

PRELIMINARY SITE ASSESSMENT REPORT

**SR 1406 (Piney Green Road) from NC 24 to US 17
2160 Piney Green Road, Parcel #244
Jacksonville, North Carolina
State Project U-3810
WBS Element # 35801.1.1
Onslow County**

North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

April 16, 2010

PRELIMINARY SITE ASSESSMENT REPORT

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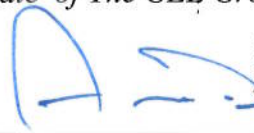
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- I Soil Boring Lithologic Logs
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- III Photographs Showing Soil Boring Locations

Signature Page

This document, entitled "Preliminary Site Assessment Report," has been prepared for Parcel #244, located at 2160 Piney Green Road in Jacksonville, North Carolina (State Project U-3810, WBS Element # 35801.1.1, Onslow County). It has been prepared by GEL Engineering of NC, Inc. in accordance with the Notice to Proceed provided by the North Carolina Department of Transportation-GeoEnvironmental Section, Geotechnical Engineering Unit for the exclusive use of the North Carolina Department of Transportation. It has been prepared in accordance with accepted quality control practices and has been reviewed by the undersigned.

GEL ENGINEERING OF NC
an Affiliate of The GEL Group



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04-16-10

Date

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2160 Piney Green Road, Parcel #244
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WBS Element # 35801.1.1
Onslow County**

Executive Summary

The subject site is Parcel #244, located at 2160 Piney Green Road in Jacksonville, North Carolina. The primary purpose of this investigation was to determine the presence or absence of underground storage tanks (USTs) and constituents of concern in soil within the North Carolina Department of Transportation (NCDOT) proposed Rights-of-Way (ROWs) adjacent to Parcel #244. Currently, Parcel #244 contains a closed automobile repair facility.

GEL Engineering of NC, Inc. (GEL) performed a preliminary site assessment within the NCDOT proposed westerly ROW of Piney Green Road adjacent to Parcel #244 that included a geophysical survey, and the collection and analysis of soil samples. No subsurface anomalies were identified during the geophysical investigation, and it has been concluded that there are no known, probable, or possible USTs present within the proposed westerly ROW of Piney Green Road adjacent to the site.

Soil samples were collected for analysis from five borings constructed within the NCDOT proposed westerly ROW for Piney Green Road adjacent to Parcel #244. The soil samples were analyzed for diesel range organics (DRO), gasoline range organics (GRO), volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). The analytical results indicate that no DRO, GRO, VOCs, or SVOCs were detected in any of the soil samples collected from the five borings, except the soil samples collected from borings S7-3 and S7-4, in which DRO was detected at concentrations slightly exceeding the North Carolina Department of Environment and Natural Resources (NCDENR) action level for DRO. The analytical results for the two samples indicate that no VOCs or SVOCs were detected in either sample. Therefore, it has been concluded that there is no confirmed soil impact in the vicinity of boring S7-3 or S7-4.

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Executive Summary (continued)

Based on the data generated from this investigation, there is no evidence that a release of constituents of concern has occurred within the NCDOT proposed westerly ROW at Parcel #244. No additional environmental investigation of the soil at either site is recommended at this time.

PRELIMINARY SITE ASSESSMENT REPORT

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Onslow County**

1.0 Introduction

This document presents the details of a preliminary site assessment performed within the proposed North Carolina Department of Transportation (NCDOT) Rights-of-Way (ROWs) at Parcel #244 located at 2160 Piney Green Road in Jacksonville, North Carolina. Parcel #244 contains a closed automobile repair facility. The site location is shown on Figure 1, an excerpt from the United States Geological Survey (USGS) 7.5-minute quadrangle map of Camp Lejeune, North Carolina. The preliminary site assessment, which included a geophysical survey, was conducted by GEL Engineering of NC, Inc. (GEL) in accordance with the Notice to Proceed issued by NCDOT on February 9, 2010.

The primary purpose of this investigation was to determine the presence or absence of underground storage tanks (USTs) and on-site constituents of concern in soil within the NCDOT proposed westerly ROW of Piney Green Road at the subject site as a result of current and/or former operations.

2.0 Background

NCDOT is planning road improvements to SR 1406 (Piney Green Road) between NC 24 and US 17 in Onslow County, North Carolina. NCDOT wanted to assess the proposed ROWs adjacent to the site to evaluate the presence or absence of USTs and soil contamination related to the current and/or former on-site operations, and the impact (if any) of these operations on the proposed road improvements. Figures 2 and 3 show the general site layout for Parcel #244 and its location on Piney Green Road, respectively.

3.0 Local Geology and Surroundings

Parcel #244 is in a developed area of Jacksonville in Onslow County, North Carolina. Surrounding land uses include residential and commercial activities.

The site is located approximately 6 miles east of the center of Jacksonville, North Carolina. This area is located in the Coastal Plain physiographic province of North Carolina. The land surface of the area is characterized by nearly level, and gently sloping,

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fc: ncdt00110

well drained soils. Coastal Plain geology in the vicinity of the site is characterized by undifferentiated post-Miocene interbedded sand and clay terrace deposits overlain by aqueous and aeolian deposits of marine and non-marine origin (USGS, 1955).

The United States Department of Agriculture's *Soil Survey of Onslow County, North Carolina* (1992) maps the area as Stallings Loamy Fine Sand (St), typically composed of loamy sand at the surface and with depth. The soils encountered at the site during the preliminary site assessment consisted predominantly of orange/grey/brown silty sand to depths of 8 feet below land surface (bls).

Based on the moisture content of the subsurface soil encountered during the preliminary site assessment, the water table is located at approximately 7 to 8 feet bls. Based on the USGS topographic map presented as Figure 1, the site is located approximately 30 feet above mean sea level. The topography in Figure 1 indicates that groundwater in the vicinity of Parcel #244 most likely flows in a southwesterly direction towards Mott Creek.

4.0 Subsurface Investigation

To determine the presence or absence of USTs and impact to subsurface soil within the NCDOT ROWs at Parcel #244, GEL performed a limited site assessment that consisted of the following tasks:

- Performance of a geophysical investigation to identify the presence or absence of USTs and associated appurtenances within the proposed westerly ROW of Piney Green Road adjacent to Parcel #244.
- Soil vapor screening of soil samples collected from subsurface soil borings at Parcel #244 within the proposed ROW Piney Green Road to determine the potential presence or absence of soil impact from petroleum constituents of concern.
- Collection and laboratory analysis of soil samples from the proposed ROW of Piney Green Road at Parcel #244.

The details of these tasks are discussed in the following sections.

4.1 Geophysical Evaluation at Parcel #244

The geophysical investigation included the deployment of ground penetrating radar (GPR) technology and time domain electromagnetic technology (TDEM) to the site. These technologies were used in concert with one another in order to identify subsurface metallic anomalies and, more specifically, to identify the potential presence of USTs on

site. A brief description of each technology is presented in the following paragraphs followed by a discussion of the results of the geophysical investigation.

4.1.1 Ground Penetrating Radar Methodology

A RAMAC digital radar control system configured with a 250 Megahertz (MHz) antenna array was used in this investigation. GPR is an electromagnetic geophysical method that detects interfaces between subsurface materials with differing dielectric constants. The GPR system consists of an antenna that houses the transmitter and receiver, a digital control unit that both generates and digitally records the GPR data, and a color video monitor to view data as they are collected in the field.

The transmitter radiates repetitive short-duration electromagnetic waves (at radar frequencies) into the earth from an antenna moving across the ground surface. These radar waves are reflected back to the receiver from the interface of materials with different dielectric constants. The intensity of the reflected signal is a function of the contrast in the dielectric constant between the materials, the conductivity of the material through which the wave is traveling, and the frequency of the signal. Subsurface features that commonly cause such reflections are: 1) natural geologic conditions, such as changes in sediment composition, bedding, and cementation horizons and voids; or 2) unnatural changes to the subsurface, such as disturbed soils, soil backfill, buried debris, tanks, pipelines, and utilities. The digital control unit processes the signal from the receiver and produces a continuous cross-section of the subsurface interface reflection events.

GPR data profiles are collected along transects, which are measured paths along which the GPR antenna is moved. During a survey, marks are placed in the data by the operator at designated points along the GPR transects or with a survey wheel odometer. These marks allow for a correlation between the GPR data and the position of the GPR antenna on the ground.

Depth of investigation of the GPR signal is highly site-specific and is limited by signal attenuation (absorption) in the subsurface materials. Signal attenuation is dependent on the electrical conductivity of the subsurface materials. Signal attenuation is greatest in materials with relatively high electrical conductivities, such as clays, brackish groundwater, or groundwater with a high dissolved solid content from natural or man-made sources. Signal attenuation is lowest in relatively low-conductivity materials, such as dry sand or rock. Depth of investigation is also dependent on the antenna's transmitting frequency. Depth of investigation generally increases as transmitting

frequency decreases; however, the ability to resolve smaller subsurface features is diminished as frequency is decreased.

The GPR antenna used at this site is internally shielded from aboveground interference sources. Accordingly, the GPR response is not affected by overhead power lines, metallic buildings, or nearby objects.

4.1.2 Time Domain Electromagnetic Methodology

The TDEM methods measure the electrical conductivity of subsurface materials. The conductivity is determined by inducing (from a transmitter) a time or frequency-varying magnetic field and measuring (with a receiver) the amplitude and phase shift of an induced secondary magnetic field. The secondary magnetic field is created by subsurface conductive materials behaving as an inductor as the primary magnetic field is passed through them.

The Geonics EM-61 system used in this investigation operates within these principles. However, the EM-61 TDEM system can discriminate between moderately conductive earth materials and very conductive metallic targets. The EM-61 consists of a portable coincident loop time domain transmitter and receiver with a 0.5-meter by 1.0-meter coil system. The EM-61 generates 150 pulses per second and measures the response from the ground after transmission or between pulses. The secondary EM responses from metallic targets are of longer duration than those created by conductive earth materials. By recording the later time EM arrivals, only the response from metallic targets is measured, rather than the field generated by the earth material.

4.1.3 Field Procedures

The GPR and TDEM field investigation was performed at Parcel #244 on March 4, 2010. The extent of the investigation covers only the proposed ROW indicated by NCDOT. A GPR system time range setting of 90 nanoseconds (ns) was used during the entire investigation. This range was determined after a series of test lines were conducted to evaluate the GPR response in the local geologic section. A preliminary interpretation of the GPR data was conducted in the field and potential USTs were marked on the ground. Following the completion of the fieldwork, the data were post-processed and analyzed in more detail. GPR data processing typically included band pass filtering, background removal, horizontal smoothing, and gain adjustments.

TDEM was also used to scan the project site. Electromagnetic anomalies indicative of buried metallic objects were marked in the field.

It should be noted that “One Call” underground utility locations had been performed within the westerly ROW of Piney Green Road at Parcel #244 prior to the initiation of the preliminary site assessment field activities at the site. Underground utilities were marked by “One Call” within the Piney Green Road westerly ROW at Parcel #244.

As shown on Figure 4, no EM or GPR anomalies indicated the potential presence of USTs; therefore, no USTs are suspected to be present in the subsurface within the investigation area.

4.2 Subsurface Soil Investigation at Parcel #244

To determine the presence or absence of impact to subsurface soil by constituents of concern, GEL collected soil samples from five subsurface soil borings, S7-1 through S7-5, at Parcel #244 on March 10, 2010, for analysis of total petroleum hydrocarbon indicator parameters volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). The soil borings were constructed within the NCDOT proposed westerly ROW of Piney Green Road, as shown on Figure 2 and in the photographs in Appendix III. The longitude and latitude coordinates for the boring locations are listed in the table below.

Borings S7-1, S7-2, and S7-3 were advanced to a total depth of 8 feet bls. Soil samples were collected at 3-4 feet and 7-8 feet bls from each of the three borings. Borings S7-4 and S7-5 were advanced only to a total depth of 2 feet bls because the borings were located in a drainage ditch, and saturated unrecoverable soils were encountered at depths below 2 feet bls. Soil samples were collected at 1-2 feet bls from borings S7-4 and S7-5. All soil samples were inspected for indications of impact by constituents of concern, including petroleum hydrocarbons, such as odors, discoloration, or visible sheen. Sampling was accomplished using direct push technology (DPT) provided by Regional Probing Services of Wake Forest, North Carolina (Regional Probing). Soil boring lithologic logs are attached as Appendix I of this document.

