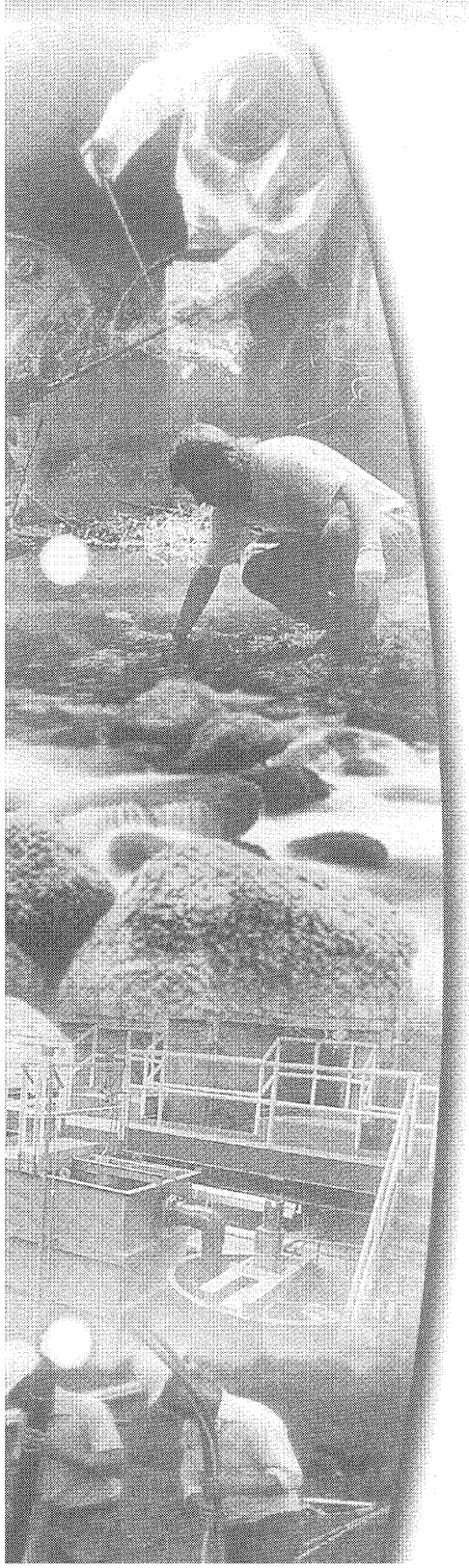

# LIMITED PRELIMINARY SITE ASSESSMENT



**Parcel 010**
**Royster-Clark Agribusiness, Inc.**
**3105 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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October 19, 2005

# LIMITED PRELIMINARY SITE ASSESSMENT (PSA)

**Conducted on**

**Parcel 010**
**Royster-Clark Agribusiness, Inc.**
**3105 North Glenn Avenue**
**Winston-Salem, NC 27105**
**NCDOT TIP #U-2826A**
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For

Mr. Gregory A. Smith
State of North Carolina
Department of Transportation
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Raleigh, NC 27699-1589

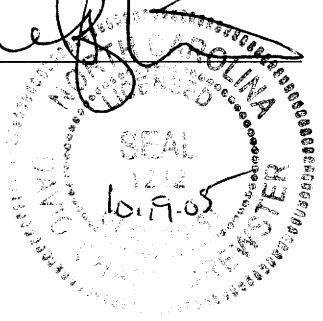
Issue Date: October 19, 2005


Darren R. Lockhart
Project Manager/Environmental Geologist

Signature

David C. Brewster, P.G.
Principal Geologist

Signature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# 1.0 INTRODUCTION

Environmental Investigations, Inc. (EI) conducted a *Limited Preliminary Site Assessment* (PSA) within the proposed North Carolina Department of Transportation (NCDOT) *right-of-way* (ROW) adjacent to a parcel (identified by the NCDOT as Parcel 010) located southwest of the overpass of North Glenn Avenue by US 52, in Winston-Salem, North Carolina.

Royster-Clark Agribusiness, Inc. 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. Laboratory analytical data for this assessment are summarized in three (3) tables: "**Table 1 - Summary of Soil Analytical Results for 8 RCRA Metals**", "**Table 2 - Summary of Soil Analytical Results VOCs, SVOCs, and Pesticides**", and "**Table 3 - Summary of Soil Analytical Results for TPH**". A "Site Location Map", an "Aerial Photograph", a "Site Map", and a "Soil Analytical Results Map for Soils – 8 RCRA Metals" 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 Report" for soil is included in **Appendix C.**

## 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 010 – Royster-Clark Agribusiness, Inc.) 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).

IMC Rainbow, a division of IMC Global Operations, Inc. (IMC), acquired by Royster-Clark Agribusiness (Royster-Clark), currently occupies the subject property. According to a Comprehensive Site Assessment (CSA) report conducted on the subject property in 1995 by RMT, Inc. of Greenville, South Carolina, Royster-Clark has produced nitrogen-phosphate potassium fertilizer at their facility in Winston-Salem, NC since 1948. Reportedly, there have been numerous, inadvertent, releases of acid and 448-nitrogen solution (a mixture of ammonia, ammonium nitrate, and water).

Reportedly, a few tons of oversized product (primarily super phosphate) from an earlier granulation operation that failed, was discarded near the northeast corner of the shop and near the railcar unloading area. In addition, approximately 85 tons of sulfuric acid was accidentally released in 1971. In 1991, approximately 40 tons of 448-nitrgen solution was released from a railcar. Reportedly, these releases discharged into two retention ponds located in the northeasten portion of the subject property where they were neutralized and reclaimed. Groundwater and surface water monitoring activities are ongoing at the Royster-Clark facility to monitor for total metals, ammonia, chloride, nitrate, total phosphorus, sulfate, and radionuclides.

# 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.

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 five (5) soil test borings utilizing DPT and four (4) hand-auger soil borings to depths ranging between 1.0 and 30.0 feet below the land surface (bls) across the site.

- Collection and submittal of nine (9) soil samples for laboratory analysis for 8 RCRA metals, volatile and semi-volatile organics, and total petroleum hydrocarbons.

- 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, Royster-Clark Agribusiness, Inc. is addressed at 3105 North Glenn Avenue, Winston-Salem, (Forsyth County), North Carolina (**Figures 1** and **2).** The subject property (Parcels 010) is currently located immediately adjacent to the DOT ROW as identified in DOT's U-2826A Plan Sheets 5,6, 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): 6836-48-3621 and is currently owned by Royster-Clark Agribusiness, Inc. The subject parcel covers a total of 10.68 acres.

## 3.3 Physical Setting

The subject site operates as a nitrogen-phosphate manufacturer where bulk materials are unloaded, stored, and used inside the plant building. The facility is developed with eight (8) buildings used for office spaces, storage of bulk materials, maintenance shops, and a scale house. The subject property is surfaced by asphalt pavement, gravel, and grassed areas and is surrounded by a chain link fence. See **Figure 3** for pertinent site features.

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. 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 traverses parallel to North Glenn Avenue.

## 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 995 feet above mean sea level (msl) (**Figure 1**). Topographically, the site slopes gently to the east/southeast. Surface water runoff is shown to flow to the southeast to a confluence with Brushy Fork Creek located approximately 2.2 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. Land usage to the north is characterized by vacant/undeveloped land with the Waste Management of Carolinas, Inc. property abutting the subject parcel; to the east by Waste Management, US Highway 52, and then the Atlantic Scrap & Processing facility; and to the south by the Kaba-Ilco site.

# 4.0 SUBURFACE INVESTIGATION

## 4.1 Subsurface Soils Investigation

Subsurface Environmental Investigations, Inc., based in Statesville, North Carolina, was subcontracted to provide Direct Push Technology (DPT) services. An EI Geologist directed and supervised the advancement of five (5) DPT soil test borings ("P10GP1" through "P10GP5") and four (4) hand-auger soil test borings ("P10HA6" through "P10HA9") in the existing and/or proposed DOT ROW for the referenced site.

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 30.0 feet bls. The soil sampling locations are shown on **Figure 3**.

### 4.1.1 Soil Sample Collection Procedures

Soil samples were collected as grab samples using powder-free nitrile gloves. The soils were place 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 Activities

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 described as follows: orange to tan, fine, sandy, (ML) SILT to approximately eight (8) feet bls, underlain by reddish-brown, saprolitic, silty CLAY (CL), SILT (ML), and silty SAND (SM) to approximately thirty (30) feet bls. 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 Summary of Onsite Groundwater Quality

For the purposes of this *Limited PSA,* existing groundwater quality data was utilized for the groundwater investigation. Groundwater quality data was obtained from a Comprehensive Site Assessment (CSA) conducted on the subject property by RMT, Inc. of Greenville, South Carolina, in March 1995. Reportedly, groundwater samples collected from the Royster-Clark site contained VOCs, metals, and other inorganic constituents at concentrations above NC Groundwater Quality Standards. Many of the constituents detected, VOCs in particular, could not be attributed to source areas at the subject property.

Reportedly, metal and VOC plumes identified at the Royster-Clark facility represent a portion of larger constituent plumes originating upgradient of the subject property. The approximate locations of the groundwater monitoring wells are depicted in **Figure 3**.

# 5.0 LABORATORY TESTING AND RESULTS

## 5.1 Subsurface Soil Analytical Methods

The laboratory analytical methods selected for this *Limited PSA* were based on the history and usage of the subject property, as well as the history and usage of potential offsite sources of impact to the subject property. A total of nine (9) soil samples were submitted for the following laboratory analyses: total petroleum hydrocarbons (TPH) by EPA Method 5030/5035 (gasoline range organics - GRO) and 3550 (diesel range organics - DRO), 8 RCRA Metals by EPA Method 6010B, 7471, VOCs and SVOCs by EPA Method 8260/5035 and 8270, respectively, and/or for pesticides by EPA Method 8081.

## 5.2 Laboratory Analytical Results - Soil

The laboratory analytical results indicated that the four (4) soil samples ("P10HA6-1.0" through "P10HA9-1.0") that were submitted for metals analysis contained elevated levels of arsenic and mercury. Specifically, total arsenic was detected at a maximum concentration of 12.0 mg/kg with a secondary maximum concentration value of 5.74 mg/kg. Mercury was detected at a maximum concentration of 0.11 mg/kg with a secondary maximum concentration of 0.0437 mg/kg. The results of the analytical testing of the soil samples for 8 RCRA Metals are summarized in **Table 1**.

For comparison purposes, the calculated values (2x's the arithmetic mean) for the naturally occurring levels of metals were used for the subject property as reported in a "*Limited Preliminary Site Assessment – Parcel 009 Recycling Industries (Atlantic Scrap & Processing, LLC)*". The background sample data for metals are believed to be comparable for Parcel 010 and thus, are included in **Table 1**. In addition, 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); and the NC DENR Groundwater (GW) Section Soil Clean-up Levels. The laboratory results and Chain-of-Custody Records for soils are presented in **Appendix C**.

The laboratory analytical results indicated that there were no VOCs, SVOCs, pesticides, and TPHs present in the soil samples collected from *within the proposed DOT ROW*. A summary of the laboratory analytical results for VOCs, SVOCs, and pesticides are presented in **Table 2**. The summary of the analytical testing for TPH analysis is presented in **Table 3**.

## 5.3 Laboratory Analytical Results - Groundwater

Review of the groundwater analytical data from a CSA conducted at the Royster-Clark site reported that groundwater contained VOCs, metals, and other inorganic constituents at concentrations above 15A NCAC 2L .0202. Reportedly, many of the constituents detected, VOCs in particular, could not be attributed to source areas at the subject property.

Reportedly, metal and VOC plumes identified at the Royster-Clark facility represent a portion of larger constituent plumes originating upgradient of the subject property. 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, review of DOT plan sheets, review of former site investigations, review of site investigations including soil, 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 over the history of the Royster-Clark facility, there have been numerous, inadvertent, releases of acid and 448-nitrogen solution (a mixture of ammonia, ammonium nitrate, and water) at the Royster-Clark facility. Groundwater samples collected from the subject property during previous investigations were reported to contain VOCs, metals, and other inorganic constituents at concentrations above 15A NCAC 2L .0202. Reportedly, many of the constituents detected, VOCs, in particular, could not be attributed to source areas at the subject property. Metal and VOC plumes identified at the subject property represent a portion of larger constituent plumes originating upgradient from the facility. Surface water and groundwater monitoring activities are ongoing at the site.

- Nine (9) soil samples were collected in the *proposed DOT ROW* and submitted for select laboratory analysis for impact from metals, VOCs, SVOCs, TPHs, and pesticides. The laboratory analytical results showed elevated concentrations of total arsenic and mercury within the *proposed DOT ROW*; but no VOCs, SVOCs, and TPHs were present at detectable levels.

