GEL Engineering of NC INC
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PRELIMINARY SITE ASSESSMENT REPORT

SR 1406 (Piney Green Road) from NC 24 to US 17
1375 Piney Green Road, Parcel #148
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
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April 16, 2010

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Signature Page

This document, entitled "Preliminary Site Assessment Report," has been prepared for Parcel #148, located at 1375 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, INC.
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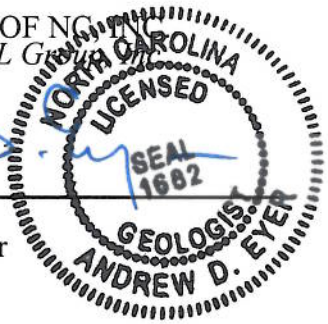

Andrew D. Eyer, L.G.
Senior Project Manager

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04-16-10

Date

PRELIMINARY SITE ASSESSMENT REPORT

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1375 Piney Green Road, Parcel #148
Jacksonville, North Carolina
State Project U-3810
WBS Element # 35801.1.1
Onslow County

Executive Summary

The subject site is Parcel #148, located at 1375 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 Right-of-Way (ROW) adjacent to Parcel #148. Currently, Parcel #148 contains an active automobile repair facility.

GEL performed a preliminary site assessment within the NCDOT proposed ROW of Piney Green Road adjacent to Parcel #148 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 ROW of Piney Green Road adjacent to the site.

Soil samples were collected for analysis from seven borings constructed within the NCDOT proposed ROW for Piney Green Road adjacent to Parcel #148. 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 seven borings, except the soil samples collected from borings S13-1, S13-3, S13-4, and S13-5, in which DRO was detected at concentrations exceeding the North Carolina Department of Environment and Natural Resources (NCDENR) action level for DRO. The analytical results for the four samples indicate that no VOCs or SVOCs were detected in any sample. Therefore, it has been concluded that there is no confirmed soil impact in the vicinity of boring S13-1, S13-3, S13-4, or S13-5.

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 ROW at Parcel #148. No additional environmental investigation of the soil at the site is recommended at this time.

PRELIMINARY SITE ASSESSMENT REPORT

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1375 Piney Green Road, Parcel #148
Jacksonville, North Carolina
State Project U-3810
WBS Element # 35801.1.1
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 #148 located at 1375 Piney Green Road in Jacksonville, North Carolina. Parcel #148 contains an active automobile repair facility, adjacent to Pine Green Tire and Auto (Parcel #149). 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 onsite constituents of concern in soil within the NCDOT proposed ROW 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 onsite 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 #148 and its location on Piney Green Road, respectively.

3.0 Local Geology and Surroundings

Parcel #148 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, 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 Craven Fine Sandy Loam (CrC), typically composed of fine sandy loam interstratified with clay, and Muckalee loam (Mk), which is typically composed of loam grading to sandy loam with depth. The soils encountered at the site during the preliminary site assessment consisted predominantly of orange/brown/gray silty sand and sandy clay to depths of 8 feet below land surface (bls).

Based on the moisture content of the 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 10 feet above mean sea level. The topography in Figure 1 indicates that groundwater in the vicinity of Parcel #148 most likely flows in a northwesterly direction towards Poplar Creek.

4.0 Subsurface Investigation

To determine the presence or absence of USTs and impact to subsurface soil within the NCDOT ROWs at Parcel #148, 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 easterly ROW of Piney Green Road adjacent to Parcel #148.
- Soil vapor screening of soil samples collected from subsurface soil borings at Parcel #148 within the proposed ROW of 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 #148.

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

4.1 Geophysical Evaluation at Parcel #148

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 #148 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 easterly ROW of Piney Green Road at Parcel #148 prior to the initiation of the preliminary site assessment field activities at the site. Several underground utilities were marked by "One Call" within the ROW at Parcel #148.

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

4.2 Subsurface Soil Investigation at Parcel #148

To determine the presence or absence of impact to subsurface soil by constituents of concern, GEL collected soil samples from seven subsurface soil borings, S13-1 through S13-7, at Parcel #148 on March 23, 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 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.

All borings 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 borehole. All soil samples were inspected for indications of impact by constituents of concern, including petroleum hydrocarbons, such as odors, discoloration, or visible sheen. This 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. 148

Soil Boring	Depth Interval of Soil Sample Collected for Analysis (feet bls)	PID Reading (ppm)	Latitude/Longitude (NAD83)
S13-1	3-4	0.7	34º45'35.52"N / 77º20'19.38"W
S13-2	7-8	0.0	34º45'35.88"N / 77º20'20.10"W
S13-3	7-8	0.0	34º45'36.24"N / 77º20'20.88"W
S13-4	3-4	0.9	34º45'36.60"N / 77º20'21.66"W
S13-5	3-4	0.0	34º45'35.34"N / 77º20'19.92"W
S13-6	3-4	0.0	34º45'35.94"N / 77º20'21.00"W
S13-7	7-8	0.0	34º45'36.60"N / 77º20'21.90"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

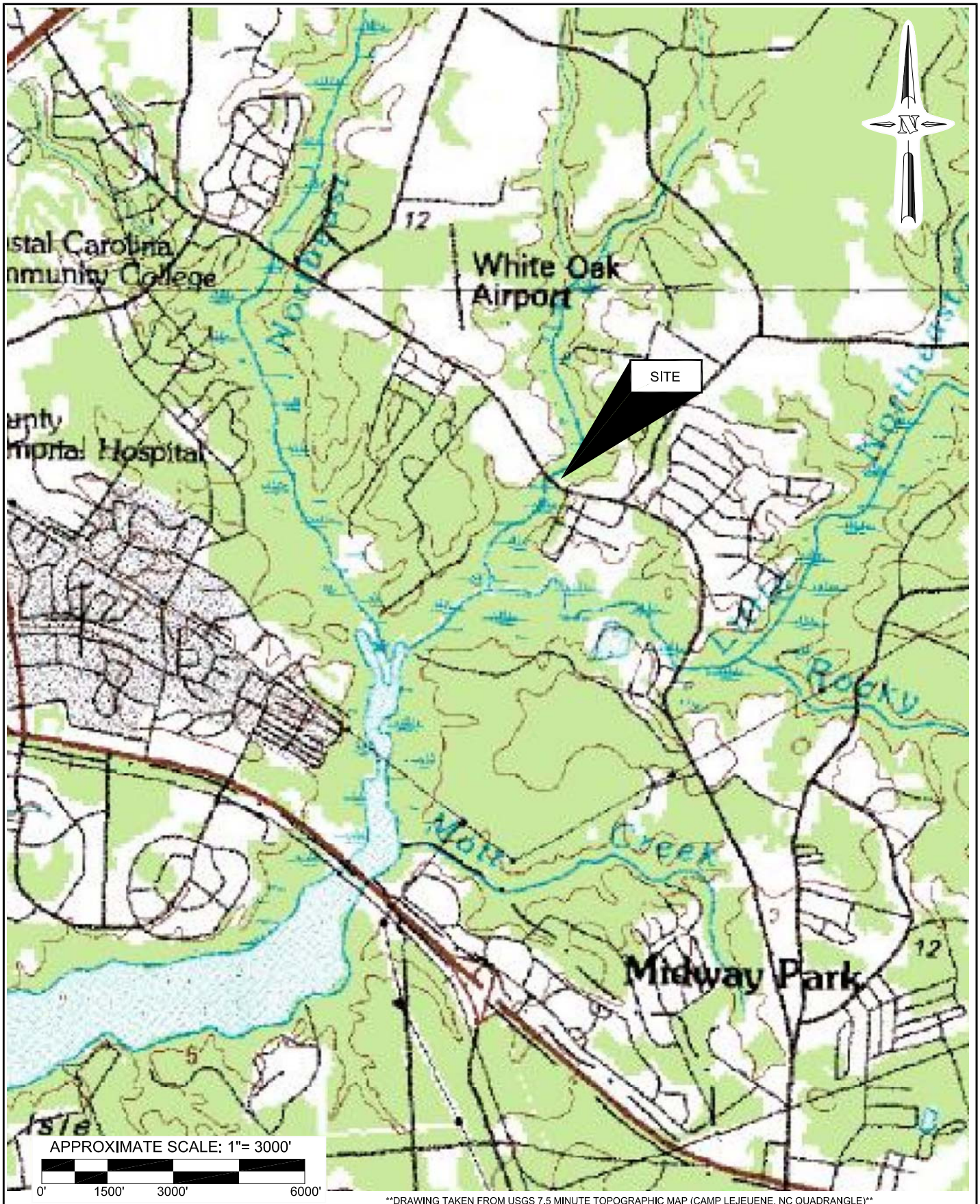
Following completion of the soil sampling activities, all borings were abandoned by filling the boreholes with soil cuttings and hydrated bentonite. Soil samples were submitted to SGS Laboratories, Inc. in Wilmington, North Carolina (North Carolina Certification No. 481) for analysis of diesel range 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, VOCs by EPA Method 8260B, and SVOCs by EPA Method 8270D. 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 seven borings except the soil samples collected from borings S13-1, S13-3, S13-4, and S13-5. DRO was detected in these samples at concentrations of 89.5 milligrams per kilogram (mg/kg), 32.2 mg/kg, 150 mg/kg, and 25.7 mg/kg 2, respectively. All 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 any sample. Therefore, since soil impact in the four soil samples was not confirmed by VOC or SVOC data, it has been concluded that there is no soil impact in the vicinity of boring S13-1, S13-3, S13-4, or S13-5.

5.0 Conclusions and Recommendations

GEL performed a preliminary site assessment within the NCDOT proposed ROW of Piney Green Road adjacent to Parcel #148 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 ROW of Piney Green Road adjacent to the site.

Soil samples were collected for analysis from seven borings constructed within the NCDOT proposed ROW for Piney Green Road adjacent to Parcel #148. 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 seven borings, except the soil samples collected from borings S13-1, S13-3, S13-4, and S13-5, in which DRO was detected at concentrations exceeding the NCDENR action level for DRO. The analytical results for the four samples indicate that no VOCs or SVOCs were detected in any sample. Therefore, it has been concluded that there is no confirmed soil impact in the vicinity of boring S13-1, S13-3, S13-4, or S13-5.

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 ROW at Parcel #148. No additional environmental investigation of the soil at the site is recommended at this time.



DRAWING TAKEN FROM USGS 7.5 MINUTE TOPOGRAPHIC MAP (CAMP LEJEUNE, NC QUADRANGLE)

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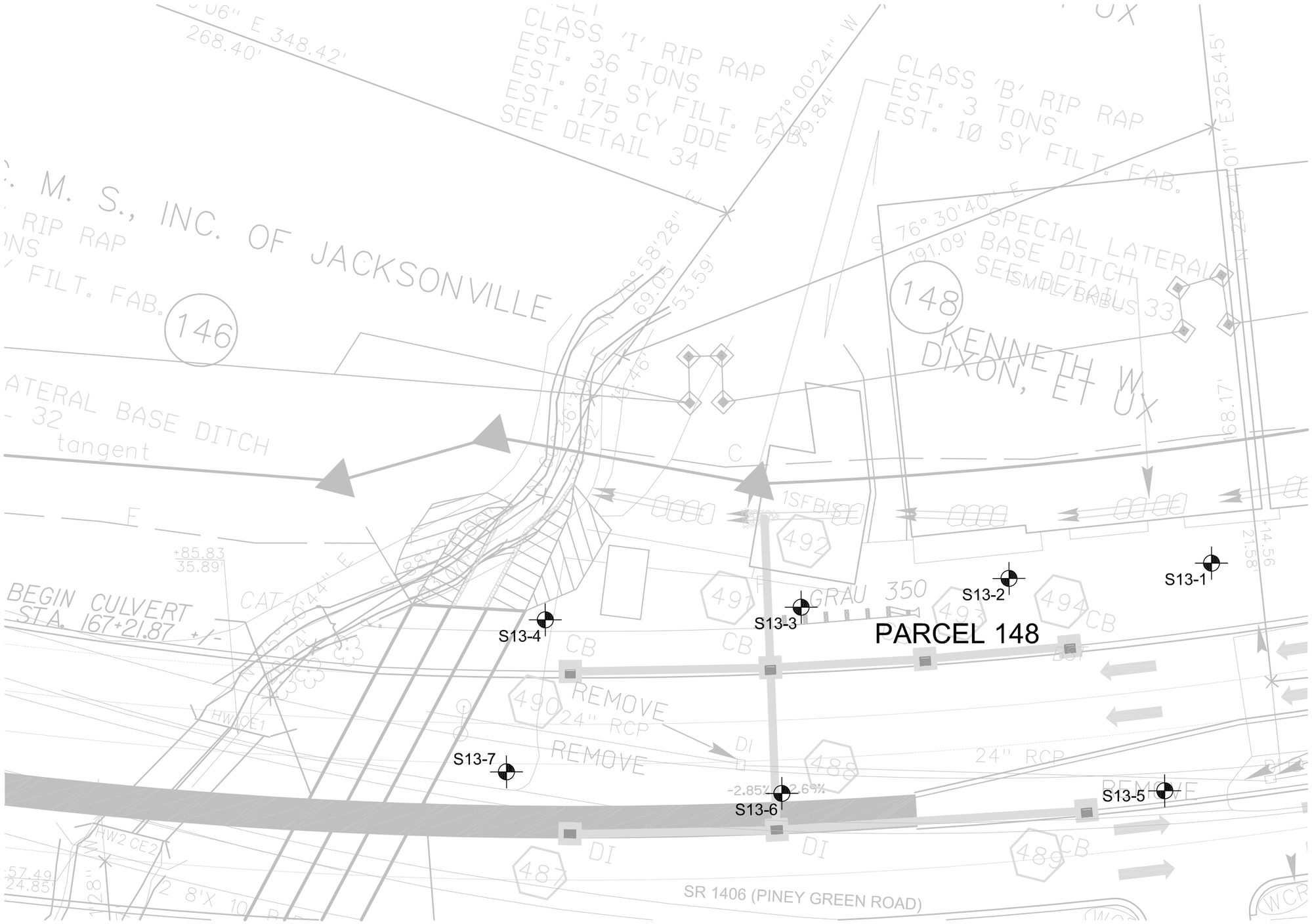
PROJECT: ncdt00110		
PRELIMINARY SITE ASSESSMENT REPORT PARCEL 148 JACKSONVILLE, NORTH CAROLINA STATE PROJECT U-3810, WBS# 35801.1.1	USGS TOPOGRAPHIC LOCATION MAP	FIGURE 1
DATE: April 6, 2010	DRAWN BY: TJP / APPRV. BY: ADE	



