2005
2-Chlorophenol	BQL	348	1	9/1/2005
4-Chloro-3-methylphenol	BQL	348	1	9/1/2005
4-Chloroaniline	BQL	1740	1	9/1/2005
4-Chlorophenyl phenyl ether	BQL	348	1	9/1/2005
Chrysene	BQL	348	1	9/1/2005
Dibenzo[a,h]anthracene	BQL	348	1	9/1/2005
Dibenzofuran	BQL	348	1	9/1/2005
Di-n-Butylphthalate	BQL	348	1	9/1/2005
1,2-Dichlorobenzene	BQL	348	1	9/1/2005
1,3-Dichlorobenzene	BQL	348	1	9/1/2005
1,4-Dichlorobenzene	BQL	348	1	9/1/2005
3,3'-Dichlorobenzidine	BQL	696	1	9/1/2005
2,4-Dichlorophenol	BQL	348	1	9/1/2005
Diethylphthalate	BQL	348	1	9/1/2005
Dimethylphthalate	BQL	348	1	9/1/2005
2,4-Dimethylphenol	BQL	348	1	9/1/2005
Di-n-octylphthalate	BQL	348	1	9/1/2005
4,6-Dinitro-2-methylphenol	BQL	1740	1	9/1/2005
2,4-Dinitrophenol	BQL	1740	1	9/1/2005
2,4-Dinitrotoluene	BQL	348	1	9/1/2005
2,6-Dinitrotoluene	BQL	348	1	9/1/2005
Diphenylamine *	BQL	348	1	9/1/2005
Fluoranthene	BQL	348	1	9/1/2005
Fluorene	BQL	348	1	9/1/2005
Hexachlorobenzene	BQL	348	1	9/1/2005
Hexachlorobutadiene	BQL	348	1	9/1/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP20  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-20H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/24/2005 13:50  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 88.64

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	696	1	9/1/2005
Hexachloroethane	BQL	348	1	9/1/2005
Indeno(1,2,3-c,d)pyrene	BQL	348	1	9/1/2005
Isophorone	BQL	348	1	9/1/2005
2-Methylnaphthalene	BQL	348	1	9/1/2005
2-Methylphenol	BQL	348	1	9/1/2005
3- & 4-Methylphenol	BQL	348	1	9/1/2005
Naphthalene	BQL	348	1	9/1/2005
2-Nitroaniline	BQL	348	1	9/1/2005
3-Nitroaniline	BQL	1740	1	9/1/2005
4-Nitroaniline	BQL	1740	1	9/1/2005
Nitrobenzene	BQL	348	1	9/1/2005
2-Nitrophenol	BQL	348	1	9/1/2005
4-Nitrophenol	BQL	1740	1	9/1/2005
N-Nitrosodi-n-propylamine	BQL	348	1	9/1/2005
Pentachlorophenol	BQL	1740	1	9/1/2005
Phenanthrene	BQL	348	1	9/1/2005
Phenol	BQL	348	1	9/1/2005
Pyrene	BQL	348	1	9/1/2005
1,2,4-Trichlorobenzene	BQL	348	1	9/1/2005
2,4,5-Trichlorophenol	BQL	348	1	9/1/2005
2,4,6-Trichlorophenol	BQL	348	1	9/1/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.3	93
2-Fluorophenol	10	10.2	102
Nitrobenzene-d5	10	10.2	102
Phenol-d6	10	9.7	97
2,4,6-Tribromophenol	10	6.6	66
4-Terphenyl-d14	10	11.3	113

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: ml

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP27-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-27H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/24/2005 15:59  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 97.13

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	303	1	9/1/2005
Acenaphthylene	BQL	303	1	9/1/2005
Anthracene	BQL	303	1	9/1/2005
Benzo[a]anthracene	BQL	303	1	9/1/2005
Benzo[a]pyrene	BQL	303	1	9/1/2005
Benzo[b]fluoranthene	BQL	303	1	9/1/2005
Benzo[g,h,i]perylene	BQL	303	1	9/1/2005
Benzo[k]fluoranthene	BQL	303	1	9/1/2005
Benzoic Acid	BQL	607	1	9/1/2005
Bis(2-chloroethoxy)methane	BQL	303	1	9/1/2005
Bis(2-chloroethyl)ether	BQL	303	1	9/1/2005
Bis(2-chloroisopropyl)ether	BQL	303	1	9/1/2005
Bis(2-ethylhexyl)phthalate	BQL	303	1	9/1/2005
4-bromophenyl phenyl ether	BQL	303	1	9/1/2005
Butylbenzylphthalate	BQL	303	1	9/1/2005
2-Chloronaphthalene	BQL	303	1	9/1/2005
2-Chlorophenol	BQL	303	1	9/1/2005
4-Chloro-3-methylphenol	BQL	303	1	9/1/2005
4-Chloroaniline	BQL	1520	1	9/1/2005
4-Chlorophenyl phenyl ether	BQL	303	1	9/1/2005
Chrysene	BQL	303	1	9/1/2005
Dibenzo[a,h]anthracene	BQL	303	1	9/1/2005
Dibenzofuran	BQL	303	1	9/1/2005
Di-n-Butylphthalate	BQL	303	1	9/1/2005
1,2-Dichlorobenzene	BQL	303	1	9/1/2005
1,3-Dichlorobenzene	BQL	303	1	9/1/2005
1,4-Dichlorobenzene	BQL	303	1	9/1/2005
3,3'-Dichlorobenzidine	BQL	607	1	9/1/2005
2,4-Dichlorophenol	BQL	303	1	9/1/2005
Diethylphthalate	BQL	303	1	9/1/2005
Dimethylphthalate	BQL	303	1	9/1/2005
2,4-Dimethylphenol	BQL	303	1	9/1/2005
Di-n-octylphthalate	BQL	303	1	9/1/2005
4,6-Dinitro-2-methylphenol	BQL	1520	1	9/1/2005
2,4-Dinitrophenol	BQL	1520	1	9/1/2005
2,4-Dinitrotoluene	BQL	303	1	9/1/2005
2,6-Dinitrotoluene	BQL	303	1	9/1/2005
Diphenylamine *	BQL	303	1	9/1/2005
Fluoranthene	BQL	303	1	9/1/2005
Fluorene	BQL	303	1	9/1/2005
Hexachlorobenzene	BQL	303	1	9/1/2005
Hexachlorobutadiene	BQL	303	1	9/1/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP27-3  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-538-27H  
 Lab Project ID: G106-538  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/24/2005 15:59  
 Date Received: 8/26/2005  
 Date Extracted: 8/30/2005  
 Matrix: Soil  
 % Solids: 97.13

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	607	1	9/1/2005
Hexachloroethane	BQL	303	1	9/1/2005
Indeno(1,2,3-c,d)pyrene	BQL	303	1	9/1/2005
Isophorone	BQL	303	1	9/1/2005
2-Methylnaphthalene	BQL	303	1	9/1/2005
2-Methylphenol	BQL	303	1	9/1/2005
3- & 4-Methylphenol	BQL	303	1	9/1/2005
Naphthalene	BQL	303	1	9/1/2005
2-Nitroaniline	BQL	303	1	9/1/2005
3-Nitroaniline	BQL	1520	1	9/1/2005
4-Nitroaniline	BQL	1520	1	9/1/2005
Nitrobenzene	BQL	303	1	9/1/2005
2-Nitrophenol	BQL	303	1	9/1/2005
4-Nitrophenol	BQL	1520	1	9/1/2005
N-Nitrosodi-n-propylamine	BQL	303	1	9/1/2005
Pentachlorophenol	BQL	1520	1	9/1/2005
Phenanthrene	BQL	303	1	9/1/2005
Phenol	BQL	303	1	9/1/2005
Pyrene	BQL	303	1	9/1/2005
1,2,4-Trichlorobenzene	BQL	303	1	9/1/2005
2,4,5-Trichlorophenol	BQL	303	1	9/1/2005
2,4,6-Trichlorophenol	BQL	303	1	9/1/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.6	96
2-Fluorophenol	10	8.8	88
Nitrobenzene-d5	10	10.1	101
Phenol-d6	10	9	90
2,4,6-Tribromophenol	10	4.9	49
4-Terphenyl-d14	10	10.2	102

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:

List of Reporting Abbreviations  
and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.



PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive, Wilmington, NC 28405

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 40742

Page \_\_\_ of \_\_\_

PARCEL 9 / UBS # 348 H.L.L.

Client: ELI, INC. Project ID: NCDET - PARCEL 9 / TTP # U-2826A B-26-05 Report To: ANALYST LOGS  
 Address: 2101 GATWAY CIR. BLDG Contact: BOB SMITH Turnaround: 57 DAYS  
 Address: SUITE 200, MORRISVILLE Phone: 773-544-7500 Job Number: EWNO 08001500  
 Quote #: NC Fax: 773-544-2997 P.O. Number: NC601

Sample ID	Date	Time	Matrix	Preservatives		Analyses			Comments: Please specify any special reporting requirements
				Received By	Received By	Date	Time	Temperature	
P9GP1-3	8-23-05	0915	JALC	X	X	8290	8290	✓	G106-538
P9GP2-1		0930		X	X	8290	8290	✓	
P9GP3-2		1016		X	X	8290	8290	✓	TCLP Pb added
P9GP4-2		1030		X	X	8290	8290	✓	QW D. Lockhart
P9GP5-5		1105		X	X	8290	8290	✓	9/15/05
P9GP6-2		1110		X	X	8290	8290	✓	due 9/21
P9GP7-3		1115		X	X	8290	8290	✓	
P9GP8-10		1120		X	X	8290	8290	✓	
P9GP9-10		1130		X	X	8290	8290	✓	
P9GP10-1		1330		X	X	8290	8290	✓	
Received By: <u>[Signature]</u>	Date: <u>8/23/05</u>	Time: <u>0915</u>	Matrix: <u>JALC</u>	Received By: <u>[Signature]</u>	Received By: <u>[Signature]</u>	Date: <u>8/23/05</u>	Time: <u>10:00</u>	Temperature: <u>0.1°C</u>	State Certification Requested: <u>NC</u> / <u>SC</u> / <u>Other</u>
									SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive, Wilmington, NC 28405

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 50528

Page \_\_\_ of \_\_\_

Client: FE, INC. Project ID: PARCEL 9 - NCDOT - TPA # 0-2826A Report To: DARREN COOKING  
 Address: 2401 GATWAY DRIVE MO Contact: BOB STAN Date: 8-26-05  
 Address: SUITE 200, MORRISVILLE NC Phone: 919-544-7500 Turnaround: 57777777  
 Quote #: 27860 Fax: 919-544-2777 Job Number: SN MO 05001520 Invoice To: NCDOT

PARADIGM ANALYTICAL LABORATORIES, INC.