## 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 *within* the *proposed* ROW of Parcel 010, appears to have elevated levels of heavy metals including, arsenic, lead, chromium and mercury. Specifically, arsenic and mercury were detected above their respective NC HWS SSLs. Chromium and lead were detected above background concentrations, but below the current state and federal standards. Metal concentrations area shown on **Figure 4**.

VOC, SVOCs, Pesticides

Based on the laboratory analytical results, the vadose zone at the subject property has not been impacted by VOCs, SVOCs, and pesticides *within the proposed* ROW. Based on the available information, there appears to be no environmental concern with respect to these analytical groups for the vadose zone *within the proposed* ROW.

TPH-Impacted Soils

Based on the laboratory analytical results, the vadose zone at the subject property has not been impacted by TPHs *within the proposed* ROW. Based on the available information, there appears to be no environmental concern with respect to TPHs for the vadose zone *within the proposed* ROW.

Groundwater Impact

Based on the existing groundwater quality data obtained from a CSA Report by RMT, Inc. on Parcel 010 and the date of collection for the data, it appears that the groundwater beneath Parcel 010 have been impacted by regulated compounds at levels such that the respective groundwater are *likely* to be impacted above current regulatory standards at this time.

Prior to the NCDOT proceeding with installing drainage piping or cut areas *within the proposed ROW*, planning for the capture and disposal of petroleum-impacted groundwaters in the ROW should be considered. The specifics regarding construction detail for the drainage areas were not available at the time of this project.

Based on the data collected for this *Limited PSA* and the available information, the study area has been impacted by arsenic and mercury; and thus, 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**
**P010-Royster Clark Agribusiness**
**3105 North Glenn Avenue**
**Winston-Salem (Forsyth Co.), NC**
**EI Project No.: ENMO050015.00**

| 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** |
| **Sample Identification** | **Laboratory Analysis (mg/kg)** | | | | | | | |
| P10GP1-30 | NA | NA | NA | NA | NA | NA | NA | NA |
| P10GP2-28 | NA | NA | NA | NA | NA | NA | NA | NA |
| P10GP3-21 | NA | NA | NA | NA | NA | NA | NA | NA |
| P10GP4-28 | NA | NA | NA | NA | NA | NA | NA | NA |
| P10GP5-30 | NA | NA | NA | NA | NA | NA | NA | NA |
| P10HA6-1.0 | **12.0** | 48.9 | BQL | 5.06 | **66.2** | **0.110** | BQL | BQL |
| P10HA7-0.5 | **4.84** | 60.2 | BQL | **10.9** | **76.9** | **0.0437** | BQL | BQL |
| P10HA8-0.5 | **5.71** | 46.5 | BQL | **5.77** | **35.4** | **0.0366** | BQL | BQL |
| P10HA9-1.0 | **5.74** | 49.7 | BQL | 5.29 | **41.1** | **0.0434** | BQL | BQL |

NS = No Standard; **Bold Font** = Above one or more standards or background concentrations
BQL = Below Qauntitation Limit
PRGs = Prelim. Remediation Goals
SSLs = Soil Screening Levels

**TABLE 2**
**Summary of Soil Analytical Results**
**VOCs and SVOCs**
**P010-Royster Clark**
**3301 North Glenn Avenue**
**Winston-Salem (Forsyth Co.), NC**
**EI Project No.: ENMO050015.00**

| Sample Point Location | | | | P10GP1-30 | P10GP2-28 | P10GP3-21 | P10GP4-28 | P10GP5-30 | P10HA6-1.0 | P10HA7-0.5 | P10HA8-0.5 | P10HA9-1.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth - Feet | | | | 29.5-30.0 | 28.0-29.0 | 21.0-21.5 | 28.0-29.0 | 28.0-29.0 | 1.0-2.0 | 0.5-1.5 | 0.5-1.5 | 1.0-2.0 |
| Sample Date | | | | 8/23/2005 | 8/23/2005 | 8/23/2005 | 8/23/2005 | 8/23/2005 | NA | NA | NA | NA |
| Field Screening Results-PID (ppm) | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Laboratory Analysis | Cleanup Standards (MSCC) | | | | | | | | | | | |
| VOC's GCMS 8260/5035 | Residential MSCCs (mg/kg) | Industrial/Commercial MSCCs (mg/kg) | Soil-to-GW MSCCs (mg/kg) | Laboratory Analytical Results/ mg/kg | | | | | | | | |
| Benzene | 22 | 200 | 0.0056 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Toluene | 3200 | 82000 | 7 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Ethylbenzene | 1560 | 40000 | 0.24 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Xylene | 32000 | 200000 | 5 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Isopropylbenzene (Cumene) | 1564 | 40880 | 2 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| 1,2,3-Trichloropropane | NS | NS | NS | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| n-Propylbenzene | NS | NS | NS | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| 1,3,5-Trimethylbenzene | 782 | 20440 | 7 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| 1,2,4-Trimethylbenzene | 782 | 20440 | 8 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| n-Butylbenzene | 156 | 4088 | 4 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Naphthhalene | 63 | 1635 | 0.58 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Tetrachloroethene | 12 | 110 | 0.0074 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Methyl-tert-butyl Ether | 156 | 4088 | 0.92 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Semi-VOC's GCMS 8270 | | | | Laboratory Analytical Results/ mg/kg | | | | | | | | |
| Acenaphthene | 940 | 24000 | 8 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Anthracene | 4600 | 12200 | 995 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Benzo[a]anthracene | 0.88 | 8 | 0.34 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Benzo[a]pyrene | 0.088 | 0.78 | 0.091/0.088 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Benzo[b]fluoranthene | 0.88 | 8 | 1 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Benzo[g,h,i]perylene | 469 | 12264 | 6720 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Benzo[k]fluoranthene | 9 | 78 | 12 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Chrysene | 88 | 780 | 38 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Dibenzo[a,h]anthracene | NS | NS | 0.17/0.088 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Dibenzofuran | 62 | 1635 | 4.7 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Fluoranthene | 620 | 16400 | 276 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Fluorene | 620 | 16400 | 44 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrewne | 0.88 | 8 | 3 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Phenol | NS | NS | NS | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Naphthalene | 63 | 1635 | 0.58 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| 2-Methylnapthalene | 63 | 1635 | 3 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Fluorene | 620 | 16400 | 44 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| bis (2-Ethylhexyl)phthalate | NS | NS | NS | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Phenanthrene | 469 | 12264 | 60 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| Pyrene | 469 | 12264 | 286 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |

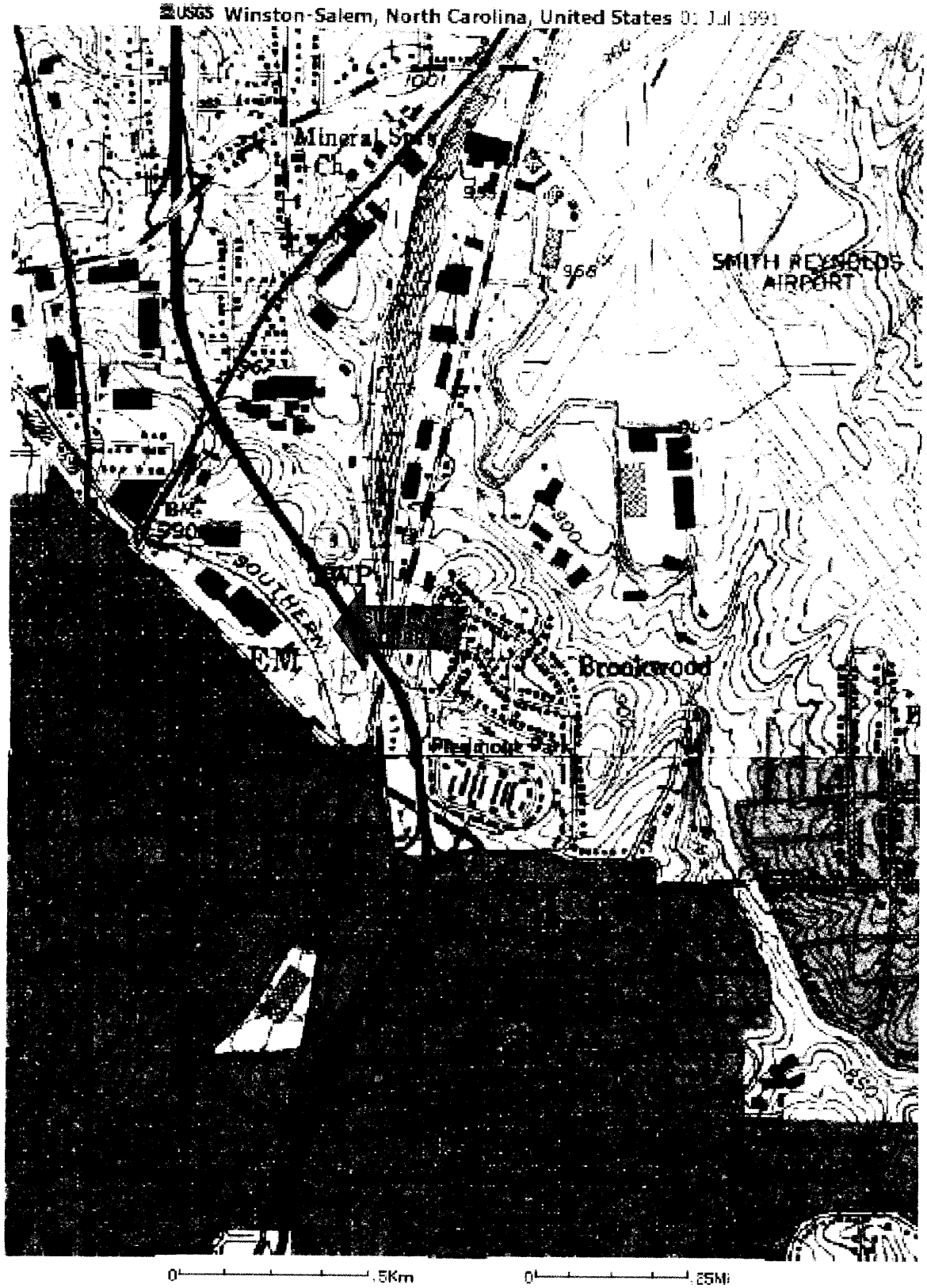
* = Health-based level > 100%  NS = No Standard  NA = Not Applicable  BQL = Below Quantitation Limit

**TABLE 3**
**SUMMARY OF SOIL ANALYTICAL RESULTS for TPH**
**P010-Royster Clark**
**3105 North Glenn Avenue**
**Winston-Salem (Forsyth Co.), NC**
**EI Project No.: ENMO050015.00**

| Sample Identification | | P10GP1-30 | P10GP2-28 | P10GP3-21 | P10GP4-28 | P10GP4-28 | P10HA6-1.0 | P10HA7-0.5 | P10HA8-0.5 | P10HA9-1.0 |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth - Feet | | 29.5-30.0 | 28.0-29.0 | 21.0-21.5 | 28.0-29.0 | 28.0-29.0 | 1.0-2.0 | 0.5-1.5 | 0.5-1.5 | 1.0-2.0 |
| Sample Date | | 8/30/2005 | | | | | NA | NA | NA | NA |
| Field Screening Results-PID (ppm) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Laboratory Analysis | NC DWQ Action Limits | LABORATORY ANALYTICAL RESULTS (mg/kg) | | | | | | | | |
| TPH-GC/PID/FID/8021 GRO | 10 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |
| TPH-GC/FID/8015 DRO | 40 | BQL | BQL | BQL | BQL | BQL | NA | NA | NA | NA |