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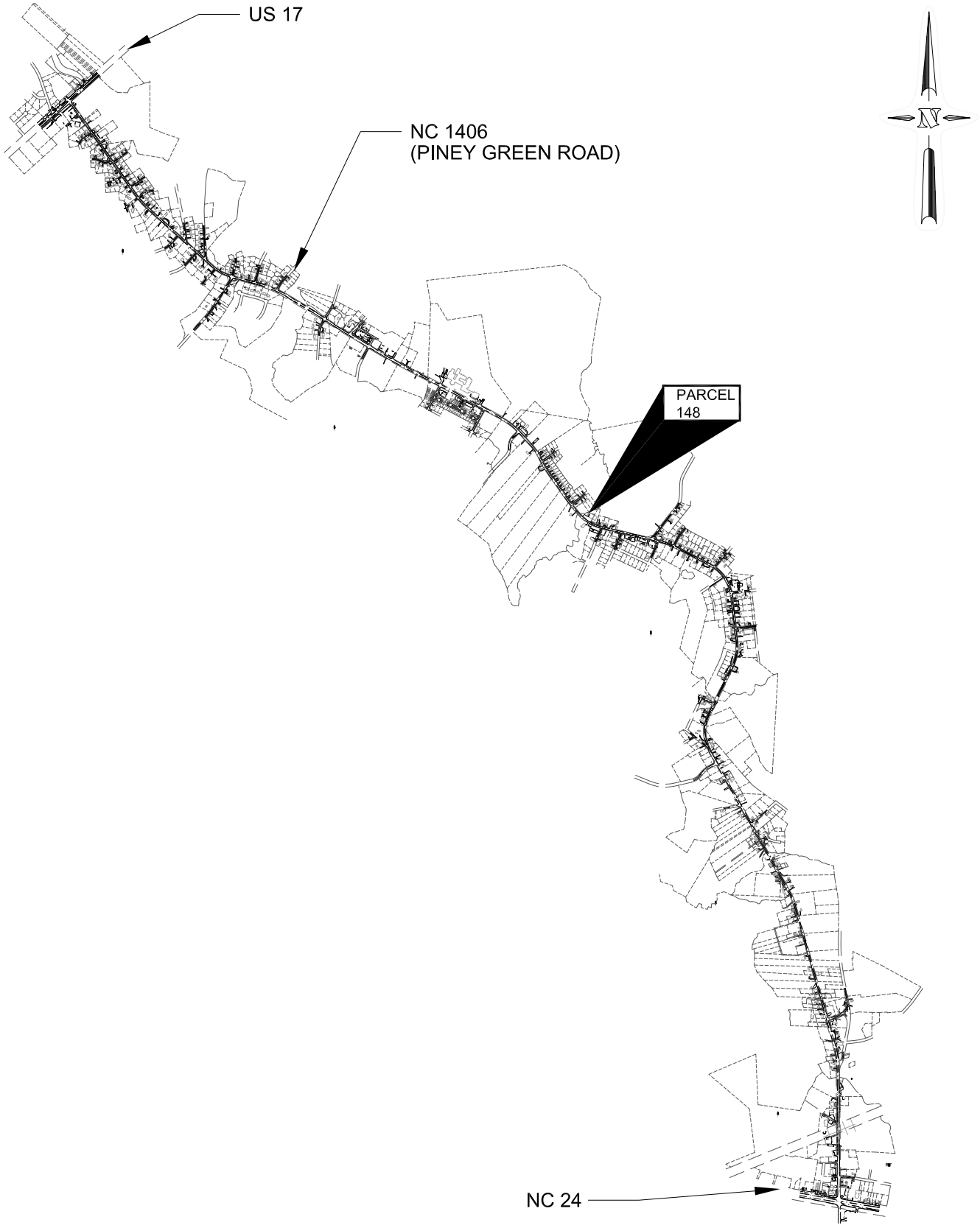
PROJECT: ncdt00110		
PRELIMINARY SITE ASSESSMENT REPORT PARCEL NO. 148, KENNETH & LULA DIXON 1375 PINEY GREEN ROAD JACKSONVILLE, NORTH CAROLINA STATE PROJECT U-3810, WBS #35801.1.1	SITE SKETCH SHOWING SOIL BORING LOCATIONS	FIGURE 2
DATE: May 3, 2010	DRAWN BY: TJP APPRV. BY: ADE	



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PRELIMINARY SITE ASSESSMENT REPORT
PARCEL 148
JACKSONVILLE, NORTH CAROLINA
STATE PROJECT U-3810, WBS# 35801.1.1

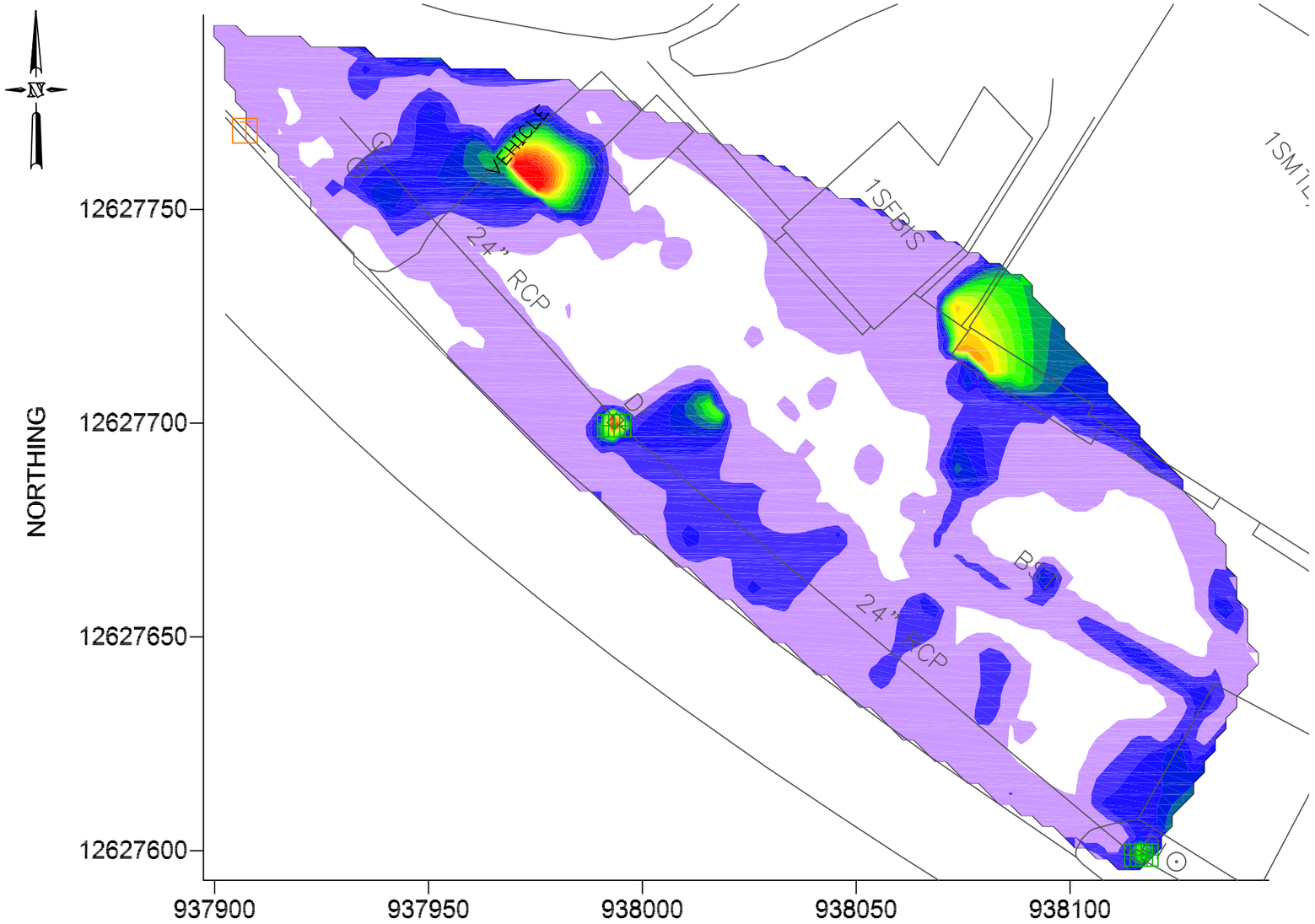
KEY MAP SHOWING
PARCEL LOCATION

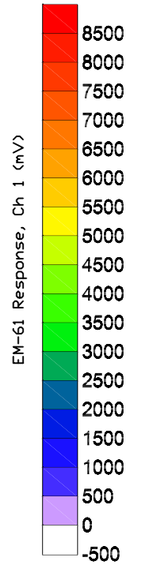
FIGURE
3

DATE: April 6, 2010

DRAWN BY: TJP

APPRV. BY: ADE





LEGEND

STORMWATER DRAINAGE GRATE

COMMUNICATIONS HANDHOLE

GRAPHIC SCALE

0' 15' 30' 60' 120'

(IN FEET)
1 inch = 30 ft.

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**

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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	Site Map Showing Results Of Geophysical Survey Investigation Parcel 148	FIGURE 4
March 11, 2010	DRAWN BY: DEA / APPRV. BY: CMS	

APPENDIX I

SOIL BORING LITHOLOGIC LOGS

SOIL BORING LOG

Boring/Well No.: SB-1
Date Started: 3/23/10
Date Completed: 3/23/10

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.7	Asphalt, Roc, Gray Sand, Moist DK Brn Organic Silty Sand	
2	4-8	-	0.0	DK Gray Sand w/ rounded pebbles, Lt Gray Silty Fine Sand, Moist - Wet	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

4:50 *

Notes:

1) 4-foot continuous cores using DPT..

34° 45.592 N

77° 20.323 W

SOIL BORING LOG

Boring/Well No.: S13-2
Date Started: 3/23/10
Date Completed: 3/23/10

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.0	Asphalt, Brn Sand, ROC, DK Brn Silty Sand Moist	
2	4-8	-	0.0	Brn-Lt. Gray Silty Sand, Wet @ depth	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

9:10

Notes:

1) 4-foot continuous cores using DPT..

34°45.598 N

77°20.335 W

SOIL BORING LOG

Boring/Well No.: S13-3
Date Started: 3/23/10
Date Completed: 3/23/10

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.0	Gray Brn Sand → Organics Silty Sand, Moist (Wood)	
2	4-8	-	0.0	" , Dk. Brn. Black Organics (Wood, Roots) Silty	
3					
4					
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11					
12					

9:30

Notes:

1) 4-foot continuous cores using DPT..

34° 45.604 N
77° 20.348 W

SOIL BORING LOG

Boring/Well No.: SB-4
Date Started: 3/23/10
Date Completed: 3/23/10

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.9	Organic Topsoil, ROC, Brn Sandy Clay, Moist DK. Brn Sandy Clay., Heavy Organics	
2	4-8	-	0.0	Brn Sandy Clay → Lt. Brn Silty Sand, Moist DK Brn Silt, Organics	
3					
4					
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9					
10					
11					
12					

0945

Notes:

1) 4-foot continuous cores using DPT..

34°45.610 N
77°20.361 W

SOIL BORING LOG

Boring/Well No.: S13-5
Date Started: 3/23/10
Date Completed: 3/23/10

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.0	Asphalt, ROC (3' BGS), Orange Brn - Gray Sandy Clay, Moist Sandier at depth	
2	4-8	-	0.0	Orange Brn Silty sand, wet at depth	
3					
4					
5					
6					
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9					
10					
11					
12					

09:55 *

Notes:

1) 4-foot continuous cores using DPT..