Sample ID	Date	Time Matrix	Preservatives		Analyses		Comments: Please specify any special reporting requirements
			Received By	Date	Time	Temperature	
P9GP11-1	8-23-05	1346					
P9GP12	8-23-05	1405					
P9GP13	8-23-05	1430					
P9GP14-14	8-24-05	0710					
P9GP15-15		0925					
P9GP16-15		0953					
P9GP17		1015					
P9GP18		1045					
P9GP19-15		1100					
P9GP20		1350					
Requisitioned By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
<i>[Signature]</i>	8-23-05		<i>[Signature]</i>	8/23/05	10:00	on ice	NC <input checked="" type="checkbox"/> SC <input type="checkbox"/> Other <input type="checkbox"/>
			<i>[Signature]</i>	8/23/05	10:30	3.24°C	SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive, Wilmington, NC 28405  
 Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 50531

Page \_\_\_\_\_ of \_\_\_\_\_

Client: BEI, INC. Project ID: NC01/PAT22/9/TPA U-28264 8-26-05 Report To: D. Cozzitini  
 Address: STATE Contact: B. STANLEY Turnaround: 5 DAYS  
 Address: STATE Phone: SAMR Job Number: PWMO-SM2 Invoice To: NC01  
 Quote #: \_\_\_\_\_ Fax: \_\_\_\_\_ P.O. Number: \_\_\_\_\_

Sample ID	Date	Time	Matrix	Preservatives		Analyses				Date	Time	Temperature	State Certification Requested	
P96P21	8/25	1405	Soil											
P96P22-15		1415												
P96P23-14		1430												
P96P24		1445												
P96P25-2		1515												
P96P26-2		1539												
P96P27-3		1559												
P96P28-12		1615												
P96P29-12		1640												
P96P30-12		1700												
*Relinquished By				Received By		Date		Time		Temperature		State Certification Requested		
<u>[Signature]</u>				<u>[Signature]</u>		<u>8/26/05</u>		<u>10:00</u>		<u>0A i/c</u>		NC <input checked="" type="checkbox"/> SC <input type="checkbox"/> Other <input type="checkbox"/>		
<u>[Signature]</u>				<u>[Signature]</u>		<u>8/26/05</u>		<u>10:30</u>		<u>3, 2°C</u>		SEE REVERSE FOR TERMS AND CONDITIONS		

PARADIGM ANALYTICAL LABORATORIES, INC.

ORIGINAL

Mr. Darren Lockhart  
Environmental Investigations  
2101 Gateway Centre Boulevard  
Suite 200  
Morrisville NC 27560  
Report Number: G106-548

Client Project: NCDOT-Parcel 9/Tip#U-2826A

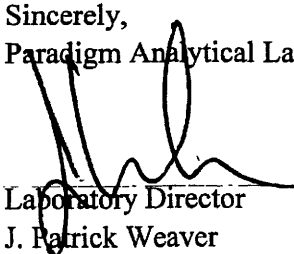
Dear Mr. Lockhart:

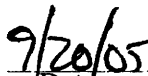
Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,  
Paradigm Analytical Laboratories, Inc.

  
Laboratory Director  
J. Patrick Weaver

  
Date

**Results for Metals**

Client Sample ID: P9GP31-14	Analyzed By: PSW
Client Project ID: NCDOT-Parcel 9/Tip#U-2826A	Date Collected: 8/25/2005 14:15
Lab Sample ID: G106-548-1	Date Received: 9/2/05
Lab Project ID: G106-548	Matrix: SOIL
Batch ID: 3661 3647	Solids 93.58
Report Basis: Dry	

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	2.41	1.05	1	MG/KG	6010B	9/19/05
Barium	BQL	10.5	1	MG/KG	6010B	9/19/05
Cadmium	BQL	1.05	1	MG/KG	6010B	9/19/05
Chromium	BQL	1.05	1	MG/KG	6010B	9/19/05
Lead	16.3	1.05	1	MG/KG	6010B	9/19/05
Mercury	BQL	0.0206	1	MG/KG	7471	9/16/05
Selenium	BQL	2.10	1	MG/KG	6010B	9/19/05
Silver	BQL	1.05	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID:	P9GP32-14	Analyzed By:	PSW
Client Project ID:	NCDOT-Parcel 9/Tip#U-2826A	Date Collected:	8/25/2005 14:30
Lab Sample ID:	G106-548-2	Date Received:	9/2/05
Lab Project ID:	G106-548	Matrix:	SOIL
Batch ID:	3661 3647	Solids	83.96
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	3.77	1.08	1	MG/KG	6010B	9/19/05
Barium	43.2	10.8	1	MG/KG	6010B	9/19/05
Cadmium	BQL	1.08	1	MG/KG	6010B	9/19/05
Chromium	3.92	1.08	1	MG/KG	6010B	9/19/05
Lead	100	1.08	1	MG/KG	6010B	9/19/05
Mercury	0.0267	0.0213	1	MG/KG	7471	9/16/05
Selenium	2.30	2.17	1	MG/KG	6010B	9/19/05
Silver	BQL	1.08	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3



**Results for Metals**

Client Sample ID:	P9GP34-14	Analyzed By:	PSW
Client Project ID:	NCDOT-Parcel 9/Tip#U-2826A	Date Collected:	8/25/2005 14:50
Lab Sample ID:	G106-548-4	Date Received:	9/2/05
Lab Project ID:	G106-548	Matrix:	SOIL
Batch ID:	3661 3647	Solids	79.24
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	3.60	1.24	1	MG/KG	6010B	9/19/05
Barium	BQL	12.4	1	MG/KG	6010B	9/19/05
Cadmium	BQL	1.24	1	MG/KG	6010B	9/19/05
Chromium	BQL	1.24	1	MG/KG	6010B	9/19/05
Lead	116	1.24	1	MG/KG	6010B	9/19/05
Mercury	0.133	0.0234	1	MG/KG	7471	9/16/05
Selenium	BQL	2.47	1	MG/KG	6010B	9/19/05
Silver	BQL	1.24	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL



**Results for Metals**

Client Sample ID:	P9GP35-9	Analyzed By:	PSW
Client Project ID:	NCDOT-Parcel 9/Tip#U-2826A	Date Collected:	8/25/2005 15:10
Lab Sample ID:	G106-548-5	Date Received:	9/2/05
Lab Project ID:	G106-548	Matrix:	SOIL
Batch ID:	3661 3647	Solids	80.71
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	3.07	1.19	1	MG/KG	6010B	9/19/05
Barium	18.5	11.9	1	MG/KG	6010B	9/19/05
Cadmium	BQL	1.19	1	MG/KG	6010B	9/19/05
Chromium	4.37	1.19	1	MG/KG	6010B	9/19/05
Lead	19.2	1.19	1	MG/KG	6010B	9/19/05
Mercury	0.0483	0.0232	1	MG/KG	7471	9/16/05
Selenium	BQL	2.38	1	MG/KG	6010B	9/19/05
Silver	BQL	1.19	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP36-5  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-548-6  
 Lab Project ID: G106-548  
 Batch ID: 3661 3647  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/25/2005 15:25  
 Date Received: 9/2/05  
 Matrix: SOIL  
 Solids 92.91

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	1.31	0.978	1	MG/KG	6010B	9/19/05
Barium	21.1	9.78	1	MG/KG	6010B	9/19/05
Cadmium	BQL	0.978	1	MG/KG	6010B	9/19/05
Chromium	4.38	0.978	1	MG/KG	6010B	9/19/05
Lead	6.05	0.978	1	MG/KG	6010B	9/19/05
Mercury	BQL	0.0199	1	MG/KG	7471	9/16/05
Selenium	2.01	1.96	1	MG/KG	6010B	9/19/05
Silver	BQL	0.978	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

**Results for Metals**

Client Sample ID:	P9GP37-5	Analyzed By:	PSW
Client Project ID:	NCDOT-Parcel 9/Tip#U-2826A	Date Collected:	8/25/2005 15:40
Lab Sample ID:	G106-548-7	Date Received:	9/2/05
Lab Project ID:	G106-548	Matrix:	SOIL
Batch ID:	3661 3647	Solids	81.99
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	5.48	1.07	1	MG/KG	6010B	9/19/05
Barium	20.7	10.7	1	MG/KG	6010B	9/19/05
Cadmium	BQL	1.07	1	MG/KG	6010B	9/19/05
Chromium	6.94	1.07	1	MG/KG	6010B	9/19/05
Lead	39.4	1.07	1	MG/KG	6010B	9/19/05
Mercury	0.114	0.0235	1	MG/KG	7471	9/16/05
Selenium	BQL	2.14	1	MG/KG	6010B	9/19/05
Silver	BQL	1.07	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

**Results for Metals**

Client Sample ID:	P9GP38-5	Analyzed By:	PSW
Client Project ID:	NCDOT-Parcel 9/Tip#U-2826A	Date Collected:	8/25/2005 15:45
Lab Sample ID:	G106-548-8	Date Received:	9/2/05
Lab Project ID:	G106-548	Matrix:	SOIL
Batch ID:	3661 3647	Solids	89.18
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	3.83	0.950	1	MG/KG	6010B	9/19/05
Barium	144	9.50	1	MG/KG	6010B	9/19/05
Cadmium	BQL	0.950	1	MG/KG	6010B	9/19/05
Chromium	27.5	0.950	1	MG/KG	6010B	9/19/05
Lead	16.5	0.950	1	MG/KG	6010B	9/19/05
Mercury	0.0268	0.0206	1	MG/KG	7471	9/16/05
Selenium	2.63	1.90	1	MG/KG	6010B	9/19/05
Silver	BQL	0.950	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:       
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID: P9GP39-5  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-548-9  
 Lab Project ID: G106-548  
 Batch ID: 3661 3647  
 Report Basis: Dry