The soil samples were screened for the presence of organic vapors using a portable photoionization detector (PID). The PID measures the concentration of organic compounds in the vapor space above a soil sample resulting from volatilization of organic compounds contained in the soil. To screen the soils, each sample was placed in a clean, resealable polyethylene bag. The bag was sealed, and the sample was allowed to equilibrate for approximately 5 minutes, after which time a small opening was made in

the bag. The probe of the PID was then inserted into the bag, and the airspace above the soil was screened for organic vapors.

To assess the subsurface soil quality, one soil sample was collected from each soil boring at the sampled depth interval with the highest PID reading and submitted for laboratory analysis. The depth intervals and PID measurements of the collected soil samples submitted to the laboratory for analysis are listed below.

**Summary of Location Data and PID Measurements
for Soil Samples Collected for Analysis at Parcel No. 244**

Soil Boring	Depth Interval of Soil Sample Collected for Analysis (feet bls)	PID Reading (ppm)	Latitude/Longitude (NAD83)
S7-1	3-4	0.1	34°44'22.38"N / 77°19'35.34"W
S7-2	3-4	0.2	34°44'22.86"N / 77°19'35.46"W
S7-3	3-4	0.5	34°44'23.22"N / 77°19'35.58"W
S7-4	1-2	0.2	34°44'23.88"N / 77°19'36.00"W
S7-5	1-2	0.2	34°44'24.18"N / 77°19'36.30"W

Notes:

- 1) Coordinates are based on North American Datum of 1983 (NAD83)
- 2) bls = below land surface
- 3) PID = photoionization detector
- 4) ppm = parts per million

Following completion of the soil sampling activities, all borings were abandoned by filling the boreholes with soil cuttings and hydrated bentonite. Soil samples were submitted to SGS Laboratories, Inc. in Wilmington, North Carolina (North Carolina Certification No. 481) for analysis of diesel range organics (DRO) by EPA Method 8015 with EPA Method 3545 sample preparation, and gasoline range organics (GRO) by EPA Method 8015 with EPA Method 5035A/5030B sample preparation. In addition, all soil samples were analyzed for VOCs by EPA Method 8260B and SVOCs by EPA Method 8270D to identify possible soil impact from the current automobile repair operations. The analytical results are included on the Certificates of Analysis provided in Appendix II. The results indicate that no DRO, GRO, VOCs, or SVOCs were detected in any of the soil samples collected from the five borings except the soil samples collected from boring S7-3 and S7-4. DRO was detected at concentrations of 62.9 milligrams per kilogram (mg/kg) and 20.1 mg/kg in soil samples S7-3-4 and S7-4-2, respectively. Both detected concentrations exceed the North Carolina Department of Environment and Natural Resources (NCDENR) DRO action level of 10 mg/kg. However, no VOCs or SVOCs were detected in either sample. Therefore, since soil impact in the two soil samples was

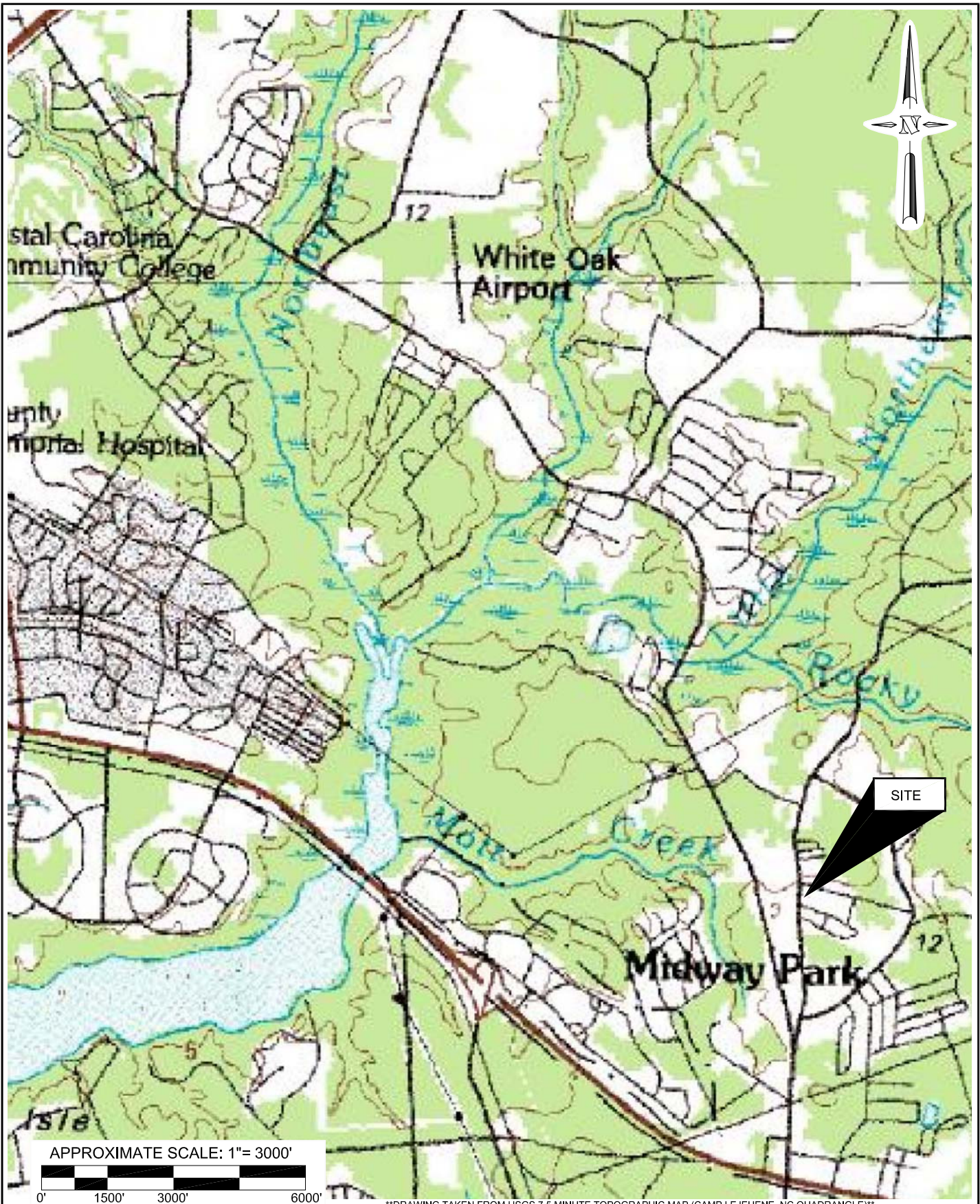
not confirmed by VOC or SVOC data, it has been concluded that there is no soil impact in the vicinity of borings S7-3 and S7-4.

5.0 Conclusions and Recommendations

GEL performed a preliminary site assessment within the NCDOT proposed westerly ROW of Piney Green Road adjacent to Parcel #244 that included a geophysical survey, and the collection and analysis of soil samples. No subsurface anomalies were identified during the geophysical investigation, and it has been concluded that there are no known, probable, or possible USTs present within the proposed westerly ROW of Piney Green Road adjacent to the site.

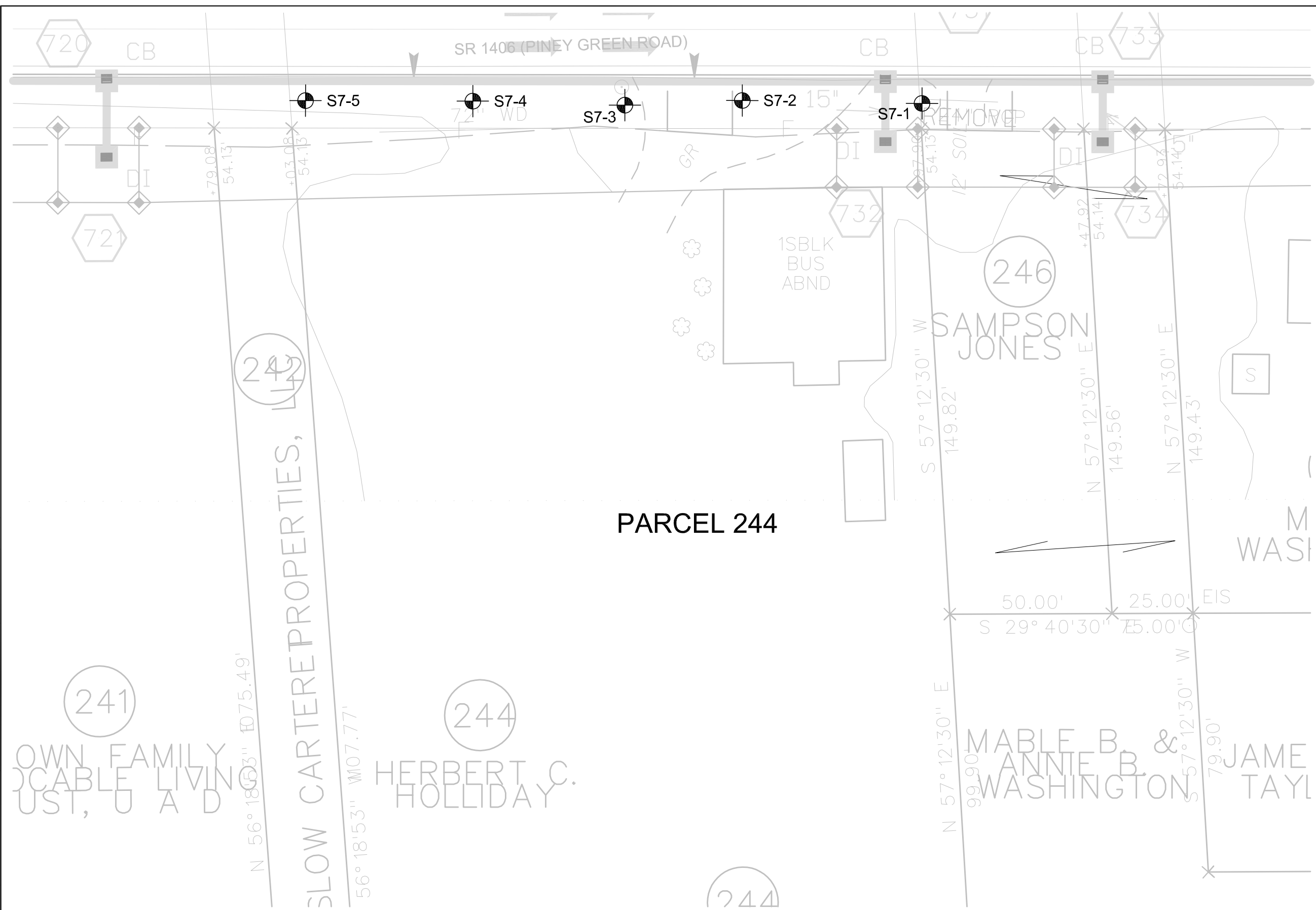
Soil samples were collected for analysis from five borings constructed within the NCDOT proposed westerly ROW for Piney Green Road adjacent to Parcel #244. The soil samples were analyzed for DRO, GRO, VOCs, and SVOCs. The analytical results indicate that no DRO, GRO, VOCs, or SVOCs were detected in any of the soil samples collected from the five borings, except the soil samples collected from borings S7-3 and S7-4, in which DRO was detected at concentrations slightly exceeding the NCDENR action level for DRO. The analytical results for the two samples indicate that no VOCs or SVOCs were detected in either sample. Therefore, it has been concluded that there is no confirmed soil impact in the vicinity of boring S7-3 or S-4.

Based on the data generated from this investigation, there is no evidence that a release of constituents of concern has occurred within the NCDOT proposed westerly ROW at Parcel #244. No additional environmental investigation of the soil at either site is recommended at this time.