notes: BQL - below quantitation limits, NA = not analyzed

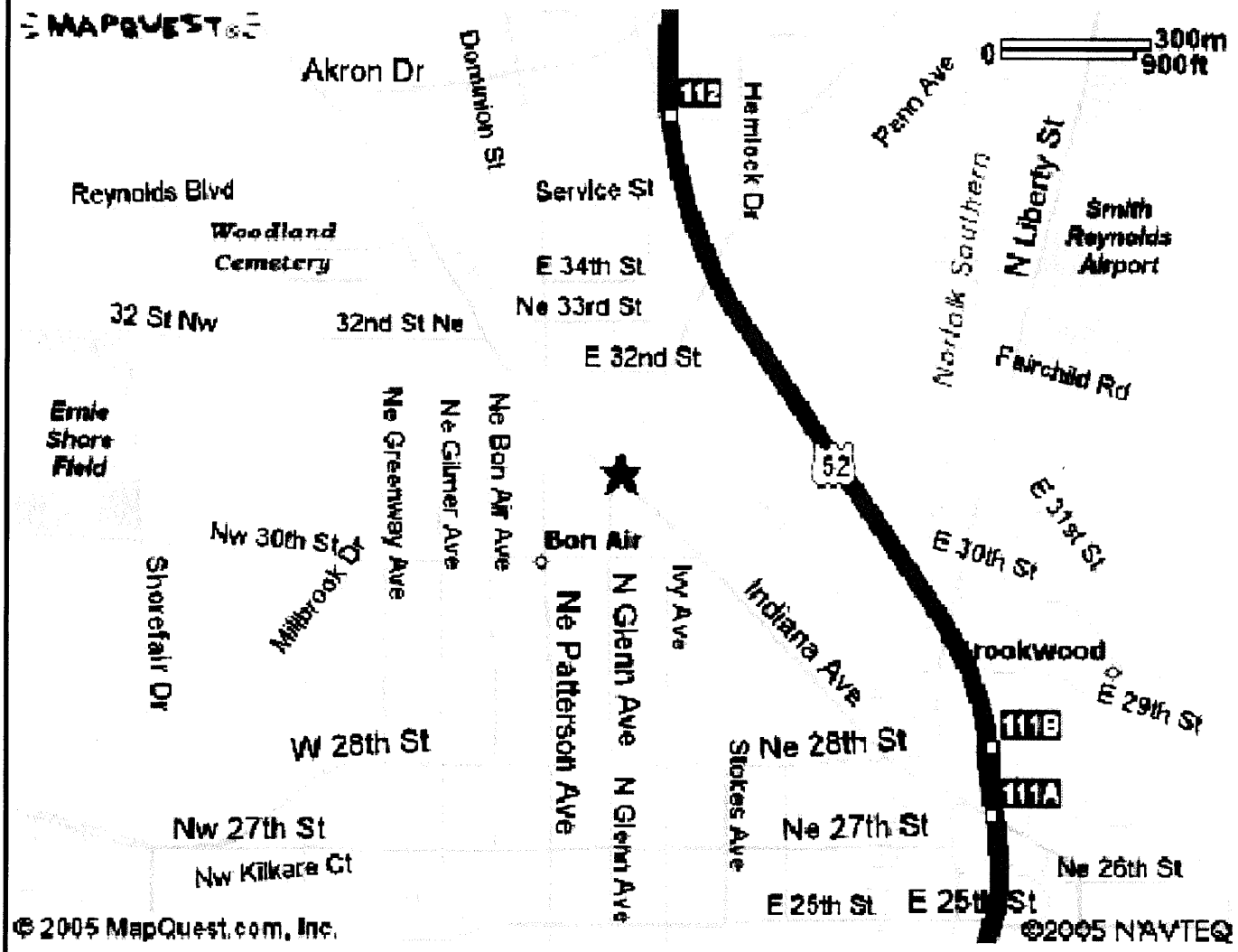
# FIGURES




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

**SITE LOCATION MAP**
Parcel #10 – Royster-Clark Agribusiness, Inc. Property
3105 North Glenn Avenue
Winston-Salem, North Carolina

EI
ENVIRONMENTAL INVESTIGATIONS, INC




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

**SITE LOCATION MAP**
Parcel #10 – Royster-Clark Agribusiness, Inc. Property
3105 North Glenn Avenue
Winston-Salem, North Carolina

EI
ENVIRONMENTAL INVESTIGATIONS, INC

0 Feet 622

**SCALE** 1 : 7468

N

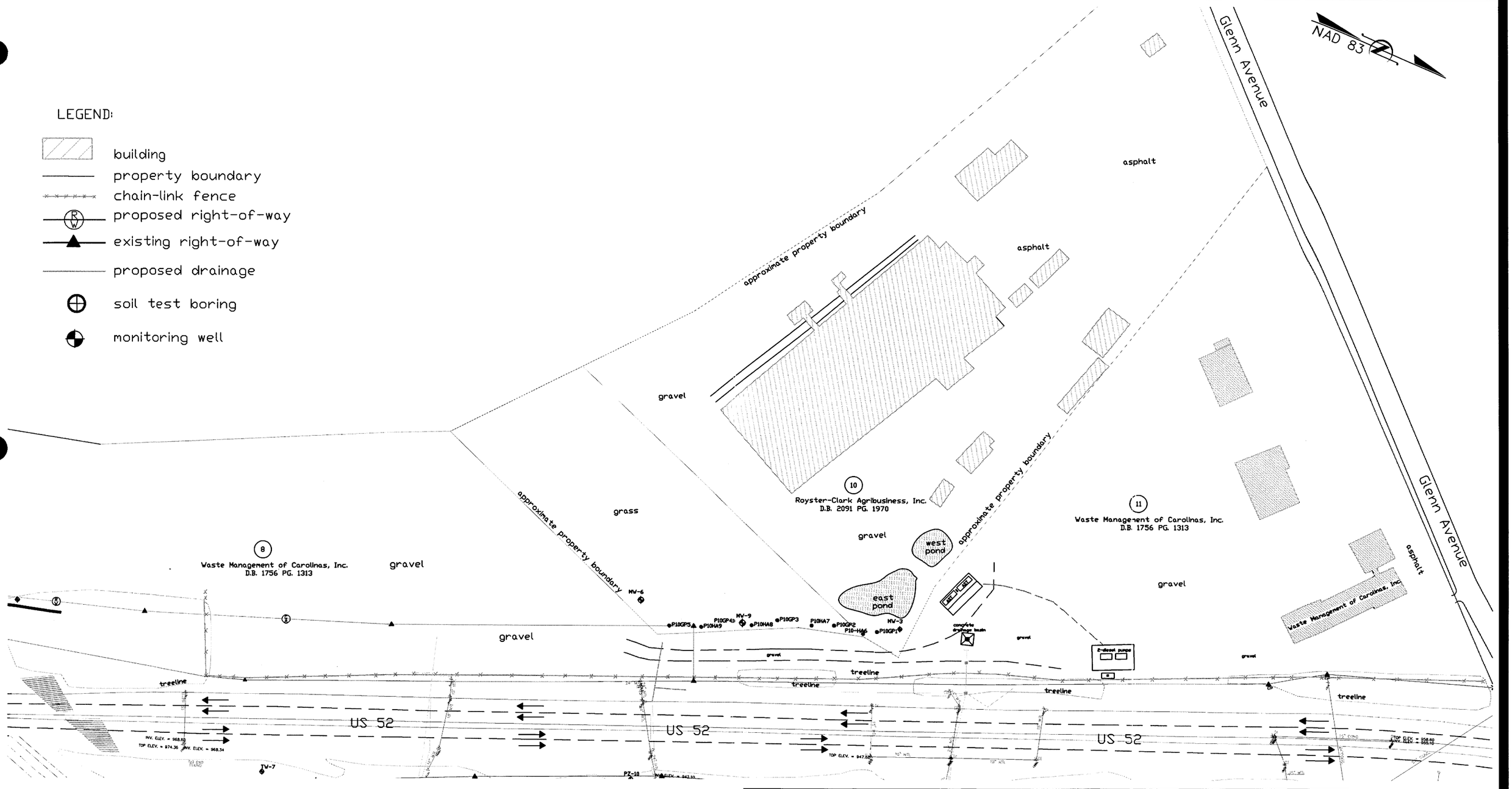
| | |
|---|---|
| **FIGURE NUMBER:** | 2 |
| **QUAD:** | 1991 Winston-Salem |
| **PROJECT NUMBER:** | ENMO050015.00 |
| **SCALE:** | As Shown |

**AERIAL PHOTOGRAPH**
Parcel #10–Royster-Clark
Agribusiness, Inc. Property
3105 North Glenn Avenue
Winston-Salem, North Carolina

EI
ENVIRONMENTAL INVESTIGATIONS, INC

LEGEND:

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




0′ 150′ 300′

approximate scale in feet

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

# SITE MAP

Parcel 10

Royster-Clark Agribusiness, Inc.
3105 North Glenn Avenue
Winston-Salem, North Carolina

ENVIRONMENTAL INVESTIGATIONS, INC.

10

Royster-Clark Agribusiness, Inc.
D.B. 2091 PG. 1970

approximate property boundary

grass

gravel

west pond

east pond

approximate property boundary

NAD 83

NOTE: concentrations in mg/kg

| | | | | |
|---|---|---|---|---|
| As=5.74 | As=5.71 | As=4.84 | As=12.0 | |
| Ba=49.7 | Ba=46.5 | Ba=60.2 | Ba=48.9 | |
| Cr=5.29 | Cr=5.77 | Cr=10.9 | Cr=5.06 | |
| Pb=41.1 | Pb=35.4 | Pb=76.9 | Pb=66.2 | |
| Hg=0.434 | Hg=0.0366 | Hg=0.0437 | Hg=0.11 | |

MW-6
P10GP5
P10HA9
P10GP4
MW-9
P10HA8
P10GP3
P10HA7
P10GP2
P10-HA6
P10GP1
MW-3

AST
AST

concrete drainage basin

gravel

gravel

treeline

treeline

treeline

24" MTL

15" MTL

15" MTL

15" MTL

TOP ELEV. = 947.68

US 52

LEGEND:

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

0′ 75′ 150′

approximate scale in feet

| | |
|---|---|
| FIGURE NO.: | 4 |
| DRN BY: | DOT/DRL |
| CHK BY: | DCB |
| DATE: | 8/2005 |
| REVISED: | N/A |
| SCALE: | 1" = 75' |

ANALYTICAL RESULTS MAP

FOR SOILS - 8RCRA METALS
Parcel 10
Royster-Clark Agribusiness, Inc.
3105 North Glenn Avenue
Winston-Salem, North Carolina

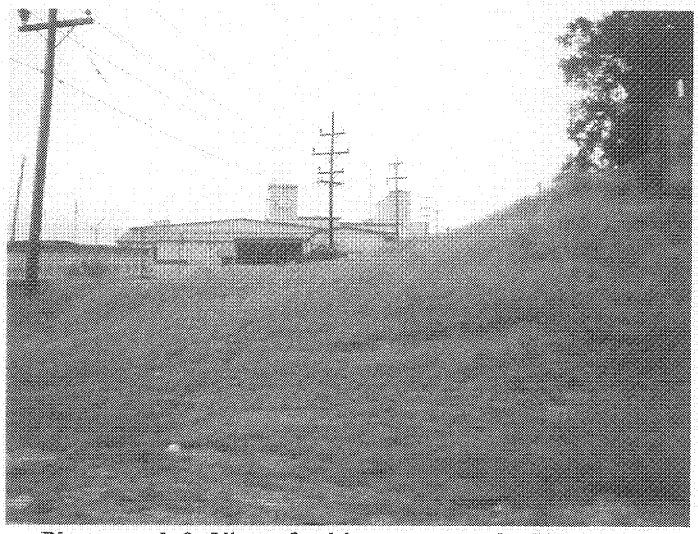
EI
ENVIRONMENTAL INVESTIGATIONS, INC.