Analyzed By: PSW  
 Date Collected: 8/25/2005 15:55  
 Date Received: 9/2/05  
 Matrix: SOIL  
 Solids 79.37

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	8.67	1.17	1	MG/KG	6010B	9/19/05
Barium	85.9	11.7	1	MG/KG	6010B	9/19/05
Cadmium	BQL	1.17	1	MG/KG	6010B	9/19/05
Chromium	11.0	1.17	1	MG/KG	6010B	9/19/05
Lead	59.7	1.17	1	MG/KG	6010B	9/19/05
Mercury	0.0425	0.0223	1	MG/KG	7471	9/16/05
Selenium	2.87	2.33	1	MG/KG	6010B	9/19/05
Silver	BQL	1.17	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By: md  
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID:	P9GP40-5	Analyzed By:	PSW
Client Project ID:	NCDOT-Parcel 9/Tip#U-2826A	Date Collected:	8/25/2005 16:10
Lab Sample ID:	G106-548-10	Date Received:	9/2/05
Lab Project ID:	G106-548	Matrix:	SOIL
Batch ID:	3661 3647	Solids	73.68
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	BQL	1.23	1	MG/KG	6010B	9/19/05
Barium	23.5	12.3	1	MG/KG	6010B	9/19/05
Cadmium	BQL	1.23	1	MG/KG	6010B	9/19/05
Chromium	2.41	1.23	1	MG/KG	6010B	9/19/05
Lead	3.77	1.23	1	MG/KG	6010B	9/19/05
Mercury	BQL	0.0249	1	MG/KG	7471	9/16/05
Selenium	BQL	2.47	1	MG/KG	6010B	9/19/05
Silver	BQL	1.23	1	MG/KG	6010B	9/19/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP35-9  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-548-5C  
 Lab Project ID: G106-548  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-25-2005 15:10  
 Date Received: 9/2/2005  
 Matrix: Soil  
 %Solids: 80.7

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	42.9	1	9/6/2005
Benzene	BQL	4.29	1	9/6/2005
Bromobenzene	BQL	4.29	1	9/6/2005
Bromochloromethane	BQL	4.29	1	9/6/2005
Bromodichloromethane	BQL	4.29	1	9/6/2005
Bromoform	BQL	4.29	1	9/6/2005
Bromomethane	BQL	4.29	1	9/6/2005
2-Butanone	BQL	21.5	1	9/6/2005
n-Butylbenzene	BQL	4.29	1	9/6/2005
sec-Butylbenzene	BQL	4.29	1	9/6/2005
tert-Butylbenzene	BQL	4.29	1	9/6/2005
Carbon disulfide	BQL	4.29	1	9/6/2005
Carbon tetrachloride	BQL	4.29	1	9/6/2005
Chlorobenzene	BQL	4.29	1	9/6/2005
Chloroethane	BQL	4.29	1	9/6/2005
Chloroform	BQL	4.29	1	9/6/2005
Chloromethane	BQL	4.29	1	9/6/2005
2-Chlorotoluene	BQL	4.29	1	9/6/2005
4-Chlorotoluene	BQL	4.29	1	9/6/2005
Dibromochloromethane	BQL	4.29	1	9/6/2005
1,2-Dibromo-3-chloropropane	BQL	4.29	1	9/6/2005
Dibromomethane	BQL	4.29	1	9/6/2005
1,2-Dibromoethane (EDB)	BQL	4.29	1	9/6/2005
1,2-Dichlorobenzene	BQL	4.29	1	9/6/2005
1,3-Dichlorobenzene	BQL	4.29	1	9/6/2005
1,4-Dichlorobenzene	BQL	4.29	1	9/6/2005
trans-1,4-Dichloro-2-butene	BQL	4.29	1	9/6/2005
1,1-Dichloroethane	BQL	4.29	1	9/6/2005
1,1-Dichloroethene	BQL	4.29	1	9/6/2005
1,2-Dichloroethane	BQL	4.29	1	9/6/2005
cis-1,2-Dichloroethene	BQL	4.29	1	9/6/2005
trans-1,2-dichloroethene	BQL	4.29	1	9/6/2005
1,2-Dichloropropane	BQL	4.29	1	9/6/2005
1,3-Dichloropropane	BQL	4.29	1	9/6/2005
2,2-Dichloropropane	BQL	4.29	1	9/6/2005
1,1-Dichloropropene	BQL	4.29	1	9/6/2005
cis-1,3-Dichloropropene	BQL	4.29	1	9/6/2005
trans-1,3-Dichloropropene	BQL	4.29	1	9/6/2005
Dichlorodifluoromethane	BQL	4.29	1	9/6/2005
Diisopropyl ether (DIPE)	BQL	4.29	1	9/6/2005
Ethylbenzene	BQL	4.29	1	9/6/2005
Hexachlorobutadiene	BQL	4.29	1	9/6/2005
2-Hexanone	BQL	4.29	1	9/6/2005
Iodomethane	BQL	4.29	1	9/6/2005

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP35-9  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-548-5C  
 Lab Project ID: G106-548  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-25-2005 15:10  
 Date Received: 9/2/2005  
 Matrix: Soil  
 %Solids: 80.7

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.29	1	9/6/2005
4-Isopropyltoluene	BQL	4.29	1	9/6/2005
Methylene chloride	BQL	17.2	1	9/6/2005
4-Methyl-2-pentanone	BQL	4.29	1	9/6/2005
Methyl-tert-butyl ether (MTBE)	BQL	4.29	1	9/6/2005
Naphthalene	BQL	4.29	1	9/6/2005
n-Propyl benzene	BQL	4.29	1	9/6/2005
Styrene	BQL	4.29	1	9/6/2005
1,1,1,2-Tetrachloroethane	BQL	4.29	1	9/6/2005
1,1,2,2-Tetrachloroethane	BQL	4.29	1	9/6/2005
Tetrachloroethene	BQL	4.29	1	9/6/2005
Toluene	BQL	4.29	1	9/6/2005
1,2,3-Trichlorobenzene	BQL	4.29	1	9/6/2005
1,2,4-Trichlorobenzene	BQL	4.29	1	9/6/2005
Trichloroethene	BQL	4.29	1	9/6/2005
1,1,1-Trichloroethane	BQL	4.29	1	9/6/2005
1,1,2-Trichloroethane	BQL	4.29	1	9/6/2005
Trichlorofluoromethane	BQL	4.29	1	9/6/2005
1,2,3-Trichloropropane	BQL	4.29	1	9/6/2005
1,2,4-Trimethylbenzene	BQL	4.29	1	9/6/2005
1,3,5-Trimethylbenzene	BQL	4.29	1	9/6/2005
Vinyl chloride	BQL	4.29	1	9/6/2005
m-,p-Xylene	BQL	8.58	1	9/6/2005
o-Xylene	BQL	4.29	1	9/6/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	52.6	105
1,2-Dichloroethane-d4	50	53.7	107
Toluene-d8	50	52.4	105

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:



**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP40-5  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-548-10C  
 Lab Project ID: G106-548  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-25-2005 16:10  
 Date Received: 9/2/2005  
 Matrix: Soil  
 %Solids: 73.7

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	57.0	1	9/6/2005
Benzene	BQL	5.70	1	9/6/2005
Bromobenzene	BQL	5.70	1	9/6/2005
Bromochloromethane	BQL	5.70	1	9/6/2005
Bromodichloromethane	BQL	5.70	1	9/6/2005
Bromoform	BQL	5.70	1	9/6/2005
Bromomethane	BQL	5.70	1	9/6/2005
2-Butanone	BQL	28.5	1	9/6/2005
n-Butylbenzene	BQL	5.70	1	9/6/2005
sec-Butylbenzene	BQL	5.70	1	9/6/2005
tert-Butylbenzene	BQL	5.70	1	9/6/2005
Carbon disulfide	BQL	5.70	1	9/6/2005
Carbon tetrachloride	BQL	5.70	1	9/6/2005
Chlorobenzene	BQL	5.70	1	9/6/2005
Chloroethane	BQL	5.70	1	9/6/2005
Chloroform	BQL	5.70	1	9/6/2005
Chloromethane	BQL	5.70	1	9/6/2005
2-Chlorotoluene	BQL	5.70	1	9/6/2005
4-Chlorotoluene	BQL	5.70	1	9/6/2005
Dibromochloromethane	BQL	5.70	1	9/6/2005
1,2-Dibromo-3-chloropropane	BQL	5.70	1	9/6/2005
Dibromomethane	BQL	5.70	1	9/6/2005
1,2-Dibromoethane (EDB)	BQL	5.70	1	9/6/2005
1,2-Dichlorobenzene	BQL	5.70	1	9/6/2005
1,3-Dichlorobenzene	BQL	5.70	1	9/6/2005
1,4-Dichlorobenzene	BQL	5.70	1	9/6/2005
trans-1,4-Dichloro-2-butene	BQL	5.70	1	9/6/2005
1,1-Dichloroethane	BQL	5.70	1	9/6/2005
1,1-Dichloroethene	BQL	5.70	1	9/6/2005
1,2-Dichloroethane	BQL	5.70	1	9/6/2005
cis-1,2-Dichloroethene	BQL	5.70	1	9/6/2005
trans-1,2-dichloroethene	BQL	5.70	1	9/6/2005
1,2-Dichloropropane	BQL	5.70	1	9/6/2005
1,3-Dichloropropane	BQL	5.70	1	9/6/2005
2,2-Dichloropropane	BQL	5.70	1	9/6/2005
1,1-Dichloropropene	BQL	5.70	1	9/6/2005
cis-1,3-Dichloropropene	BQL	5.70	1	9/6/2005
trans-1,3-Dichloropropene	BQL	5.70	1	9/6/2005
Dichlorodifluoromethane	BQL	5.70	1	9/6/2005
Diisopropyl ether (DIPE)	BQL	5.70	1	9/6/2005
Ethylbenzene	BQL	5.70	1	9/6/2005
Hexachlorobutadiene	BQL	5.70	1	9/6/2005
2-Hexanone	BQL	5.70	1	9/6/2005
Iodomethane	BQL	5.70	1	9/6/2005