Engineering of NC Inc. an Affiliate of THE GEL GROUP INC problem solved	P.O. Box 14262 RTP, NC 27709 P: 919.544.1100 F: 919.406.1807 www.gel.com	PROJECT: ncdt00110	USGS TOPOGRAPHIC LOCATION MAP	FIGURE 1
		PRELIMINARY SITE ASSESSMENT REPORT PARCEL 244 MIDWAY PARK, NORTH CAROLINA STATE PROJECT U-3810, WBS# 35801.1.1		
		DATE: April 6, 2010		

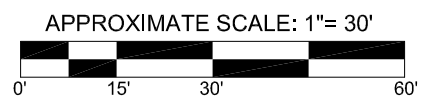
PLOTTED: May 06, 2010 - 2:57pm BY: tjp FILE LOCATION: H:\Consulting Client Files\K-R\N\ncdt00110_Piney Green\ncdt00110_Fig2s-C.dwg LAYOUT TAB: 244



LEGEND

S7-2  SOIL BORING LOCATION

NOTE:
SEE FIGURE 3 FOR KEY MAP
SHOWING PARCEL LOCATIONS



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PROJECT: ncdt00110
PRELIMINARY SITE ASSESSMENT REPORT
PARCEL NO. 244, HERBERT HOLLIDAY
2160 PINEY GREEN ROAD
JACKSONVILLE, NORTH CAROLINA
STATE PROJECT U-3810, WBS #35801.1.1

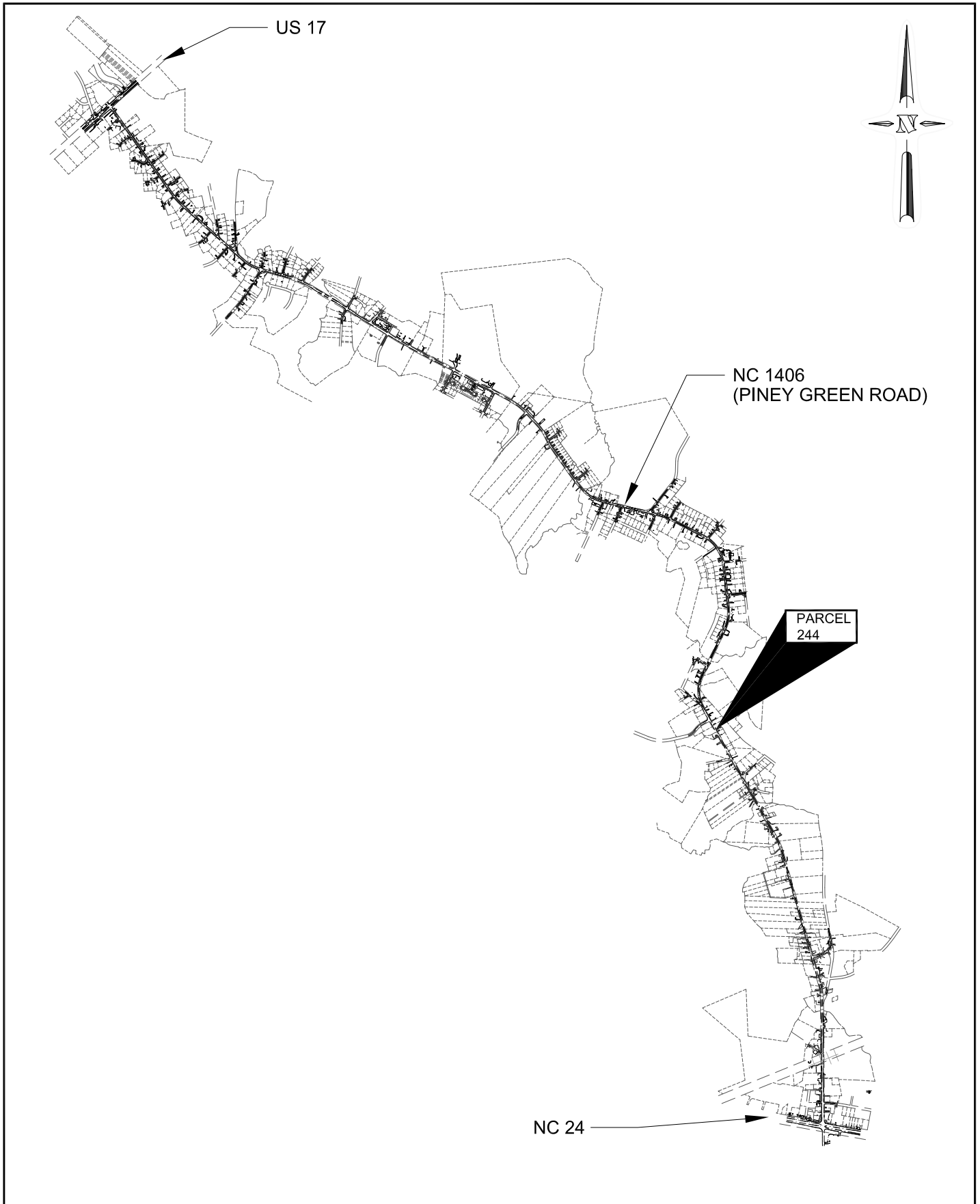
SITE SKETCH SHOWING
SOIL BORING LOCATIONS

FIGURE
2

problem solved

DATE: May 3, 2010

DRAWN BY: TJP APPRV. BY: ADE



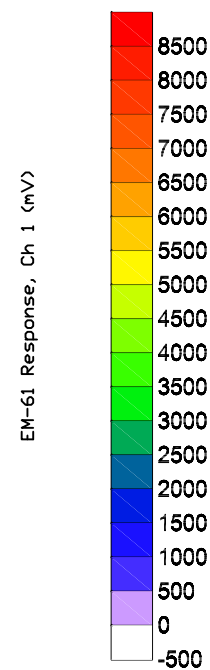
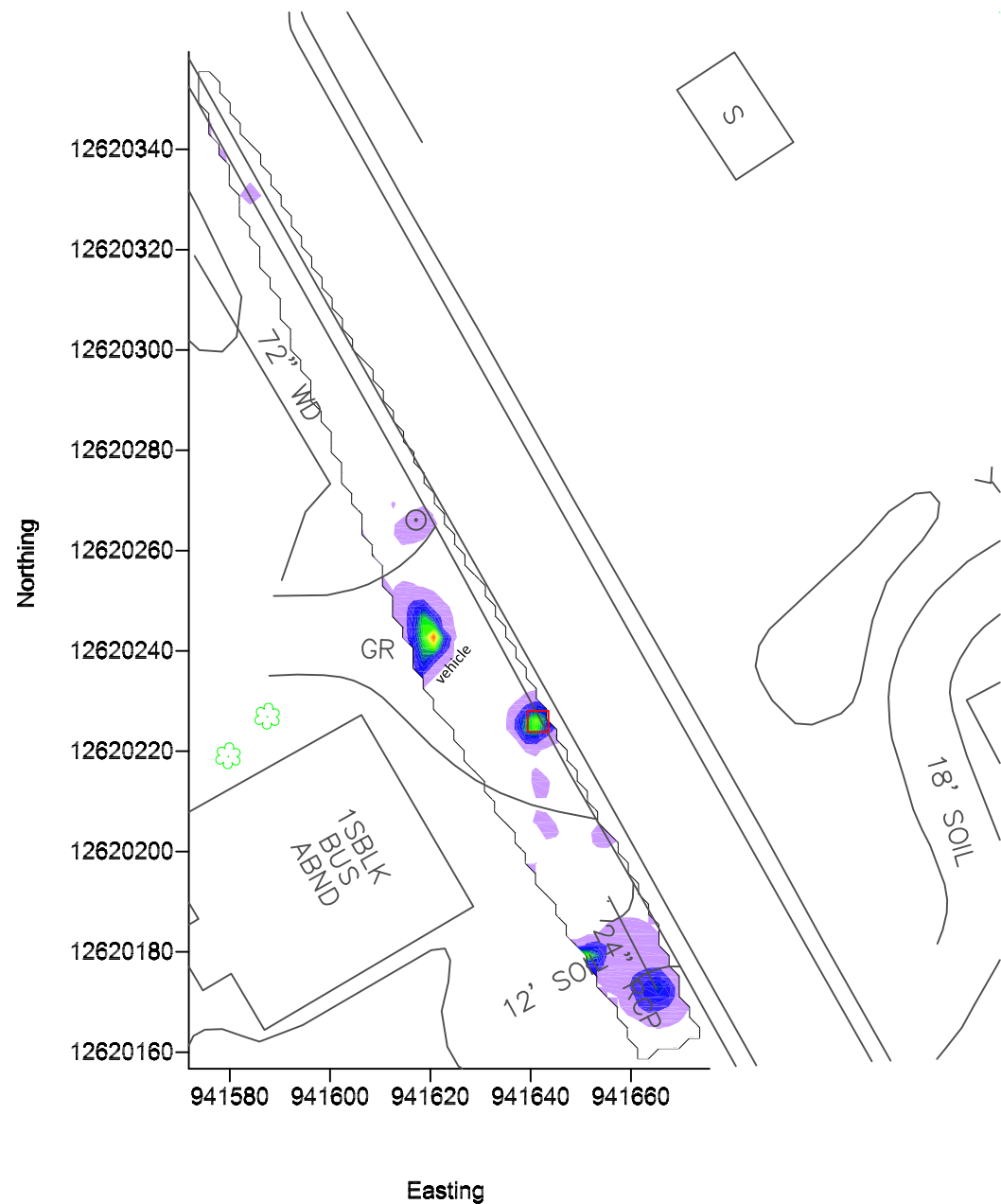
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PROJECT: ncdt00110	KEY MAP SHOWING PARCEL LOCATION	FIGURE 3
PRELIMINARY SITE ASSESSMENT REPORT PARCEL 244 JACKSONVILLE, NORTH CAROLINA STATE PROJECT U-3810, WBS# 35801.1.1		
DATE: April 6, 2010	DRAWN BY: TJP	APPRV. BY: ADE

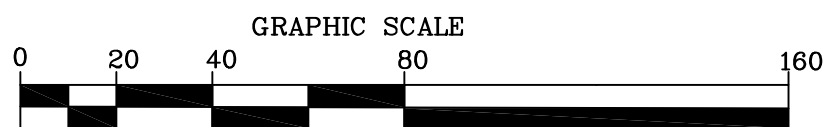


NOTES

- 1) UNDERGROUND FEATURES WERE LOCATED USING VISUAL EVIDENCE, GROUND PENETRATING RADAR (GPR), AND TIME DOMAIN ELECTROMAGNETIC (TDEM) METHODS. OTHER BURIED UTILITIES AND STRUCTURES MAY EXIST BUT WERE NOT DETECTED DUE TO LIMITATIONS OF THE GEOPHYSICAL METHODS, SITE ACCESS, AND/OR HIGH TARGET CONGESTION. THEREFORE, DUE CAUTION SHOULD BE USED WHEN PERFORMING SUBSURFACE EXCAVATION ACTIVITIES WHERE POTENTIAL CONFLICTS EXIST. GEL ENGINEERING OF NC INC. IS NOT RESPONSIBLE FOR DAMAGES THAT MAY OCCUR. IDENTIFYING THE LOCATION OF SOME UTILITIES AND/OR STRUCTURES MAY ONLY BE POSSIBLE WITH VACUUM OR OTHER EXCAVATION METHODS.
- 2) DATA FROM GEONICS, LTD. EM-61 MKII AND MALA GEOSCIENCE GROUND PENETRATING RADAR.
- 3) COORDINATES IN US STATE PLANE NAD 1983 DATUM.
- 4) PROJECT MICROSTATION BASEMAPS PROVIDED BY NCDOT.
- 5) **NO UNKNOWN UNDERGROUND STORAGE TANKS FOUND UNLESS NOTED IN DRAWING**

LEGEND

-  COMMUNICATIONS HANDHOLE
-  REINFORCED CONCRETE PIPE
-  UNKNOWN UTILITY



(IN FEET)
1 INCH = 40 ft.

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problem solved

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PROJECT: NCDT00110

Preliminary Site Assessment
SR 1406 (Piney Green Rd) From NC 24 to US 17
Onslow County, North Carolina
State Project U-3810, WBS# 35801.1.1

March 11, 2010

Site Map Showing Results Of
Geophysical Survey Investigation
Parcel 244

DRAWN BY: DEA

APPRV. BY: CMS

FIGURE
4

APPENDIX I
SOIL BORING LITHOLOGIC LOGS

SOIL BORING LOG

Boring/Well No.: **57-1**
 Date Started: **3/10/10**
 Date Completed: **3/10/10**

0915 *

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.1	Dk Brn Organics, Silty Sand - Moist	
2	4-8	-	0.5	Orange Brn/Gray sandy Clay, Moist Orange Brn Silty Sand, Moist - Wet Gray Fine Sand, Moist - Wet, Sat. @ 7'-8'	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Notes:

- 1) 4-foot continuous cores using DPT..

34° 44.373 N

77° 19.589 W

SOIL BORING LOG

Boring/Well No.: 57-2

Date Started: 3/10/10

Date Completed: 3/10/10

0935*

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.2	ROC, Brn. Gray to Gray Silty Fine Sand, Moist, Wet at 4'	
2	4-8	-	0.2	Gray. Fine Sand, Wet. Sat. @ 8'	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Notes:

- 1) 4-foot continuous cores using DPT..