# APPENDIX A

# SITE PHOTOGRAPHS

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

**Photograph 2: View of the subject parcel.**



**Photograph 3: View of subject property looking south.**

# APPENDIX B

# SOIL BORING LOGS

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Blvd.
Suite 200
Morrisville, North Carolina
919-544-7500

**SOIL BORING LOG**

Boring No. **P10GP-1,2,3,4,5**

Date Drilled: **08/23/05**

| | | | |
|---|---|---|---|
| Client: | NCDOT | Logged By: | Robert M. Shaut |
| Project Name: | DOT Winston-Salem, Bridges 256,257 US52 | Drilling Company: | SEI, LLC |
| Project/Site Location: | Parcel 010 Royster-Clark Agribusiness, Inc. | Drill Device: | Geoprobe ® 6100 Series |
| Project Number: | ENMO050015.00 | Drill Method: | Direct Push Technology |

Total Boring Depth: 30 Weather Conditions: humid, 94°, p. cloudy Surface Elevation:

Boring Diameter: 1.5" Boring Location: See Figures

| Depth (Feet) | Depth (meters) | Time | Sample Analyzed | Recovery | Soil Profile | Lithological Description | Sample PID (ppm) |
|---|---|---|---|---|---|---|---|
| | | | | | | | 0.0 |
| 5.00 | 1.52 | | | | ML | SILT. Brown, sandy | |
| 10.00 | 3.05 | | | | | | |
| | | | | | CL | CLAY. Silty, brown to tan | 0.0 |
| | | | | 100% | ML | SILT. Brown, sandy, trace clay | |
| 15.00 | 4.57 | | | | | | |
| | | | | | SM | SAND. Silty, trace clay | |
| 30.00 | 9.14 | | | | | | 0.0 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

# APPENDIX C

# LABORATORY ANALYTICAL REPORT - SOIL

## Results for Total Petroleum Hydrocarbons
by **GC/FID 8015**

Client Sample ID: P10GP1-30
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-1
Lab Project ID: G106-542
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/30/05 10:32
Date Received: 9/1/05
Matrix: Soil
Solids 75.10

| Analyte | Result MG/KG | Report Limit MG/KG | Prep Method | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|
| Gasoline Range Organics | BQL | 8.05 | 5035 | 1 | 09/07/05 |
| Diesel Range Organics | BQL | 8.17 | 3545 | 1 | 09/08/05 |

Comments:

Reviewed By: _____

## Results for Total Petroleum Hydrocarbons
by **GC/FID 8015**

| | | | |
|---|---|---|---|
| Client Sample ID: | P10GP2-28 | Analyzed By: | DCS |
| Client Project ID: | Parcel 10-NCDOT Forsyth Tip#U-2826A | Date Collected: | 8/30/05 10:50 |
| Lab Sample ID: | G106-542-2 | Date Received: | 9/1/05 |
| Lab Project ID: | G106-542 | Matrix: | Soil |
| Report Basis: | Dry Weight | Solids | 83.06 |

| Analyte | Result MG/KG | Report Limit MG/KG | Prep Method | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|
| Gasoline Range Organics | BQL | 6.35 | 5035 | 1 | 09/07/05 |
| Diesel Range Organics | BQL | 7.26 | 3545 | 1 | 09/08/05 |

Comments:

Reviewed By: _____

## Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

| | | | |
|---|---|---|---|
| Client Sample ID: | P10GP3-21 | Analyzed By: | DCS |
| Client Project ID: | Parcel 10-NCDOT Forsyth Tip#U-2826A | Date Collected: | 8/30/05 11:20 |
| Lab Sample ID: | G106-542-3 | Date Received: | 9/1/05 |
| Lab Project ID: | G106-542 | Matrix: | Soil |
| Report Basis: | Dry Weight | Solids | 84.19 |

| Analyte | Result MG/KG | Report Limit MG/KG | Prep Method | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|
| Gasoline Range Organics | BQL | 7.76 | 5035 | 1 | 09/07/05 |
| Diesel Range Organics | BQL | 7.11 | 3545 | 1 | 09/08/05 |

Comments:

Reviewed By: _____

## Results for Total Petroleum Hydrocarbons
by **GC/FID 8015**

| | | | |
|---|---|---|---|
| Client Sample ID: | P10GP4-28 | Analyzed By: | DCS |
| Client Project ID: | Parcel 10-NCDOT Forsyth Tip#U-2826A | Date Collected: | 8/30/05 11:40 |
| Lab Sample ID: | G106-542-4 | Date Received: | 9/1/05 |
| Lab Project ID: | G106-542 | Matrix: | Soil |
| Report Basis: | Dry Weight | Solids | 75.79 |

| Analyte | Result MG/KG | Report Limit MG/KG | Prep Method | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|
| Diesel Range Organics | BQL | 8.16 | 3545 | 1 | 09/08/05 |

Comments:

Reviewed By: _____

## Results for Total Petroleum Hydrocarbons
by **GC/FID 8015**

Client Sample ID: P10GP5-30
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-5
Lab Project ID: G106-542
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/30/05 12:15
Date Received: 9/1/05
Matrix: Soil
Solids 82.66

| Analyte | Result MG/KG | Report Limit MG/KG | Prep Method | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|
| Diesel Range Organics | BQL | 7.25 | 3545 | 1 | 09/08/05 |

Comments:

Reviewed By: _____

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

Client Sample ID: P10GP1-30
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID G106-542-1A
Lab Project ID: G106-542
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-30-2005 10:32
Date Received: 9/1/2005
Matrix: Soil
%Solids: 75.1

| Report Name<br>Compound | Result<br>UG/KG | Quantitation<br>Limit UG/KG | Dilution<br>Factor | Date<br>Analyzed |
|---|---|---|---|---|
| Acetone | BQL | 66.3 | 1 | 9/6/2005 |
| Benzene | BQL | 6.63 | 1 | 9/6/2005 |
| Bromobenzene | BQL | 6.63 | 1 | 9/6/2005 |
| Bromochloromethane | BQL | 6.63 | 1 | 9/6/2005 |
| Bromodichloromethane | BQL | 6.63 | 1 | 9/6/2005 |
| Bromoform | BQL | 6.63 | 1 | 9/6/2005 |
| Bromomethane | BQL | 6.63 | 1 | 9/6/2005 |
| 2-Butanone | BQL | 33.2 | 1 | 9/6/2005 |
| n-Butylbenzene | BQL | 6.63 | 1 | 9/6/2005 |
| sec-Butylbenzene | BQL | 6.63 | 1 | 9/6/2005 |
| tert-Butylbenzene | BQL | 6.63 | 1 | 9/6/2005 |
| Carbon disulfide | BQL | 6.63 | 1 | 9/6/2005 |
| Carbon tetrachloride | BQL | 6.63 | 1 | 9/6/2005 |
| Chlorobenzene | BQL | 6.63 | 1 | 9/6/2005 |
| Chloroethane | BQL | 6.63 | 1 | 9/6/2005 |
| Chloroform | BQL | 6.63 | 1 | 9/6/2005 |
| Chloromethane | BQL | 6.63 | 1 | 9/6/2005 |
| 2-Chlorotoluene | BQL | 6.63 | 1 | 9/6/2005 |
| 4-Chlorotoluene | BQL | 6.63 | 1 | 9/6/2005 |
| Dibromochloromethane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2-Dibromo-3-chloropropane | BQL | 6.63 | 1 | 9/6/2005 |
| Dibromomethane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2-Dibromoethane (EDB) | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2-Dichlorobenzene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,3-Dichlorobenzene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,4-Dichlorobenzene | BQL | 6.63 | 1 | 9/6/2005 |
| trans-1,4-Dichloro-2-butene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,1-Dichloroethane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,1-Dichloroethene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2-Dichloroethane | BQL | 6.63 | 1 | 9/6/2005 |
| cis-1,2-Dichloroethene | BQL | 6.63 | 1 | 9/6/2005 |
| trans-1,2-dichloroethene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2-Dichloropropane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,3-Dichloropropane | BQL | 6.63 | 1 | 9/6/2005 |
| 2,2-Dichloropropane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,1-Dichloropropene | BQL | 6.63 | 1 | 9/6/2005 |
| cis-1,3-Dichloropropene | BQL | 6.63 | 1 | 9/6/2005 |
| trans-1,3-Dichloropropene | BQL | 6.63 | 1 | 9/6/2005 |
| Dichlorodifluoromethane | BQL | 6.63 | 1 | 9/6/2005 |
| Diisopropyl ether (DIPE) | BQL | 6.63 | 1 | 9/6/2005 |
| Ethylbenzene | BQL | 6.63 | 1 | 9/6/2005 |
| Hexachlorobutadiene | BQL | 6.63 | 1 | 9/6/2005 |
| 2-Hexanone | BQL | 6.63 | 1 | 9/6/2005 |
| Iodomethane | BQL | 6.63 | 1 | 9/6/2005 |

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

Client Sample ID: P10GP1-30
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID G106-542-1A
Lab Project ID: G106-542
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-30-2005 10:32
Date Received: 9/1/2005
Matrix: Soil
%Solids: 75.1

| Report Name<br>Compound | Result<br>UG/KG | Quantitation<br>Limit UG/KG | Dilution<br>Factor | Date<br>Analyzed |
|---|---|---|---|---|
| Isopropylbenzene | BQL | 6.63 | 1 | 9/6/2005 |
| 4-Isopropyltoluene | BQL | 6.63 | 1 | 9/6/2005 |
| Methylene chloride | BQL | 26.5 | 1 | 9/6/2005 |
| 4-Methyl-2-pentanone | BQL | 6.63 | 1 | 9/6/2005 |
| Methyl-tert-butyl ether (MTBE) | BQL | 6.63 | 1 | 9/6/2005 |
| Naphthalene | BQL | 6.63 | 1 | 9/6/2005 |
| n-Propyl benzene | BQL | 6.63 | 1 | 9/6/2005 |
| Styrene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,1,1,2-Tetrachloroethane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,1,2,2-Tetrachloroethane | BQL | 6.63 | 1 | 9/6/2005 |
| Tetrachloroethene | BQL | 6.63 | 1 | 9/6/2005 |
| Toluene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2,3-Trichlorobenzene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2,4-Trichlorobenzene | BQL | 6.63 | 1 | 9/6/2005 |
| Trichloroethene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,1,1-Trichloroethane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,1,2-Trichloroethane | BQL | 6.63 | 1 | 9/6/2005 |
| Trichlorofluoromethane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2,3-Trichloropropane | BQL | 6.63 | 1 | 9/6/2005 |
| 1,2,4-Trimethylbenzene | BQL | 6.63 | 1 | 9/6/2005 |
| 1,3,5-Trimethylbenzene | BQL | 6.63 | 1 | 9/6/2005 |
| Vinyl chloride | BQL | 6.63 | 1 | 9/6/2005 |
| m-,p-Xylene | BQL | 13.3 | 1 | 9/6/2005 |
| o-Xylene | BQL | 6.63 | 1 | 9/6/2005 |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 4-Bromofluorobenzene | 50 | 50.6 | 101 |
| 1,2-Dichloroethane-d4 | 50 | 54 | 108 |
| Toluene-d8 | 50 | 51.9 | 104 |

**Comments:**

**Flags:**
BQL = Below Quantitation Limits.

Reviewed By: _____

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

Client Sample ID: P10GP2-28
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID G106-542-2A
Lab Project ID: G106-542
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-30-2005 10:50
Date Received: 9/1/2005
Matrix: Soil
%Solids: 83.1

| Report Name<br>Compound | Result<br>UG/KG | Quantitation<br>Limit UG/KG | Dilution<br>Factor | Date<br>Analyzed |
|---|---|---|---|---|
| Acetone | BQL | 50.5 | 1 | 9/6/2005 |
| Benzene | BQL | 5.05 | 1 | 9/6/2005 |
| Bromobenzene | BQL | 5.05 | 1 | 9/6/2005 |
| Bromochloromethane | BQL | 5.05 | 1 | 9/6/2005 |
| Bromodichloromethane | BQL | 5.05 | 1 | 9/6/2005 |
| Bromoform | BQL | 5.05 | 1 | 9/6/2005 |
| Bromomethane | BQL | 5.05 | 1 | 9/6/2005 |
| 2-Butanone | BQL | 25.3 | 1 | 9/6/2005 |
| n-Butylbenzene | BQL | 5.05 | 1 | 9/6/2005 |
| sec-Butylbenzene | BQL | 5.05 | 1 | 9/6/2005 |
| tert-Butylbenzene | BQL | 5.05 | 1 | 9/6/2005 |
| Carbon disulfide | BQL | 5.05 | 1 | 9/6/2005 |
| Carbon tetrachloride | BQL | 5.05 | 1 | 9/6/2005 |
| Chlorobenzene | BQL | 5.05 | 1 | 9/6/2005 |
| Chloroethane | BQL | 5.05 | 1 | 9/6/2005 |
| Chloroform | BQL | 5.05 | 1 | 9/6/2005 |
| Chloromethane | BQL | 5.05 | 1 | 9/6/2005 |
| 2-Chlorotoluene | BQL | 5.05 | 1 | 9/6/2005 |
| 4-Chlorotoluene | BQL | 5.05 | 1 | 9/6/2005 |
| Dibromochloromethane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2-Dibromo-3-chloropropane | BQL | 5.05 | 1 | 9/6/2005 |
| Dibromomethane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2-Dibromoethane (EDB) | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2-Dichlorobenzene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,3-Dichlorobenzene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,4-Dichlorobenzene | BQL | 5.05 | 1 | 9/6/2005 |
| trans-1,4-Dichloro-2-butene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,1-Dichloroethane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,1-Dichloroethene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2-Dichloroethane | BQL | 5.05 | 1 | 9/6/2005 |
| cis-1,2-Dichloroethene | BQL | 5.05 | 1 | 9/6/2005 |
| trans-1,2-dichloroethene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2-Dichloropropane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,3-Dichloropropane | BQL | 5.05 | 1 | 9/6/2005 |
| 2,2-Dichloropropane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,1-Dichloropropene | BQL | 5.05 | 1 | 9/6/2005 |
| cis-1,3-Dichloropropene | BQL | 5.05 | 1 | 9/6/2005 |
| trans-1,3-Dichloropropene | BQL | 5.05 | 1 | 9/6/2005 |
| Dichlorodifluoromethane | BQL | 5.05 | 1 | 9/6/2005 |
| Diisopropyl ether (DIPE) | BQL | 5.05 | 1 | 9/6/2005 |
| Ethylbenzene | BQL | 5.05 | 1 | 9/6/2005 |
| Hexachlorobutadiene | BQL | 5.05 | 1 | 9/6/2005 |
| 2-Hexanone | BQL | 5.05 | 1 | 9/6/2005 |
| Iodomethane | BQL | 5.05 | 1 | 9/6/2005 |