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP40-5  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID G106-548-10C  
 Lab Project ID: G106-548  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-25-2005 16:10  
 Date Received: 9/2/2005  
 Matrix: Soil  
 %Solids: 73.7

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.70	1	9/6/2005
4-Isopropyltoluene	BQL	5.70	1	9/6/2005
Methylene chloride	BQL	22.8	1	9/6/2005
4-Methyl-2-pentanone	BQL	5.70	1	9/6/2005
Methyl-tert-butyl ether (MTBE)	BQL	5.70	1	9/6/2005
Naphthalene	BQL	5.70	1	9/6/2005
n-Propyl benzene	BQL	5.70	1	9/6/2005
Styrene	BQL	5.70	1	9/6/2005
1,1,1,2-Tetrachloroethane	BQL	5.70	1	9/6/2005
1,1,2,2-Tetrachloroethane	BQL	5.70	1	9/6/2005
Tetrachloroethane	69.5	5.70	1	9/6/2005
Toluene	BQL	5.70	1	9/6/2005
1,2,3-Trichlorobenzene	BQL	5.70	1	9/6/2005
1,2,4-Trichlorobenzene	BQL	5.70	1	9/6/2005
Trichloroethene	BQL	5.70	1	9/6/2005
1,1,1-Trichloroethane	BQL	5.70	1	9/6/2005
1,1,2-Trichloroethane	BQL	5.70	1	9/6/2005
Trichlorofluoromethane	BQL	5.70	1	9/6/2005
1,2,3-Trichloropropane	BQL	5.70	1	9/6/2005
1,2,4-Trimethylbenzene	BQL	5.70	1	9/6/2005
1,3,5-Trimethylbenzene	BQL	5.70	1	9/6/2005
Vinyl chloride	BQL	5.70	1	9/6/2005
m-,p-Xylene	BQL	11.4	1	9/6/2005
o-Xylene	BQL	5.70	1	9/6/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	49.3	99
1,2-Dichloroethane-d4	50	51.2	102
Toluene-d8	50	52.5	105

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: ML

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP35-9  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-548-5H  
 Lab Project ID: G106-548  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/25/2005 15:10  
 Date Received: 9/2/2005  
 Date Extracted: 9/6/2005  
 Matrix: Soil  
 % Solids: 80.71

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	357	1	9/7/2005
Acenaphthylene	BQL	357	1	9/7/2005
Anthracene	BQL	357	1	9/7/2005
Benzo[a]anthracene	BQL	357	1	9/7/2005
Benzo[a]pyrene	BQL	357	1	9/7/2005
Benzo[b]fluoranthene	BQL	357	1	9/7/2005
Benzo[g,h,i]perylene	BQL	357	1	9/7/2005
Benzo[k]fluoranthene	BQL	357	1	9/7/2005
Benzoic Acid	BQL	714	1	9/7/2005
Bis(2-chloroethoxy)methane	BQL	357	1	9/7/2005
Bis(2-chloroethyl)ether	BQL	357	1	9/7/2005
Bis(2-chloroisopropyl)ether	BQL	357	1	9/7/2005
Bis(2-ethylhexyl)phthalate	BQL	357	1	9/7/2005
4-bromophenyl phenyl ether	BQL	357	1	9/7/2005
Butylbenzylphthalate	BQL	357	1	9/7/2005
2-Chloronaphthalene	BQL	357	1	9/7/2005
2-Chlorophenol	BQL	357	1	9/7/2005
4-Chloro-3-methylphenol	BQL	357	1	9/7/2005
4-Chloroaniline	BQL	1780	1	9/7/2005
4-Chlorophenyl phenyl ether	BQL	357	1	9/7/2005
Chrysene	BQL	357	1	9/7/2005
Dibenzo[a,h]anthracene	BQL	357	1	9/7/2005
Dibenzofuran	BQL	357	1	9/7/2005
Di-n-Butylphthalate	BQL	357	1	9/7/2005
1,2-Dichlorobenzene	BQL	357	1	9/7/2005
1,3-Dichlorobenzene	BQL	357	1	9/7/2005
1,4-Dichlorobenzene	BQL	357	1	9/7/2005
3,3'-Dichlorobenzidine	BQL	714	1	9/7/2005
2,4-Dichlorophenol	BQL	357	1	9/7/2005
Diethylphthalate	BQL	357	1	9/7/2005
Dimethylphthalate	BQL	357	1	9/7/2005
2,4-Dimethylphenol	BQL	357	1	9/7/2005
Di-n-octylphthalate	BQL	357	1	9/7/2005
4,6-Dinitro-2-methylphenol	BQL	1780	1	9/7/2005
2,4-Dinitrophenol	BQL	1780	1	9/7/2005
2,4-Dinitrotoluene	BQL	357	1	9/7/2005
2,6-Dinitrotoluene	BQL	357	1	9/7/2005
Diphenylamine *	BQL	357	1	9/7/2005
Fluoranthene	BQL	357	1	9/7/2005
Fluorene	BQL	357	1	9/7/2005
Hexachlorobenzene	BQL	357	1	9/7/2005
Hexachlorobutadiene	BQL	357	1	9/7/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP35-9  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-548-5H  
 Lab Project ID: G106-548  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/25/2005 15:10  
 Date Received: 9/2/2005  
 Date Extracted: 9/6/2005  
 Matrix: Soil  
 % Solids: 80.71

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	714	1	9/7/2005
Hexachloroethane	BQL	357	1	9/7/2005
Indeno(1,2,3-c,d)pyrene	BQL	357	1	9/7/2005
Isophorone	BQL	357	1	9/7/2005
2-Methylnaphthalene	BQL	357	1	9/7/2005
2-Methylphenol	BQL	357	1	9/7/2005
3- & 4-Methylphenol	BQL	357	1	9/7/2005
Naphthalene	BQL	357	1	9/7/2005
2-Nitroaniline	BQL	357	1	9/7/2005
3-Nitroaniline	BQL	1780	1	9/7/2005
4-Nitroaniline	BQL	1780	1	9/7/2005
Nitrobenzene	BQL	357	1	9/7/2005
2-Nitrophenol	BQL	357	1	9/7/2005
4-Nitrophenol	BQL	1780	1	9/7/2005
N-Nitrosodi-n-propylamine	BQL	357	1	9/7/2005
Pentachlorophenol	BQL	1780	1	9/7/2005
Phenanthrene	BQL	357	1	9/7/2005
Phenol	BQL	357	1	9/7/2005
Pyrene	BQL	357	1	9/7/2005
1,2,4-Trichlorobenzene	BQL	357	1	9/7/2005
2,4,5-Trichlorophenol	BQL	357	1	9/7/2005
2,4,6-Trichlorophenol	BQL	357	1	9/7/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.9	69
2-Fluorophenol	10	8.8	88
Nitrobenzene-d5	10	7	70
Phenol-d6	10	8.5	85
2,4,6-Tribromophenol	10	4.6	46
4-Terphenyl-d14	10	8.9	89

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP40-5  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-548-10H  
 Lab Project ID: G106-548  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/25/2005 16:10  
 Date Received: 9/2/2005  
 Date Extracted: 9/6/2005  
 Matrix: Soil  
 % Solids: 73.68

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	401	1	9/7/2005
Acenaphthylene	BQL	401	1	9/7/2005
Anthracene	BQL	401	1	9/7/2005
Benzo[a]anthracene	BQL	401	1	9/7/2005
Benzo[a]pyrene	BQL	401	1	9/7/2005
Benzo[b]fluoranthene	BQL	401	1	9/7/2005
Benzo[g,h,i]perylene	BQL	401	1	9/7/2005
Benzo[k]fluoranthene	BQL	401	1	9/7/2005
Benzoic Acid	BQL	802	1	9/7/2005
Bis(2-chloroethoxy)methane	BQL	401	1	9/7/2005
Bis(2-chloroethyl)ether	BQL	401	1	9/7/2005
Bis(2-chloroisopropyl)ether	BQL	401	1	9/7/2005
Bis(2-ethylhexyl)phthalate	BQL	401	1	9/7/2005
4-bromophenyl phenyl ether	BQL	401	1	9/7/2005
Butylbenzylphthalate	BQL	401	1	9/7/2005
2-Chloronaphthalene	BQL	401	1	9/7/2005
2-Chlorophenol	BQL	401	1	9/7/2005
4-Chloro-3-methylphenol	BQL	401	1	9/7/2005
4-Chloroaniline	BQL	2000	1	9/7/2005
4-Chlorophenyl phenyl ether	BQL	401	1	9/7/2005
Chrysene	BQL	401	1	9/7/2005
Dibenzo[a,h]anthracene	BQL	401	1	9/7/2005
Dibenzofuran	BQL	401	1	9/7/2005
Di-n-Butylphthalate	BQL	401	1	9/7/2005
1,2-Dichlorobenzene	BQL	401	1	9/7/2005
1,3-Dichlorobenzene	BQL	401	1	9/7/2005
1,4-Dichlorobenzene	BQL	401	1	9/7/2005
3,3'-Dichlorobenzidine	BQL	802	1	9/7/2005
2,4-Dichlorophenol	BQL	401	1	9/7/2005
Diethylphthalate	BQL	401	1	9/7/2005
Dimethylphthalate	BQL	401	1	9/7/2005
2,4-Dimethylphenol	BQL	401	1	9/7/2005
Di-n-octylphthalate	BQL	401	1	9/7/2005
4,6-Dinitro-2-methylphenol	BQL	2000	1	9/7/2005
2,4-Dinitrophenol	BQL	2000	1	9/7/2005
2,4-Dinitrotoluene	BQL	401	1	9/7/2005
2,6-Dinitrotoluene	BQL	401	1	9/7/2005
Diphenylamine *	BQL	401	1	9/7/2005
Fluoranthene	BQL	401	1	9/7/2005
Fluorene	BQL	401	1	9/7/2005
Hexachlorobenzene	BQL	401	1	9/7/2005
Hexachlorobutadiene	BQL	401	1	9/7/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP40-5  
 Client Project ID: NCDOT-Parcel 9/Tip#U-2826A  
 Lab Sample ID: G106-548-10H  
 Lab Project ID: G106-548  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/25/2005 16:10  
 Date Received: 9/2/2005  
 Date Extracted: 9/6/2005  
 Matrix: Soil  
 % Solids: 73.68