34° 44.381 N

77° 19.591 W

SOIL BORING LOG

Boring/Well No.: 57-3
 Date Started: 3/10/10
 Date Completed: 3/10/10

09:50 *

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.5	ROC, Organics, Rock frags. (Well Rounded Quarts) Gray Brown Silty Sand, Moist, & Gray Clayey Sand M-Wet	
2	4-8	-	0.2	Gray Clayey Sand, M-Wet Gray Fine Sand, Wet/sat.	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Notes:

- 1) 4-foot continuous cores using DPT..

34°44.387 N

77°19.593 W

SOIL BORING LOG

Boring/Well No.: 57-4
 Date Started: 3/10/10
 Date Completed: 3/10/10

10:00 *

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-2	—	0.2	DK Brn. Organic Silty Sand, Moist Brn/Gray-Tan Sandy Clay, M-Wet	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Notes:

- 1) 4-foot continuous cores using DPT..

Samples collected by ditch w/ hand auger to 2' BGS. Saturated below 2'
 Soil falls out of bucket. Standing water present in ditch

57-4

57-5

34° 44.398 N

77° 19.600 W

SOIL BORING LOG

Boring/Well No.: 57-5
 Date Started: 3/10/10
 Date Completed: 3/10/10

10:10

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-2	-	0.2	DK Brn, Organics Silty Sand, Moist Tan/Gray Sandy Clay @ 2', M. Wet	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Notes:

- 1) 4-foot continuous cores using DPT..

34° 44.403 N

77° 19.605 W

APPENDIX II

**CERTIFICATES OF ANALYSIS AND
CHAIN OF CUSTODY RECORD FOR SOIL SAMPLES**



Andrew Eyer
GEL Engineering of NC, Inc.
PO Box 14262
RTP, NC 27709

Report Number: G341-616

Client Project: U-3810/NCDOT 001100

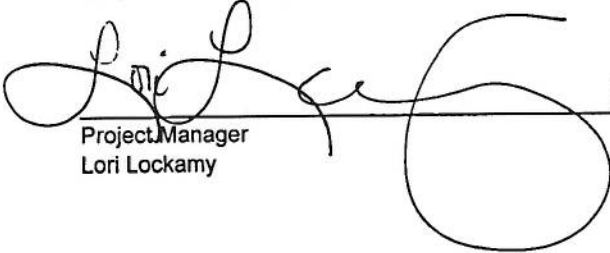
Dear Andrew Eyer,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. 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 services performed during this project, please call Lori Lockamy at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

A large, stylized handwritten signature in black ink, appearing to read 'Lori Lockamy', written over a horizontal line.

Project Manager
Lori Lockamy

23 March 2010

Date

Case Narrative

GEL

SGS Project: G341-616

Project Name: U-3810/NCDT001100


SGS North America Inc.

March 22nd, 2010

- Seventy four soil samples were accepted into the laboratory on March 11th, 2010 at 1515 for analyses as indicated on the chain of custody. The samples were received in good condition, with a temperature range of 2.0-2.1°C.
- All extractions and analyses were completed within holding time limits, with the following quality control exceptions.

8260 Analyses

- The ICAL dated 9032110 has a reported linear r^2 value for Acetone that is below 0.990. Only samples S8-2-8, S8-6-8, S8-8-4, S7-1-4, S7-2-4 and S7-3-4 were affected and these samples had no Acetone detected.
- Samples S8-4-4 and S8-7-8 have reported recoveries for 1,2-Dichloroethane-d4 that are above the QC limit. These recoveries were confirmed by duplicate analysis.

 _____ Date 3/23/10
Craig R Tronzo
Data Validation

SGS North America, Inc.
List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

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/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

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.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S7-1-4
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID: G341-616-72A
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: BAO
 Date Collected: 3/10/2011 9:15
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 81.60

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.66	mg/Kg	1	03/18/10 12:38

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	85.6	85.6		70-130

Comments:


Batch Information

Analytical Batch: VP031810
 Analytical Method: 8015
 Instrument ID: GC4
 Analyst: BAO

Prep Method: 5035
 Initial Wt/Vol: 6.49 g
 Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By: 
GRO.XLS

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

Client Sample ID: S7-1-4
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID: G341-616-72J
 Lab Project ID: G341-616

Date Collected: 3/10/2011 9:15
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 81.60
 Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.48	mg/Kg	1	03/18/10 14:43
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	35.3	88.3

Comments:

Batch Information

Analytical Batch: EP031810
 Analytical Method: 8015
 Instrument: GC6
 Analyst: DTF

Prep batch: 16216
 Prep Method: 3541
 Prep Date: 03/16/10
 Initial Prep Wt/Vol: 32.76 G
 Prep Final Vol: 10 mL

Analyst: FA

NC Certification #481

Reviewed By: GA
DRO.XLS
 Page 229 of 239

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

Client Sample ID: S7-1-4
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID G341-616-72E
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected: 03-10-2011 09:15
 Date Received: 3/11/2010
 Matrix: Soil
 Sample Amount: 6.76 g
 %Solids: 81.6

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	45.3	1	3/22/2010
Benzene	BQL	4.53	1	3/22/2010
Bromobenzene	BQL	4.53	1	3/22/2010
Bromochloromethane	BQL	4.53	1	3/22/2010
Bromodichloromethane	BQL	4.53	1	3/22/2010
Bromoform	BQL	4.53	1	3/22/2010
Bromomethane	BQL	4.53	1	3/22/2010
2-Butanone	BQL	22.6	1	3/22/2010
n-Butylbenzene	BQL	4.53	1	3/22/2010
sec-Butylbenzene	BQL	4.53	1	3/22/2010
tert-Butylbenzene	BQL	4.53	1	3/22/2010
Carbon disulfide	BQL	4.53	1	3/22/2010
Carbon tetrachloride	BQL	4.53	1	3/22/2010
Chlorobenzene	BQL	4.53	1	3/22/2010
Chloroethane	BQL	4.53	1	3/22/2010
Chloroform	BQL	4.53	1	3/22/2010
Chloromethane	BQL	4.53	1	3/22/2010
2-Chlorotoluene	BQL	4.53	1	3/22/2010
4-Chlorotoluene	BQL	4.53	1	3/22/2010
Dibromochloromethane	BQL	4.53	1	3/22/2010
1,2-Dibromo-3-chloropropane	BQL	22.6	1	3/22/2010
Dibromomethane	BQL	4.53	1	3/22/2010
1,2-Dibromoethane (EDB)	BQL	4.53	1	3/22/2010
1,2-Dichlorobenzene	BQL	4.53	1	3/22/2010
1,3-Dichlorobenzene	BQL	4.53	1	3/22/2010
1,4-Dichlorobenzene	BQL	4.53	1	3/22/2010
trans-1,4-Dichloro-2-butene	BQL	22.6	1	3/22/2010
1,1-Dichloroethane	BQL	4.53	1	3/22/2010
1,1-Dichloroethene	BQL	4.53	1	3/22/2010
1,2-Dichloroethane	BQL	4.53	1	3/22/2010
cis-1,2-Dichloroethene	BQL	4.53	1	3/22/2010
trans-1,2-dichloroethene	BQL	4.53	1	3/22/2010
1,2-Dichloropropane	BQL	4.53	1	3/22/2010
1,3-Dichloropropane	BQL	4.53	1	3/22/2010
2,2-Dichloropropane	BQL	4.53	1	3/22/2010
1,1-Dichloropropene	BQL	4.53	1	3/22/2010
cis-1,3-Dichloropropene	BQL	4.53	1	3/22/2010
trans-1,3-Dichloropropene	BQL	4.53	1	3/22/2010
Dichlorodifluoromethane	BQL	4.53	1	3/22/2010
Diisopropyl ether (DIPE)	BQL	4.53	1	3/22/2010
Ethylbenzene	BQL	4.53	1	3/22/2010
Hexachlorobutadiene	BQL	4.53	1	3/22/2010
2-Hexanone	BQL	11.3	1	3/22/2010
Iodomethane	BQL	4.53	1	3/22/2010

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

Client Sample ID: S7-1-4
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID G341-616-72E
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected: 03-10-2011 09:15
 Date Received: 3/11/2010
 Matrix: Soil
 Sample Amount: 6.76 g
 %Solids: 81.6

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.53	1	3/22/2010
4-Isopropyltoluene	BQL	4.53	1	3/22/2010
Methylene chloride	BQL	18.1	1	3/22/2010
4-Methyl-2-pentanone	BQL	11.3	1	3/22/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.53	1	3/22/2010
Naphthalene	BQL	4.53	1	3/22/2010
n-Propyl benzene	BQL	4.53	1	3/22/2010
Styrene	BQL	4.53	1	3/22/2010
1,1,1,2-Tetrachloroethane	BQL	4.53	1	3/22/2010
1,1,2,2-Tetrachloroethane	BQL	4.53	1	3/22/2010
Tetrachloroethene	BQL	4.53	1	3/22/2010
Toluene	BQL	4.53	1	3/22/2010
1,2,3-Trichlorobenzene	BQL	4.53	1	3/22/2010
1,2,4-Trichlorobenzene	BQL	4.53	1	3/22/2010
Trichloroethene	BQL	4.53	1	3/22/2010
1,1,1-Trichloroethane	BQL	4.53	1	3/22/2010
1,1,2-Trichloroethane	BQL	4.53	1	3/22/2010
Trichlorofluoromethane	BQL	4.53	1	3/22/2010
1,2,3-Trichloropropane	BQL	4.53	1	3/22/2010
1,2,4-Trimethylbenzene	BQL	4.53	1	3/22/2010
1,3,5-Trimethylbenzene	BQL	4.53	1	3/22/2010
Vinyl chloride	BQL	4.53	1	3/22/2010
m-,p-Xylene	BQL	9.05	1	3/22/2010
o-Xylene	BQL	4.53	1	3/22/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	67.2	134
Toluene-d8	50	50.2	100
4-Bromofluorobenzene	50	47.6	95

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst: *cl*

Reviewed By: *CLP*

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-1-4
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-72I
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.06 g

Analyzed By: DCS
 Date Collected: 3/10/2011 9:15
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 81.6

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	371	1	3/19/2010
Acenaphthylene	BQL	371	1	3/19/2010
Anthracene	BQL	371	1	3/19/2010
Benzo[a]anthracene	BQL	371	1	3/19/2010
Benzo[a]pyrene	BQL	371	1	3/19/2010
Benzo[b]fluoranthene	BQL	371	1	3/19/2010
Benzo[g,h,i]perylene	BQL	371	1	3/19/2010
Benzo[k]fluoranthene	BQL	371	1	3/19/2010
Benzoic Acid	BQL	1850	1	3/19/2010
Bis(2-chloroethoxy)methane	BQL	371	1	3/19/2010
Bis(2-chloroethyl)ether	BQL	371	1	3/19/2010
Bis(2-chloroisopropyl)ether	BQL	371	1	3/19/2010
Bis(2-ethylhexyl)phthalate	BQL	371	1	3/19/2010
4-bromophenyl phenyl ether	BQL	371	1	3/19/2010
Butylbenzylphthalate	BQL	371	1	3/19/2010
2-Chloronaphthalene	BQL	371	1	3/19/2010
2-Chlorophenol	BQL	371	1	3/19/2010
4-Chloro-3-methylphenol	BQL	371	1	3/19/2010
4-Chloroaniline	BQL	1850	1	3/19/2010
4-Chlorophenyl phenyl ether	BQL	371	1	3/19/2010
Chrysene	BQL	371	1	3/19/2010
Dibenzo[a,h]anthracene	BQL	371	1	3/19/2010
Dibenzofuran	BQL	371	1	3/19/2010
Di-n-Butylphthalate	BQL	371	1	3/19/2010
1,2-Dichlorobenzene	BQL	371	1	3/19/2010
1,3-Dichlorobenzene	BQL	371	1	3/19/2010
1,4-Dichlorobenzene	BQL	371	1	3/19/2010
3,3'-Dichlorobenzidine	BQL	741	1	3/19/2010
2,4-Dichlorophenol	BQL	371	1	3/19/2010
Diethylphthalate	BQL	371	1	3/19/2010
Dimethylphthalate	BQL	371	1	3/19/2010
2,4-Dimethylphenol	BQL	371	1	3/19/2010
Di-n-octylphthalate	BQL	371	1	3/19/2010
4,6-Dinitro-2-methylphenol	BQL	1850	1	3/19/2010
2,4-Dinitrophenol	BQL	1850	1	3/19/2010
2,4-Dinitrotoluene	BQL	371	1	3/19/2010
2,6-Dinitrotoluene	BQL	371	1	3/19/2010
Diphenylamine *	BQL	371	1	3/19/2010
Fluoranthene	BQL	371	1	3/19/2010
Fluorene	BQL	371	1	3/19/2010
Hexachlorobenzene	BQL	371	1	3/19/2010
Hexachlorobutadiene	BQL	371	1	3/19/2010
Hexachlorocyclopentadiene	BQL	741	1	3/19/2010
Hexachloroethane	BQL	371	1	3/19/2010
Indeno(1,2,3-c,d)pyrene	BQL	371	1	3/19/2010
Isophorone	BQL	371	1	3/19/2010
2-Methylnaphthalene	BQL	371	1	3/19/2010