34° 45.589 N
77° 20.332 W

SOIL BORING LOG

Boring/Well No.: S13-6
Date Started: 3/23/10
Date Completed: 3/23/10

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1 *	0-4	-	0.0	Asphalt, Rock, Gray Brn Sandy Clay, Moist sandier at depth	
2 10:20	4-8	-	0.0	Orange Brn Sandy Clay, Moist Red Brn Fine, Med Sand, Wet	
3					
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9					
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11					
12					

Notes:

1) 4-foot continuous cores using DPT..

34° 45.599 N
77° 20.350 W

SOIL BORING LOG

Boring/Well No.: SB-7
Date Started: 3/23/10
Date Completed: 3/23/10

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0-4	-	0.0	Organic Silty Sand, ROC, Gray Brn Sandy Clay, Rounded gebbles., Moist	
2	4-8	-	0.0	Dk. Brn/Gray Sandy Clay, Moist-Wet	
3					
4					
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6					
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8					
9					
10					
11					
12					

10:30

Notes:

1) 4-foot continuous cores using DPT..

34° 45.610 N
77° 20.365 W

APPENDIX II

CERTIFICATES OF ANALYSIS AND CHAIN OF CUSTODY RECORD FOR SOIL SAMPLES

SGS

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

Report Number: G341-617

Client Project: U-3810/NCDOT 001100

Dear Mr. Eyer:

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

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

Thank you for using SGS Environmental Services for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS Environmental Services, Inc.

7 April 2010

Project Manager
Lori Lockamy

Date

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

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

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

µg/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.

MI34.021808.4

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-1-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-13D
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: BAO
Date Collected: 3/23/2010 8:50
Date Received: 3/24/2010
Matrix: Soil
Solids 85.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.22	mg/Kg	1	03/29/10 17:26

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.6	98.6		70-130

Comments:

Batch Information

Analytical Batch: VP032910
Analytical Method: 8015
Instrument ID: GC4
Analyst: BAO

Prep Method: 5035
Initial Wt/Vol: 5.67 g
Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By:

GRO.XLS

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-1-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-13G
Lab Project ID: G341-617

Date Collected: 3/23/2010 8:50
Date Received: 3/24/2010
Matrix: Soil
Solids 85.00
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	**89.5**	7.22	mg/Kg	1	03/26/10 03:11

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	36.3	90.7

Comments:

Batch Information

Analytical Batch: EP032510
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 16275
Prep Method: 3541
Prep Date: 03/25/10
Initial Prep Wt/Vol: 32.61 G
Prep Final Vol: 10 mL

Analyst: FA

NC Certification #481

Reviewed By: MT

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-1-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-13A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 08:50
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 5.23 g
%Solids: 85.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	56.1	1	4/2/2010
Benzene	BQL	5.61	1	4/2/2010
Bromobenzene	BQL	5.61	1	4/2/2010
Bromochloromethane	BQL	5.61	1	4/2/2010
Bromodichloromethane	BQL	5.61	1	4/2/2010
Bromoform	BQL	5.61	1	4/2/2010
Bromomethane	BQL	5.61	1	4/2/2010
2-Butanone	BQL	28.1	1	4/2/2010
n-Butylbenzene	BQL	5.61	1	4/2/2010
sec-Butylbenzene	BQL	5.61	1	4/2/2010
tert-Butylbenzene	BQL	5.61	1	4/2/2010
Carbon disulfide	BQL	5.61	1	4/2/2010
Carbon tetrachloride	BQL	5.61	1	4/2/2010
Chlorobenzene	BQL	5.61	1	4/2/2010
Chloroethane	BQL	5.61	1	4/2/2010
Chloroform	BQL	5.61	1	4/2/2010
Chloromethane	BQL	5.61	1	4/2/2010
2-Chlorotoluene	BQL	5.61	1	4/2/2010
4-Chlorotoluene	BQL	5.61	1	4/2/2010
Dibromochloromethane	BQL	5.61	1	4/2/2010
1,2-Dibromo-3-chloropropane	BQL	28.1	1	4/2/2010
Dibromomethane	BQL	5.61	1	4/2/2010
1,2-Dibromoethane (EDB)	BQL	5.61	1	4/2/2010
1,2-Dichlorobenzene	BQL	5.61	1	4/2/2010
1,3-Dichlorobenzene	BQL	5.61	1	4/2/2010
1,4-Dichlorobenzene	BQL	5.61	1	4/2/2010
trans-1,4-Dichloro-2-butene	BQL	28.1	1	4/2/2010
1,1-Dichloroethane	BQL	5.61	1	4/2/2010
1,1-Dichloroethene	BQL	5.61	1	4/2/2010
1,2-Dichloroethane	BQL	5.61	1	4/2/2010
cis-1,2-Dichloroethene	BQL	5.61	1	4/2/2010
trans-1,2-dichloroethene	BQL	5.61	1	4/2/2010
1,2-Dichloropropane	BQL	5.61	1	4/2/2010
1,3-Dichloropropane	BQL	5.61	1	4/2/2010
2,2-Dichloropropane	BQL	5.61	1	4/2/2010
1,1-Dichloropropene	BQL	5.61	1	4/2/2010
cis-1,3-Dichloropropene	BQL	5.61	1	4/2/2010
trans-1,3-Dichloropropene	BQL	5.61	1	4/2/2010
Dichlorodifluoromethane	BQL	5.61	1	4/2/2010
Diisopropyl ether (DIPE)	BQL	5.61	1	4/2/2010
Ethylbenzene	BQL	5.61	1	4/2/2010
Hexachlorobutadiene	BQL	5.61	1	4/2/2010
2-Hexanone	BQL	14.0	1	4/2/2010
Iodomethane	BQL	5.61	1	4/2/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-1-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-13A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 08:50
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 5.23 g
%Solids: 85.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.61	1	4/2/2010
4-Isopropyltoluene	BQL	5.61	1	4/2/2010
Methylene chloride	BQL	22.5	1	4/2/2010
4-Methyl-2-pentanone	BQL	14.0	1	4/2/2010
Methyl-tert-butyl ether (MTBE)	BQL	5.61	1	4/2/2010
Naphthalene	BQL	5.61	1	4/2/2010
n-Propyl benzene	BQL	5.61	1	4/2/2010
Styrene	BQL	5.61	1	4/2/2010
1,1,1,2-Tetrachloroethane	BQL	5.61	1	4/2/2010
1,1,2,2-Tetrachloroethane	BQL	5.61	1	4/2/2010
Tetrachloroethene	BQL	5.61	1	4/2/2010
Toluene	BQL	5.61	1	4/2/2010
1,2,3-Trichlorobenzene	BQL	5.61	1	4/2/2010
1,2,4-Trichlorobenzene	BQL	5.61	1	4/2/2010
Trichloroethene	BQL	5.61	1	4/2/2010
1,1,1-Trichloroethane	BQL	5.61	1	4/2/2010
1,1,2-Trichloroethane	BQL	5.61	1	4/2/2010
Trichlorofluoromethane	BQL	5.61	1	4/2/2010
1,2,3-Trichloropropane	BQL	5.61	1	4/2/2010
1,2,4-Trimethylbenzene	BQL	5.61	1	4/2/2010
1,3,5-Trimethylbenzene	BQL	5.61	1	4/2/2010
Vinyl chloride	BQL	5.61	1	4/2/2010
m-,p-Xylene	BQL	11.2	1	4/2/2010
o-Xylene	BQL	5.61	1	4/2/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	63.6	127
Toluene-d8	50	52.4	105
4-Bromofluorobenzene	50	43.6	87

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: CR

Reviewed By: MM

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-1-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-13H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.76 g

Analyzed By: DCS
Date Collected: 3/23/2010 8:50
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 85

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	359	1	3/26/2010
Acenaphthylene	BQL	359	1	3/26/2010
Anthracene	BQL	359	1	3/26/2010
Benzo[a]anthracene	BQL	359	1	3/26/2010
Benzo[a]pyrene	BQL	359	1	3/26/2010
Benzo[b]fluoranthene	BQL	359	1	3/26/2010
Benzo[g,h,i]perylene	BQL	359	1	3/26/2010
Benzo[k]fluoranthene	BQL	359	1	3/26/2010
Benzoic Acid	BQL	1800	1	3/26/2010
Bis(2-chloroethoxy)methane	BQL	359	1	3/26/2010
Bis(2-chloroethyl)ether	BQL	359	1	3/26/2010
Bis(2-chloroisopropyl)ether	BQL	359	1	3/26/2010
Bis(2-ethylhexyl)phthalate	BQL	359	1	3/26/2010
4-bromophenyl phenyl ether	BQL	359	1	3/26/2010
Butylbenzylphthalate	BQL	359	1	3/26/2010
2-Chloronaphthalene	BQL	359	1	3/26/2010
2-Chlorophenol	BQL	359	1	3/26/2010
4-Chloro-3-methylphenol	BQL	359	1	3/26/2010
4-Chloroaniline	BQL	1800	1	3/26/2010
4-Chlorophenyl phenyl ether	BQL	359	1	3/26/2010
Chrysene	BQL	359	1	3/26/2010
Dibenzo[a,h]anthracene	BQL	359	1	3/26/2010
Dibenzofuran	BQL	359	1	3/26/2010
Di-n-Butylphthalate	BQL	359	1	3/26/2010
1,2-Dichlorobenzene	BQL	359	1	3/26/2010
1,3-Dichlorobenzene	BQL	359	1	3/26/2010
1,4-Dichlorobenzene	BQL	359	1	3/26/2010
3,3'-Dichlorobenzidine	BQL	718	1	3/26/2010
2,4-Dichlorophenol	BQL	359	1	3/26/2010
Diethylphthalate	BQL	359	1	3/26/2010
Dimethylphthalate	BQL	359	1	3/26/2010
2,4-Dimethylphenol	BQL	359	1	3/26/2010
Di-n-octylphthalate	BQL	359	1	3/26/2010
4,6-Dinitro-2-methylphenol	BQL	1800	1	3/26/2010
2,4-Dinitrophenol	BQL	1800	1	3/26/2010
2,4-Dinitrotoluene	BQL	359	1	3/26/2010
2,6-Dinitrotoluene	BQL	359	1	3/26/2010
Diphenylamine *	BQL	359	1	3/26/2010
Fluoranthene	BQL	359	1	3/26/2010
Fluorene	BQL	359	1	3/26/2010
Hexachlorobenzene	BQL	359	1	3/26/2010
Hexachlorobutadiene	BQL	359	1	3/26/2010
Hexachlorocyclopentadiene	BQL	718	1	3/26/2010
Hexachloroethane	BQL	359	1	3/26/2010
Indeno(1,2,3-c,d)pyrene	BQL	359	1	3/26/2010
Isophorone	BQL	359	1	3/26/2010
2-Methylnaphthalene	BQL	359	1	3/26/2010

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-1-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-13H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.76 g

Analyzed By: DCS
Date Collected: 3/23/2010 8:50
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 85

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	359	1	3/26/2010
3- & 4-Methylphenol	BQL	359	1	3/26/2010
Naphthalene	BQL	359	1	3/26/2010
2-Nitroaniline	BQL	359	1	3/26/2010
3-Nitroaniline	BQL	1800	1	3/26/2010
4-Nitroaniline	BQL	1800	1	3/26/2010
Nitrobenzene	BQL	359	1	3/26/2010
2-Nitrophenol	BQL	359	1	3/26/2010
4-Nitrophenol	BQL	1800	1	3/26/2010
N-Nitrosodi-n-propylamine	BQL	359	1	3/26/2010
Pentachlorophenol	BQL	1800	1	3/26/2010
Phenanthrene	BQL	359	1	3/26/2010
Phenol	BQL	359	1	3/26/2010
Pyrene	BQL	359	1	3/26/2010
1,2,4-Trichlorobenzene	BQL	359	1	3/26/2010
2,4,5-Trichlorophenol	BQL	359	1	3/26/2010
2,4,6-Trichlorophenol	BQL	359	1	3/26/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.8	88
2-Fluorophenol	10	9.6	96
Nitrobenzene-d5	10	10.2	102
Phenol-d6	10	9.5	95
2,4,6-Tribromophenol	10	9.1	91
4-Terphenyl-d14	10	10	100

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

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-2-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-14D
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: BAO
Date Collected: 3/23/2010 9:10
Date Received: 3/24/2010
Matrix: Soil
Solids 84.64

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.59	mg/Kg	1	03/29/10 22:51

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	96.1	96.1		70-130

Comments:

Batch Information

Analytical Batch: VP032910
Analytical Method: 8015
Instrument ID: GC4
Analyst: BAO

Prep Method: 5035
Initial Wt/Vol: 6.34 g
Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By:

GRO.XLS

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-2-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-14G
Lab Project ID: G341-617

Date Collected: 3/23/2010 9:10
Date Received: 3/24/2010
Matrix: Soil
Solids 84.64
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.15	mg/Kg	1	03/26/10 03:39

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	38.8	97

Comments:

Batch Information

Analytical Batch: EP032510
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 16275
Prep Method: 3541
Prep Date: 03/25/10
Initial Prep Wt/Vol: 33.04 G
Prep Final Vol: 10 mL

Analyst: _____

NC Certification #481

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-2-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-14A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 09:10
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 6.38 g
%Solids: 84.6