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	802	1	9/7/2005
Hexachloroethane	BQL	401	1	9/7/2005
Indeno(1,2,3-c,d)pyrene	BQL	401	1	9/7/2005
Isophorone	BQL	401	1	9/7/2005
2-Methylnaphthalene	BQL	401	1	9/7/2005
2-Methylphenol	BQL	401	1	9/7/2005
3- & 4-Methylphenol	BQL	401	1	9/7/2005
Naphthalene	BQL	401	1	9/7/2005
2-Nitroaniline	BQL	401	1	9/7/2005
3-Nitroaniline	BQL	2000	1	9/7/2005
4-Nitroaniline	BQL	2000	1	9/7/2005
Nitrobenzene	BQL	401	1	9/7/2005
2-Nitrophenol	BQL	401	1	9/7/2005
4-Nitrophenol	BQL	2000	1	9/7/2005
N-Nitrosodi-n-propylamine	BQL	401	1	9/7/2005
Pentachlorophenol	BQL	2000	1	9/7/2005
Phenanthrene	BQL	401	1	9/7/2005
Phenol	BQL	401	1	9/7/2005
Pyrene	BQL	401	1	9/7/2005
1,2,4-Trichlorobenzene	BQL	401	1	9/7/2005
2,4,5-Trichlorophenol	BQL	401	1	9/7/2005
2,4,6-Trichlorophenol	BQL	401	1	9/7/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	4.5	45
2-Fluorophenol	10	8.7	87
Nitrobenzene-d5	10	6.9	69
Phenol-d6	10	8.5	85
2,4,6-Tribromophenol	10	3.5	35
4-Terphenyl-d14	10	5.8	58

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By:     *ml*

### List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

#### Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

**PARADIGM ANALYTICAL LABORATORIES, INC.**

5500 Business Drive, Wilmington, NC 28405

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 42168

Page 1 of 1

Client: ET, LLC.

Project ID: NC DOT Recv 9

Date: 8/30/05

Report To: Darren P. Lockhart

Address: 2101 Gateway

Contact: Bob Hart/Darren Lockhart

Job Number: 520000

Address: Suite 200 Winston

Phone: 919.544.7500

Job Number: ENMDD50015.00

Quote #: 22500

Fax: alockhart@aol.com P.O. Number: \_\_\_\_\_

Invoice To: NC DOT

Sample ID	Date	Time	Matrix	Preservatives		Analyses		Comments: Please specify any special reporting requirements
P96P31-14	8/25/05	1415	S					
P96P32-14	"	1430	"					G/06-518
P96P33-14	"	1442	"					
P96P34-14	"	1450	"					
P96P35-9	"	1510	"					
P96P30-5	"	1525	"	X				
P96P32-5	"	1540	"	X				
P96P38-5	"	1545	"	X				
P96P39-5	"	1555	"	X				
P96P40-5	"	1610	"	X				

BECA  
VOC  
8260  
8270

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
<u>Darren P. Lockhart</u>	<u>9/11/05</u>	<u>2:30</u>	<u>MAH B. PARRIN</u>	<u>9/11/05</u>	<u>2:30</u>	<u>ON ICE</u>	NC <input type="checkbox"/> SC <input type="checkbox"/> Other <input type="checkbox"/>
<u>[Signature]</u>	<u>9/2/05</u>	<u>09:50</u>	<u>[Signature]</u>	<u>9/2/05</u>	<u>09:50</u>	<u>3.2°C</u>	NC <input type="checkbox"/> SC <input type="checkbox"/> Other <input type="checkbox"/>

SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL



Mr. Darren Lockhart  
Environmental Investigations  
2101 Gateway Centre Boulevard  
Suite 200  
Morrisville NC 27560  
Report Number: G106-543

Client Project: Parcel 9-NCDOT-Winston Salem Tip#U-2826A

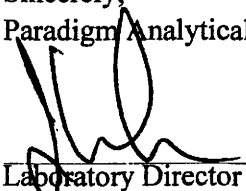
Dear Mr. Lockhart:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,  
Paradigm Analytical Laboratories, Inc.

  
-----  
Laboratory Director  
J. Patrick Weaver

9/19/05  
-----  
Date

**Results for Metals**

Client Sample ID:	P9GP41-16	Analyzed By:	PSW
Client Project ID:	Parcel 9-NC DOT-Winston Salem Tip#U-2826A	Date Collected:	8/29/2005 10:10
Lab Sample ID:	G106-543-1	Date Received:	9/1/05
Lab Project ID:	G106-543	Matrix:	SOIL
Batch ID:	3661 3602	Solids	72.12
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	1.47	1.33	1	MG/KG	6010B	9/7/05
Barium	37.3	13.3	1	MG/KG	6010B	9/7/05
Cadmium	BQL	1.33	1	MG/KG	6010B	9/7/05
Chromium	BQL	1.33	1	MG/KG	6010B	9/7/05
Lead	1.61	1.33	1	MG/KG	6010B	9/7/05
Mercury	BQL	0.0248	1	MG/KG	7471	9/16/05
Selenium	BQL	2.67	1	MG/KG	6010B	9/7/05
Silver	BQL	1.33	1	MG/KG	6010B	9/7/05

**Comments**

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > RL

Reviewed By: MC  
MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID:	P9GP42	Analyzed By:	PSW
Client Project ID:	Parcel 9-NCDOT-Winston Salem Tip#U-2826A	Date Collected:	8/29/2005 10:58
Lab Sample ID:	G106-543-2	Date Received:	9/1/05
Lab Project ID:	G106-543	Matrix:	SOIL
Batch ID:	3661 3602	Solids	70.83
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	2.60	1.38	1	MG/KG	6010B	9/7/05
Barium	75.3	13.8	1	MG/KG	6010B	9/7/05
Cadmium	BQL	1.38	1	MG/KG	6010B	9/7/05
Chromium	BQL	1.38	1	MG/KG	6010B	9/7/05
Lead	3.85	1.38	1	MG/KG	6010B	9/7/05
Mercury	BQL	0.0261	1	MG/KG	7471	9/16/05
Selenium	BQL	2.77	1	MG/KG	6010B	9/7/05
Silver	BQL	1.38	1	MG/KG	6010B	9/7/05

**Comments**

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > RL

Reviewed By: ml  
MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID:	P9GP43-14	Analyzed By:	PSW
Client Project ID:	Parcel 9-NC DOT-Winston Salem Tip#U-2826A	Date Collected:	8/29/2005 10:30
Lab Sample ID:	G106-543-3	Date Received:	9/1/05
Lab Project ID:	G106-543	Matrix:	SOIL
Batch ID:	3661 3602	Solids	88.97
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	5.06	1.08	1	MG/KG	6010B	9/7/05
Barium	BQL	10.8	1	MG/KG	6010B	9/7/05
Cadmium	BQL	1.08	1	MG/KG	6010B	9/7/05
Chromium	1.66	1.08	1	MG/KG	6010B	9/7/05
Lead	21.2	1.08	1	MG/KG	6010B	9/7/05
Mercury	BQL	0.0212	1	MG/KG	7471	9/16/05
Selenium	BQL	2.16	1	MG/KG	6010B	9/7/05
Silver	BQL	1.08	1	MG/KG	6010B	9/7/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:       
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID:	P9GP45-5	Analyzed By:	PSW
Client Project ID:	Parcel 9-NCDOT-Winston Salem Tip#U-2826A	Date Collected:	8/29/2005 11:15
Lab Sample ID:	G106-543-4	Date Received:	9/1/05
Lab Project ID:	G106-543	Matrix:	SOIL
Batch ID:	3661 3602	Solids	87.26
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	5.42	0.955	1	MG/KG	6010B	9/7/05
Barium	216	9.55	1	MG/KG	6010B	9/7/05
Cadmium	BQL	0.955	1	MG/KG	6010B	9/7/05
Chromium	15.6	0.955	1	MG/KG	6010B	9/7/05
Lead	15.7	0.955	1	MG/KG	6010B	9/7/05
Mercury	0.0543	0.0206	1	MG/KG	7471	9/16/05
Selenium	2.18	1.91	1	MG/KG	6010B	9/7/05
Silver	BQL	0.955	1	MG/KG	6010B	9/7/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID:	P9GP44-20	Analyzed By:	PSW
Client Project ID:	Parcel 9-NCDOT-Winston Salem Tip#U-2826A	Date Collected:	8/29/2005 12:05
Lab Sample ID:	G106-543-5	Date Received:	9/1/05
Lab Project ID:	G106-543	Matrix:	SOIL
Batch ID:	3661 3602	Solids	66.26
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	4.89	1.37	1	MG/KG	6010B	9/7/05
Barium	14.3	13.7	1	MG/KG	6010B	9/7/05
Cadmium	BQL	1.37	1	MG/KG	6010B	9/7/05
Chromium	BQL	1.37	1	MG/KG	6010B	9/7/05
Lead	4.07	1.37	1	MG/KG	6010B	9/7/05
Mercury	BQL	0.0272	1	MG/KG	7471	9/16/05
Selenium	BQL	2.74	1	MG/KG	6010B	9/7/05
Silver	BQL	1.37	1	MG/KG	6010B	9/7/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Metals**