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-1-4
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-721
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.06 g

Analyzed By: DCS
 Date Collected: 3/10/2011 9:15
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 81.6

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	371	1	3/19/2010
3- & 4-Methylphenol	BQL	371	1	3/19/2010
Naphthalene	BQL	371	1	3/19/2010
2-Nitroaniline	BQL	371	1	3/19/2010
3-Nitroaniline	BQL	1850	1	3/19/2010
4-Nitroaniline	BQL	1850	1	3/19/2010
Nitrobenzene	BQL	371	1	3/19/2010
2-Nitrophenol	BQL	371	1	3/19/2010
4-Nitrophenol	BQL	1850	1	3/19/2010
N-Nitrosodi-n-propylamine	BQL	371	1	3/19/2010
Pentachlorophenol	BQL	1850	1	3/19/2010
Phenanthrene	BQL	371	1	3/19/2010
Phenol	BQL	371	1	3/19/2010
Pyrene	BQL	371	1	3/19/2010
1,2,4-Trichlorobenzene	BQL	371	1	3/19/2010
2,4,5-Trichlorophenol	BQL	371	1	3/19/2010
2,4,6-Trichlorophenol	BQL	371	1	3/19/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.6	76
2-Fluorophenol	10	9.9	99
Nitrobenzene-d5	10	9.1	91
Phenol-d6	10	9.7	97
2,4,6-Tribromophenol	10	8.5	85
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 Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S7-2-4
Client Project ID: U-3810/NC DOT 001100
Lab Sample ID: G341-616-73A
Lab Project ID: G341-616
Report Basis: Dry Weight

Analyzed By: BAO
Date Collected: 3/10/2011 9:35
Date Received: 3/11/2010
Matrix: Soil
Solids 81.98

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.11	mg/Kg	1	03/18/10 13:05

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	84.5	84.5		70-130

Comments:


Batch Information

Analytical Batch: VP031810
Analytical Method: 8015
Instrument ID: GC4
Analyst: BAO

Prep Method: 5035
Initial Wt/Vol: 7.16 g
Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By: 
GRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S7-2-4
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-73J
 Lab Project ID: G341-616

Date Collected: 3/10/2011 9:35
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 81.98
 Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.44	mg/Kg	1	03/18/10 15:11
Surrogate Spike Results					
		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	36.7	91.7

Comments:

Batch Information

Analytical Batch: EP031810
 Analytical Method: 8015
 Instrument: GC6
 Analyst: DTF

Prep batch: 16216
 Prep Method: 3541
 Prep Date: 03/16/10
 Initial Prep Wt/Vol: 32.8 G
 Prep Final Vol: 10 mL

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

Client Sample ID: S7-2-4
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID G341-616-73E
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected: 03-10-2011 09:35
 Date Received: 3/11/2010
 Matrix: Soil
 Sample Amount: 6.98 g
 %Solids: 82.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	43.7	1	3/22/2010
Benzene	BQL	4.37	1	3/22/2010
Bromobenzene	BQL	4.37	1	3/22/2010
Bromochloromethane	BQL	4.37	1	3/22/2010
Bromodichloromethane	BQL	4.37	1	3/22/2010
Bromoform	BQL	4.37	1	3/22/2010
Bromomethane	BQL	4.37	1	3/22/2010
2-Butanone	BQL	21.8	1	3/22/2010
n-Butylbenzene	BQL	4.37	1	3/22/2010
sec-Butylbenzene	BQL	4.37	1	3/22/2010
tert-Butylbenzene	BQL	4.37	1	3/22/2010
Carbon disulfide	BQL	4.37	1	3/22/2010
Carbon tetrachloride	BQL	4.37	1	3/22/2010
Chlorobenzene	BQL	4.37	1	3/22/2010
Chloroethane	BQL	4.37	1	3/22/2010
Chloroform	BQL	4.37	1	3/22/2010
Chloromethane	BQL	4.37	1	3/22/2010
2-Chlorotoluene	BQL	4.37	1	3/22/2010
4-Chlorotoluene	BQL	4.37	1	3/22/2010
Dibromochloromethane	BQL	4.37	1	3/22/2010
1,2-Dibromo-3-chloropropane	BQL	21.8	1	3/22/2010
Dibromomethane	BQL	4.37	1	3/22/2010
1,2-Dibromoethane (EDB)	BQL	4.37	1	3/22/2010
1,2-Dichlorobenzene	BQL	4.37	1	3/22/2010
1,3-Dichlorobenzene	BQL	4.37	1	3/22/2010
1,4-Dichlorobenzene	BQL	4.37	1	3/22/2010
trans-1,4-Dichloro-2-butene	BQL	21.8	1	3/22/2010
1,1-Dichloroethane	BQL	4.37	1	3/22/2010
1,1-Dichloroethene	BQL	4.37	1	3/22/2010
1,2-Dichloroethane	BQL	4.37	1	3/22/2010
cis-1,2-Dichloroethene	BQL	4.37	1	3/22/2010
trans-1,2-dichloroethene	BQL	4.37	1	3/22/2010
1,2-Dichloropropane	BQL	4.37	1	3/22/2010
1,3-Dichloropropane	BQL	4.37	1	3/22/2010
2,2-Dichloropropane	BQL	4.37	1	3/22/2010
1,1-Dichloropropene	BQL	4.37	1	3/22/2010
cis-1,3-Dichloropropene	BQL	4.37	1	3/22/2010
trans-1,3-Dichloropropene	BQL	4.37	1	3/22/2010
Dichlorodifluoromethane	BQL	4.37	1	3/22/2010
Diisopropyl ether (DIPE)	BQL	4.37	1	3/22/2010
Ethylbenzene	BQL	4.37	1	3/22/2010
Hexachlorobutadiene	BQL	4.37	1	3/22/2010
2-Hexanone	BQL	10.9	1	3/22/2010
Iodomethane	BQL	4.37	1	3/22/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S7-2-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-616-73E
Lab Project ID: G341-616
Report Basis: Dry Weight

Analyzed By: CLP
Date Collected: 03-10-2011 09:35
Date Received: 3/11/2010
Matrix: Soil
Sample Amount: 6.98 g
%Solids: 82.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.37	1	3/22/2010
4-Isopropyltoluene	BQL	4.37	1	3/22/2010
Methylene chloride	BQL	17.5	1	3/22/2010
4-Methyl-2-pentanone	BQL	10.9	1	3/22/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.37	1	3/22/2010
Naphthalene	BQL	4.37	1	3/22/2010
n-Propyl benzene	BQL	4.37	1	3/22/2010
Styrene	BQL	4.37	1	3/22/2010
1,1,1,2-Tetrachloroethane	BQL	4.37	1	3/22/2010
1,1,2,2-Tetrachloroethane	BQL	4.37	1	3/22/2010
Tetrachloroethene	BQL	4.37	1	3/22/2010
Toluene	BQL	4.37	1	3/22/2010
1,2,3-Trichlorobenzene	BQL	4.37	1	3/22/2010
1,2,4-Trichlorobenzene	BQL	4.37	1	3/22/2010
Trichloroethene	BQL	4.37	1	3/22/2010
1,1,1-Trichloroethane	BQL	4.37	1	3/22/2010
1,1,2-Trichloroethane	BQL	4.37	1	3/22/2010
Trichlorofluoromethane	BQL	4.37	1	3/22/2010
1,2,3-Trichloropropane	BQL	4.37	1	3/22/2010
1,2,4-Trimethylbenzene	BQL	4.37	1	3/22/2010
1,3,5-Trimethylbenzene	BQL	4.37	1	3/22/2010
Vinyl chloride	BQL	4.37	1	3/22/2010
m,p-Xylene	BQL	8.74	1	3/22/2010
o-Xylene	BQL	4.37	1	3/22/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	68	136
Toluene-d8	50	50.3	101
4-Bromofluorobenzene	50	45.9	92

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst:

Reviewed By:

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-2-4
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-73I
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.17 g

Analyzed By: DCS
 Date Collected: 3/10/2011 9:35
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 81.98

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	368	1	3/19/2010
Acenaphthylene	BQL	368	1	3/19/2010
Anthracene	BQL	368	1	3/19/2010
Benzo[a]anthracene	BQL	368	1	3/19/2010
Benzo[a]pyrene	BQL	368	1	3/19/2010
Benzo[b]fluoranthene	BQL	368	1	3/19/2010
Benzo[g,h,i]perylene	BQL	368	1	3/19/2010
Benzo[k]fluoranthene	BQL	368	1	3/19/2010
Benzoic Acid	BQL	1840	1	3/19/2010
Bis(2-chloroethoxy)methane	BQL	368	1	3/19/2010
Bis(2-chloroethyl)ether	BQL	368	1	3/19/2010
Bis(2-chloroisopropyl)ether	BQL	368	1	3/19/2010
Bis(2-ethylhexyl)phthalate	BQL	368	1	3/19/2010
4-bromophenyl phenyl ether	BQL	368	1	3/19/2010
Butylbenzylphthalate	BQL	368	1	3/19/2010
2-Chloronaphthalene	BQL	368	1	3/19/2010
2-Chlorophenol	BQL	368	1	3/19/2010
4-Chloro-3-methylphenol	BQL	368	1	3/19/2010
4-Chloroaniline	BQL	1840	1	3/19/2010
4-Chlorophenyl phenyl ether	BQL	368	1	3/19/2010
Chrysene	BQL	368	1	3/19/2010
Dibenzo[a,h]anthracene	BQL	368	1	3/19/2010
Dibenzofuran	BQL	368	1	3/19/2010
Di-n-Butylphthalate	BQL	368	1	3/19/2010
1,2-Dichlorobenzene	BQL	368	1	3/19/2010
1,3-Dichlorobenzene	BQL	368	1	3/19/2010
1,4-Dichlorobenzene	BQL	368	1	3/19/2010
3,3'-Dichlorobenzidine	BQL	735	1	3/19/2010
2,4-Dichlorophenol	BQL	368	1	3/19/2010
Diethylphthalate	BQL	368	1	3/19/2010
Dimethylphthalate	BQL	368	1	3/19/2010
2,4-Dimethylphenol	BQL	368	1	3/19/2010
Di-n-octylphthalate	BQL	368	1	3/19/2010
4,6-Dinitro-2-methylphenol	BQL	1840	1	3/19/2010
2,4-Dinitrophenol	BQL	1840	1	3/19/2010
2,4-Dinitrotoluene	BQL	368	1	3/19/2010
2,6-Dinitrotoluene	BQL	368	1	3/19/2010
Diphenylamine *	BQL	368	1	3/19/2010
Fluoranthene	BQL	368	1	3/19/2010
Fluorene	BQL	368	1	3/19/2010
Hexachlorobenzene	BQL	368	1	3/19/2010
Hexachlorobutadiene	BQL	368	1	3/19/2010
Hexachlorocyclopentadiene	BQL	735	1	3/19/2010
Hexachloroethane	BQL	368	1	3/19/2010
Indeno(1,2,3-c,d)pyrene	BQL	368	1	3/19/2010
Isophorone	BQL	368	1	3/19/2010
2-Methylnaphthalene	BQL	368	1	3/19/2010

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-2-4
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-73I
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.17 g

Analyzed By: DCS
 Date Collected: 3/10/2011 9:35
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 81.98

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	368	1	3/19/2010
3- & 4-Methylphenol	BQL	368	1	3/19/2010
Naphthalene	BQL	368	1	3/19/2010
2-Nitroaniline	BQL	368	1	3/19/2010
3-Nitroaniline	BQL	1840	1	3/19/2010
4-Nitroaniline	BQL	1840	1	3/19/2010
Nitrobenzene	BQL	368	1	3/19/2010
2-Nitrophenol	BQL	368	1	3/19/2010
4-Nitrophenol	BQL	1840	1	3/19/2010
N-Nitrosodi-n-propylamine	BQL	368	1	3/19/2010
Pentachlorophenol	BQL	1840	1	3/19/2010
Phenanthrene	BQL	368	1	3/19/2010
Phenol	BQL	368	1	3/19/2010
Pyrene	BQL	368	1	3/19/2010
1,2,4-Trichlorobenzene	BQL	368	1	3/19/2010
2,4,5-Trichlorophenol	BQL	368	1	3/19/2010
2,4,6-Trichlorophenol	BQL	368	1	3/19/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.5	75
2-Fluorophenol	10	9.2	92
Nitrobenzene-d5	10	8.4	84
Phenol-d6	10	9.1	91
2,4,6-Tribromophenol	10	8.2	82
4-Terphenyl-d14	10	9.4	94

Comments:

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

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S7-3-4
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID: G341-616-74B
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: BAO
 Date Collected: 3/10/2011 9:50
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 80.09

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.62	mg/Kg	1	03/18/10 13:33

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	83.4	83.4		70-130

Comments:

Batch Information

Analytical Batch: VP031810
 Analytical Method: 8015
 Instrument ID: GC4
 Analyst: BAO

Prep Method: 5035
 Initial Wt/Vol: 5.66 g
 Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By: 
GRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S7-3-4
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID: G341-616-74L
 Lab Project ID: G341-616

Date Collected: 3/10/2011 9:50
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 80.09
 Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	62.9	7.76	mg/Kg	1	03/18/10 15:39
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	35.4	88.6

Comments:

Batch Information

Analytical Batch: EP031810
 Analytical Method: 8015
 Instrument: GC6
 Analyst: DTF

Prep batch: 16216
 Prep Method: 3541
 Prep Date: 03/16/10
 Initial Prep Wt/Vol: 32.16 G
 Prep Final Vol: 10 mL

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

Client Sample ID: S7-3-4
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID G341-616-74E
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected: 03-10-2011 09:50
 Date Received: 3/11/2010
 Matrix: Soil
 Sample Amount: 5.98 g
 %Solids: 80.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	52.2	1	3/22/2010
Benzene	BQL	5.22	1	3/22/2010
Bromobenzene	BQL	5.22	1	3/22/2010
Bromochloromethane	BQL	5.22	1	3/22/2010
Bromodichloromethane	BQL	5.22	1	3/22/2010
Bromoform	BQL	5.22	1	3/22/2010
Bromomethane	BQL	5.22	1	3/22/2010
2-Butanone	BQL	26.1	1	3/22/2010
n-Butylbenzene	BQL	5.22	1	3/22/2010
sec-Butylbenzene	BQL	5.22	1	3/22/2010
tert-Butylbenzene	BQL	5.22	1	3/22/2010
Carbon disulfide	BQL	5.22	1	3/22/2010
Carbon tetrachloride	BQL	5.22	1	3/22/2010
Chlorobenzene	BQL	5.22	1	3/22/2010
Chloroethane	BQL	5.22	1	3/22/2010
Chloroform	BQL	5.22	1	3/22/2010
Chloromethane	BQL	5.22	1	3/22/2010
2-Chlorotoluene	BQL	5.22	1	3/22/2010
4-Chlorotoluene	BQL	5.22	1	3/22/2010
Dibromochloromethane	BQL	5.22	1	3/22/2010
1,2-Dibromo-3-chloropropane	BQL	26.1	1	3/22/2010
Dibromomethane	BQL	5.22	1	3/22/2010
1,2-Dibromoethane (EDB)	BQL	5.22	1	3/22/2010
1,2-Dichlorobenzene	BQL	5.22	1	3/22/2010
1,3-Dichlorobenzene	BQL	5.22	1	3/22/2010
1,4-Dichlorobenzene	BQL	5.22	1	3/22/2010
trans-1,4-Dichloro-2-butene	BQL	26.1	1	3/22/2010
1,1-Dichloroethane	BQL	5.22	1	3/22/2010
1,1-Dichloroethene	BQL	5.22	1	3/22/2010
1,2-Dichloroethane	BQL	5.22	1	3/22/2010
cis-1,2-Dichloroethene	BQL	5.22	1	3/22/2010
trans-1,2-dichloroethene	BQL	5.22	1	3/22/2010
1,2-Dichloropropane	BQL	5.22	1	3/22/2010
1,3-Dichloropropane	BQL	5.22	1	3/22/2010
2,2-Dichloropropane	BQL	5.22	1	3/22/2010
1,1-Dichloropropene	BQL	5.22	1	3/22/2010
cis-1,3-Dichloropropene	BQL	5.22	1	3/22/2010
trans-1,3-Dichloropropene	BQL	5.22	1	3/22/2010
Dichlorodifluoromethane	BQL	5.22	1	3/22/2010
Diisopropyl ether (DIPE)	BQL	5.22	1	3/22/2010
Ethylbenzene	BQL	5.22	1	3/22/2010
Hexachlorobutadiene	BQL	5.22	1	3/22/2010
2-Hexanone	BQL	13.0	1	3/22/2010
Iodomethane	BQL	5.22	1	3/22/2010

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

Client Sample ID: S7-3-4
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID G341-616-74E
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected: 03-10-2011 09:50
 Date Received: 3/11/2010
 Matrix: Soil
 Sample Amount: 5.98 g
 %Solids: 80.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.22	1	3/22/2010
4-Isopropyltoluene	BQL	5.22	1	3/22/2010
Methylene chloride	BQL	20.9	1	3/22/2010
4-Methyl-2-pentanone	BQL	13.0	1	3/22/2010
Methyl-tert-butyl ether (MTBE)	BQL	5.22	1	3/22/2010
Naphthalene	BQL	5.22	1	3/22/2010
n-Propyl benzene	BQL	5.22	1	3/22/2010
Styrene	BQL	5.22	1	3/22/2010
1,1,1,2-Tetrachloroethane	BQL	5.22	1	3/22/2010
1,1,2,2-Tetrachloroethane	BQL	5.22	1	3/22/2010
Tetrachloroethene	BQL	5.22	1	3/22/2010
Toluene	BQL	5.22	1	3/22/2010
1,2,3-Trichlorobenzene	BQL	5.22	1	3/22/2010
1,2,4-Trichlorobenzene	BQL	5.22	1	3/22/2010
Trichloroethene	BQL	5.22	1	3/22/2010
1,1,1-Trichloroethane	BQL	5.22	1	3/22/2010
1,1,2-Trichloroethane	BQL	5.22	1	3/22/2010
Trichlorofluoromethane	BQL	5.22	1	3/22/2010
1,2,3-Trichloropropane	BQL	5.22	1	3/22/2010
1,2,4-Trimethylbenzene	BQL	5.22	1	3/22/2010
1,3,5-Trimethylbenzene	BQL	5.22	1	3/22/2010
Vinyl chloride	BQL	5.22	1	3/22/2010
m-,p-Xylene	BQL	10.4	1	3/22/2010
o-Xylene	BQL	5.22	1	3/22/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	66.3	133
Toluene-d8	50	51.3	103
4-Bromofluorobenzene	50	47.7	95

Comments:**Flags:**

BQL = Below Quantitation Limits.

Analyst:

Reviewed By:

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-3-4
 Client Project ID: V-3810/NCDOT 00/100
 Lab Sample ID: G341-616-74I
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.02 g

Analyzed By: DCS
 Date Collected: 3/10/2011 9:50
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 80.09

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	378	1	3/18/2010
Acenaphthylene	BQL	378	1	3/18/2010
Anthracene	BQL	378	1	3/18/2010
Benzo[a]anthracene	BQL	378	1	3/18/2010
Benzo[a]pyrene	BQL	378	1	3/18/2010
Benzo[b]fluoranthene	BQL	378	1	3/18/2010
Benzo[g,h,i]perylene	BQL	378	1	3/18/2010
Benzo[k]fluoranthene	BQL	378	1	3/18/2010
Benzoic Acid	BQL	1890	1	3/18/2010
Bis(2-chloroethoxy)methane	BQL	378	1	3/18/2010
Bis(2-chloroethyl)ether	BQL	378	1	3/18/2010
Bis(2-chloroisopropyl)ether	BQL	378	1	3/18/2010
Bis(2-ethylhexyl)phthalate	BQL	378	1	3/18/2010
4-bromophenyl phenyl ether	BQL	378	1	3/18/2010
Butylbenzylphthalate	BQL	378	1	3/18/2010
2-Chloronaphthalene	BQL	378	1	3/18/2010
2-Chlorophenol	BQL	378	1	3/18/2010
4-Chloro-3-methylphenol	BQL	378	1	3/18/2010
4-Chloroaniline	BQL	1890	1	3/18/2010
4-Chlorophenyl phenyl ether	BQL	378	1	3/18/2010
Chrysene	BQL	378	1	3/18/2010
Dibenzo[a,h]anthracene	BQL	378	1	3/18/2010
Dibenzofuran	BQL	378	1	3/18/2010
Di-n-Butylphthalate	BQL	378	1	3/18/2010
1,2-Dichlorobenzene	BQL	378	1	3/18/2010
1,3-Dichlorobenzene	BQL	378	1	3/18/2010
1,4-Dichlorobenzene	BQL	378	1	3/18/2010
3,3'-Dichlorobenzidine	BQL	756	1	3/18/2010
2,4-Dichlorophenol	BQL	378	1	3/18/2010
Diethylphthalate	BQL	378	1	3/18/2010
Dimethylphthalate	BQL	378	1	3/18/2010
2,4-Dimethylphenol	BQL	378	1	3/18/2010
Di-n-octylphthalate	BQL	378	1	3/18/2010
4,6-Dinitro-2-methylphenol	BQL	1890	1	3/18/2010
2,4-Dinitrophenol	BQL	1890	1	3/18/2010
2,4-Dinitrotoluene	BQL	378	1	3/18/2010
2,6-Dinitrotoluene	BQL	378	1	3/18/2010
Diphenylamine *	BQL	378	1	3/18/2010
Fluoranthene	BQL	378	1	3/18/2010
Fluorene	BQL	378	1	3/18/2010
Hexachlorobenzene	BQL	378	1	3/18/2010
Hexachlorobutadiene	BQL	378	1	3/18/2010
Hexachlorocyclopentadiene	BQL	756	1	3/18/2010
Hexachloroethane	BQL	378	1	3/18/2010
Indeno(1,2,3-c,d)pyrene	BQL	378	1	3/18/2010
Isophorone	BQL	378	1	3/18/2010
2-Methylnaphthalene	BQL	378	1	3/18/2010

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-3-4
 Client Project ID: V-3810/NCDOT 00/100
 Lab Sample ID: G341-616-741
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.02 g

Analyzed By: DCS
 Date Collected: 3/10/2011 9:50
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 80.09

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	378	1	3/18/2010
3- & 4-Methylphenol	BQL	378	1	3/18/2010
Naphthalene	BQL	378	1	3/18/2010
2-Nitroaniline	BQL	378	1	3/18/2010
3-Nitroaniline	BQL	1890	1	3/18/2010
4-Nitroaniline	BQL	1890	1	3/18/2010
Nitrobenzene	BQL	378	1	3/18/2010
2-Nitrophenol	BQL	378	1	3/18/2010
4-Nitrophenol	BQL	1890	1	3/18/2010
N-Nitrosodi-n-propylamine	BQL	378	1	3/18/2010
Pentachlorophenol	BQL	1890	1	3/18/2010
Phenanthrene	BQL	378	1	3/18/2010
Phenol	BQL	378	1	3/18/2010
Pyrene	BQL	378	1	3/18/2010
1,2,4-Trichlorobenzene	BQL	378	1	3/18/2010
2,4,5-Trichlorophenol	BQL	378	1	3/18/2010
2,4,6-Trichlorophenol	BQL	378	1	3/18/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.4	84
2-Fluorophenol	10	9.5	95
Nitrobenzene-d5	10	8.8	88
Phenol-d6	10	9	90
2,4,6-Tribromophenol	10	7.1	71
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 Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S7-4-2
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID: G341-616-55A
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: BAO
 Date Collected: 3/10/2011 10:00
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 81.03

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.11	mg/Kg	1	03/17/10 20:37

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	83.2	83.2		70-130

Comments:


Batch Information

Analytical Batch: VP031710
 Analytical Method: 8015
 Instrument ID: GC4
 Analyst: BAO

Prep Method: 5035
 Initial Wt/Vol: 7.25 g
 Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By: 
GRO.XLS

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

Client Sample ID: S7-4-2
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID: G341-616-55J
 Lab Project ID: G341-616

Date Collected: 3/10/2011 10:00
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 81.03
 Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	20.1	7.15	mg/Kg	1	03/18/10 02:38
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	37	92.5

Comments:

Batch Information

Analytical Batch: EP031710
 Analytical Method: 8015
 Instrument: GC6
 Analyst: DTF