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	46.2	1	4/2/2010
Benzene	BQL	4.62	1	4/2/2010
Bromobenzene	BQL	4.62	1	4/2/2010
Bromochloromethane	BQL	4.62	1	4/2/2010
Bromodichloromethane	BQL	4.62	1	4/2/2010
Bromoform	BQL	4.62	1	4/2/2010
Bromomethane	BQL	4.62	1	4/2/2010
2-Butanone	BQL	23.1	1	4/2/2010
n-Butylbenzene	BQL	4.62	1	4/2/2010
sec-Butylbenzene	BQL	4.62	1	4/2/2010
tert-Butylbenzene	BQL	4.62	1	4/2/2010
Carbon disulfide	BQL	4.62	1	4/2/2010
Carbon tetrachloride	BQL	4.62	1	4/2/2010
Chlorobenzene	BQL	4.62	1	4/2/2010
Chloroethane	BQL	4.62	1	4/2/2010
Chloroform	BQL	4.62	1	4/2/2010
Chloromethane	BQL	4.62	1	4/2/2010
2-Chlorotoluene	BQL	4.62	1	4/2/2010
4-Chlorotoluene	BQL	4.62	1	4/2/2010
Dibromochloromethane	BQL	4.62	1	4/2/2010
1,2-Dibromo-3-chloropropane	BQL	23.1	1	4/2/2010
Dibromomethane	BQL	4.62	1	4/2/2010
1,2-Dibromoethane (EDB)	BQL	4.62	1	4/2/2010
1,2-Dichlorobenzene	BQL	4.62	1	4/2/2010
1,3-Dichlorobenzene	BQL	4.62	1	4/2/2010
1,4-Dichlorobenzene	BQL	4.62	1	4/2/2010
trans-1,4-Dichloro-2-butene	BQL	23.1	1	4/2/2010
1,1-Dichloroethane	BQL	4.62	1	4/2/2010
1,1-Dichloroethene	BQL	4.62	1	4/2/2010
1,2-Dichloroethane	BQL	4.62	1	4/2/2010
cis-1,2-Dichloroethene	BQL	4.62	1	4/2/2010
trans-1,2-dichloroethene	BQL	4.62	1	4/2/2010
1,2-Dichloropropane	BQL	4.62	1	4/2/2010
1,3-Dichloropropane	BQL	4.62	1	4/2/2010
2,2-Dichloropropane	BQL	4.62	1	4/2/2010
1,1-Dichloropropene	BQL	4.62	1	4/2/2010
cis-1,3-Dichloropropene	BQL	4.62	1	4/2/2010
trans-1,3-Dichloropropene	BQL	4.62	1	4/2/2010
Dichlorodifluoromethane	BQL	4.62	1	4/2/2010
Diisopropyl ether (DIPE)	BQL	4.62	1	4/2/2010
Ethylbenzene	BQL	4.62	1	4/2/2010
Hexachlorobutadiene	BQL	4.62	1	4/2/2010
2-Hexanone	BQL	11.6	1	4/2/2010
Iodomethane	BQL	4.62	1	4/2/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-2-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-14A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 09:10
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 6.38 g
%Solids: 84.6

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.62	1	4/2/2010
4-Isopropyltoluene	BQL	4.62	1	4/2/2010
Methylene chloride	BQL	18.5	1	4/2/2010
4-Methyl-2-pentanone	BQL	11.6	1	4/2/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.62	1	4/2/2010
Naphthalene	BQL	4.62	1	4/2/2010
n-Propyl benzene	BQL	4.62	1	4/2/2010
Styrene	BQL	4.62	1	4/2/2010
1,1,1,2-Tetrachloroethane	BQL	4.62	1	4/2/2010
1,1,2,2-Tetrachloroethane	BQL	4.62	1	4/2/2010
Tetrachloroethene	BQL	4.62	1	4/2/2010
Toluene	BQL	4.62	1	4/2/2010
1,2,3-Trichlorobenzene	BQL	4.62	1	4/2/2010
1,2,4-Trichlorobenzene	BQL	4.62	1	4/2/2010
Trichloroethene	BQL	4.62	1	4/2/2010
1,1,1-Trichloroethane	BQL	4.62	1	4/2/2010
1,1,2-Trichloroethane	BQL	4.62	1	4/2/2010
Trichlorofluoromethane	BQL	4.62	1	4/2/2010
1,2,3-Trichloropropane	BQL	4.62	1	4/2/2010
1,2,4-Trimethylbenzene	BQL	4.62	1	4/2/2010
1,3,5-Trimethylbenzene	BQL	4.62	1	4/2/2010
Vinyl chloride	BQL	4.62	1	4/2/2010
m-,p-Xylene	BQL	9.24	1	4/2/2010
o-Xylene	BQL	4.62	1	4/2/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	64.5	129
Toluene-d8	50	52.9	106
4-Bromofluorobenzene	50	46.7	93

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-2-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-14H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.89 g

Analyzed By: DCS
Date Collected: 3/23/2010 9:10
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 84.64

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	359	1	3/26/2010
Acenaphthylene	BQL	359	1	3/26/2010
Anthracene	BQL	359	1	3/26/2010
Benzo[a]anthracene	BQL	359	1	3/26/2010
Benzo[a]pyrene	BQL	359	1	3/26/2010
Benzo[b]fluoranthene	BQL	359	1	3/26/2010
Benzo[g,h,i]perylene	BQL	359	1	3/26/2010
Benzo[k]fluoranthene	BQL	359	1	3/26/2010
Benzoic Acid	BQL	1800	1	3/26/2010
Bis(2-chloroethoxy)methane	BQL	359	1	3/26/2010
Bis(2-chloroethyl)ether	BQL	359	1	3/26/2010
Bis(2-chloroisopropyl)ether	BQL	359	1	3/26/2010
Bis(2-ethylhexyl)phthalate	BQL	359	1	3/26/2010
4-bromophenyl phenyl ether	BQL	359	1	3/26/2010
Butylbenzylphthalate	BQL	359	1	3/26/2010
2-Chloronaphthalene	BQL	359	1	3/26/2010
2-Chlorophenol	BQL	359	1	3/26/2010
4-Chloro-3-methylphenol	BQL	359	1	3/26/2010
4-Chloroaniline	BQL	1800	1	3/26/2010
4-Chlorophenyl phenyl ether	BQL	359	1	3/26/2010
Chrysene	BQL	359	1	3/26/2010
Dibenzo[a,h]anthracene	BQL	359	1	3/26/2010
Dibenzofuran	BQL	359	1	3/26/2010
Di-n-Butylphthalate	BQL	359	1	3/26/2010
1,2-Dichlorobenzene	BQL	359	1	3/26/2010
1,3-Dichlorobenzene	BQL	359	1	3/26/2010
1,4-Dichlorobenzene	BQL	359	1	3/26/2010
3,3'-Dichlorobenzidine	BQL	718	1	3/26/2010
2,4-Dichlorophenol	BQL	359	1	3/26/2010
Diethylphthalate	BQL	359	1	3/26/2010
Dimethylphthalate	BQL	359	1	3/26/2010
2,4-Dimethylphenol	BQL	359	1	3/26/2010
Di-n-octylphthalate	BQL	359	1	3/26/2010
4,6-Dinitro-2-methylphenol	BQL	1800	1	3/26/2010
2,4-Dinitrophenol	BQL	1800	1	3/26/2010
2,4-Dinitrotoluene	BQL	359	1	3/26/2010
2,6-Dinitrotoluene	BQL	359	1	3/26/2010
Diphenylamine *	BQL	359	1	3/26/2010
Fluoranthene	BQL	359	1	3/26/2010
Fluorene	BQL	359	1	3/26/2010
Hexachlorobenzene	BQL	359	1	3/26/2010
Hexachlorobutadiene	BQL	359	1	3/26/2010
Hexachlorocyclopentadiene	BQL	718	1	3/26/2010
Hexachloroethane	BQL	359	1	3/26/2010
Indeno(1,2,3-c,d)pyrene	BQL	359	1	3/26/2010
Isophorone	BQL	359	1	3/26/2010
2-Methylnaphthalene	BQL	359	1	3/26/2010

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-2-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-14H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.89 g

Analyzed By: DCS
Date Collected: 3/23/2010 9:10
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 84.64

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	359	1	3/26/2010
3- & 4-Methylphenol	BQL	359	1	3/26/2010
Naphthalene	BQL	359	1	3/26/2010
2-Nitroaniline	BQL	359	1	3/26/2010
3-Nitroaniline	BQL	1800	1	3/26/2010
4-Nitroaniline	BQL	1800	1	3/26/2010
Nitrobenzene	BQL	359	1	3/26/2010
2-Nitrophenol	BQL	359	1	3/26/2010
4-Nitrophenol	BQL	1800	1	3/26/2010
N-Nitrosodi-n-propylamine	BQL	359	1	3/26/2010
Pentachlorophenol	BQL	1800	1	3/26/2010
Phenanthrene	BQL	359	1	3/26/2010
Phenol	BQL	359	1	3/26/2010
Pyrene	BQL	359	1	3/26/2010
1,2,4-Trichlorobenzene	BQL	359	1	3/26/2010
2,4,5-Trichlorophenol	BQL	359	1	3/26/2010
2,4,6-Trichlorophenol	BQL	359	1	3/26/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.6	86
2-Fluorophenol	10	9.4	94
Nitrobenzene-d5	10	9.4	94
Phenol-d6	10	9.5	95
2,4,6-Tribromophenol	10	8.8	88
4-Terphenyl-d14	10	10	100

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

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-3-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-15D
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: BAO
Date Collected: 3/23/2010 9:30
Date Received: 3/24/2010
Matrix: Soil
Solids 30.82

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	27.4	mg/Kg	1	03/29/10 23:18

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.5	98.5		70-130

Comments:

Batch Information

Analytical Batch: VP032910
Analytical Method: 8015
Instrument ID: GC4
Analyst: BAO

Prep Method: 5035
Initial Wt/Vol: 3.55 g
Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By:

GRO.XLS

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-3-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-15H
Lab Project ID: G341-617

Date Collected: 3/23/2010 9:30
Date Received: 3/24/2010
Matrix: Soil
Solids 30.82
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	**32.2**	19.3	mg/Kg	1	03/29/10 16:00

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	19	47.4

Comments:

Batch Information

Analytical Batch: EP032910
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 16288
Prep Method: 3541
Prep Date: 03/26/10
Initial Prep Wt/Vol: 33.55 G
Prep Final Vol: 10 mL

Analyst: _____

NC Certification #481

Reviewed By: _____

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-3-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-15A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 09:30
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 3.73 g
%Solids: 30.8

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	217	1	4/2/2010
Benzene	BQL	21.7	1	4/2/2010
Bromobenzene	BQL	21.7	1	4/2/2010
Bromochloromethane	BQL	21.7	1	4/2/2010
Bromodichloromethane	BQL	21.7	1	4/2/2010
Bromoform	BQL	21.7	1	4/2/2010
Bromomethane	BQL	21.7	1	4/2/2010
2-Butanone	BQL	109	1	4/2/2010
n-Butylbenzene	BQL	21.7	1	4/2/2010
sec-Butylbenzene	BQL	21.7	1	4/2/2010
tert-Butylbenzene	BQL	21.7	1	4/2/2010
Carbon disulfide	BQL	21.7	1	4/2/2010
Carbon tetrachloride	BQL	21.7	1	4/2/2010
Chlorobenzene	BQL	21.7	1	4/2/2010
Chloroethane	BQL	21.7	1	4/2/2010
Chloroform	BQL	21.7	1	4/2/2010
Chloromethane	BQL	21.7	1	4/2/2010
2-Chlorotoluene	BQL	21.7	1	4/2/2010
4-Chlorotoluene	BQL	21.7	1	4/2/2010
Dibromochloromethane	BQL	21.7	1	4/2/2010
1,2-Dibromo-3-chloropropane	BQL	109	1	4/2/2010
Dibromomethane	BQL	21.7	1	4/2/2010
1,2-Dibromoethane (EDB)	BQL	21.7	1	4/2/2010
1,2-Dichlorobenzene	BQL	21.7	1	4/2/2010
1,3-Dichlorobenzene	BQL	21.7	1	4/2/2010
1,4-Dichlorobenzene	BQL	21.7	1	4/2/2010
trans-1,4-Dichloro-2-butene	BQL	109	1	4/2/2010
1,1-Dichloroethane	BQL	21.7	1	4/2/2010
1,1-Dichloroethene	BQL	21.7	1	4/2/2010
1,2-Dichloroethane	BQL	21.7	1	4/2/2010
cis-1,2-Dichloroethene	BQL	21.7	1	4/2/2010
trans-1,2-dichloroethene	BQL	21.7	1	4/2/2010
1,2-Dichloropropane	BQL	21.7	1	4/2/2010
1,3-Dichloropropane	BQL	21.7	1	4/2/2010
2,2-Dichloropropane	BQL	21.7	1	4/2/2010
1,1-Dichloropropene	BQL	21.7	1	4/2/2010
cis-1,3-Dichloropropene	BQL	21.7	1	4/2/2010
trans-1,3-Dichloropropene	BQL	21.7	1	4/2/2010
Dichlorodifluoromethane	BQL	21.7	1	4/2/2010
Diisopropyl ether (DIPE)	BQL	21.7	1	4/2/2010
Ethylbenzene	BQL	21.7	1	4/2/2010
Hexachlorobutadiene	BQL	21.7	1	4/2/2010
2-Hexanone	BQL	54.4	1	4/2/2010
Iodomethane	BQL	21.7	1	4/2/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-3-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-15A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 09:30
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 3.73 g
%Solids: 30.8

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	21.7	1	4/2/2010
4-Isopropyltoluene	BQL	21.7	1	4/2/2010
Methylene chloride	BQL	87.0	1	4/2/2010
4-Methyl-2-pentanone	BQL	54.4	1	4/2/2010
Methyl-tert-butyl ether (MTBE)	BQL	21.7	1	4/2/2010
Naphthalene	BQL	21.7	1	4/2/2010
n-Propyl benzene	BQL	21.7	1	4/2/2010
Styrene	BQL	21.7	1	4/2/2010
1,1,1,2-Tetrachloroethane	BQL	21.7	1	4/2/2010
1,1,2,2-Tetrachloroethane	BQL	21.7	1	4/2/2010
Tetrachloroethene	BQL	21.7	1	4/2/2010
Toluene	BQL	21.7	1	4/2/2010
1,2,3-Trichlorobenzene	BQL	21.7	1	4/2/2010
1,2,4-Trichlorobenzene	BQL	21.7	1	4/2/2010
Trichloroethene	BQL	21.7	1	4/2/2010
1,1,1-Trichloroethane	BQL	21.7	1	4/2/2010
1,1,2-Trichloroethane	BQL	21.7	1	4/2/2010
Trichlorofluoromethane	BQL	21.7	1	4/2/2010
1,2,3-Trichloropropane	BQL	21.7	1	4/2/2010
1,2,4-Trimethylbenzene	BQL	21.7	1	4/2/2010
1,3,5-Trimethylbenzene	BQL	21.7	1	4/2/2010
Vinyl chloride	BQL	21.7	1	4/2/2010
m-,p-Xylene	BQL	43.5	1	4/2/2010
o-Xylene	BQL	21.7	1	4/2/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	67.2	134
Toluene-d8	50	52.2	104
4-Bromofluorobenzene	50	41.5	83

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-3-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-15I
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.26 g

Analyzed By: DCS
Date Collected: 3/23/2010 9:30
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 30.82

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	1010	1	3/26/2010
Acenaphthylene	BQL	1010	1	3/26/2010
Anthracene	BQL	1010	1	3/26/2010
Benzo[a]anthracene	BQL	1010	1	3/26/2010
Benzo[a]pyrene	BQL	1010	1	3/26/2010
Benzo[b]fluoranthene	BQL	1010	1	3/26/2010
Benzo[g,h,i]perylene	BQL	1010	1	3/26/2010
Benzo[k]fluoranthene	BQL	1010	1	3/26/2010
Benzoic Acid	BQL	5030	1	3/26/2010
Bis(2-chloroethoxy)methane	BQL	1010	1	3/26/2010
Bis(2-chloroethyl)ether	BQL	1010	1	3/26/2010
Bis(2-chloroisopropyl)ether	BQL	1010	1	3/26/2010
Bis(2-ethylhexyl)phthalate	BQL	1010	1	3/26/2010
4-bromophenyl phenyl ether	BQL	1010	1	3/26/2010
Butylbenzylphthalate	BQL	1010	1	3/26/2010
2-Chloronaphthalene	BQL	1010	1	3/26/2010
2-Chlorophenol	BQL	1010	1	3/26/2010
4-Chloro-3-methylphenol	BQL	1010	1	3/26/2010
4-Chloroaniline	BQL	5030	1	3/26/2010
4-Chlorophenyl phenyl ether	BQL	1010	1	3/26/2010
Chrysene	BQL	1010	1	3/26/2010
Dibenzo[a,h]anthracene	BQL	1010	1	3/26/2010
Dibenzofuran	BQL	1010	1	3/26/2010
Di-n-Butylphthalate	BQL	1010	1	3/26/2010
1,2-Dichlorobenzene	BQL	1010	1	3/26/2010
1,3-Dichlorobenzene	BQL	1010	1	3/26/2010
1,4-Dichlorobenzene	BQL	1010	1	3/26/2010
3,3'-Dichlorobenzidine	BQL	2010	1	3/26/2010
2,4-Dichlorophenol	BQL	1010	1	3/26/2010
Diethylphthalate	BQL	1010	1	3/26/2010
Dimethylphthalate	BQL	1010	1	3/26/2010
2,4-Dimethylphenol	BQL	1010	1	3/26/2010
Di-n-octylphthalate	BQL	1010	1	3/26/2010
4,6-Dinitro-2-methylphenol	BQL	5030	1	3/26/2010
2,4-Dinitrophenol	BQL	5030	1	3/26/2010
2,4-Dinitrotoluene	BQL	1010	1	3/26/2010
2,6-Dinitrotoluene	BQL	1010	1	3/26/2010
Diphenylamine *	BQL	1010	1	3/26/2010
Fluoranthene	BQL	1010	1	3/26/2010
Fluorene	BQL	1010	1	3/26/2010
Hexachlorobenzene	BQL	1010	1	3/26/2010
Hexachlorobutadiene	BQL	1010	1	3/26/2010
Hexachlorocyclopentadiene	BQL	2010	1	3/26/2010
Hexachloroethane	BQL	1010	1	3/26/2010
Indeno(1,2,3-c,d)pyrene	BQL	1010	1	3/26/2010
Isophorone	BQL	1010	1	3/26/2010
2-Methylnaphthalene	BQL	1010	1	3/26/2010

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-3-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-15I
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.26 g

Analyzed By: DCS
Date Collected: 3/23/2010 9:30
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 30.82

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	1010	1	3/26/2010
3- & 4-Methylphenol	BQL	1010	1	3/26/2010
Naphthalene	BQL	1010	1	3/26/2010
2-Nitroaniline	BQL	1010	1	3/26/2010
3-Nitroaniline	BQL	5030	1	3/26/2010
4-Nitroaniline	BQL	5030	1	3/26/2010
Nitrobenzene	BQL	1010	1	3/26/2010
2-Nitrophenol	BQL	1010	1	3/26/2010
4-Nitrophenol	BQL	5030	1	3/26/2010
N-Nitrosodi-n-propylamine	BQL	1010	1	3/26/2010
Pentachlorophenol	BQL	5030	1	3/26/2010
Phenanthrene	BQL	1010	1	3/26/2010
Phenol	BQL	1010	1	3/26/2010
Pyrene	BQL	1010	1	3/26/2010
1,2,4-Trichlorobenzene	BQL	1010	1	3/26/2010
2,4,5-Trichlorophenol	BQL	1010	1	3/26/2010
2,4,6-Trichlorophenol	BQL	1010	1	3/26/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.3	63
2-Fluorophenol	10	8.3	83
Nitrobenzene-d5	10	8.4	84
Phenol-d6	10	8.4	84
2,4,6-Tribromophenol	10	7.1	71
4-Terphenyl-d14	10	6.8	68

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

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-4-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-16D
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: BAO
Date Collected: 3/23/2010 9:45
Date Received: 3/24/2010
Matrix: Soil
Solids 75.21

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.20	mg/Kg	1	03/29/10 23:45

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	96.1	96.1		70-130

Comments:

Batch Information

Analytical Batch: VP032910
Analytical Method: 8015
Instrument ID: GC4
Analyst: BAO

Prep Method: 5035
Initial Wt/Vol: 6.43 g
Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By:

GRO.XLS

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-4-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-16G
Lab Project ID: G341-617

Date Collected: 3/23/2010 9:45
Date Received: 3/24/2010
Matrix: Soil
Solids 75.21
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	150	8.17	mg/Kg	1	03/29/10 16:28

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	38.8	96.9

Comments:

Batch Information

Analytical Batch: EP032910
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 16288
Prep Method: 3541
Prep Date: 03/26/10
Initial Prep Wt/Vol: 32.54 G
Prep Final Vol: 10 mL

Analyst: _____

NC Certification #481

Reviewed By: _____

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-4-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-16A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 09:45
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 6.55 g
%Solids: 75.2

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	50.7	1	4/2/2010
Benzene	BQL	5.07	1	4/2/2010
Bromobenzene	BQL	5.07	1	4/2/2010
Bromochloromethane	BQL	5.07	1	4/2/2010
Bromodichloromethane	BQL	5.07	1	4/2/2010
Bromoform	BQL	5.07	1	4/2/2010
Bromomethane	BQL	5.07	1	4/2/2010
2-Butanone	BQL	25.4	1	4/2/2010
n-Butylbenzene	BQL	5.07	1	4/2/2010
sec-Butylbenzene	BQL	5.07	1	4/2/2010
tert-Butylbenzene	BQL	5.07	1	4/2/2010
Carbon disulfide	BQL	5.07	1	4/2/2010
Carbon tetrachloride	BQL	5.07	1	4/2/2010
Chlorobenzene	BQL	5.07	1	4/2/2010
Chloroethane	BQL	5.07	1	4/2/2010
Chloroform	BQL	5.07	1	4/2/2010
Chloromethane	BQL	5.07	1	4/2/2010
2-Chlorotoluene	BQL	5.07	1	4/2/2010
4-Chlorotoluene	BQL	5.07	1	4/2/2010
Dibromochloromethane	BQL	5.07	1	4/2/2010
1,2-Dibromo-3-chloropropane	BQL	25.4	1	4/2/2010
Dibromomethane	BQL	5.07	1	4/2/2010
1,2-Dibromoethane (EDB)	BQL	5.07	1	4/2/2010
1,2-Dichlorobenzene	BQL	5.07	1	4/2/2010
1,3-Dichlorobenzene	BQL	5.07	1	4/2/2010
1,4-Dichlorobenzene	BQL	5.07	1	4/2/2010
trans-1,4-Dichloro-2-butene	BQL	25.4	1	4/2/2010
1,1-Dichloroethane	BQL	5.07	1	4/2/2010
1,1-Dichloroethene	BQL	5.07	1	4/2/2010
1,2-Dichloroethane	BQL	5.07	1	4/2/2010
cis-1,2-Dichloroethene	BQL	5.07	1	4/2/2010
trans-1,2-dichloroethene	BQL	5.07	1	4/2/2010
1,2-Dichloropropane	BQL	5.07	1	4/2/2010
1,3-Dichloropropane	BQL	5.07	1	4/2/2010
2,2-Dichloropropane	BQL	5.07	1	4/2/2010
1,1-Dichloropropene	BQL	5.07	1	4/2/2010
cis-1,3-Dichloropropene	BQL	5.07	1	4/2/2010
trans-1,3-Dichloropropene	BQL	5.07	1	4/2/2010
Dichlorodifluoromethane	BQL	5.07	1	4/2/2010
Diisopropyl ether (DIPE)	BQL	5.07	1	4/2/2010
Ethylbenzene	BQL	5.07	1	4/2/2010
Hexachlorobutadiene	BQL	5.07	1	4/2/2010
2-Hexanone	BQL	12.7	1	4/2/2010
Iodomethane	BQL	5.07	1	4/2/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-4-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-16A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 09:45
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 6.55 g
%Solids: 75.2

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.07	1	4/2/2010
4-Isopropyltoluene	BQL	5.07	1	4/2/2010
Methylene chloride	BQL	20.3	1	4/2/2010
4-Methyl-2-pentanone	BQL	12.7	1	4/2/2010
Methyl-tert-butyl ether (MTBE)	BQL	5.07	1	4/2/2010
Naphthalene	BQL	5.07	1	4/2/2010
n-Propyl benzene	BQL	5.07	1	4/2/2010
Styrene	BQL	5.07	1	4/2/2010
1,1,1,2-Tetrachloroethane	BQL	5.07	1	4/2/2010
1,1,2,2-Tetrachloroethane	BQL	5.07	1	4/2/2010
Tetrachloroethene	BQL	5.07	1	4/2/2010
Toluene	BQL	5.07	1	4/2/2010
1,2,3-Trichlorobenzene	BQL	5.07	1	4/2/2010
1,2,4-Trichlorobenzene	BQL	5.07	1	4/2/2010
Trichloroethene	BQL	5.07	1	4/2/2010
1,1,1-Trichloroethane	BQL	5.07	1	4/2/2010
1,1,2-Trichloroethane	BQL	5.07	1	4/2/2010
Trichlorofluoromethane	BQL	5.07	1	4/2/2010
1,2,3-Trichloropropane	BQL	5.07	1	4/2/2010
1,2,4-Trimethylbenzene	BQL	5.07	1	4/2/2010
1,3,5-Trimethylbenzene	BQL	5.07	1	4/2/2010
Vinyl chloride	BQL	5.07	1	4/2/2010
m-,p-Xylene	BQL	10.1	1	4/2/2010
o-Xylene	BQL	5.07	1	4/2/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	66.8	134
Toluene-d8	50	52.6	105
4-Bromofluorobenzene	50	44.5	89

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-4-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-16H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.34 g

Analyzed By: DCS
Date Collected: 3/23/2010 9:45
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 75.21

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	4110	10	3/27/2010
Acenaphthylene	BQL	4110	10	3/27/2010
Anthracene	BQL	4110	10	3/27/2010
Benzo[a]anthracene	BQL	4110	10	3/27/2010
Benzo[a]pyrene	BQL	4110	10	3/27/2010
Benzo[b]fluoranthene	BQL	4110	10	3/27/2010
Benzo[g,h,i]perylene	BQL	4110	10	3/27/2010
Benzo[k]fluoranthene	BQL	4110	10	3/27/2010
Benzoic Acid	BQL	20600	10	3/27/2010
Bis(2-chloroethoxy)methane	BQL	4110	10	3/27/2010
Bis(2-chloroethyl)ether	BQL	4110	10	3/27/2010
Bis(2-chloroisopropyl)ether	BQL	4110	10	3/27/2010
Bis(2-ethylhexyl)phthalate	BQL	4110	10	3/27/2010
4-bromophenyl phenyl ether	BQL	4110	10	3/27/2010
Butylbenzylphthalate	BQL	4110	10	3/27/2010
2-Chloronaphthalene	BQL	4110	10	3/27/2010
2-Chlorophenol	BQL	4110	10	3/27/2010
4-Chloro-3-methylphenol	BQL	4110	10	3/27/2010
4-Chloroaniline	BQL	20600	10	3/27/2010
4-Chlorophenyl phenyl ether	BQL	4110	10	3/27/2010
Chrysene	BQL	4110	10	3/27/2010
Dibenzo[a,h]anthracene	BQL	4110	10	3/27/2010
Dibenzofuran	BQL	4110	10	3/27/2010
Di-n-Butylphthalate	BQL	4110	10	3/27/2010
1,2-Dichlorobenzene	BQL	4110	10	3/27/2010
1,3-Dichlorobenzene	BQL	4110	10	3/27/2010
1,4-Dichlorobenzene	BQL	4110	10	3/27/2010
3,3'-Dichlorobenzidine	BQL	8220	10	3/27/2010
2,4-Dichlorophenol	BQL	4110	10	3/27/2010
Diethylphthalate	BQL	4110	10	3/27/2010
Dimethylphthalate	BQL	4110	10	3/27/2010
2,4-Dimethylphenol	BQL	4110	10	3/27/2010
Di-n-octylphthalate	BQL	4110	10	3/27/2010
4,6-Dinitro-2-methylphenol	BQL	20600	10	3/27/2010
2,4-Dinitrophenol	BQL	20600	10	3/27/2010
2,4-Dinitrotoluene	BQL	4110	10	3/27/2010
2,6-Dinitrotoluene	BQL	4110	10	3/27/2010
Diphenylamine *	BQL	4110	10	3/27/2010
Fluoranthene	BQL	4110	10	3/27/2010
Fluorene	BQL	4110	10	3/27/2010
Hexachlorobenzene	BQL	4110	10	3/27/2010
Hexachlorobutadiene	BQL	4110	10	3/27/2010
Hexachlorocyclopentadiene	BQL	8220	10	3/27/2010
Hexachloroethane	BQL	4110	10	3/27/2010
Indeno(1,2,3-c,d)pyrene	BQL	4110	10	3/27/2010
Isophorone	BQL	4110	10	3/27/2010
2-Methylnaphthalene	BQL	4110	10	3/27/2010

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-4-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-16H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.34 g

Analyzed By: DCS
Date Collected: 3/23/2010 9:45
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 75.21

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	4110	10	3/27/2010
3- & 4-Methylphenol	BQL	4110	10	3/27/2010
Naphthalene	BQL	4110	10	3/27/2010
2-Nitroaniline	BQL	4110	10	3/27/2010
3-Nitroaniline	BQL	20600	10	3/27/2010
4-Nitroaniline	BQL	20600	10	3/27/2010
Nitrobenzene	BQL	4110	10	3/27/2010
2-Nitrophenol	BQL	4110	10	3/27/2010
4-Nitrophenol	BQL	20600	10	3/27/2010
N-Nitrosodi-n-propylamine	BQL	4110	10	3/27/2010
Pentachlorophenol	BQL	20600	10	3/27/2010
Phenanthrene	BQL	4110	10	3/27/2010
Phenol	BQL	4110	10	3/27/2010
Pyrene	BQL	4110	10	3/27/2010
1,2,4-Trichlorobenzene	BQL	4110	10	3/27/2010
2,4,5-Trichlorophenol	BQL	4110	10	3/27/2010
2,4,6-Trichlorophenol	BQL	4110	10	3/27/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	1	NA	NA
2-Fluorophenol	1	NA	NA
Nitrobenzene-d5	1	NA	NA
Phenol-d6	1	NA	NA
2,4,6-Tribromophenol	1	NA	NA
4-Terphenyl-d14	1	NA	NA

Comments:
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.
Sample reported as BQL at a dilution due to non-target matrix interferences.

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-5-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-17D
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: BAO
Date Collected: 3/23/2010 9:55
Date Received: 3/24/2010
Matrix: Soil
Solids 83.98

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.75	mg/Kg	1	03/30/10 00:12

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.3	97.3		70-130

Comments:

Batch Information

Analytical Batch: VP032910
Analytical Method: 8015
Instrument ID: GC4
Analyst: BAO

Prep Method: 5035
Initial Wt/Vol: 6.21 g
Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By:

GRO.XLS

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-5-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-17G
Lab Project ID: G341-617

Date Collected: 3/23/2010 9:55
Date Received: 3/24/2010
Matrix: Soil
Solids 83.98
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	**25.7**	7.32	mg/Kg	1	03/30/10 15:41

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	34.6	86.5

Comments:

Batch Information

Analytical Batch: EP033010
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 16288
Prep Method: 3541
Prep Date: 03/26/10
Initial Prep Wt/Vol: 32.55 G
Prep Final Vol: 10 mL

Analyst: FV

NC Certification #481

Reviewed By:

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-5-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-17B
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: CLP
Date Collected: 03-23-2010 09:55
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 6.55 g
%Solids: 84.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	45.4	1	4/5/2010
Benzene	BQL	4.54	1	4/5/2010
Bromobenzene	BQL	4.54	1	4/5/2010
Bromochloromethane	BQL	4.54	1	4/5/2010
Bromodichloromethane	BQL	4.54	1	4/5/2010
Bromoform	BQL	4.54	1	4/5/2010
Bromomethane	BQL	4.54	1	4/5/2010
2-Butanone	BQL	22.7	1	4/5/2010
n-Butylbenzene	BQL	4.54	1	4/5/2010
sec-Butylbenzene	BQL	4.54	1	4/5/2010
tert-Butylbenzene	BQL	4.54	1	4/5/2010
Carbon disulfide	BQL	4.54	1	4/5/2010
Carbon tetrachloride	BQL	4.54	1	4/5/2010
Chlorobenzene	BQL	4.54	1	4/5/2010
Chloroethane	BQL	4.54	1	4/5/2010
Chloroform	BQL	4.54	1	4/5/2010
Chloromethane	BQL	4.54	1	4/5/2010
2-Chlorotoluene	BQL	4.54	1	4/5/2010
4-Chlorotoluene	BQL	4.54	1	4/5/2010
Dibromochloromethane	BQL	4.54	1	4/5/2010
1,2-Dibromo-3-chloropropane	BQL	22.7	1	4/5/2010
Dibromomethane	BQL	4.54	1	4/5/2010
1,2-Dibromoethane (EDB)	BQL	4.54	1	4/5/2010
1,2-Dichlorobenzene	BQL	4.54	1	4/5/2010
1,3-Dichlorobenzene	BQL	4.54	1	4/5/2010
1,4-Dichlorobenzene	BQL	4.54	1	4/5/2010
trans-1,4-Dichloro-2-butene	BQL	22.7	1	4/5/2010
1,1-Dichloroethane	BQL	4.54	1	4/5/2010
1,1-Dichloroethene	BQL	4.54	1	4/5/2010
1,2-Dichloroethane	BQL	4.54	1	4/5/2010
cis-1,2-Dichloroethene	BQL	4.54	1	4/5/2010
trans-1,2-dichloroethene	BQL	4.54	1	4/5/2010
1,2-Dichloropropane	BQL	4.54	1	4/5/2010
1,3-Dichloropropane	BQL	4.54	1	4/5/2010
2,2-Dichloropropane	BQL	4.54	1	4/5/2010
1,1-Dichloropropene	BQL	4.54	1	4/5/2010
cis-1,3-Dichloropropene	BQL	4.54	1	4/5/2010
trans-1,3-Dichloropropene	BQL	4.54	1	4/5/2010
Dichlorodifluoromethane	BQL	4.54	1	4/5/2010
Diisopropyl ether (DIPE)	BQL	4.54	1	4/5/2010
Ethylbenzene	BQL	4.54	1	4/5/2010
Hexachlorobutadiene	BQL	4.54	1	4/5/2010
2-Hexanone	BQL	11.3	1	4/5/2010
Iodomethane	BQL	4.54	1	4/5/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-5-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-17B
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: CLP
Date Collected: 03-23-2010 09:55
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 6.55 g
%Solids: 84.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.54	1	4/5/2010
4-Isopropyltoluene	BQL	4.54	1	4/5/2010
Methylene chloride	BQL	18.2	1	4/5/2010
4-Methyl-2-pentanone	BQL	11.3	1	4/5/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.54	1	4/5/2010
Naphthalene	BQL	4.54	1	4/5/2010
n-Propyl benzene	BQL	4.54	1	4/5/2010
Styrene	BQL	4.54	1	4/5/2010
1,1,1,2-Tetrachloroethane	BQL	4.54	1	4/5/2010
1,1,2,2-Tetrachloroethane	BQL	4.54	1	4/5/2010
Tetrachloroethene	BQL	4.54	1	4/5/2010
Toluene	BQL	4.54	1	4/5/2010
1,2,3-Trichlorobenzene	BQL	4.54	1	4/5/2010
1,2,4-Trichlorobenzene	BQL	4.54	1	4/5/2010
Trichloroethene	BQL	4.54	1	4/5/2010
1,1,1-Trichloroethane	BQL	4.54	1	4/5/2010
1,1,2-Trichloroethane	BQL	4.54	1	4/5/2010
Trichlorofluoromethane	BQL	4.54	1	4/5/2010
1,2,3-Trichloropropane	BQL	4.54	1	4/5/2010
1,2,4-Trimethylbenzene	BQL	4.54	1	4/5/2010
1,3,5-Trimethylbenzene	BQL	4.54	1	4/5/2010
Vinyl chloride	BQL	4.54	1	4/5/2010
m-,p-Xylene	BQL	9.08	1	4/5/2010
o-Xylene	BQL	4.54	1	4/5/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	65.5	131
Toluene-d8	50	48.1	96
4-Bromofluorobenzene	50	42.8	86

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-5-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-17H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.92 g

Analyzed By: DCS
Date Collected: 3/23/2010 9:55
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 83.98

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	362	1	3/26/2010
Acenaphthylene	BQL	362	1	3/26/2010
Anthracene	BQL	362	1	3/26/2010
Benzo[a]anthracene	BQL	362	1	3/26/2010
Benzo[a]pyrene	BQL	362	1	3/26/2010
Benzo[b]fluoranthene	BQL	362	1	3/26/2010
Benzo[g,h,i]perylene	BQL	362	1	3/26/2010
Benzo[k]fluoranthene	BQL	362	1	3/26/2010
Benzoic Acid	BQL	1810	1	3/26/2010
Bis(2-chloroethoxy)methane	BQL	362	1	3/26/2010
Bis(2-chloroethyl)ether	BQL	362	1	3/26/2010
Bis(2-chloroisopropyl)ether	BQL	362	1	3/26/2010
Bis(2-ethylhexyl)phthalate	BQL	362	1	3/26/2010
4-bromophenyl phenyl ether	BQL	362	1	3/26/2010
Butylbenzylphthalate	BQL	362	1	3/26/2010
2-Chloronaphthalene	BQL	362	1	3/26/2010
2-Chlorophenol	BQL	362	1	3/26/2010
4-Chloro-3-methylphenol	BQL	362	1	3/26/2010
4-Chloroaniline	BQL	1810	1	3/26/2010
4-Chlorophenyl phenyl ether	BQL	362	1	3/26/2010
Chrysene	BQL	362	1	3/26/2010
Dibenzo[a,h]anthracene	BQL	362	1	3/26/2010
Dibenzofuran	BQL	362	1	3/26/2010
Di-n-Butylphthalate	BQL	362	1	3/26/2010
1,2-Dichlorobenzene	BQL	362	1	3/26/2010
1,3-Dichlorobenzene	BQL	362	1	3/26/2010
1,4-Dichlorobenzene	BQL	362	1	3/26/2010
3,3'-Dichlorobenzidine	BQL	723	1	3/26/2010
2,4-Dichlorophenol	BQL	362	1	3/26/2010
Diethylphthalate	BQL	362	1	3/26/2010
Dimethylphthalate	BQL	362	1	3/26/2010
2,4-Dimethylphenol	BQL	362	1	3/26/2010
Di-n-octylphthalate	BQL	362	1	3/26/2010
4,6-Dinitro-2-methylphenol	BQL	1810	1	3/26/2010
2,4-Dinitrophenol	BQL	1810	1	3/26/2010
2,4-Dinitrotoluene	BQL	362	1	3/26/2010
2,6-Dinitrotoluene	BQL	362	1	3/26/2010
Diphenylamine *	BQL	362	1	3/26/2010
Fluoranthene	BQL	362	1	3/26/2010
Fluorene	BQL	362	1	3/26/2010
Hexachlorobenzene	BQL	362	1	3/26/2010
Hexachlorobutadiene	BQL	362	1	3/26/2010
Hexachlorocyclopentadiene	BQL	723	1	3/26/2010
Hexachloroethane	BQL	362	1	3/26/2010
Indeno(1,2,3-c,d)pyrene	BQL	362	1	3/26/2010
Isophorone	BQL	362	1	3/26/2010
2-Methylnaphthalene	BQL	362	1	3/26/2010