Client Sample ID:	P9GP46-20	Analyzed By:	PSW
Client Project ID:	Parcel 9-NCDOT-Winston Salem Tip#U-2826A	Date Collected:	8/29/2005 11:50
Lab Sample ID:	G106-543-6	Date Received:	9/1/05
Lab Project ID:	G106-543	Matrix:	SOIL
Batch ID:	3661 3602	Solids	70.84
Report Basis:	Dry		

Metals	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	1.33	1.26	1	MG/KG	6010B	9/7/05
Barium	16.5	12.6	1	MG/KG	6010B	9/7/05
Cadmium	BQL	1.26	1	MG/KG	6010B	9/7/05
Chromium	BQL	1.26	1	MG/KG	6010B	9/7/05
Lead	228	1.26	1	MG/KG	6010B	9/7/05
Mercury	0.0489	0.0237	1	MG/KG	7471	9/16/05
Selenium	BQL	2.52	1	MG/KG	6010B	9/7/05
Silver	BQL	1.26	1	MG/KG	6010B	9/7/05

**Comments**

BQL = Below Quantitation Limits  
 DF = Dilution Factor  
 J = Between MDL and RL  
 B= Amount in Prep Blank > RL

Reviewed By:   
 MET\_LIMS\_3.3

**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP41-16  
 Client Project ID: Parcel 9-NC DOT-Winston Salem Tip#U-2826A  
 Lab Sample ID G106-543-1A  
 Lab Project ID: G106-543  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-29-2005 10:10  
 Date Received: 9/1/05  
 Matrix: Soil  
 %Solids: 72.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	69.3	1	9/7/05
Benzene	BQL	6.93	1	9/7/05
Bromobenzene	BQL	6.93	1	9/7/05
Bromochloromethane	BQL	6.93	1	9/7/05
Bromodichloromethane	BQL	6.93	1	9/7/05
Bromoform	BQL	6.93	1	9/7/05
Bromomethane	BQL	6.93	1	9/7/05
2-Butanone	BQL	34.7	1	9/7/05
n-Butylbenzene	BQL	6.93	1	9/7/05
sec-Butylbenzene	BQL	6.93	1	9/7/05
tert-Butylbenzene	BQL	6.93	1	9/7/05
Carbon disulfide	BQL	6.93	1	9/7/05
Carbon tetrachloride	BQL	6.93	1	9/7/05
Chlorobenzene	BQL	6.93	1	9/7/05
Chloroethane	BQL	6.93	1	9/7/05
Chloroform	BQL	6.93	1	9/7/05
Chloromethane	BQL	6.93	1	9/7/05
2-Chlorotoluene	BQL	6.93	1	9/7/05
4-Chlorotoluene	BQL	6.93	1	9/7/05
Dibromochloromethane	BQL	6.93	1	9/7/05
1,2-Dibromo-3-chloropropane	BQL	6.93	1	9/7/05
Dibromomethane	BQL	6.93	1	9/7/05
1,2-Dibromoethane (EDB)	BQL	6.93	1	9/7/05
1,2-Dichlorobenzene	BQL	6.93	1	9/7/05
1,3-Dichlorobenzene	BQL	6.93	1	9/7/05
1,4-Dichlorobenzene	BQL	6.93	1	9/7/05
trans-1,4-Dichloro-2-butene	BQL	6.93	1	9/7/05
1,1-Dichloroethane	BQL	6.93	1	9/7/05
1,1-Dichloroethene	BQL	6.93	1	9/7/05
1,2-Dichloroethane	BQL	6.93	1	9/7/05
cis-1,2-Dichloroethene	BQL	6.93	1	9/7/05
trans-1,2-dichloroethene	BQL	6.93	1	9/7/05
1,2-Dichloropropane	BQL	6.93	1	9/7/05
1,3-Dichloropropane	BQL	6.93	1	9/7/05
2,2-Dichloropropane	BQL	6.93	1	9/7/05
1,1-Dichloropropene	BQL	6.93	1	9/7/05
cis-1,3-Dichloropropene	BQL	6.93	1	9/7/05
trans-1,3-Dichloropropene	BQL	6.93	1	9/7/05
Dichlorodifluoromethane	BQL	6.93	1	9/7/05
Diisopropyl ether (DIPE)	BQL	6.93	1	9/7/05
Ethylbenzene	BQL	6.93	1	9/7/05
Hexachlorobutadiene	BQL	6.93	1	9/7/05



**Results for Volatiles  
by GCMS 8260-5035**

Client Sample ID: P9GP41-16  
 Client Project ID: Parcel 9-NCDOT-Winston Salem Tip#U-2826A  
 Lab Sample ID G106-543-1A  
 Lab Project ID: G106-543  
 Report Basis: Dry Weight

Analyzed By: JTF  
 Date Collected: 08-29-2005 10:10  
 Date Received: 9/1/05  
 Matrix: Soil  
 %Solids: 72.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
2-Hexanone	BQL	6.93	1	9/7/05
Iodomethane	BQL	6.93	1	9/7/05
Isopropylbenzene	BQL	6.93	1	9/7/05
4-Isopropyltoluene	BQL	6.93	1	9/7/05
Methylene chloride	BQL	27.7	1	9/7/05
4-Methyl-2-pentanone	BQL	6.93	1	9/7/05
Methyl-tert-butyl ether (MTBE)	BQL	6.93	1	9/7/05
Naphthalene	BQL	6.93	1	9/7/05
n-Propyl benzene	BQL	6.93	1	9/7/05
Styrene	BQL	6.93	1	9/7/05
1,1,1,2-Tetrachloroethane	BQL	6.93	1	9/7/05
1,1,2,2-Tetrachloroethane	BQL	6.93	1	9/7/05
Tetrachloroethene	10.2	6.93	1	9/7/05
Toluene	BQL	6.93	1	9/7/05
1,2,3-Trichlorobenzene	BQL	6.93	1	9/7/05
1,2,4-Trichlorobenzene	BQL	6.93	1	9/7/05
Trichloroethene	BQL	6.93	1	9/7/05
1,1,1-Trichloroethane	BQL	6.93	1	9/7/05
1,1,2-Trichloroethane	BQL	6.93	1	9/7/05
Trichlorofluoromethane	BQL	6.93	1	9/7/05
1,2,3-Trichloropropane	BQL	6.93	1	9/7/05
1,2,4-Trimethylbenzene	BQL	6.93	1	9/7/05
1,3,5-Trimethylbenzene	BQL	6.93	1	9/7/05
Vinyl chloride	BQL	6.93	1	9/7/05
m-,p-Xylene	BQL	13.9	1	9/7/05
o-Xylene	BQL	6.93	1	9/7/05

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	51.9	104
1,2-Dichloroethane-d4	50	47	94
Toluene-d8	50	53.9	108

**Comments:**

**Flags:**

BQL = Below Quantitation Limits.  
 J = Detected below the quantitation limit.

Reviewed By:

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP41-16  
 Client Project ID: Parcel 9-NC DOT-Winston Salem Tip#U-2826A  
 Lab Sample ID: G106-543-11  
 Lab Project ID: G106-543  
 Report Basis: Dry weight

Analyzed By: MRC  
 Date Collected: 8/29/2005 10:10  
 Date Received: 9/1/2005  
 Date Extracted: 9/7/2005  
 Matrix: Soil  
 % Solids: 72.12

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	431	1	9/9/2005
Acenaphthylene	BQL	431	1	9/9/2005
Anthracene	BQL	431	1	9/9/2005
Benzo[a]anthracene	BQL	431	1	9/9/2005
Benzo[a]pyrene	BQL	431	1	9/9/2005
Benzo[b]fluoranthene	BQL	431	1	9/9/2005
Benzo[g,h,i]perylene	BQL	431	1	9/9/2005
Benzo[k]fluoranthene	BQL	431	1	9/9/2005
Benzoic Acid	BQL	862	1	9/9/2005
Bis(2-chloroethoxy)methane	BQL	431	1	9/9/2005
Bis(2-chloroethyl)ether	BQL	431	1	9/9/2005
Bis(2-chloroisopropyl)ether	BQL	431	1	9/9/2005
Bis(2-ethylhexyl)phthalate	BQL	431	1	9/9/2005
4-bromophenyl phenyl ether	BQL	431	1	9/9/2005
Butylbenzylphthalate	BQL	431	1	9/9/2005
2-Chloronaphthalene	BQL	431	1	9/9/2005
2-Chlorophenol	BQL	431	1	9/9/2005
4-Chloro-3-methylphenol	BQL	431	1	9/9/2005
4-Chloroaniline	BQL	2160	1	9/9/2005
4-Chlorophenyl phenyl ether	BQL	431	1	9/9/2005
Chrysene	BQL	431	1	9/9/2005
Dibenzo[a,h]anthracene	BQL	431	1	9/9/2005
Dibenzofuran	BQL	431	1	9/9/2005
Di-n-Butylphthalate	BQL	431	1	9/9/2005
1,2-Dichlorobenzene	BQL	431	1	9/9/2005
1,3-Dichlorobenzene	BQL	431	1	9/9/2005
1,4-Dichlorobenzene	BQL	431	1	9/9/2005
3,3'-Dichlorobenzidine	BQL	862	1	9/9/2005
2,4-Dichlorophenol	BQL	431	1	9/9/2005
Diethylphthalate	BQL	431	1	9/9/2005
Dimethylphthalate	BQL	431	1	9/9/2005
2,4-Dimethylphenol	BQL	431	1	9/9/2005
Di-n-octylphthalate	BQL	431	1	9/9/2005
4,6-Dinitro-2-methylphenol	BQL	2160	1	9/9/2005
2,4-Dinitrophenol	BQL	2160	1	9/9/2005
2,4-Dinitrotoluene	BQL	431	1	9/9/2005
2,6-Dinitrotoluene	BQL	431	1	9/9/2005
Diphenylamine *	BQL	431	1	9/9/2005
Fluoranthene	BQL	431	1	9/9/2005
Fluorene	BQL	431	1	9/9/2005
Hexachlorobenzene	BQL	431	1	9/9/2005
Hexachlorobutadiene	BQL	431	1	9/9/2005