Prep batch: 16215
 Prep Method: 3541
 Prep Date: 03/16/10
 Initial Prep Wt/Vol: 34.54 G
 Prep Final Vol: 10 mL

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S7-4-2
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-616-55A
Lab Project ID: G341-616
Report Basis: Dry Weight

Analyzed By: CLP
Date Collected: 03-10-2011 10:00
Date Received: 3/11/2010
Matrix: Soil
Sample Amount: 7.25 g
%Solids: 81.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	42.6	1	3/15/2010
Benzene	BQL	4.26	1	3/15/2010
Bromobenzene	BQL	4.26	1	3/15/2010
Bromochloromethane	BQL	4.26	1	3/15/2010
Bromodichloromethane	BQL	4.26	1	3/15/2010
Bromoform	BQL	4.26	1	3/15/2010
Bromomethane	BQL	4.26	1	3/15/2010
2-Butanone	BQL	21.3	1	3/15/2010
n-Butylbenzene	BQL	4.26	1	3/15/2010
sec-Butylbenzene	BQL	4.26	1	3/15/2010
tert-Butylbenzene	BQL	4.26	1	3/15/2010
Carbon disulfide	BQL	4.26	1	3/15/2010
Carbon tetrachloride	BQL	4.26	1	3/15/2010
Chlorobenzene	BQL	4.26	1	3/15/2010
Chloroethane	BQL	4.26	1	3/15/2010
Chloroform	BQL	4.26	1	3/15/2010
Chloromethane	BQL	4.26	1	3/15/2010
2-Chlorotoluene	BQL	4.26	1	3/15/2010
4-Chlorotoluene	BQL	4.26	1	3/15/2010
Dibromochloromethane	BQL	4.26	1	3/15/2010
1,2-Dibromo-3-chloropropane	BQL	21.3	1	3/15/2010
Dibromomethane	BQL	4.26	1	3/15/2010
1,2-Dibromoethane (EDB)	BQL	4.26	1	3/15/2010
1,2-Dichlorobenzene	BQL	4.26	1	3/15/2010
1,3-Dichlorobenzene	BQL	4.26	1	3/15/2010
1,4-Dichlorobenzene	BQL	4.26	1	3/15/2010
trans-1,4-Dichloro-2-butene	BQL	21.3	1	3/15/2010
1,1-Dichloroethane	BQL	4.26	1	3/15/2010
1,1-Dichloroethene	BQL	4.26	1	3/15/2010
1,2-Dichloroethane	BQL	4.26	1	3/15/2010
cis-1,2-Dichloroethene	BQL	4.26	1	3/15/2010
trans-1,2-dichloroethene	BQL	4.26	1	3/15/2010
1,2-Dichloropropane	BQL	4.26	1	3/15/2010
1,3-Dichloropropane	BQL	4.26	1	3/15/2010
2,2-Dichloropropane	BQL	4.26	1	3/15/2010
1,1-Dichloropropene	BQL	4.26	1	3/15/2010
cis-1,3-Dichloropropene	BQL	4.26	1	3/15/2010
trans-1,3-Dichloropropene	BQL	4.26	1	3/15/2010
Dichlorodifluoromethane	BQL	4.26	1	3/15/2010
Diisopropyl ether (DIPE)	BQL	4.26	1	3/15/2010
Ethylbenzene	BQL	4.26	1	3/15/2010
Hexachlorobutadiene	BQL	4.26	1	3/15/2010
2-Hexanone	BQL	10.6	1	3/15/2010
Iodomethane	BQL	4.26	1	3/15/2010

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

Client Sample ID: S7-4-2
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID G341-616-55A
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected: 03-10-2011 10:00
 Date Received: 3/11/2010
 Matrix: Soil
 Sample Amount: 7.25 g
 %Solids: 81.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.26	1	3/15/2010
4-Isopropyltoluene	BQL	4.26	1	3/15/2010
Methylene chloride	BQL	17.0	1	3/15/2010
4-Methyl-2-pentanone	BQL	10.6	1	3/15/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.26	1	3/15/2010
Naphthalene	BQL	4.26	1	3/15/2010
n-Propyl benzene	BQL	4.26	1	3/15/2010
Styrene	BQL	4.26	1	3/15/2010
1,1,1,2-Tetrachloroethane	BQL	4.26	1	3/15/2010
1,1,2,2-Tetrachloroethane	BQL	4.26	1	3/15/2010
Tetrachloroethene	BQL	4.26	1	3/15/2010
Toluene	BQL	4.26	1	3/15/2010
1,2,3-Trichlorobenzene	BQL	4.26	1	3/15/2010
1,2,4-Trichlorobenzene	BQL	4.26	1	3/15/2010
Trichloroethene	BQL	4.26	1	3/15/2010
1,1,1-Trichloroethane	BQL	4.26	1	3/15/2010
1,1,2-Trichloroethane	BQL	4.26	1	3/15/2010
Trichlorofluoromethane	BQL	4.26	1	3/15/2010
1,2,3-Trichloropropane	BQL	4.26	1	3/15/2010
1,2,4-Trimethylbenzene	BQL	4.26	1	3/15/2010
1,3,5-Trimethylbenzene	BQL	4.26	1	3/15/2010
Vinyl chloride	BQL	4.26	1	3/15/2010
m-,p-Xylene	BQL	8.51	1	3/15/2010
o-Xylene	BQL	4.26	1	3/15/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	57.2	114
Toluene-d8	50	54.6	109
4-Bromofluorobenzene	50	45.3	91

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst: CL

Reviewed By: MD

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-4-2
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-551
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.14 g

Analyzed By: DCS
 Date Collected: 3/10/2011 10:00
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 81.03

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	372	1	3/19/2010
Acenaphthylene	BQL	372	1	3/19/2010
Anthracene	BQL	372	1	3/19/2010
Benzo[a]anthracene	BQL	372	1	3/19/2010
Benzo[a]pyrene	BQL	372	1	3/19/2010
Benzo[b]fluoranthene	BQL	372	1	3/19/2010
Benzo[g,h,i]perylene	BQL	372	1	3/19/2010
Benzo[k]fluoranthene	BQL	372	1	3/19/2010
Benzoic Acid	BQL	1860	1	3/19/2010
Bis(2-chloroethoxy)methane	BQL	372	1	3/19/2010
Bis(2-chloroethyl)ether	BQL	372	1	3/19/2010
Bis(2-chloroisopropyl)ether	BQL	372	1	3/19/2010
Bis(2-ethylhexyl)phthalate	BQL	372	1	3/19/2010
4-bromophenyl phenyl ether	BQL	372	1	3/19/2010
Butylbenzylphthalate	BQL	372	1	3/19/2010
2-Chloronaphthalene	BQL	372	1	3/19/2010
2-Chlorophenol	BQL	372	1	3/19/2010
4-Chloro-3-methylphenol	BQL	372	1	3/19/2010
4-Chloroaniline	BQL	1860	1	3/19/2010
4-Chlorophenyl phenyl ether	BQL	372	1	3/19/2010
Chrysene	BQL	372	1	3/19/2010
Dibenzo[a,h]anthracene	BQL	372	1	3/19/2010
Dibenzofuran	BQL	372	1	3/19/2010
Di-n-Butylphthalate	BQL	372	1	3/19/2010
1,2-Dichlorobenzene	BQL	372	1	3/19/2010
1,3-Dichlorobenzene	BQL	372	1	3/19/2010
1,4-Dichlorobenzene	BQL	372	1	3/19/2010
3,3'-Dichlorobenzidine	BQL	745	1	3/19/2010
2,4-Dichlorophenol	BQL	372	1	3/19/2010
Diethylphthalate	BQL	372	1	3/19/2010
Dimethylphthalate	BQL	372	1	3/19/2010
2,4-Dimethylphenol	BQL	372	1	3/19/2010
Di-n-octylphthalate	BQL	372	1	3/19/2010
4,6-Dinitro-2-methylphenol	BQL	1860	1	3/19/2010
2,4-Dinitrophenol	BQL	1860	1	3/19/2010
2,4-Dinitrotoluene	BQL	372	1	3/19/2010
2,6-Dinitrotoluene	BQL	372	1	3/19/2010
Diphenylamine *	BQL	372	1	3/19/2010
Fluoranthene	BQL	372	1	3/19/2010
Fluorene	BQL	372	1	3/19/2010
Hexachlorobenzene	BQL	372	1	3/19/2010
Hexachlorobutadiene	BQL	372	1	3/19/2010
Hexachlorocyclopentadiene	BQL	745	1	3/19/2010
Hexachloroethane	BQL	372	1	3/19/2010
Indeno(1,2,3-c,d)pyrene	BQL	372	1	3/19/2010
Isophorone	BQL	372	1	3/19/2010
2-Methylnaphthalene	BQL	372	1	3/19/2010

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-4-2
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-55I
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.14 g

Analyzed By: DCS
 Date Collected: 3/10/2011 10:00
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 81.03

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	372	1	3/19/2010
3- & 4-Methylphenol	BQL	372	1	3/19/2010
Naphthalene	BQL	372	1	3/19/2010
2-Nitroaniline	BQL	372	1	3/19/2010
3-Nitroaniline	BQL	1860	1	3/19/2010
4-Nitroaniline	BQL	1860	1	3/19/2010
Nitrobenzene	BQL	372	1	3/19/2010
2-Nitrophenol	BQL	372	1	3/19/2010
4-Nitrophenol	BQL	1860	1	3/19/2010
N-Nitrosodi-n-propylamine	BQL	372	1	3/19/2010
Pentachlorophenol	BQL	1860	1	3/19/2010
Phenanthrene	BQL	372	1	3/19/2010
Phenol	BQL	372	1	3/19/2010
Pyrene	BQL	372	1	3/19/2010
1,2,4-Trichlorobenzene	BQL	372	1	3/19/2010
2,4,5-Trichlorophenol	BQL	372	1	3/19/2010
2,4,6-Trichlorophenol	BQL	372	1	3/19/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.4	64
2-Fluorophenol	10	9.5	95
Nitrobenzene-d5	10	8.8	88
Phenol-d6	10	9.4	94
2,4,6-Tribromophenol	10	7.8	78
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 Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S7-5-2
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID: G341-616-56A
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: BAO
 Date Collected: 3/10/2011 10:10
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 84.44

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.31	mg/Kg	1	03/17/10 21:04

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	85.1	85.1		70-130

Comments:

Batch Information

Analytical Batch: VP031710
 Analytical Method: 8015
 Instrument ID: GC4
 Analyst: BAO

Prep Method: 5035
 Initial Wt/Vol: 6.69 g
 Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By: BAO
GRO.XLS

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

Client Sample ID: S7-5-2
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID: G341-616-56J
 Lab Project ID: G341-616

Date Collected: 3/10/2011 10:10
 Date Received: 3/11/2010
 Matrix: Soil
 Solids 84.44
 Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.89	mg/Kg	1	03/18/10 03:07
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	38.9	97.2

Comments:

Batch Information

Analytical Batch: EP031710
 Analytical Method: 8015
 Instrument: GC6
 Analyst: DTF

Prep batch: 16215
 Prep Method: 3541
 Prep Date: 03/16/10
 Initial Prep Wt/Vol: 34.38 G
 Prep Final Vol: 10 mL

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

Client Sample ID: S7-5-2
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID G341-616-56E
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected: 03-10-2011 10:10
 Date Received: 3/11/2010
 Matrix: Soil
 Sample Amount: 7.09 g
 %Solids: 84.4