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

Client Sample ID: P10GP2-28
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID G106-542-2A
Lab Project ID: G106-542
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-30-2005 10:50
Date Received: 9/1/2005
Matrix: Soil
%Solids: 83.1

| Report Name<br>Compound | Result<br>UG/KG | Quantitation<br>Limit UG/KG | Dilution<br>Factor | Date<br>Analyzed |
|---|---|---|---|---|
| Isopropylbenzene | BQL | 5.05 | 1 | 9/6/2005 |
| 4-Isopropyltoluene | BQL | 5.05 | 1 | 9/6/2005 |
| Methylene chloride | BQL | 20.2 | 1 | 9/6/2005 |
| 4-Methyl-2-pentanone | BQL | 5.05 | 1 | 9/6/2005 |
| Methyl-tert-butyl ether (MTBE) | BQL | 5.05 | 1 | 9/6/2005 |
| Naphthalene | BQL | 5.05 | 1 | 9/6/2005 |
| n-Propyl benzene | BQL | 5.05 | 1 | 9/6/2005 |
| Styrene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,1,1,2-Tetrachloroethane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,1,2,2-Tetrachloroethane | BQL | 5.05 | 1 | 9/6/2005 |
| Tetrachloroethene | BQL | 5.05 | 1 | 9/6/2005 |
| Toluene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2,3-Trichlorobenzene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2,4-Trichlorobenzene | BQL | 5.05 | 1 | 9/6/2005 |
| Trichloroethene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,1,1-Trichloroethane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,1,2-Trichloroethane | BQL | 5.05 | 1 | 9/6/2005 |
| Trichlorofluoromethane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2,3-Trichloropropane | BQL | 5.05 | 1 | 9/6/2005 |
| 1,2,4-Trimethylbenzene | BQL | 5.05 | 1 | 9/6/2005 |
| 1,3,5-Trimethylbenzene | BQL | 5.05 | 1 | 9/6/2005 |
| Vinyl chloride | BQL | 5.05 | 1 | 9/6/2005 |
| m-,p-Xylene | BQL | 10.1 | 1 | 9/6/2005 |
| o-Xylene | BQL | 5.05 | 1 | 9/6/2005 |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 4-Bromofluorobenzene | 50 | 49.9 | 100 |
| 1,2-Dichloroethane-d4 | 50 | 53.8 | 108 |
| Toluene-d8 | 50 | 51.3 | 103 |

**Comments:**

**Flags:**
BQL = Below Quantitation Limits.

Reviewed By: _____

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

Client Sample ID: P10GP3-21
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID G106-542-3A
Lab Project ID: G106-542
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-30-2005 11:20
Date Received: 9/1/2005
Matrix: Soil
%Solids: 84.2

| Report Name<br>Compound | Result<br>UG/KG | Quantitation<br>Limit UG/KG | Dilution<br>Factor | Date<br>Analyzed |
|---|---|---|---|---|
| Acetone | BQL | 55.2 | 1 | 9/6/2005 |
| Benzene | BQL | 5.52 | 1 | 9/6/2005 |
| Bromobenzene | BQL | 5.52 | 1 | 9/6/2005 |
| Bromochloromethane | BQL | 5.52 | 1 | 9/6/2005 |
| Bromodichloromethane | BQL | 5.52 | 1 | 9/6/2005 |
| Bromoform | BQL | 5.52 | 1 | 9/6/2005 |
| Bromomethane | BQL | 5.52 | 1 | 9/6/2005 |
| 2-Butanone | BQL | 27.6 | 1 | 9/6/2005 |
| n-Butylbenzene | BQL | 5.52 | 1 | 9/6/2005 |
| sec-Butylbenzene | BQL | 5.52 | 1 | 9/6/2005 |
| tert-Butylbenzene | BQL | 5.52 | 1 | 9/6/2005 |
| Carbon disulfide | BQL | 5.52 | 1 | 9/6/2005 |
| Carbon tetrachloride | BQL | 5.52 | 1 | 9/6/2005 |
| Chlorobenzene | BQL | 5.52 | 1 | 9/6/2005 |
| Chloroethane | BQL | 5.52 | 1 | 9/6/2005 |
| Chloroform | BQL | 5.52 | 1 | 9/6/2005 |
| Chloromethane | BQL | 5.52 | 1 | 9/6/2005 |
| 2-Chlorotoluene | BQL | 5.52 | 1 | 9/6/2005 |
| 4-Chlorotoluene | BQL | 5.52 | 1 | 9/6/2005 |
| Dibromochloromethane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2-Dibromo-3-chloropropane | BQL | 5.52 | 1 | 9/6/2005 |
| Dibromomethane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2-Dibromoethane (EDB) | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2-Dichlorobenzene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,3-Dichlorobenzene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,4-Dichlorobenzene | BQL | 5.52 | 1 | 9/6/2005 |
| trans-1,4-Dichloro-2-butene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,1-Dichloroethane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,1-Dichloroethene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2-Dichloroethane | BQL | 5.52 | 1 | 9/6/2005 |
| cis-1,2-Dichloroethene | BQL | 5.52 | 1 | 9/6/2005 |
| trans-1,2-dichloroethene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2-Dichloropropane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,3-Dichloropropane | BQL | 5.52 | 1 | 9/6/2005 |
| 2,2-Dichloropropane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,1-Dichloropropene | BQL | 5.52 | 1 | 9/6/2005 |
| cis-1,3-Dichloropropene | BQL | 5.52 | 1 | 9/6/2005 |
| trans-1,3-Dichloropropene | BQL | 5.52 | 1 | 9/6/2005 |
| Dichlorodifluoromethane | BQL | 5.52 | 1 | 9/6/2005 |
| Diisopropyl ether (DIPE) | BQL | 5.52 | 1 | 9/6/2005 |
| Ethylbenzene | BQL | 5.52 | 1 | 9/6/2005 |
| Hexachlorobutadiene | BQL | 5.52 | 1 | 9/6/2005 |
| 2-Hexanone | BQL | 5.52 | 1 | 9/6/2005 |
| Iodomethane | BQL | 5.52 | 1 | 9/6/2005 |

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

Client Sample ID: P10GP3-21
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID G106-542-3A
Lab Project ID: G106-542
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-30-2005 11:20
Date Received: 9/1/2005
Matrix: Soil
%Solids: 84.2

| Report Name<br>Compound | Result<br>UG/KG | Quantitation<br>Limit UG/KG | Dilution<br>Factor | Date<br>Analyzed |
|---|---|---|---|---|
| Isopropylbenzene | BQL | 5.52 | 1 | 9/6/2005 |
| 4-Isopropyltoluene | BQL | 5.52 | 1 | 9/6/2005 |
| Methylene chloride | BQL | 22.1 | 1 | 9/6/2005 |
| 4-Methyl-2-pentanone | BQL | 5.52 | 1 | 9/6/2005 |
| Methyl-tert-butyl ether (MTBE) | BQL | 5.52 | 1 | 9/6/2005 |
| Naphthalene | BQL | 5.52 | 1 | 9/6/2005 |
| n-Propyl benzene | BQL | 5.52 | 1 | 9/6/2005 |
| Styrene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,1,1,2-Tetrachloroethane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,1,2,2-Tetrachloroethane | BQL | 5.52 | 1 | 9/6/2005 |
| Tetrachloroethene | BQL | 5.52 | 1 | 9/6/2005 |
| Toluene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2,3-Trichlorobenzene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2,4-Trichlorobenzene | BQL | 5.52 | 1 | 9/6/2005 |
| Trichloroethene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,1,1-Trichloroethane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,1,2-Trichloroethane | BQL | 5.52 | 1 | 9/6/2005 |
| Trichlorofluoromethane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2,3-Trichloropropane | BQL | 5.52 | 1 | 9/6/2005 |
| 1,2,4-Trimethylbenzene | BQL | 5.52 | 1 | 9/6/2005 |
| 1,3,5-Trimethylbenzene | BQL | 5.52 | 1 | 9/6/2005 |
| Vinyl chloride | BQL | 5.52 | 1 | 9/6/2005 |
| m-,p-Xylene | BQL | 11.0 | 1 | 9/6/2005 |
| o-Xylene | BQL | 5.52 | 1 | 9/6/2005 |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 4-Bromofluorobenzene | 50 | 52.6 | 105 |
| 1,2-Dichloroethane-d4 | 50 | 57.4 | 115 |
| Toluene-d8 | 50 | 50.8 | 102 |

**Comments:**

**Flags:**
BQL = Below Quantitation Limits.

Reviewed By: _____

**Results for Semivolatiles**
**by GCMS 8270**

Client Sample ID: P10GP1-30
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-1H
Lab Project ID: G106-542
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/30/2005 10:32
Date Received: 9/1/2005
Date Extracted: 9/2/2005
Matrix: Soil
% Solids: 75.1

| Compound | Result ug/Kg | Quantitation Limit ug/Kg | Dilution Factor | Date Analyzed |
|---|---|---|---|---|
| Acenaphthene | BQL | 394 | 1 | 9/7/2005 |
| Acenaphthylene | BQL | 394 | 1 | 9/7/2005 |
| Anthracene | BQL | 394 | 1 | 9/7/2005 |
| Benzo[a]anthracene | BQL | 394 | 1 | 9/7/2005 |
| Benzo[a]pyrene | BQL | 394 | 1 | 9/7/2005 |
| Benzo[b]fluoranthene | BQL | 394 | 1 | 9/7/2005 |
| Benzo[g,h,i]perylene | BQL | 394 | 1 | 9/7/2005 |
| Benzo[k]fluoranthene | BQL | 394 | 1 | 9/7/2005 |
| Benzoic Acid | BQL | 787 | 1 | 9/7/2005 |
| Bis(2-chloroethoxy)methane | BQL | 394 | 1 | 9/7/2005 |
| Bis(2-chloroethyl)ether | BQL | 394 | 1 | 9/7/2005 |
| Bis(2-chloroisopropyl)ether | BQL | 394 | 1 | 9/7/2005 |
| Bis(2-ethylhexyl)phthalate | BQL | 394 | 1 | 9/7/2005 |
| 4-bromophenyl phenyl ether | BQL | 394 | 1 | 9/7/2005 |
| Butylbenzylphthalate | BQL | 394 | 1 | 9/7/2005 |
| 2-Chloronaphthalene | BQL | 394 | 1 | 9/7/2005 |
| 2-Chlorophenol | BQL | 394 | 1 | 9/7/2005 |
| 4-Chloro-3-methylphenol | BQL | 394 | 1 | 9/7/2005 |
| 4-Chloroaniline | BQL | 1970 | 1 | 9/7/2005 |
| 4-Chlorophenyl phenyl ether | BQL | 394 | 1 | 9/7/2005 |
| Chrysene | BQL | 394 | 1 | 9/7/2005 |
| Dibenzo[a,h]anthracene | BQL | 394 | 1 | 9/7/2005 |
| Dibenzofuran | BQL | 394 | 1 | 9/7/2005 |
| Di-n-Butylphthalate | BQL | 394 | 1 | 9/7/2005 |
| 1,2-Dichlorobenzene | BQL | 394 | 1 | 9/7/2005 |
| 1,3-Dichlorobenzene | BQL | 394 | 1 | 9/7/2005 |
| 1,4-Dichlorobenzene | BQL | 394 | 1 | 9/7/2005 |
| 3,3'-Dichlorobenzidine | BQL | 787 | 1 | 9/7/2005 |
| 2,4-Dichlorophenol | BQL | 394 | 1 | 9/7/2005 |
| Diethylphthalate | BQL | 394 | 1 | 9/7/2005 |
| Dimethylphthalate | BQL | 394 | 1 | 9/7/2005 |
| 2,4-Dimethylphenol | BQL | 394 | 1 | 9/7/2005 |
| Di-n-octylphthalate | BQL | 394 | 1 | 9/7/2005 |
| 4,6-Dinitro-2-methylphenol | BQL | 1970 | 1 | 9/7/2005 |
| 2,4-Dinitrophenol | BQL | 1970 | 1 | 9/7/2005 |
| 2,4-Dinitrotoluene | BQL | 394 | 1 | 9/7/2005 |
| 2,6-Dinitrotoluene | BQL | 394 | 1 | 9/7/2005 |
| Diphenylamine * | BQL | 394 | 1 | 9/7/2005 |
| Fluoranthene | BQL | 394 | 1 | 9/7/2005 |
| Fluorene | BQL | 394 | 1 | 9/7/2005 |
| Hexachlorobenzene | BQL | 394 | 1 | 9/7/2005 |
| Hexachlorobutadiene | BQL | 394 | 1 | 9/7/2005 |

**Results for Semivolatiles by GCMS 8270**

Client Sample ID: P10GP1-30
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-1H
Lab Project ID: G106-542
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/30/2005 10:32
Date Received: 9/1/2005
Date Extracted: 9/2/2005
Matrix: Soil
% Solids: 75.1

| Compound | Result ug/Kg | Quantitation Limit ug/Kg | Dilution Factor | Date Analyzed |
|---|---|---|---|---|
| Hexachlorocyclopentadiene | BQL | 787 | 1 | 9/7/2005 |
| Hexachloroethane | BQL | 394 | 1 | 9/7/2005 |
| Indeno(1,2,3-c,d)pyrene | BQL | 394 | 1 | 9/7/2005 |
| Isophorone | BQL | 394 | 1 | 9/7/2005 |
| 2-Methylnaphthalene | BQL | 394 | 1 | 9/7/2005 |
| 2-Methylphenol | BQL | 394 | 1 | 9/7/2005 |
| 3- & 4-Methylphenol | BQL | 394 | 1 | 9/7/2005 |
| Naphthalene | BQL | 394 | 1 | 9/7/2005 |
| 2-Nitroaniline | BQL | 394 | 1 | 9/7/2005 |
| 3-Nitroaniline | BQL | 1970 | 1 | 9/7/2005 |
| 4-Nitroaniline | BQL | 1970 | 1 | 9/7/2005 |
| Nitrobenzene | BQL | 394 | 1 | 9/7/2005 |
| 2-Nitrophenol | BQL | 394 | 1 | 9/7/2005 |
| 4-Nitrophenol | BQL | 1970 | 1 | 9/7/2005 |
| N-Nitrosodi-n-propylamine | BQL | 394 | 1 | 9/7/2005 |
| Pentachlorophenol | BQL | 1970 | 1 | 9/7/2005 |
| Phenanthrene | BQL | 394 | 1 | 9/7/2005 |
| Phenol | BQL | 394 | 1 | 9/7/2005 |
| Pyrene | BQL | 394 | 1 | 9/7/2005 |
| 1,2,4-Trichlorobenzene | BQL | 394 | 1 | 9/7/2005 |
| 2,4,5-Trichlorophenol | BQL | 394 | 1 | 9/7/2005 |
| 2,4,6-Trichlorophenol | BQL | 394 | 1 | 9/7/2005 |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 2-Fluorobiphenyl | 10 | 8.7 | 87 |
| 2-Fluorophenol | 10 | 10.4 | 104 |
| Nitrobenzene-d5 | 10 | 9.5 | 95 |
| Phenol-d6 | 10 | 9.6 | 96 |
| 2,4,6-Tribromophenol | 10 | 6.1 | 61 |
| 4-Terphenyl-d14 | 10 | 10.5 | 105 |

**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: P10GP2-28
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-2H
Lab Project ID: G106-542
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/30/2005 10:50
Date Received: 9/1/2005
Date Extracted: 9/2/2005
Matrix: Soil
% Solids: 83.06

| Compound | Result ug/Kg | Quantitation Limit ug/Kg | Dilution Factor | Date Analyzed |
|---|---|---|---|---|
| Acenaphthene | BQL | 361 | 1 | 9/7/2005 |
| Acenaphthylene | BQL | 361 | 1 | 9/7/2005 |
| Anthracene | BQL | 361 | 1 | 9/7/2005 |
| Benzo[a]anthracene | BQL | 361 | 1 | 9/7/2005 |
| Benzo[a]pyrene | BQL | 361 | 1 | 9/7/2005 |
| Benzo[b]fluoranthene | BQL | 361 | 1 | 9/7/2005 |
| Benzo[g,h,i]perylene | BQL | 361 | 1 | 9/7/2005 |
| Benzo[k]fluoranthene | BQL | 361 | 1 | 9/7/2005 |
| Benzoic Acid | BQL | 722 | 1 | 9/7/2005 |
| Bis(2-chloroethoxy)methane | BQL | 361 | 1 | 9/7/2005 |
| Bis(2-chloroethyl)ether | BQL | 361 | 1 | 9/7/2005 |
| Bis(2-chloroisopropyl)ether | BQL | 361 | 1 | 9/7/2005 |
| Bis(2-ethylhexyl)phthalate | BQL | 361 | 1 | 9/7/2005 |
| 4-bromophenyl phenyl ether | BQL | 361 | 1 | 9/7/2005 |
| Butylbenzylphthalate | BQL | 361 | 1 | 9/7/2005 |
| 2-Chloronaphthalene | BQL | 361 | 1 | 9/7/2005 |
| 2-Chlorophenol | BQL | 361 | 1 | 9/7/2005 |
| 4-Chloro-3-methylphenol | BQL | 361 | 1 | 9/7/2005 |
| 4-Chloroaniline | BQL | 1810 | 1 | 9/7/2005 |
| 4-Chlorophenyl phenyl ether | BQL | 361 | 1 | 9/7/2005 |
| Chrysene | BQL | 361 | 1 | 9/7/2005 |
| Dibenzo[a,h]anthracene | BQL | 361 | 1 | 9/7/2005 |
| Dibenzofuran | BQL | 361 | 1 | 9/7/2005 |
| Di-n-Butylphthalate | BQL | 361 | 1 | 9/7/2005 |
| 1,2-Dichlorobenzene | BQL | 361 | 1 | 9/7/2005 |
| 1,3-Dichlorobenzene | BQL | 361 | 1 | 9/7/2005 |
| 1,4-Dichlorobenzene | BQL | 361 | 1 | 9/7/2005 |
| 3,3'-Dichlorobenzidine | BQL | 722 | 1 | 9/7/2005 |
| 2,4-Dichlorophenol | BQL | 361 | 1 | 9/7/2005 |
| Diethylphthalate | BQL | 361 | 1 | 9/7/2005 |
| Dimethylphthalate | BQL | 361 | 1 | 9/7/2005 |
| 2,4-Dimethylphenol | BQL | 361 | 1 | 9/7/2005 |
| Di-n-octylphthalate | BQL | 361 | 1 | 9/7/2005 |
| 4,6-Dinitro-2-methylphenol | BQL | 1810 | 1 | 9/7/2005 |
| 2,4-Dinitrophenol | BQL | 1810 | 1 | 9/7/2005 |
| 2,4-Dinitrotoluene | BQL | 361 | 1 | 9/7/2005 |
| 2,6-Dinitrotoluene | BQL | 361 | 1 | 9/7/2005 |
| Diphenylamine * | BQL | 361 | 1 | 9/7/2005 |
| Fluoranthene | BQL | 361 | 1 | 9/7/2005 |
| Fluorene | BQL | 361 | 1 | 9/7/2005 |
| Hexachlorobenzene | BQL | 361 | 1 | 9/7/2005 |
| Hexachlorobutadiene | BQL | 361 | 1 | 9/7/2005 |

**Results for Semivolatiles**
**by GCMS 8270**

Client Sample ID: P10GP2-28
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-2H
Lab Project ID: G106-542
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/30/2005 10:50
Date Received: 9/1/2005
Date Extracted: 9/2/2005
Matrix: Soil
% Solids: 83.06

| Compound | Result ug/Kg | Quantitation Limit ug/Kg | Dilution Factor | Date Analyzed |
|---|---|---|---|---|
| Hexachlorocyclopentadiene | BQL | 722 | 1 | 9/7/2005 |
| Hexachloroethane | BQL | 361 | 1 | 9/7/2005 |
| Indeno(1,2,3-c,d)pyrene | BQL | 361 | 1 | 9/7/2005 |
| Isophorone | BQL | 361 | 1 | 9/7/2005 |
| 2-Methylnaphthalene | BQL | 361 | 1 | 9/7/2005 |
| 2-Methylphenol | BQL | 361 | 1 | 9/7/2005 |
| 3- & 4-Methylphenol | BQL | 361 | 1 | 9/7/2005 |
| Naphthalene | BQL | 361 | 1 | 9/7/2005 |
| 2-Nitroaniline | BQL | 361 | 1 | 9/7/2005 |
| 3-Nitroaniline | BQL | 1810 | 1 | 9/7/2005 |
| 4-Nitroaniline | BQL | 1810 | 1 | 9/7/2005 |
| Nitrobenzene | BQL | 361 | 1 | 9/7/2005 |
| 2-Nitrophenol | BQL | 361 | 1 | 9/7/2005 |
| 4-Nitrophenol | BQL | 1810 | 1 | 9/7/2005 |
| N-Nitrosodi-n-propylamine | BQL | 361 | 1 | 9/7/2005 |
| Pentachlorophenol | BQL | 1810 | 1 | 9/7/2005 |
| Phenanthrene | BQL | 361 | 1 | 9/7/2005 |
| Phenol | BQL | 361 | 1 | 9/7/2005 |
| Pyrene | BQL | 361 | 1 | 9/7/2005 |
| 1,2,4-Trichlorobenzene | BQL | 361 | 1 | 9/7/2005 |
| 2,4,5-Trichlorophenol | BQL | 361 | 1 | 9/7/2005 |
| 2,4,6-Trichlorophenol | BQL | 361 | 1 | 9/7/2005 |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 2-Fluorobiphenyl | 10 | 8.2 | 82 |
| 2-Fluorophenol | 10 | 9.9 | 99 |
| Nitrobenzene-d5 | 10 | 9.1 | 91 |
| Phenol-d6 | 10 | 9.3 | 93 |
| 2,4,6-Tribromophenol | 10 | 5.2 | 52 |
| 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: P10GP3-21
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-3H
Lab Project ID: G106-542
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/30/2005 11:20
Date Received: 9/1/2005
Date Extracted: 9/2/2005
Matrix: Soil
% Solids: 84.19

| Compound | Result ug/Kg | Quantitation Limit ug/Kg | Dilution Factor | Date Analyzed |
|---|---|---|---|---|
| Acenaphthene | BQL | 352 | 1 | 9/7/2005 |
| Acenaphthylene | BQL | 352 | 1 | 9/7/2005 |
| Anthracene | BQL | 352 | 1 | 9/7/2005 |
| Benzo[a]anthracene | BQL | 352 | 1 | 9/7/2005 |
| Benzo[a]pyrene | BQL | 352 | 1 | 9/7/2005 |
| Benzo[b]fluoranthene | BQL | 352 | 1 | 9/7/2005 |
| Benzo[g,h,i]perylene | BQL | 352 | 1 | 9/7/2005 |
| Benzo[k]fluoranthene | BQL | 352 | 1 | 9/7/2005 |
| Benzoic Acid | BQL | 704 | 1 | 9/7/2005 |
| Bis(2-chloroethoxy)methane | BQL | 352 | 1 | 9/7/2005 |
| Bis(2-chloroethyl)ether | BQL | 352 | 1 | 9/7/2005 |
| Bis(2-chloroisopropyl)ether | BQL | 352 | 1 | 9/7/2005 |
| Bis(2-ethylhexyl)phthalate | BQL | 352 | 1 | 9/7/2005 |
| 4-bromophenyl phenyl ether | BQL | 352 | 1 | 9/7/2005 |
| Butylbenzylphthalate | BQL | 352 | 1 | 9/7/2005 |
| 2-Chloronaphthalene | BQL | 352 | 1 | 9/7/2005 |
| 2-Chlorophenol | BQL | 352 | 1 | 9/7/2005 |
| 4-Chloro-3-methylphenol | BQL | 352 | 1 | 9/7/2005 |
| 4-Chloroaniline | BQL | 1760 | 1 | 9/7/2005 |
| 4-Chlorophenyl phenyl ether | BQL | 352 | 1 | 9/7/2005 |
| Chrysene | BQL | 352 | 1 | 9/7/2005 |
| Dibenzo[a,h]anthracene | BQL | 352 | 1 | 9/7/2005 |
| Dibenzofuran | BQL | 352 | 1 | 9/7/2005 |
| Di-n-Butylphthalate | BQL | 352 | 1 | 9/7/2005 |
| 1,2-Dichlorobenzene | BQL | 352 | 1 | 9/7/2005 |
| 1,3-Dichlorobenzene | BQL | 352 | 1 | 9/7/2005 |
| 1,4-Dichlorobenzene | BQL | 352 | 1 | 9/7/2005 |
| 3,3'-Dichlorobenzidine | BQL | 704 | 1 | 9/7/2005 |
| 2,4-Dichlorophenol | BQL | 352 | 1 | 9/7/2005 |
| Diethylphthalate | BQL | 352 | 1 | 9/7/2005 |
| Dimethylphthalate | BQL | 352 | 1 | 9/7/2005 |
| 2,4-Dimethylphenol | BQL | 352 | 1 | 9/7/2005 |
| Di-n-octylphthalate | BQL | 352 | 1 | 9/7/2005 |
| 4,6-Dinitro-2-methylphenol | BQL | 1760 | 1 | 9/7/2005 |
| 2,4-Dinitrophenol | BQL | 1760 | 1 | 9/7/2005 |
| 2,4-Dinitrotoluene | BQL | 352 | 1 | 9/7/2005 |
| 2,6-Dinitrotoluene | BQL | 352 | 1 | 9/7/2005 |
| Diphenylamine * | BQL | 352 | 1 | 9/7/2005 |
| Fluoranthene | BQL | 352 | 1 | 9/7/2005 |
| Fluorene | BQL | 352 | 1 | 9/7/2005 |
| Hexachlorobenzene | BQL | 352 | 1 | 9/7/2005 |
| Hexachlorobutadiene | BQL | 352 | 1 | 9/7/2005 |

**Results for Semivolatiles by GCMS 8270**

Client Sample ID: P10GP3-21
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-3H
Lab Project ID: G106-542
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/30/2005 11:20
Date Received: 9/1/2005
Date Extracted: 9/2/2005
Matrix: Soil
% Solids: 84.19

| Compound | Result ug/Kg | Quantitation Limit ug/Kg | Dilution Factor | Date Analyzed |
|---|---|---|---|---|
| Hexachlorocyclopentadiene | BQL | 704 | 1 | 9/7/2005 |
| Hexachloroethane | BQL | 352 | 1 | 9/7/2005 |
| Indeno(1,2,3-c,d)pyrene | BQL | 352 | 1 | 9/7/2005 |
| Isophorone | BQL | 352 | 1 | 9/7/2005 |
| 2-Methylnaphthalene | BQL | 352 | 1 | 9/7/2005 |
| 2-Methylphenol | BQL | 352 | 1 | 9/7/2005 |
| 3- & 4-Methylphenol | BQL | 352 | 1 | 9/7/2005 |
| Naphthalene | BQL | 352 | 1 | 9/7/2005 |
| 2-Nitroaniline | BQL | 352 | 1 | 9/7/2005 |
| 3-Nitroaniline | BQL | 1760 | 1 | 9/7/2005 |
| 4-Nitroaniline | BQL | 1760 | 1 | 9/7/2005 |
| Nitrobenzene | BQL | 352 | 1 | 9/7/2005 |
| 2-Nitrophenol | BQL | 352 | 1 | 9/7/2005 |
| 4-Nitrophenol | BQL | 1760 | 1 | 9/7/2005 |
| N-Nitrosodi-n-propylamine | BQL | 352 | 1 | 9/7/2005 |
| Pentachlorophenol | BQL | 1760 | 1 | 9/7/2005 |
| Phenanthrene | BQL | 352 | 1 | 9/7/2005 |
| Phenol | BQL | 352 | 1 | 9/7/2005 |
| Pyrene | BQL | 352 | 1 | 9/7/2005 |
| 1,2,4-Trichlorobenzene | BQL | 352 | 1 | 9/7/2005 |
| 2,4,5-Trichlorophenol | BQL | 352 | 1 | 9/7/2005 |
| 2,4,6-Trichlorophenol | BQL | 352 | 1 | 9/7/2005 |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 2-Fluorobiphenyl | 10 | 9.4 | 94 |
| 2-Fluorophenol | 10 | 10.4 | 104 |
| Nitrobenzene-d5 | 10 | 9.5 | 95 |
| Phenol-d6 | 10 | 9.7 | 97 |
| 2,4,6-Tribromophenol | 10 | 5.7 | 57 |
| 4-Terphenyl-d14 | 10 | 12.3 | 123 |

**Comments:**

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

**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: _____

**Results for Pesticides**
by EPA 8081

Client Sample ID: P10GP1-30
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-1K
Lab Project ID: G106-542
Sample Wt/Vol: 32.19 g ColumnID: STX_CLPest
Report Basis: Dry Weight

Analyzed By: CLP
Date Collected: 8/30/05 10:32
Date Received: 9/1/05
Date Extracted: 9/7/05
Matrix: Soil
% Solids: 75.1

| Compound | Result ug/KG | Quantitation Limit ug/KG | Dilution Factor | Date Analyzed | Flags |
|---|---|---|---|---|---|
| alpha-BHC | BQL | 16.5 | 1 | 9/7/05 | |
| beta-BHC | BQL | 16.5 | 1 | 9/7/05 | |
| delta-BHC | BQL | 16.5 | 1 | 9/7/05 | |
| gamma-BHC (Lindane) | BQL | 16.5 | 1 | 9/7/05 | |
| Heptachlor | BQL | 16.5 | 1 | 9/7/05 | |
| Aldrin | BQL | 16.5 | 1 | 9/7/05 | |
| Heptachlor epoxide | BQL | 16.5 | 1 | 9/7/05 | |
| Endosulfan I | BQL | 16.5 | 1 | 9/7/05 | |
| Dieldrin | BQL | 16.5 | 1 | 9/7/05 | |
| 4,4'-DDE | BQL | 16.5 | 1 | 9/7/05 | |
| Endrin | BQL | 16.5 | 1 | 9/7/05 | |
| DDD | BQL | 16.5 | 1 | 9/7/05 | |
| Endosulfan II | BQL | 16.5 | 1 | 9/7/05 | |
| 4,4'-DDT | BQL | 16.5 | 1 | 9/7/05 | |
| Methoxychlor | BQL | 12.4 | 1 | 9/7/05 | |
| Toxaphene | BQL | 16.5 | 1 | 9/7/05 | |
| alpha-Chlordane | BQL | 16.5 | 1 | 9/7/05 | |
| gamma-Chlordane | BQL | 16.5 | 1 | 9/7/05 | |
| Endrin aldehyde | BQL | 16.5 | 1 | 9/7/05 | |
| Endosulfan sulfate | BQL | 16.5 | 1 | 9/7/05 | |
| Endrin ketone | BQL | 16.5 | 1 | 9/7/05 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| TCMX | 100 | 88.2 | 88.2 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

**Results for Pesticides**
by EPA 8081

Client Sample ID: P10GP2-28
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-2I
Lab Project ID: G106-542
Sample Wt/Vol: 34.10 g ColumnID: STX_CLPest
Report Basis: Dry Weight

Analyzed By: CLP
Date Collected: 8/30/05 10:50
Date Received: 9/1/05
Date Extracted: 9/7/05
Matrix: Soil
% Solids: 83.1

| Compound | Result ug/KG | Quantitation Limit ug/KG | Dilution Factor | Date Analyzed | Flags |
|---|---|---|---|---|---|
| alpha-BHC | BQL | 14.1 | 1 | 9/7/05 | |
| beta-BHC | BQL | 14.1 | 1 | 9/7/05 | |
| delta-BHC | BQL | 14.1 | 1 | 9/7/05 | |
| gamma-BHC (Lindane) | BQL | 14.1 | 1 | 9/7/05 | |
| Heptachlor | BQL | 14.1 | 1 | 9/7/05 | |
| Aldrin | BQL | 14.1 | 1 | 9/7/05 | |
| Heptachlor epoxide | BQL | 14.1 | 1 | 9/7/05 | |
| Endosulfan I | BQL | 14.1 | 1 | 9/7/05 | |
| Dieldrin | BQL | 14.1 | 1 | 9/7/05 | |
| 4,4'-DDE | BQL | 14.1 | 1 | 9/7/05 | |
| Endrin | BQL | 14.1 | 1 | 9/7/05 | |
| DDD | BQL | 14.1 | 1 | 9/7/05 | |
| Endosulfan II | BQL | 14.1 | 1 | 9/7/05 | |
| 4,4'-DDT | BQL | 14.1 | 1 | 9/7/05 | |
| Methoxychlor | BQL | 10.6 | 1 | 9/7/05 | |
| Toxaphene | BQL | 14.1 | 1 | 9/7/05 | |
| alpha-Chlordane | BQL | 14.1 | 1 | 9/7/05 | |
| gamma-Chlordane | BQL | 14.1 | 1 | 9/7/05 | |
| Endrin aldehyde | BQL | 14.1 | 1 | 9/7/05 | |
| Endosulfan sulfate | BQL | 14.1 | 1 | 9/7/05 | |
| Endrin ketone | BQL | 14.1 | 1 | 9/7/05 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| TCMX | 100 | 76.2 | 76.2 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

8081_LIMS_v1 34 XLS

**Results for Pesticides**
by EPA 8081

| | | | |
|---|---|---|---|
| Client Sample ID: | P10GP3-21 | Analyzed By: | CLP |
| Client Project ID: | Parcel 10-NCDOT Forsyth Tip#U-2826A | Date Collected: | 8/30/05 11:20 |
| Lab Sample ID: | G106-542-3I | Date Received: | 9/1/05 |
| Lab Project ID: | G106-542 | Date Extracted: | 9/7/05 |
| Sample Wt/Vol: | 32.89 g | ColumnID: STX_CLPest | Matrix: Soil |
| Report Basis: | Dry Weight | | % Solids: 84.2 |

| Compound | Result ug/KG | Quantitation Limit ug/KG | Dilution Factor | Date Analyzed | Flags |
|---|---|---|---|---|---|
| alpha-BHC | BQL | 14.4 | 1 | 9/7/05 | |
| beta-BHC | BQL | 14.4 | 1 | 9/7/05 | |
| delta-BHC | BQL | 14.4 | 1 | 9/7/05 | |
| gamma-BHC (Lindane) | BQL | 14.4 | 1 | 9/7/05 | |
| Heptachlor | BQL | 14.4 | 1 | 9/7/05 | |
| Aldrin | BQL | 14.4 | 1 | 9/7/05 | |
| Heptachlor epoxide | BQL | 14.4 | 1 | 9/7/05 | |
| Endosulfan I | BQL | 14.4 | 1 | 9/7/05 | |
| Dieldrin | BQL | 14.4 | 1 | 9/7/05 | |
| 4,4'-DDE | BQL | 14.4 | 1 | 9/7/05 | |
| Endrin | BQL | 14.4 | 1 | 9/7/05 | |
| DDD | BQL | 14.4 | 1 | 9/7/05 | |
| Endosulfan II | BQL | 14.4 | 1 | 9/7/05 | |
| 4,4'-DDT | BQL | 14.4 | 1 | 9/7/05 | |
| Methoxychlor | BQL | 10.8 | 1 | 9/7/05 | |
| Toxaphene | BQL | 14.4 | 1 | 9/7/05 | |
| alpha-Chlordane | BQL | 14.4 | 1 | 9/7/05 | |
| gamma-Chlordane | BQL | 14.4 | 1 | 9/7/05 | |
| Endrin aldehyde | BQL | 14.4 | 1 | 9/7/05 | |
| Endosulfan sulfate | BQL | 14.4 | 1 | 9/7/05 | |
| Endrin ketone | BQL | 14.4 | 1 | 9/7/05 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| TCMX | 100 | 102 | 102 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

**Results for Pesticides**
by EPA 8081

| | | | |
|---|---|---|---|
| Client Sample ID: | P10GP4-28 | Analyzed By: | CLP |
| Client Project ID: | Parcel 10-NCDOT Forsyth Tip#U-2826A | Date Collected: | 8/30/05 11:40 |
| Lab Sample ID: | G106-542-4C | Date Received: | 9/1/05 |
| Lab Project ID: | G106-542 | Date Extracted: | 9/7/05 |
| Sample Wt/Vol: | 33.27 g | ColumnID: STX_CLPest | Matrix: Soil |
| Report Basis: | Dry Weight | | % Solids: 75.8 |

| Compound | Result ug/KG | Quantitation Limit ug/KG | Dilution Factor | Date Analyzed | Flags |
|---|---|---|---|---|---|
| alpha-BHC | BQL | 15.9 | 1 | 9/7/05 | |
| beta-BHC | BQL | 15.9 | 1 | 9/7/05 | |
| delta-BHC | BQL | 15.9 | 1 | 9/7/05 | |
| gamma-BHC (Lindane) | BQL | 15.9 | 1 | 9/7/05 | |
| Heptachlor | BQL | 15.9 | 1 | 9/7/05 | |
| Aldrin | BQL | 15.9 | 1 | 9/7/05 | |
| Heptachlor epoxide | BQL | 15.9 | 1 | 9/7/05 | |
| Endosulfan I | BQL | 15.9 | 1 | 9/7/05 | |
| Dieldrin | BQL | 15.9 | 1 | 9/7/05 | |
| 4,4'-DDE | BQL | 15.9 | 1 | 9/7/05 | |
| Endrin | BQL | 15.9 | 1 | 9/7/05 | |
| DDD | BQL | 15.9 | 1 | 9/7/05 | |
| Endosulfan II | BQL | 15.9 | 1 | 9/7/05 | |
| 4,4'-DDT | BQL | 15.9 | 1 | 9/7/05 | |
| Methoxychlor | BQL | 11.9 | 1 | 9/7/05 | |
| Toxaphene | BQL | 15.9 | 1 | 9/7/05 | |
| alpha-Chlordane | BQL | 15.9 | 1 | 9/7/05 | |
| gamma-Chlordane | BQL | 15.9 | 1 | 9/7/05 | |
| Endrin aldehyde | BQL | 15.9 | 1 | 9/7/05 | |
| Endosulfan sulfate | BQL | 15.9 | 1 | 9/7/05 | |
| Endrin ketone | BQL | 15.9 | 1 | 9/7/05 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| TCMX | 100 | 90.7 | 90.7 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

**Results for Pesticides**
by EPA 8081

Client Sample ID: P10GP5-30
Client Project ID: Parcel 10-NCDOT Forsyth Tip#U-2826A
Lab Sample ID: G106-542-5C
Lab Project ID: G106-542
Sample Wt/Vol: 32.73 g
Report Basis: Dry Weight

ColumnID: STX_CLPest

Analyzed By: CLP
Date Collected: 8/30/05 12:15
Date Received: 9/1/05
Date Extracted: 9/7/05
Matrix: Soil
% Solids: 82.7

| Compound | Result ug/KG | Quantitation Limit ug/KG | Dilution Factor | Date Analyzed | Flags |
|---|---|---|---|---|---|
| alpha-BHC | BQL | 14.8 | 1 | 9/7/05 | |
| beta-BHC | BQL | 14.8 | 1 | 9/7/05 | |
| delta-BHC | BQL | 14.8 | 1 | 9/7/05 | |
| gamma-BHC (Lindane) | BQL | 14.8 | 1 | 9/7/05 | |
| Heptachlor | BQL | 14.8 | 1 | 9/7/05 | |
| Aldrin | BQL | 14.8 | 1 | 9/7/05 | |
| Heptachlor epoxide | BQL | 14.8 | 1 | 9/7/05 | |
| Endosulfan I | BQL | 14.8 | 1 | 9/7/05 | |
| Dieldrin | BQL | 14.8 | 1 | 9/7/05 | |
| 4,4'-DDE | BQL | 14.8 | 1 | 9/7/05 | |
| Endrin | BQL | 14.8 | 1 | 9/7/05 | |
| DDD | BQL | 14.8 | 1 | 9/7/05 | |
| Endosulfan II | BQL | 14.8 | 1 | 9/7/05 | |
| 4,4'-DDT | BQL | 14.8 | 1 | 9/7/05 | |
| Methoxychlor | BQL | 11.1 | 1 | 9/7/05 | |
| Toxaphene | BQL | 14.8 | 1 | 9/7/05 | |
| alpha-Chlordane | BQL | 14.8 | 1 | 9/7/05 | |
| gamma-Chlordane | BQL | 14.8 | 1 | 9/7/05 | |
| Endrin aldehyde | BQL | 14.8 | 1 | 9/7/05 | |
| Endosulfan sulfate | BQL | 14.8 | 1 | 9/7/05 | |
| Endrin ketone | BQL | 14.8 | 1 | 9/7/05 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| TCMX | 100 | 92 | 92 |

**Comments:**
BQL = Below Quantitation Limit

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

% soilds = 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

WBS # 34871.1.1 TIP # U-2826A

COC# 48117

Page 1 of 1

Client: EI, INC.
Address: 2101 GATEWAY CENTRE BLVD.
Address: SUITE 200, MORRISVILLE, NC 27560
Quote #:

Project ID: PARCEL 10 - NCDOT FORSYTH
Contact: DARREN LOCKHART
Phone: 919-544-7500
Fax: 919-544-2199

Date: 8-30-05
Turnaround: STANDARD
Job Number: ENM0050015.00
P.O. Number:

Report To: DARREN LOCKHART
Invoice To: NCDOT

| Sample ID | Date | Time | Matrix | Preservatives | Analyses: TPH GRO | TPH DRO | VOCs 8260 | SVOCs 8270 | 8081 | Comments: Please specify any special reporting requirements |
|---|---|---|---|---|---|---|---|---|---|---|
| P10GP1-30 | 8-30-05 | 1032 | SOIL | | X | X | X | X | X | G106-542 |
| P10GP2-28 | " | 1050 | " | | X | X | X | X | X | |
| P10GP3-21 | " | 1120 | " | | X | X | X | X | X | |
| P10GP4-28 | " | 1140 | " | | | X | | | X | |
| P10GP5-30 | " | 1215 | " | | | X | | | X | |

| Relinquished By | Date | Time | Received By | Date | Time | Temperature | State Certification Requested |
|---|---|---|---|---|---|---|---|
| | 8-31-05 | | | 9/1/05 | 0950 | 0.2 0.3°C | NC ✓ SC ____ Other ____ |

SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

N.C. Certification #481 S.C. Certification #99029

**Results for Metals**

| | | | |
|---|---|---|---|
| Client Sample ID: | P10HA6-1.0 | Analyzed By: | PSW |
| Client Project ID: | Parcel 10.RC Tip#U-2826A | Date Collected: | 9/29/2005 15:30 |
| Lab Sample ID: | G106-557-1 | Date Received: | 9/30/2005 |
| Lab Project ID: | G106-557 | Matrix: | SOIL |
| Batch ID: | 3758 3763 | Solids | 93.23 |
| Report Basis: | Dry | | |

| Metals | Result | RL | DF | Units | Method | Date Analyzed |
|---|---|---|---|---|---|---|
| Arsenic | **12.0** | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |
| Barium | **48.9** | 10.3 | 1 | MG/KG | 6010B | 10/5/2005 |
| Cadmium | BQL | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |
| Chromium | **5.06** | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |
| Lead | **66.2** | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |
| Mercury | **0.110** | 0.0188 | 1 | MG/KG | 7471 | 10/4/2005 |
| Selenium | BQL | 2.06 | 1 | MG/KG | 6010B | 10/5/2005 |
| Silver | BQL | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |

**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: | P10HA7-0.5 | Analyzed By: | PSW |
| Client Project ID: | Parcel 10.RC Tip#U-2826A | Date Collected: | 9/29/2005 15:33 |
| Lab Sample ID: | G106-557-2 | Date Received: | 9/30/2005 |
| Lab Project ID: | G106-557 | Matrix: | SOIL |
| Batch ID: | 3758 3763 | Solids | 94.80 |
| Report Basis: | Dry | | |

| Metals | Result | RL | DF | Units | Method | Date Analyzed |
|---|---|---|---|---|---|---|
| Arsenic | **4.84** | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |
| Barium | **60.2** | 10.3 | 1 | MG/KG | 6010B | 10/5/2005 |
| Cadmium | BQL | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |
| Chromium | **10.9** | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |
| Lead | **76.9** | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |
| Mercury | **0.0437** | 0.0195 | 1 | MG/KG | 7471 | 10/4/2005 |
| Selenium | BQL | 2.07 | 1 | MG/KG | 6010B | 10/5/2005 |
| Silver | BQL | 1.03 | 1 | MG/KG | 6010B | 10/5/2005 |

**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: | P10HA8-0.5 | Analyzed By: | PSW |
| Client Project ID: | Parcel 10.RC Tip#U-2826A | Date Collected: | 9/29/2005 15:40 |
| Lab Sample ID: | G106-557-3 | Date Received: | 9/30/2005 |
| Lab Project ID: | G106-557 | Matrix: | SOIL |
| Batch ID: | 3758 3763 | Solids | 94.55 |
| Report Basis: | Dry | | |

| Metals | Result | RL | DF | Units | Method | Date Analyzed |
|---|---|---|---|---|---|---|
| Arsenic | **5.71** | 0.881 | 1 | MG/KG | 6010B | 10/5/2005 |
| Barium | **46.5** | 8.81 | 1 | MG/KG | 6010B | 10/5/2005 |
| Cadmium | BQL | 0.881 | 1 | MG/KG | 6010B | 10/5/2005 |
| Chromium | **5.77** | 0.881 | 1 | MG/KG | 6010B | 10/5/2005 |
| Lead | **35.4** | 0.881 | 1 | MG/KG | 6010B | 10/5/2005 |
| Mercury | **0.0366** | 0.0184 | 1 | MG/KG | 7471 | 10/4/2005 |
| Selenium | BQL | 1.76 | 1 | MG/KG | 6010B | 10/5/2005 |
| Silver | BQL | 0.881 | 1 | MG/KG | 6010B | 10/5/2005 |

**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: | P10HA9-1.0 | Analyzed By: | PSW |
| Client Project ID: | Parcel 10.RC Tip#U-2826A | Date Collected: | 9/29/2005 15:45 |
| Lab Sample ID: | G106-557-4 | Date Received: | 9/30/2005 |
| Lab Project ID: | G106-557 | Matrix: | SOIL |
| Batch ID: | 3758 3763 | Solids | 94.52 |
| Report Basis: | Dry | | |

| Metals | Result | RL | DF | Units | Method | Date Analyzed |
|---|---|---|---|---|---|---|
| Arsenic | **5.74** | 1.06 | 1 | MG/KG | 6010B | 10/5/2005 |
| Barium | **49.7** | 10.6 | 1 | MG/KG | 6010B | 10/5/2005 |
| Cadmium | BQL | 1.06 | 1 | MG/KG | 6010B | 10/5/2005 |
| Chromium | **5.29** | 1.06 | 1 | MG/KG | 6010B | 10/5/2005 |
| Lead | **41.1** | 1.06 | 1 | MG/KG | 6010B | 10/5/2005 |
| Mercury | **0.0434** | 0.0202 | 1 | MG/KG | 7471 | 10/4/2005 |
| Selenium | BQL | 2.12 | 1 | MG/KG | 6010B | 10/5/2005 |
| Silver | BQL | 1.06 | 1 | MG/KG | 6010B | 10/5/2005 |

**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

## List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

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

% soilds = 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.

MI34.092205.2

**PARADIGM ANALYTICAL LABORATORIES, INC.**
5500 Business Drive, Wilmington, NC 28405
Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

TIP# U-2826A WBS 34871.1.1

COC# 50710

Page 1 of 1

7 of 7

Client: EI | Project ID: Bridge 10 RC | Date: 9.29.05 | Report To: Darren R. Lockhart

Address: 2101 Gateway Centre Blvd | Contact: Darren L. | Turnaround: 5-day

Address: Ste 220, Morrisville NC 27560 | Phone: 919.657.7500.273 | Job Number: EN0055915.00

Quote #: | Fax: dlockhart@ei1.com | P.O. Number: | Invoice To: NCDOT (U-2826A)

| Sample ID | Date | Time | Matrix | Preservatives | Analyses: 8260B BTEX | Comments: Please specify any special reporting requirements |
|---|---|---|---|---|---|---|
| B10HA6-1.0 | 9.29.05 | 1530 | S | | X | G106-557 |
| B10HA7-0.5 | " | 1533 | " | | X | |
| B10HA8-0.5 | " | 1540 | " | | X | |
| B10HA9-1.0 | " | 1545 | " | | X | |

| Relinquished By | Date | Time | Received By | Date | Time | Temperature | State Certification Requested |
|---|---|---|---|---|---|---|---|
| Darren R. Lockhart | 9.29.05 | 1900 | Jackie Johnson | 9/30/05 | 1010 | 5.2°C | NC ____ SC ____ Other ____ |

SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

N.C. Certification #481 S.C. Certification #99029