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: P9GP41-16

Client Project ID: Parcel 9-NCDOT-Winston Salem Tip#U-2826A

Lab Sample ID: G106-543-11

Lab Project ID: G106-543

Report Basis: Dry weight

Analyzed By: MRC

Date Collected: 8/29/2005 10:10

Date Received: 9/1/2005

Date Extracted: 9/7/2005

Matrix: Soil

% Solids: 72.12

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	862	1	9/9/2005
Hexachloroethane	BQL	431	1	9/9/2005
Indeno(1,2,3-c,d)pyrene	BQL	431	1	9/9/2005
Isophorone	BQL	431	1	9/9/2005
2-Methylnaphthalene	BQL	431	1	9/9/2005
2-Methylphenol	BQL	431	1	9/9/2005
3- & 4-Methylphenol	BQL	431	1	9/9/2005
Naphthalene	BQL	431	1	9/9/2005
2-Nitroaniline	BQL	431	1	9/9/2005
3-Nitroaniline	BQL	2160	1	9/9/2005
4-Nitroaniline	BQL	2160	1	9/9/2005
Nitrobenzene	BQL	431	1	9/9/2005
2-Nitrophenol	BQL	431	1	9/9/2005
4-Nitrophenol	BQL	2160	1	9/9/2005
N-Nitrosodi-n-propylamine	BQL	431	1	9/9/2005
Pentachlorophenol	BQL	2160	1	9/9/2005
Phenanthrene	BQL	431	1	9/9/2005
Phenol	BQL	431	1	9/9/2005
Pyrene	BQL	431	1	9/9/2005
1,2,4-Trichlorobenzene	BQL	431	1	9/9/2005
2,4,5-Trichlorophenol	BQL	431	1	9/9/2005
2,4,6-Trichlorophenol	BQL	431	1	9/9/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.5	95
2-Fluorophenol	10	10	100
Nitrobenzene-d5	10	9.5	95
Phenol-d6	10	9.2	92
2,4,6-Tribromophenol	10	8.6	86
4-Terphenyl-d14	10	7.3	73

**Comments:**

\* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: mt

## List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

### Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.



**APPENDIX D**

**LABORATORY ANALYTICAL REPORT - GROUNDWATER**

**North Carolina State Laboratory of Public Health  
 Department of Health and Human Services  
 P. O. Box 28047 -- 306 N. Wilmington St. -- Raleigh, N. C. 27611-8047**

RECEIVED  
 N.C. Dept. of ENR  
 SEP 12 2005  
 Winston-Salem  
 Regional Office

**INORGANIC CHEMICAL ANALYSIS - PRIVATE WATER SYSTEM**

**Name of System:** Atlantic Scrap and Processi

**Source of Water:** Ground

**Address:** 3415 Glenn Avenue  
 Winston-Salem, NC

**Zip:** 27105

**Source of Sample:**

**Type of Sample:** Raw

**County:** WINSRO

**Type of Treatment:** None

**Report To:** Winston-Salem Regional Office  
 585 Waughtown Street  
 Winston-Salem, NC 27107-2241  
**Courier:** 13-15-01

**ATTN:** Collin Day  
 (910) 771-4600

**Type of Analysis:** Private

**Collected By:** COLLIN DAY

**Date:** 8/24/2005

**Time:** 5:25:00 PM

**Location of sampling point:** PZ - 10

**Remarks:** FIELD PARAMETERS pH=5.12, Specific  
 Cond=326us, Temp=17.1\*, Turbidity=4.0 NTU (11.45 ppm NO3)

Parameters	Results	Units	Date Analyzed:
Alkalinity as CaCO3	6	mg/l	8/25/2005
Arsenic	0.001	mg/l	8/25/2005
Calcium	12.0	mg/l	8/25/2005
Cadmium	0.034	mg/l	8/25/2005
Chloride IC	46	mg/l	8/25/2005
Chromium	<0.01	mg/l	8/25/2005
Copper	2.18	mg/l	8/25/2005
Fluoride	<0.20	mg/l	8/25/2005
Iron	0.11	mg/l	8/25/2005
Hardness as CaCO3 (Ca,Mg)	64	mg/l	8/25/2005
Magnesium	8.2	mg/l	8/25/2005
Manganese	3.79	mg/l	8/25/2005
Lead	0.009	mg/l	8/25/2005
pH	5.5	Std. unit	8/25/2005
Sulfate	45	mg/l	8/25/2005
Zinc	11.94	mg/l	8/25/2005

**Date Received:** 8/25/2005

**Report Date:** 9/8/2005

**Reported By:** *Daniel Monroe*

**Today's Date:** 9/8/2005

**Ref:** 10569

**Login Batch:** 05080057

**Sample Number:** AB31318

**DIVISION OF WATER QUALITY**  
 Chemistry Laboratory Report / Ground Water Quality

COUNTY : FORSYTH  
 QUAD NO. : \_\_\_\_\_  
 REPORT TO : WSRO Regional Office  
 COLLECTOR(S) : C DAY  
 DATE : 8/24/2005  
 TIME : 1725  
 PURPOSE: \_\_\_\_\_

SAMPLE PRIORITY  
 ROUTINE     EMERGENCY  
 CHAIN OF CUSTODY  
 SAMPLE TYPE    **pa-10**

Owner: \_\_\_\_\_  
 Location or Site: \_\_\_\_\_  
 Description of sampling point: \_\_\_\_\_  
 Sampling Method: \_\_\_\_\_  
 Remarks: \_\_\_\_\_

ATLANTIC SCRAP AND PROCESSING

Lab Number :	<b>5G2244</b>
Date Received :	8/25/2005
Time Received :	8:30 AM
Received By :	DS
Released By :	PENDING
Date reported :	PENDING

**LABORATORY ANALYSIS**

BOD 310	mg/L	Diss. Solids 70300	mg/L	<input checked="" type="checkbox"/>	Ag-Silver 46566	ug/L	
COD High 340	mg/L	Fluoride 951	mg/L	<input checked="" type="checkbox"/>	Al-Aluminum 46557	ug/L	Organochlorine Pesticides
COD Low 335	mg/L	Hardness: total 900	mg/L	<input checked="" type="checkbox"/>	As-Arsenic 46551	ug/L	Organophosphorus Pesticides
Coliform: MF Total 31616	/100ml	Hardness: (non-carb) 902	mg/L	<input checked="" type="checkbox"/>	Ba-Barium 46558	ug/L	Nitrogen Pesticides
Coliform: MF Total 31504	/100ml	Phenols 32730	ug/L	<input checked="" type="checkbox"/>	Ca-Calcium 46552	mg/L	Acid Herbicides
TOC	mg/L	Specific Cond. 95	umhos/cm2	<input checked="" type="checkbox"/>	Cd-Cadmium 46559	ug/L	
Turbidity	NTU	Sulfate	mg/L	<input checked="" type="checkbox"/>	Cr-Chromium 46560	ug/L	Semi-volatiles
Residue, Suspended 530	mg/L	Sulfide 745	mg/L	<input checked="" type="checkbox"/>	Cu-Copper 1042	ug/L	TPH-Diesel Range
Total Suspended solids	mg/L	MBAS	mg/L	<input checked="" type="checkbox"/>	Fe-Iron 1045	ug/L	
pH	units	Oil and Grease	mg/L	<input checked="" type="checkbox"/>	Hg-Mercury 71900	ug/L	Volatle Organics (VOA bottle)
Alkalinity to pH 4.5	mg/L	Silica	mg/L	<input checked="" type="checkbox"/>	K-Potassium 46555	mg/L	
Alkalinity to pH 8.3	mg/L	Boron	mg/L	<input checked="" type="checkbox"/>	Mg-Magnesium 927	mg/L	TPH-Gasoline Range
Carbonate	mg/L	Formaldehyde	mg/L	<input checked="" type="checkbox"/>	Mn-Manganese 1055	ug/L	TPH-BTEX Gasoline Range
Bicarbonate	mg/L	NH3 as N 610	mg/L	<input checked="" type="checkbox"/>	Na-Sodium 929	mg/L	
Chloride	mg/L	TKN as N 625	mg/L	<input checked="" type="checkbox"/>	Ni-Nickel	ug/L	
Chromium: Hex 1032	ug/L	NO2 +NO3 as n 630	mg/L	<input checked="" type="checkbox"/>	Pb-Lead 46564	ug/L	
Color: True 80	c.u.	P: Total as P 665	mg/L	<input checked="" type="checkbox"/>	Se-Selenium	ug/L	
Cyanide 720	mg/L	PO4	mg/L	<input checked="" type="checkbox"/>	Zn-Zinc 46567	ug/L	
		Nitrate (NO3 as N) 620	mg/L	<input checked="" type="checkbox"/>	YTRUM	ug/L	
		Nitrite (NO2 as N) 615	mg/L	<input checked="" type="checkbox"/>			

COMMENTS :