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-5-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-17H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.92 g

Analyzed By: DCS
Date Collected: 3/23/2010 9:55
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 83.98

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	362	1	3/26/2010
3- & 4-Methylphenol	BQL	362	1	3/26/2010
Naphthalene	BQL	362	1	3/26/2010
2-Nitroaniline	BQL	362	1	3/26/2010
3-Nitroaniline	BQL	1810	1	3/26/2010
4-Nitroaniline	BQL	1810	1	3/26/2010
Nitrobenzene	BQL	362	1	3/26/2010
2-Nitrophenol	BQL	362	1	3/26/2010
4-Nitrophenol	BQL	1810	1	3/26/2010
N-Nitrosodi-n-propylamine	BQL	362	1	3/26/2010
Pentachlorophenol	BQL	1810	1	3/26/2010
Phenanthrene	BQL	362	1	3/26/2010
Phenol	BQL	362	1	3/26/2010
Pyrene	BQL	362	1	3/26/2010
1,2,4-Trichlorobenzene	BQL	362	1	3/26/2010
2,4,5-Trichlorophenol	BQL	362	1	3/26/2010
2,4,6-Trichlorophenol	BQL	362	1	3/26/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.8	78
2-Fluorophenol	10	9.4	94
Nitrobenzene-d5	10	9.2	92
Phenol-d6	10	9.4	94
2,4,6-Tribromophenol	10	8.9	89
4-Terphenyl-d14	10	9.7	97

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

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-6-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-18D
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: BAO
Date Collected: 3/23/2010 10:20
Date Received: 3/24/2010
Matrix: Soil
Solids 85.44

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.65	mg/Kg	1	03/30/10 00:40

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	93.9	93.9		70-130

Comments:

Batch Information

Analytical Batch: VP032910
Analytical Method: 8015
Instrument ID: GC4
Analyst: BAO

Prep Method: 5035
Initial Wt/Vol: 6.22 g
Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By:

GRO.XLS

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-6-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-18G
Lab Project ID: G341-617

Date Collected: 3/23/2010 10:20
Date Received: 3/24/2010
Matrix: Soil
Solids 85.44
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.21	mg/Kg	1	03/30/10 16:09

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	35.7	89.2

Comments:

Batch Information

Analytical Batch: EP033010
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 16288
Prep Method: 3541
Prep Date: 03/26/10
Initial Prep Wt/Vol: 32.45 G
Prep Final Vol: 10 mL

Analyst: _____

NC Certification #481

Reviewed By: _____

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-6-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-18A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 10:20
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 7.13 g
%Solids: 85.4

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	41.0	1	4/2/2010
Benzene	BQL	4.10	1	4/2/2010
Bromobenzene	BQL	4.10	1	4/2/2010
Bromochloromethane	BQL	4.10	1	4/2/2010
Bromodichloromethane	BQL	4.10	1	4/2/2010
Bromoform	BQL	4.10	1	4/2/2010
Bromomethane	BQL	4.10	1	4/2/2010
2-Butanone	BQL	20.5	1	4/2/2010
n-Butylbenzene	BQL	4.10	1	4/2/2010
sec-Butylbenzene	BQL	4.10	1	4/2/2010
tert-Butylbenzene	BQL	4.10	1	4/2/2010
Carbon disulfide	BQL	4.10	1	4/2/2010
Carbon tetrachloride	BQL	4.10	1	4/2/2010
Chlorobenzene	BQL	4.10	1	4/2/2010
Chloroethane	BQL	4.10	1	4/2/2010
Chloroform	BQL	4.10	1	4/2/2010
Chloromethane	BQL	4.10	1	4/2/2010
2-Chlorotoluene	BQL	4.10	1	4/2/2010
4-Chlorotoluene	BQL	4.10	1	4/2/2010
Dibromochloromethane	BQL	4.10	1	4/2/2010
1,2-Dibromo-3-chloropropane	BQL	20.5	1	4/2/2010
Dibromomethane	BQL	4.10	1	4/2/2010
1,2-Dibromoethane (EDB)	BQL	4.10	1	4/2/2010
1,2-Dichlorobenzene	BQL	4.10	1	4/2/2010
1,3-Dichlorobenzene	BQL	4.10	1	4/2/2010
1,4-Dichlorobenzene	BQL	4.10	1	4/2/2010
trans-1,4-Dichloro-2-butene	BQL	20.5	1	4/2/2010
1,1-Dichloroethane	BQL	4.10	1	4/2/2010
1,1-Dichloroethene	BQL	4.10	1	4/2/2010
1,2-Dichloroethane	BQL	4.10	1	4/2/2010
cis-1,2-Dichloroethene	BQL	4.10	1	4/2/2010
trans-1,2-dichloroethene	BQL	4.10	1	4/2/2010
1,2-Dichloropropane	BQL	4.10	1	4/2/2010
1,3-Dichloropropane	BQL	4.10	1	4/2/2010
2,2-Dichloropropane	BQL	4.10	1	4/2/2010
1,1-Dichloropropene	BQL	4.10	1	4/2/2010
cis-1,3-Dichloropropene	BQL	4.10	1	4/2/2010
trans-1,3-Dichloropropene	BQL	4.10	1	4/2/2010
Dichlorodifluoromethane	BQL	4.10	1	4/2/2010
Diisopropyl ether (DIPE)	BQL	4.10	1	4/2/2010
Ethylbenzene	BQL	4.10	1	4/2/2010
Hexachlorobutadiene	BQL	4.10	1	4/2/2010
2-Hexanone	BQL	10.2	1	4/2/2010
Iodomethane	BQL	4.10	1	4/2/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-6-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-18A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 10:20
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 7.13 g
%Solids: 85.4

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.10	1	4/2/2010
4-Isopropyltoluene	BQL	4.10	1	4/2/2010
Methylene chloride	BQL	16.4	1	4/2/2010
4-Methyl-2-pentanone	BQL	10.2	1	4/2/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.10	1	4/2/2010
Naphthalene	BQL	4.10	1	4/2/2010
n-Propyl benzene	BQL	4.10	1	4/2/2010
Styrene	BQL	4.10	1	4/2/2010
1,1,1,2-Tetrachloroethane	BQL	4.10	1	4/2/2010
1,1,2,2-Tetrachloroethane	BQL	4.10	1	4/2/2010
Tetrachloroethene	BQL	4.10	1	4/2/2010
Toluene	BQL	4.10	1	4/2/2010
1,2,3-Trichlorobenzene	BQL	4.10	1	4/2/2010
1,2,4-Trichlorobenzene	BQL	4.10	1	4/2/2010
Trichloroethene	BQL	4.10	1	4/2/2010
1,1,1-Trichloroethane	BQL	4.10	1	4/2/2010
1,1,2-Trichloroethane	BQL	4.10	1	4/2/2010
Trichlorofluoromethane	BQL	4.10	1	4/2/2010
1,2,3-Trichloropropane	BQL	4.10	1	4/2/2010
1,2,4-Trimethylbenzene	BQL	4.10	1	4/2/2010
1,3,5-Trimethylbenzene	BQL	4.10	1	4/2/2010
Vinyl chloride	BQL	4.10	1	4/2/2010
m-,p-Xylene	BQL	8.20	1	4/2/2010
o-Xylene	BQL	4.10	1	4/2/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	64.6	129
Toluene-d8	50	52.3	105
4-Bromofluorobenzene	50	46.4	93

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-6-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-18H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.23 g

Analyzed By: DCS
Date Collected: 3/23/2010 10:20
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 85.44

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	363	1	3/26/2010
Acenaphthylene	BQL	363	1	3/26/2010
Anthracene	BQL	363	1	3/26/2010
Benzo[a]anthracene	BQL	363	1	3/26/2010
Benzo[a]pyrene	BQL	363	1	3/26/2010
Benzo[b]fluoranthene	BQL	363	1	3/26/2010
Benzo[g,h,i]perylene	BQL	363	1	3/26/2010
Benzo[k]fluoranthene	BQL	363	1	3/26/2010
Benzoic Acid	BQL	1820	1	3/26/2010
Bis(2-chloroethoxy)methane	BQL	363	1	3/26/2010
Bis(2-chloroethyl)ether	BQL	363	1	3/26/2010
Bis(2-chloroisopropyl)ether	BQL	363	1	3/26/2010
Bis(2-ethylhexyl)phthalate	BQL	363	1	3/26/2010
4-bromophenyl phenyl ether	BQL	363	1	3/26/2010
Butylbenzylphthalate	BQL	363	1	3/26/2010
2-Chloronaphthalene	BQL	363	1	3/26/2010
2-Chlorophenol	BQL	363	1	3/26/2010
4-Chloro-3-methylphenol	BQL	363	1	3/26/2010
4-Chloroaniline	BQL	1820	1	3/26/2010
4-Chlorophenyl phenyl ether	BQL	363	1	3/26/2010
Chrysene	BQL	363	1	3/26/2010
Dibenzo[a,h]anthracene	BQL	363	1	3/26/2010
Dibenzofuran	BQL	363	1	3/26/2010
Di-n-Butylphthalate	BQL	363	1	3/26/2010
1,2-Dichlorobenzene	BQL	363	1	3/26/2010
1,3-Dichlorobenzene	BQL	363	1	3/26/2010
1,4-Dichlorobenzene	BQL	363	1	3/26/2010
3,3'-Dichlorobenzidine	BQL	726	1	3/26/2010
2,4-Dichlorophenol	BQL	363	1	3/26/2010
Diethylphthalate	BQL	363	1	3/26/2010
Dimethylphthalate	BQL	363	1	3/26/2010
2,4-Dimethylphenol	BQL	363	1	3/26/2010
Di-n-octylphthalate	BQL	363	1	3/26/2010
4,6-Dinitro-2-methylphenol	BQL	1820	1	3/26/2010
2,4-Dinitrophenol	BQL	1820	1	3/26/2010
2,4-Dinitrotoluene	BQL	363	1	3/26/2010
2,6-Dinitrotoluene	BQL	363	1	3/26/2010
Diphenylamine *	BQL	363	1	3/26/2010
Fluoranthene	BQL	363	1	3/26/2010
Fluorene	BQL	363	1	3/26/2010
Hexachlorobenzene	BQL	363	1	3/26/2010
Hexachlorobutadiene	BQL	363	1	3/26/2010
Hexachlorocyclopentadiene	BQL	726	1	3/26/2010
Hexachloroethane	BQL	363	1	3/26/2010
Indeno(1,2,3-c,d)pyrene	BQL	363	1	3/26/2010
Isophorone	BQL	363	1	3/26/2010
2-Methylnaphthalene	BQL	363	1	3/26/2010

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-6-4
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-18H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.23 g

Analyzed By: DCS
Date Collected: 3/23/2010 10:20
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 85.44

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	363	1	3/26/2010
3- & 4-Methylphenol	BQL	363	1	3/26/2010
Naphthalene	BQL	363	1	3/26/2010
2-Nitroaniline	BQL	363	1	3/26/2010
3-Nitroaniline	BQL	1820	1	3/26/2010
4-Nitroaniline	BQL	1820	1	3/26/2010
Nitrobenzene	BQL	363	1	3/26/2010
2-Nitrophenol	BQL	363	1	3/26/2010
4-Nitrophenol	BQL	1820	1	3/26/2010
N-Nitrosodi-n-propylamine	BQL	363	1	3/26/2010
Pentachlorophenol	BQL	1820	1	3/26/2010
Phenanthrene	BQL	363	1	3/26/2010
Phenol	BQL	363	1	3/26/2010
Pyrene	BQL	363	1	3/26/2010
1,2,4-Trichlorobenzene	BQL	363	1	3/26/2010
2,4,5-Trichlorophenol	BQL	363	1	3/26/2010
2,4,6-Trichlorophenol	BQL	363	1	3/26/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.9	79
2-Fluorophenol	10	9.3	93
Nitrobenzene-d5	10	9.4	94
Phenol-d6	10	9.3	93
2,4,6-Tribromophenol	10	8.7	87
4-Terphenyl-d14	10	9.6	96

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

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS North America, Inc.

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

Client Sample ID: S13-7-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-19D
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: BAO
Date Collected: 3/23/2010 10:30
Date Received: 3/24/2010
Matrix: Soil
Solids 82.47

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.38	mg/Kg	1	03/30/10 01:07

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.6	97.6		70-130

Comments:

Batch Information

Analytical Batch: VP032910
Analytical Method: 8015
Instrument ID: GC4
Analyst: BAO

Prep Method: 5035
Initial Wt/Vol: 6.76 g
Final Volume: 5 mL

Analyst: BAO

NC Certification #481

Reviewed By:

GRO.XLS

SGS North America, Inc.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: S13-7-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-19G
Lab Project ID: G341-617

Date Collected: 3/23/2010 10:30
Date Received: 3/24/2010
Matrix: Soil
Solids 82.47
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.46	mg/Kg	1	03/30/10 16:36

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	24.1	60.4

Comments:

Batch Information

Analytical Batch: EP033010
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 16288
Prep Method: 3541
Prep Date: 03/26/10
Initial Prep Wt/Vol: 32.5 G
Prep Final Vol: 10 mL

Analyst: FX

NC Certification #481

Reviewed By:

SGS North America, Inc.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: S13-7-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-19A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 10:30
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 6.82 g
%Solids: 82.5

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	44.4	1	4/2/2010
Benzene	BQL	4.44	1	4/2/2010
Bromobenzene	BQL	4.44	1	4/2/2010
Bromochloromethane	BQL	4.44	1	4/2/2010
Bromodichloromethane	BQL	4.44	1	4/2/2010
Bromoform	BQL	4.44	1	4/2/2010
Bromomethane	BQL	4.44	1	4/2/2010
2-Butanone	BQL	22.2	1	4/2/2010
n-Butylbenzene	BQL	4.44	1	4/2/2010
sec-Butylbenzene	BQL	4.44	1	4/2/2010
tert-Butylbenzene	BQL	4.44	1	4/2/2010
Carbon disulfide	BQL	4.44	1	4/2/2010
Carbon tetrachloride	BQL	4.44	1	4/2/2010
Chlorobenzene	BQL	4.44	1	4/2/2010
Chloroethane	BQL	4.44	1	4/2/2010
Chloroform	BQL	4.44	1	4/2/2010
Chloromethane	BQL	4.44	1	4/2/2010
2-Chlorotoluene	BQL	4.44	1	4/2/2010
4-Chlorotoluene	BQL	4.44	1	4/2/2010
Dibromochloromethane	BQL	4.44	1	4/2/2010
1,2-Dibromo-3-chloropropane	BQL	22.2	1	4/2/2010
Dibromomethane	BQL	4.44	1	4/2/2010
1,2-Dibromoethane (EDB)	BQL	4.44	1	4/2/2010
1,2-Dichlorobenzene	BQL	4.44	1	4/2/2010
1,3-Dichlorobenzene	BQL	4.44	1	4/2/2010
1,4-Dichlorobenzene	BQL	4.44	1	4/2/2010
trans-1,4-Dichloro-2-butene	BQL	22.2	1	4/2/2010
1,1-Dichloroethane	BQL	4.44	1	4/2/2010
1,1-Dichloroethene	BQL	4.44	1	4/2/2010
1,2-Dichloroethane	BQL	4.44	1	4/2/2010
cis-1,2-Dichloroethene	BQL	4.44	1	4/2/2010
trans-1,2-dichloroethene	BQL	4.44	1	4/2/2010
1,2-Dichloropropane	BQL	4.44	1	4/2/2010
1,3-Dichloropropane	BQL	4.44	1	4/2/2010
2,2-Dichloropropane	BQL	4.44	1	4/2/2010
1,1-Dichloropropene	BQL	4.44	1	4/2/2010
cis-1,3-Dichloropropene	BQL	4.44	1	4/2/2010
trans-1,3-Dichloropropene	BQL	4.44	1	4/2/2010
Dichlorodifluoromethane	BQL	4.44	1	4/2/2010
Diisopropyl ether (DIPE)	BQL	4.44	1	4/2/2010
Ethylbenzene	BQL	4.44	1	4/2/2010
Hexachlorobutadiene	BQL	11.1	1	4/2/2010
2-Hexanone	BQL	4.44	1	4/2/2010
Iodomethane				

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: S13-7-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID G341-617-19A
Lab Project ID: G341-617
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 03-23-2010 10:30
Date Received: 3/24/2010
Matrix: Soil
Sample Amount: 6.82 g
%Solids: 82.5

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.44	1	4/2/2010
4-Isopropyltoluene	BQL	4.44	1	4/2/2010
Methylene chloride	BQL	17.8	1	4/2/2010
4-Methyl-2-pentanone	BQL	11.1	1	4/2/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.44	1	4/2/2010
Naphthalene	BQL	4.44	1	4/2/2010
n-Propyl benzene	BQL	4.44	1	4/2/2010
Styrene	BQL	4.44	1	4/2/2010
1,1,1,2-Tetrachloroethane	BQL	4.44	1	4/2/2010
1,1,2,2-Tetrachloroethane	BQL	4.44	1	4/2/2010
Tetrachloroethene	BQL	4.44	1	4/2/2010
Toluene	BQL	4.44	1	4/2/2010
1,2,3-Trichlorobenzene	BQL	4.44	1	4/2/2010
1,2,4-Trichlorobenzene	BQL	4.44	1	4/2/2010
Trichloroethene	BQL	4.44	1	4/2/2010
1,1,1-Trichloroethane	BQL	4.44	1	4/2/2010
1,1,2-Trichloroethane	BQL	4.44	1	4/2/2010
Trichlorofluoromethane	BQL	4.44	1	4/2/2010
1,2,3-Trichloropropane	BQL	4.44	1	4/2/2010
1,2,4-Trimethylbenzene	BQL	4.44	1	4/2/2010
1,3,5-Trimethylbenzene	BQL	4.44	1	4/2/2010
Vinyl chloride	BQL	4.44	1	4/2/2010
m-,p-Xylene	BQL	8.88	1	4/2/2010
o-Xylene	BQL	4.44	1	4/2/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	66.8	134
Toluene-d8	50	52.5	105
4-Bromofluorobenzene	50	45	90

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: S13-7-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-19H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.39 g

Analyzed By: DCS
Date Collected: 3/23/2010 10:30
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 82.47

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	374	1	3/27/2010
Acenaphthylene	BQL	374	1	3/27/2010
Anthracene	BQL	374	1	3/27/2010
Benzo[a]anthracene	BQL	374	1	3/27/2010
Benzo[a]pyrene	BQL	374	1	3/27/2010
Benzo[b]fluoranthene	BQL	374	1	3/27/2010
Benzo[g,h,i]perylene	BQL	374	1	3/27/2010
Benzo[k]fluoranthene	BQL	374	1	3/27/2010
Benzoic Acid	BQL	1870	1	3/27/2010
Bis(2-chloroethoxy)methane	BQL	374	1	3/27/2010
Bis(2-chloroethyl)ether	BQL	374	1	3/27/2010
Bis(2-chloroisopropyl)ether	BQL	374	1	3/27/2010
Bis(2-ethylhexyl)phthalate	BQL	374	1	3/27/2010
4-bromophenyl phenyl ether	BQL	374	1	3/27/2010
Butylbenzylphthalate	BQL	374	1	3/27/2010
2-Chloronaphthalene	BQL	374	1	3/27/2010
2-Chlorophenol	BQL	374	1	3/27/2010
4-Chloro-3-methylphenol	BQL	374	1	3/27/2010
4-Chloroaniline	BQL	1870	1	3/27/2010
4-Chlorophenyl phenyl ether	BQL	374	1	3/27/2010
Chrysene	BQL	374	1	3/27/2010
Dibenzo[a,h]anthracene	BQL	374	1	3/27/2010
Dibenzofuran	BQL	374	1	3/27/2010
Di-n-Butylphthalate	BQL	374	1	3/27/2010
1,2-Dichlorobenzene	BQL	374	1	3/27/2010
1,3-Dichlorobenzene	BQL	374	1	3/27/2010
1,4-Dichlorobenzene	BQL	374	1	3/27/2010
3,3'-Dichlorobenzidine	BQL	749	1	3/27/2010
2,4-Dichlorophenol	BQL	374	1	3/27/2010
Diethylphthalate	BQL	374	1	3/27/2010
Dimethylphthalate	BQL	374	1	3/27/2010
2,4-Dimethylphenol	BQL	374	1	3/27/2010
Di-n-octylphthalate	BQL	374	1	3/27/2010
4,6-Dinitro-2-methylphenol	BQL	1870	1	3/27/2010
2,4-Dinitrophenol	BQL	1870	1	3/27/2010
2,4-Dinitrotoluene	BQL	374	1	3/27/2010
2,6-Dinitrotoluene	BQL	374	1	3/27/2010
Diphenylamine *	BQL	374	1	3/27/2010
Fluoranthene	BQL	374	1	3/27/2010
Fluorene	BQL	374	1	3/27/2010
Hexachlorobenzene	BQL	374	1	3/27/2010
Hexachlorobutadiene	BQL	374	1	3/27/2010
Hexachlorocyclopentadiene	BQL	749	1	3/27/2010
Hexachloroethane	BQL	374	1	3/27/2010
Indeno(1,2,3-c,d)pyrene	BQL	374	1	3/27/2010
Isophorone	BQL	374	1	3/27/2010
2-Methylnaphthalene	BQL	374	1	3/27/2010

Results for Semivolatiles
by GCMS 8270

Client Sample ID: S13-7-8
Client Project ID: U-3810/NCDOT 001100
Lab Sample ID: G341-617-19H
Lab Project ID: G341-617
Report Basis: Dry weight
Initial Weight: 32.39 g

Analyzed By: DCS
Date Collected: 3/23/2010 10:30
Date Received: 3/24/2010
Date Extracted: 3/26/2010
Matrix: Soil
% Solids: 82.47

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
2-Methylphenol	BQL	374	1	3/27/2010
3- & 4-Methylphenol	BQL	374	1	3/27/2010
Naphthalene	BQL	374	1	3/27/2010
2-Nitroaniline	BQL	374	1	3/27/2010
3-Nitroaniline	BQL	1870	1	3/27/2010
4-Nitroaniline	BQL	1870	1	3/27/2010
Nitrobenzene	BQL	374	1	3/27/2010
2-Nitrophenol	BQL	374	1	3/27/2010
4-Nitrophenol	BQL	1870	1	3/27/2010
N-Nitrosodi-n-propylamine	BQL	374	1	3/27/2010
Pentachlorophenol	BQL	1870	1	3/27/2010
Phenanthrene	BQL	374	1	3/27/2010
Phenol	BQL	374	1	3/27/2010
Pyrene	BQL	374	1	3/27/2010
1,2,4-Trichlorobenzene	BQL	374	1	3/27/2010
2,4,5-Trichlorophenol	BQL	374	1	3/27/2010
2,4,6-Trichlorophenol	BQL	374	1	3/27/2010

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.1	71
2-Fluorophenol	10	9	90
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	9.1	91
2,4,6-Tribromophenol	10	7.9	79
4-Terphenyl-d14	10	8.8	88

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

Locations Nationwide
- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Ohio
- West Virginia

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(1)
CLIENT: GEL Engineering of NC, Inc
CONTACT: Andrew Eyer PHONE NO: 919-323-4824
PROJECT: U-3810/NCDT00110 SITE/PWSID#: Onslow Co.
REPORTS TO: Andrew Eyer EMAIL: ade@gel.com
INVOICE TO: NCDOT QUOTE #:
WBS# 35801.1.1 P.O. #:

SGS Reference #: G341-617

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(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used		MeOH	NaBi/ MeOH							REMARKS/ LOC ID
							(3) Analysis Required	DRO	GRO	8260	8270						
	S12-11-4	3/22/10	17:10	SO	6	G		X	X	X	X						
	S12-12-4	3/22/10	1730	SO	6	G		X	X	X	X						
	S13-1-4	3/23/10	08:50	SO	6	G		X	X	X	X						
	S13-2-8	3/23/10	09:10	SO	6	G		X	X	X	X						
	S13-3-8		09:30	SO	6	G		X	X	X	X						
	S13-4-4		09:45	SO	6	G		X	X	X	X						
	S13-5-4		09:55	SO	6	G		X	X	X	X						
	S13-6-4		10:20	SO	6	G		X	X	X	X						
	S13-7-8		10:30	SO	6	G		X	X	X	X						
	S14-1-8		11:35	SO	3			X	X								

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
Kurt Olsen	3/24/10	12:40	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

DOD Project? YES NO
Cooler ID _____

Special Deliverable Requirements:

Requested Turnaround Time and-or Special Instructions:

Samples Received Cold? (YES) NO
Cooler TB
Temperature °C: 3.2, 4.2

Chain of Custody Seal: (Circle)
INTACT BROKEN (ABSENT)

NC Certification #481

SGS North America, Inc.

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APPENDIX III

PHOTOGRAPHS SHOWING SOIL BORING LOCATIONS


S13-4
S13-7
S13-3
KENCO AUTO PAINT
1375 PINEY GREEN ROAD
PARCEL 148
S13-2
S13-6
S13-1
S13-5
PINEY GREEN ROAD
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S13-1
S13-2


S13-5
S13-6
S13-7