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	41.8	1	3/18/2010
Benzene	BQL	4.18	1	3/18/2010
Bromobenzene	BQL	4.18	1	3/18/2010
Bromochloromethane	BQL	4.18	1	3/18/2010
Bromodichloromethane	BQL	4.18	1	3/18/2010
Bromoform	BQL	4.18	1	3/18/2010
Bromomethane	BQL	4.18	1	3/18/2010
2-Butanone	BQL	20.9	1	3/18/2010
n-Butylbenzene	BQL	4.18	1	3/18/2010
sec-Butylbenzene	BQL	4.18	1	3/18/2010
tert-Butylbenzene	BQL	4.18	1	3/18/2010
Carbon disulfide	BQL	4.18	1	3/18/2010
Carbon tetrachloride	BQL	4.18	1	3/18/2010
Chlorobenzene	BQL	4.18	1	3/18/2010
Chloroethane	BQL	4.18	1	3/18/2010
Chloroform	BQL	4.18	1	3/18/2010
Chloromethane	BQL	4.18	1	3/18/2010
2-Chlorotoluene	BQL	4.18	1	3/18/2010
4-Chlorotoluene	BQL	4.18	1	3/18/2010
Dibromochloromethane	BQL	4.18	1	3/18/2010
1,2-Dibromo-3-chloropropane	BQL	20.9	1	3/18/2010
Dibromomethane	BQL	4.18	1	3/18/2010
1,2-Dibromoethane (EDB)	BQL	4.18	1	3/18/2010
1,2-Dichlorobenzene	BQL	4.18	1	3/18/2010
1,3-Dichlorobenzene	BQL	4.18	1	3/18/2010
1,4-Dichlorobenzene	BQL	4.18	1	3/18/2010
trans-1,4-Dichloro-2-butene	BQL	20.9	1	3/18/2010
1,1-Dichloroethane	BQL	4.18	1	3/18/2010
1,1-Dichloroethene	BQL	4.18	1	3/18/2010
1,2-Dichloroethane	BQL	4.18	1	3/18/2010
cis-1,2-Dichloroethene	BQL	4.18	1	3/18/2010
trans-1,2-dichloroethene	BQL	4.18	1	3/18/2010
1,2-Dichloropropane	BQL	4.18	1	3/18/2010
1,3-Dichloropropane	BQL	4.18	1	3/18/2010
2,2-Dichloropropane	BQL	4.18	1	3/18/2010
1,1-Dichloropropene	BQL	4.18	1	3/18/2010
cis-1,3-Dichloropropene	BQL	4.18	1	3/18/2010
trans-1,3-Dichloropropene	BQL	4.18	1	3/18/2010
Dichlorodifluoromethane	BQL	4.18	1	3/18/2010
Diisopropyl ether (DIPE)	BQL	4.18	1	3/18/2010
Ethylbenzene	BQL	4.18	1	3/18/2010
Hexachlorobutadiene	BQL	4.18	1	3/18/2010
2-Hexanone	BQL	10.4	1	3/18/2010
Iodomethane	BQL	4.18	1	3/18/2010

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

Client Sample ID: S7-5-2
 Client Project ID: U-3810/NC DOT 001100
 Lab Sample ID G341-616-56E
 Lab Project ID: G341-616
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected: 03-10-2011 10:10
 Date Received: 3/11/2010
 Matrix: Soil
 Sample Amount: 7.09 g
 %Solids: 84.4

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.18	1	3/18/2010
4-Isopropyltoluene	BQL	4.18	1	3/18/2010
Methylene chloride	BQL	16.7	1	3/18/2010
4-Methyl-2-pentanone	BQL	10.4	1	3/18/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.18	1	3/18/2010
Naphthalene	BQL	4.18	1	3/18/2010
n-Propyl benzene	BQL	4.18	1	3/18/2010
Styrene	BQL	4.18	1	3/18/2010
1,1,1,2-Tetrachloroethane	BQL	4.18	1	3/18/2010
1,1,2,2-Tetrachloroethane	BQL	4.18	1	3/18/2010
Tetrachloroethene	BQL	4.18	1	3/18/2010
Toluene	BQL	4.18	1	3/18/2010
1,2,3-Trichlorobenzene	BQL	4.18	1	3/18/2010
1,2,4-Trichlorobenzene	BQL	4.18	1	3/18/2010
Trichloroethene	BQL	4.18	1	3/18/2010
1,1,1-Trichloroethane	BQL	4.18	1	3/18/2010
1,1,2-Trichloroethane	BQL	4.18	1	3/18/2010
Trichlorofluoromethane	BQL	4.18	1	3/18/2010
1,2,3-Trichloropropane	BQL	4.18	1	3/18/2010
1,2,4-Trimethylbenzene	BQL	4.18	1	3/18/2010
1,3,5-Trimethylbenzene	BQL	4.18	1	3/18/2010
Vinyl chloride	BQL	4.18	1	3/18/2010
m-,p-Xylene	BQL	8.35	1	3/18/2010
o-Xylene	BQL	4.18	1	3/18/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	81.6	163
Toluene-d8	50	53.5	107
4-Bromofluorobenzene	50	50.2	100

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst: CL

Reviewed By: NS

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-5-2
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-561
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.18 g

Analyzed By: DCS
 Date Collected: 3/10/2011 10:10
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 84.44

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	357	1	3/19/2010
Acenaphthylene	BQL	357	1	3/19/2010
Anthracene	BQL	357	1	3/19/2010
Benzo[a]anthracene	BQL	357	1	3/19/2010
Benzo[a]pyrene	BQL	357	1	3/19/2010
Benzo[b]fluoranthene	BQL	357	1	3/19/2010
Benzo[g,h,i]perylene	BQL	357	1	3/19/2010
Benzo[k]fluoranthene	BQL	357	1	3/19/2010
Benzoic Acid	BQL	1780	1	3/19/2010
Bis(2-chloroethoxy)methane	BQL	357	1	3/19/2010
Bis(2-chloroethyl)ether	BQL	357	1	3/19/2010
Bis(2-chloroisopropyl)ether	BQL	357	1	3/19/2010
Bis(2-ethylhexyl)phthalate	BQL	357	1	3/19/2010
4-bromophenyl phenyl ether	BQL	357	1	3/19/2010
Butylbenzylphthalate	BQL	357	1	3/19/2010
2-Chloronaphthalene	BQL	357	1	3/19/2010
2-Chlorophenol	BQL	357	1	3/19/2010
4-Chloro-3-methylphenol	BQL	357	1	3/19/2010
4-Chloroaniline	BQL	1780	1	3/19/2010
4-Chlorophenyl phenyl ether	BQL	357	1	3/19/2010
Chrysene	BQL	357	1	3/19/2010
Dibenzo[a,h]anthracene	BQL	357	1	3/19/2010
Dibenzofuran	BQL	357	1	3/19/2010
Di-n-Butylphthalate	BQL	357	1	3/19/2010
1,2-Dichlorobenzene	BQL	357	1	3/19/2010
1,3-Dichlorobenzene	BQL	357	1	3/19/2010
1,4-Dichlorobenzene	BQL	357	1	3/19/2010
3,3'-Dichlorobenzidine	BQL	714	1	3/19/2010
2,4-Dichlorophenol	BQL	357	1	3/19/2010
Diethylphthalate	BQL	357	1	3/19/2010
Dimethylphthalate	BQL	357	1	3/19/2010
2,4-Dimethylphenol	BQL	357	1	3/19/2010
Di-n-octylphthalate	BQL	357	1	3/19/2010
4,6-Dinitro-2-methylphenol	BQL	1780	1	3/19/2010
2,4-Dinitrophenol	BQL	1780	1	3/19/2010
2,4-Dinitrotoluene	BQL	357	1	3/19/2010
2,6-Dinitrotoluene	BQL	357	1	3/19/2010
Diphenylamine *	BQL	357	1	3/19/2010
Fluoranthene	BQL	357	1	3/19/2010
Fluorene	BQL	357	1	3/19/2010
Hexachlorobenzene	BQL	357	1	3/19/2010
Hexachlorobutadiene	BQL	357	1	3/19/2010
Hexachlorocyclopentadiene	BQL	714	1	3/19/2010
Hexachloroethane	BQL	357	1	3/19/2010
Indeno(1,2,3-c,d)pyrene	BQL	357	1	3/19/2010
Isophorone	BQL	357	1	3/19/2010
2-Methylnaphthalene	BQL	357	1	3/19/2010

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: S7-5-2
 Client Project ID: U-3810/NCDOT 001100
 Lab Sample ID: G341-616-56l
 Lab Project ID: G341-616
 Report Basis: Dry weight
 Initial Weight: 33.18 g

Analyzed By: DCS
 Date Collected: 3/10/2011 10:10
 Date Received: 3/11/2010
 Date Extracted: 3/12/2010
 Matrix: Soil
 % Solids: 84.44

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	357	1	3/19/2010
3- & 4-Methylphenol	BQL	357	1	3/19/2010
Naphthalene	BQL	357	1	3/19/2010
2-Nitroaniline	BQL	357	1	3/19/2010
3-Nitroaniline	BQL	1780	1	3/19/2010
4-Nitroaniline	BQL	1780	1	3/19/2010
Nitrobenzene	BQL	357	1	3/19/2010
2-Nitrophenol	BQL	357	1	3/19/2010
4-Nitrophenol	BQL	1780	1	3/19/2010
N-Nitrosodi-n-propylamine	BQL	357	1	3/19/2010
Pentachlorophenol	BQL	1780	1	3/19/2010
Phenanthrene	BQL	357	1	3/19/2010
Phenol	BQL	357	1	3/19/2010
Pyrene	BQL	357	1	3/19/2010
1,2,4-Trichlorobenzene	BQL	357	1	3/19/2010
2,4,5-Trichlorophenol	BQL	357	1	3/19/2010
2,4,6-Trichlorophenol	BQL	357	1	3/19/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.1	71
2-Fluorophenol	10	9.5	95
Nitrobenzene-d5	10	9.3	93
Phenol-d6	10	9.6	96
2,4,6-Tribromophenol	10	8.9	89
4-Terphenyl-d14	10	9.8	98

Comments:

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

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 



SGS Environmental Services Inc.
CHAIN OF CUSTODY RECORD

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 - Maryland
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 - Ohio
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- www.us.sgs.com

1 CLIENT: GEL Eng. OF NC INC. PHONE NO: 919-323-8828

CONTACT: ANDREW EYER SITE/PWSID#: ONSLAW Co.

PROJECT: V-3810/NC0100110 EMAIL: ade@gel.com

REPORTS TO: ANDREW EYER QUOTE #: _____ P.O. #: _____

INVOICE TO: NC DOT WBS # 35801.1.1

SGS Reference #: G 341-616 page _____ of _____

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX / MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required	DOD Project?		REMARKS/ LOC ID
									YES	NO	
65	54-5-4	3/9/10	15:50	50	3	G		3			DR0
66	54-6-8		16:05	50	3	G		3			VOCs - 8260
67	54-7-4		16:10	50	3	G		3			VOCs - 8270
68	56-1-8		16:55	50	8	G		8			GR0
69	56-2-8		17:10	50	8	G		8			
70	56-3-8		17:15	50	8	G		8			
71	56-4-8		17:40	50	8	G		8			
72	57-1-4	3/10/10	07:15	50	8	G		8			
73	57-2-4		07:35	50	8	G		8			
74	57-3-4		09:50	50	8	G		8			

5 Collected/Relinquished By: (1) [Signature] Received By: [Signature]

Relinquished By: (2) _____ Received By: _____

Relinquished By: (3) _____ Received By: _____

Relinquished By: (4) _____ Received For Laboratory By: _____

DOD Project? YES NO
Cooler ID: _____

Requested Turnaround Time and/or Special Instructions: _____

Special Deliverable Requirements: _____

Samples Received Cold? YES NO
Cooler TB: 20, 21, 200c

Temperature °C: _____

Chain of Custody Seal: (Circle) ABSENT



SGS Environmental Services Inc.
CHAIN OF CUSTODY RECORD

- Locations Nationwide
- Alaska
 - Maryland
 - New Jersey
 - New York
 - North Carolina
 - Ohio
 - West Virginia
- www.us.sgs.com

1 CLIENT: GEL ENG. OF NC, INC.
 CONTACT: Andrew Eyer PHONE NO: 919-323-8828
 PROJECT: U-3810/NC010010 SITE/PSID#: ONSLOW Co.
 REPORTS TO: Andrew Eyer EMAIL: ade@gel.com
 INVOICE TO: NC DOT QUOTE #: _____
 WBS # 35801.1.1 P.O. #: _____

SGS Reference #: 6341-616 page _____ of _____

#	CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required	Remarks/LOC ID	SGS North America, Inc.
55	57-4-2	G				
56	57-5-2	G				
57	58-1-8	G				
58	58-2-8	G				
59	58-3-4	G				
60	58-4-4	G				
61	58-5-8	G				
62	58-6-8	G				
63	58-7-8	G				
64	58-8-4	G				

DOD Project?	YES	NO	Special Deliverable Requirements:
Requested Turnaround Time and/or Special Instructions:			
Cooler ID			

4

Received By: [Signature] Received By: _____
 Received By: _____
 Received By: _____
 Received For Laboratory By: _____

5

Collected/Relinquished By: (1) [Signature]
 Relinquished By: (2) _____
 Relinquished By: (3) _____
 Relinquished By: (4) _____

Samples Received Cold? YES NO
 Cooler 20021200C TB _____
 Temperature °C: _____

Chain of Custody Seal: (Circle) ABSENT
 INTACT BROKEN

APPENDIX III

PHOTOGRAPHS SHOWING SOIL BORING LOCATIONS



Holliday's Auto Parts
2160 Piney Green Road
Parcel No. 244