ENRD/WQ LABORATORY  
VOLATILE ANALYTICAL REPORT

LAB NO. 5G2244

REPORTED BY VA  
CHECKED BY ALC  
REVIEWED BY ALC

SUPERVISOR REK  
DATE 9/7/2005

SAMPLE TYPE: WATER

ANALYTICAL RESULTS

ENTERED BY  
DATE

CAS#	VOA TARGET COMPOUND	PQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	PQL ug/L	DETECTED ug/L
75-71-8	Dichlorodifluoromethane	1.0	U	630-20-2	1,1,1,2-Tetrachloroethane	0.25	U
74-87-3	Chloromethane	1.0	U	75-25-2	Bromofom	0.64	U
75-01-4	Vinyl Chloride	1.0	U	79-34-5	1,1,2,2-Tetrachloroethane	0.30	U
74-83-9	Bromomethane	5.0	U	96-18-4	1,2,3-Trichloropropane	0.30	U
75-00-3	Chloroethane	5.0	U	108-86-1	Bromobenzene	0.64	U
75-69-4	Trichlorofluoromethane	1.0	U	95-49-8	2-Chlorotoluene	0.25	U
75-35-4	1,1-Dichloroethane	0.25	1.4 N2	106-43-4	4-Chlorotoluene	0.25	U
75-09-2	Methylene Chloride	10	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-60-5	trans-1,2-Dichloroethane	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	U	95-50-1	1,2-Dichlorobenzene	0.25	U
594-20-7	2,2-Dichloropropane	0.25	U	96-12-8	1,2-Dibromo-3-Chloropropane	0.30	U
156-59-4	cis-1,2-Dichloroethane	2.0	9.5 #	120-82-1	1,2,4-Trichlorobenzene	0.30	U
67-66-3	Chloroform	0.25	1.3 #	87-68-3	Hexachlorobutadiene	0.30	U
74-97-5	Bromochloromethane	0.25	U	87-61-6	1,2,3-Trichlorobenzene	0.30	U
71-55-6	1,1,1-Trichloroethane	0.25	1.5 N2	1634-04-4	Methyl-tert-butyl ether	1.0	U
56-23-5	Carbon Tetrachloride	0.25	U	71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	0.25	U	108-88-3	Toluene	1.0	U
79-01-6	Trichloroethene	2.0	9.7 #	100-41-4	Ethyl Benzene	1.0	U
78-87-5	1,2-Dichloropropane	0.25	U	108-38-3	m,p-Xylenes	2.0	U
74-95-3	Dibromomethane	0.30	U	95-47-6	o-Xylene	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	98-82-8	Isopropylbenzene	1.0	U
79-00-5	1,1,2-Trichloroethane	0.25	U	103-65-1	n-Propylbenzene	1.0	U
127-18-4	Tetrachloroethene	1.00	1000 #	108-67-8	1,3,5-Trimethylbenzene	1.0	U
142-28-9	1,3-Dichloropropane	0.25	U	98-06-6	tert-Butylbenzene	1.0	U
124-48-1	Dibromochloromethane	0.30	U	95-63-6	1,2,4-Trimethylbenzene	1.0	U
106-93-4	1,2-Dibromoethane	0.64	U	135-98-8	sec-Butylbenzene	1.0	U
108-90-7	Chlorobenzene	0.25	U	99-87-6	p-isopropyltoluene	1.0	U
				104-51-8	n-Butylbenzene	1.0	U
				91-20-3	Naphthalene	1.0	U

Gasoline Range Estimated Total Petroleum Hydrocarbon	mg/L	mg/L
Other purgeables detected (up to 10 highest peaks)	0.20	X

- PQL Practical Quantitation Limit. Subject to change due to instrument sensitivity
- N- Tentatively Identified, not confirmed
  - J- Estimated Value
  - U- Samples analyzed for this compound but not detected
  - X- Sample not analyzed for this compound
  - N3- Estimated concentration is <PQL and >MDL
  - # GC/MS Analysis performed

THREE UNIDENTIFIED PEAKS DETECTED BY GC/ECLD.  
NO VOLATILE ORGANIC COMPOUNDS  
DETECTED BY GC/PID

COMMENTS:



**DIVISION OF WATER QUALITY**

Chemistry Laboratory Report / Ground Water Quality

COUNTY : FORSYTH  
 QUAD NO: \_\_\_\_\_

REPORT TO : WSRO Regional Office

COLLECTOR(S) : C DAY

DATE : 8/25/05

TIME : 1345

PURPOSE: \_\_\_\_\_

SAMPLE PRIORITY  
 ROUTINE  
 CHAIN OF CUSTODY  
 EMERGENCY  
 SAMPLE TYPE

**TW-7**

OWNER: ATLANTIC SCRAP AND PROCESSING

Location or Site: \_\_\_\_\_

Description of sampling point: \_\_\_\_\_

Sampling Method: \_\_\_\_\_

Remarks: \_\_\_\_\_

Lab Number :	<b>5G32260</b>
Date Received :	8/26/2005
Time Received :	9:20 AM
Received By :	JOY
Released By :	PENDING
Date reported :	PENDING

**LABORATORY ANALYSIS**

BOD 310	mg/L	Diss. Solids 70300	mg/L	Ag-Silver 46566	ug/L	Organochlorine Pesticides
COD High 340	mg/L	Fluoride 951	mg/L	Al-Aluminum 46557	ug/L	Organophosphorus Pesticides
COD Low 335	mg/L	Hardness: total 900	mg/L	As-Arsenic 46551	ug/L	Nitrogen Pesticides
Coliform: MF Fecal 31616	/100ml	Hardness: (non-carb) 902	mg/L	Ba-Barium 46558	ug/L	Acid Herbicides
Coliform: MF Total 31504	/100ml	Phenols 32730	ug/L	Ca-Calcium 46552	ug/L	
TOC	mg/L	Specific Cond. 95	umhos/cm2	Cd-Cadmium 46559	ug/L	
Turbidity	NTU	Sulfate	mg/L	Cr-Chromium 46560	ug/L	Semivolatiles
Residue, Suspended 530	mg/L	Sulfide 745	mg/L	Cu-Copper 1042	ug/L	TPH-Diesel Range
Total Suspended solids	mg/L	MBAS	mg/L	Fe- Iron 1045	ug/L	
pH	units	Oil and Grease	mg/L	Hg-Mercury 71900	ug/L	X Volatile Organics (VOA bottle)
Alkalinity to pH 4.5	mg/L	Silica	mg/L	K-Potassium 46555	mg/L	TPH-Gasoline Range
Alkalinity to pH 8.3	mg/L	Boron	mg/L	Mg-Magnesium 927	mg/L	TPH-BTEX Gasoline Range
Carbonate	mg/L	Formaldehyde	mg/L	Mn-Manganese 1055	ug/L	
Bicarbonate	mg/L	NH3 as N 610	1.0	Na-Sodium 929	ug/L	
Carbon dioxide	mg/L	TKN as N 625	mg/L	Ni-Nickel	ug/L	
Chloride	mg/L	NO2 +NO3 as n 630	1.6	Pb-Lead 46564	ug/L	
Chromium: Hex 1032	ug/L	P- Total as P 665	0.3	Se-Selenium	ug/L	
Color: True 80	c.u.	PO4	mg/L	Zn-Zinc 46567	ug/L	
Cyanide 720	mg/L	Nitrate (NO3 as N) 620	mg/L			
		Nitrite (NO2 as N) 615	mg/L			

COMMENTS : \_\_\_\_\_

ENRD/WQ LABORATORY  
VOLATILE ANALYTICAL REPORT

LAB NO. 5G2260

REPORTED BY VA  
CHECKED BY ALC  
REVIEWED BY ALC  
SAMPLE TYPE: WATER

SUPERVISOR REK  
DATE 9/12/2005

ANALYTICAL RESULTS

ENTERED BY \_\_\_\_\_  
DATE \_\_\_\_\_

CAS#	VQA TARGET COMPOUND	PQL ug/L	DETECTED ug/L	CAS#	VQA TARGET COMPOUND	PQL ug/L	DETECTED ug/L
75-71-8	Dichlorodifluoromethane	0.25	U	630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
74-87-3	Chloromethane	0.25	U	75-25-2	Bromoform	0.25	U
75-01-4	Vinyl Chloride	0.25	U	79-34-5	1,1,2,2-Tetrachloroethane	0.25	U
74-83-9	Bromomethane	0.25	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-00-3	Chloroethane	0.25	U	108-86-1	Bromobenzene	0.25	U
75-69-4	Trichlorofluoromethane	0.25	U	95-49-8	2-Chlorotoluene	0.25	U
75-35-4	1,1-Dichloroethene	5.0	120 #, P	106-43-4	4-Chlorotoluene	0.25	U
75-09-2	Methylene Chloride	10	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-60-5	trans-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
75-34-3	1,1-Dichloroethane	1.0	33 #	95-50-1	1,2-Dichlorobenzene	0.25	U
594-20-7	2,2-Dichloropropane	0.25	U	120-82-1	1,2-Dibromo-3-Chloropropane	0.50	U
156-59-4	cis-1,2-Dichloroethene	0.25	1.6 #	87-68-3	Hexachlorobutadiene	0.25	U
67-66-3	Chloroform	0.25	3.2 #	87-61-6	1,2,3-Trichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	0.25	U
71-55-6	1,1,1-Trichloroethane	1.0	48 #	71-43-2	Benzene	0.25	U
563-58-6	1,1-Dichloropropane	0.25	U	108-88-3	Toluene	0.25	U
56-23-5	Carbon Tetrachloride	0.25	U	100-41-4	Ethyl benzene	0.25	U
107-06-2	1,2-Dichloroethane	0.25	2.9 #	108-39-3	m,p-Xylenes	0.50	U
79-01-6	Trichloroethene	5.0	130 #, P	95-47-6	o-Xylene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U	100-42-5	Styrene	0.25	U
75-27-4	Bromodichloromethane	0.25	U	98-82-8	Isopropylbenzene	0.25	U
74-95-3	Dibromomethane	0.25	U	103-65-1	n-Propylbenzene	0.25	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	108-67-8	1,3,5-Trimethylbenzene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	98-06-6	tert-Butylbenzene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	4.7 #	95-63-6	sec-Butylbenzene	0.25	U
127-18-4	Tetrachloroethene	5.0	250 #, P	135-98-8	p-Isopropyltoluene	0.25	U
142-28-9	1,3-Dichloropropane	0.25	U	99-87-6	n-Butylbenzene	0.25	U
124-48-1	Dibromochloromethane	0.25	U	104-51-8	n-Butylbenzene	0.25	U
106-93-4	1,2-Dibromoethane	0.25	U	91-20-3	Naphthalene	0.25	U
108-90-7	Chlorobenzene	0.25	U				

Gasoline Range Estimated Total Petroleum Hydrocarbon	mg/L	mg/L
Other purgeables detected (up to 10 highest peaks)	0.20	X

- PQL Practical Quantitation Limit- Subject to change due to instrument sensitivity
- N- Tentatively Identified, not confirmed
- J- Estimated Value
- U- Samples analyzed for this compound but not detected
- X- Sample not analyzed for this compound
- N3- Estimated concentration is <PQL and >MDL
- # GC/MS Analysis performed

2-methyl-1-Propane	1.7 #, N1
ethyl-Cyclopropane	0.60 #, N1

COMMENTS: