PRELIMINARY SITE ASSESSMENT

PARCEL 002 – WALTER POWELL
595 BAGLEY ROAD
KENLY, JOHNSTON COUNTY, NORTH CAROLINA
NC PIN: 264600-82-5498
STATE PROJECT: I-3318BB
WBS ELEMENT: 34182.2.1
JUNE 27, 2014

Report prepared for:

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6/27/14

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C-257 –Geology
C-1251 – Engineering

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Acronyms

BLS .....Below Land Surface
BTEX .....Benzene, Toluene, Ethylbenzene, & Xylenes
CADD .....Computer Aided Design and Drafting
COC .....Chain of Custody
CSA.....Comprehensive Site Assessment
DENR.....Department of Environment and Natural Resources
DRO .....Diesel Range Organics
DWM .....Division of Waste Management
EM.....Electromagnetic (as with EM-61)
EPA.....Environmental Protection Agency
GRO .....Gasoline Range Organics
GCLs .....Gross Contaminant Levels
GPR.....Ground Penetrating Radar
HASP .....Health & Safety Plan
MSCC .....Maximum Soil Contaminant Concentration
MTBE .....Methyl Tertiary Butyl Ether
µg/L.....Micrograms per Liter
mg/kg .....Milligrams per kilogram
NPDES.....National Pollutions Discharge Elimination System
NCAC .....North Carolina Administrative Code
NCDOT.....North Carolina Department of Transportation
OSHA.....Occupational Safety and Health Administration
OVA.....Organic Vapor Analyzer
PPM.....Parts Per Million
PID .....Photo-ionization Detector
PSA .....Preliminary Site Assessment
PVC.....Poly-vinyl Chloride
RFP .....Request for Proposal
ROW .....Right of Way
SVOCs .....Semi-volatile Organic Compounds
TW .....Temporary Well
TPH.....Total Petroleum Hydrocarbons
UVF.....Ultraviolet Fluorescence (UVF) QED Analyzer
UST.....Underground Storage Tank
US EPA.....United States Environmental Protection Agency
VOCs.....Volatile Organic Compounds

PRELIMINARY SITE ASSESSMENT
PARCEL 002, WALTER POWELL
595 BAGLEY ROAD
KENLY, JOHNSTON COUNTY, NORTH CAROLINA

EXECUTIVE SUMMARY OF RESULTS

Pyramid Environmental & Engineering P.C. (Pyramid) has prepared this Preliminary Site Assessment (PSA) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for Parcel 002, Walter Powell. The purpose of this assessment was to determine the presence or absence of underground storage tanks (USTs) and impacted soils between the existing edge of pavement and the proposed ROW and/or easements, whichever distance was greater. This PSA is a part of State Project I-3318BB. The PSA was conducted with particular attention to the areas to be cut as indicated by slope stake lines and cross sections or to be excavated for the installation of drainage features. This preliminary site assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's April 23, 2014, technical proposal.

The following statements summarize the results of the PSA:

- **Site History:** On May 6, 2014, Pyramid emailed the Johnston County I-3318BB parcel address (595 Bagley Road in Kenly, NC) to Mr. Jeremy Poplawski, Johnston County Incident Manager, with the Fayetteville Regional Office for the DENR UST Section, with a request to investigate any environmental incidents associated with the parcel. On May 7, 2014, Mr. Poplawski responded to the email and stated that site address came back with two separate environmental incidents. The first was UST# FA-2285 (Incident #16493, mentioned in the NCDOT RFP) which was closed out in 1993. According to NCDENR's notes on file, there are no records in the Fayetteville Regional Office of this incident. Mr. Poplawski checked the physical files and was only able to locate a tank registration form indicating that five tanks were installed in 1991 but no closure dates were found. He had no way of knowing if the tanks are still in the ground.

- The second incident on file is UST# FA-3639 – Incident #29606. This incident was associated with a petroleum release at the Big Boys Truck Stop. The incident was closed out on November 11, 2010 with a Notice of Residual Petroleum deed recordation (Book 3920, Page 13-15. Pyramid reviewed the DENR documents associated with this incident that were provided to us electronically by Mr. Jeremy Poplawski. The following provides a brief summary of the investigations at the site:

- October 2009 – Terraquest submits a Site Check Report for the Big Boys Truck Stop. Diesel contamination was found near the diesel pumps and a 24-Hour Release form was submitted.
- June 2010 – DENR requires that an LSA be performed at the property.
- September 2010 – Terraquest submits an LSA report for the property. They recommended that the site be closed out with a low risk and commercial land use ranking, along with a Notice of Residual Petroleum due to groundwater contamination.
- November 2010 – Terraquest submits a Notice of Residual Petroleum
- November 2010 – DENR approves a No Further Action for the property and closes the incident.

On May 13, 2014, Pyramid Project Manager Eric Cross performed a site visit at the property. The property contained an active truck stop (Big Boys Truck Stop) with fuel pumps, a convenience store, and a restaurant on the southwest portion of the parcel. Active USTs were associated with Big Boys Truck Stop (5 USTs, in accordance with the above research of DENR documents for the site). A second restaurant and building were located to the north of the main truck stop. Mr. Cross also observed at least three fill ports in front (west) of this second restaurant.

It should be noted that the entire area containing the USTs and truck stop is located a significant distance west of the NCDOT proposed construction at the bridge location. Specifically, the active UST area is approximately 800 feet west of the beginning of NCDOT proposed construction, and approximately 1000 feet west of the nearest surface water body (the Neuse River).

Mr. Cross interviewed the parcel owner, Mr. Walter Powell, during the site visit. Mr. Powell was not aware of any open environmental incidents associated with his parcel. He verified that active USTs are present at the truck stop facility. He was also not aware of any structures that may have been present in the past at the location of the proposed NCDOT construction, and he indicated that to his knowledge that area has always been undeveloped.

- **Geophysical Survey**: A significant portion of the parcel was inaccessible due to dense/tall vegetation, steep slopes and forest. All of the EM61 anomalies detected could be attributed to visible objects at the ground surface such as fences, signs, or marked underground utilities. The geophysical investigation did not record evidence of metallic USTs at the property.

- **Limited Soil Assessment:** A total of six borings were performed across the property. Soil samples were screened with a PID, and select soil samples were

analyzed for DRO and GRO using a QED Analyzer. The DENR action levels for both TPH-GRO and TPH-DRO are 10 mg/kg. None of the samples analyzed exhibited DRO and GRO concentrations above 10 mg/kg. All QED results were either below 10 mg/kg DRO/GRO or at levels below detection by the instrument.

- **Limited Groundwater Assessment:** Groundwater was not encountered in any of the borings down to their termination depths, therefore, it is unlikely the NCDOT will encounter groundwater during their construction activities. All borings met refusal at their termination depths, preventing further advancement to investigate the potential of a deeper water table. A temporary well was not installed due to the lack of shallow groundwater at the site and the shallow refusal depths in all borings.

- **Contaminated Soil Volumes:** No evidence of petroleum-impacted soils (DRO/GRO > 10mg/kg) was observed during this investigation. Therefore, no recommendations for the treatment, handling, or disposal of such materials are warranted.

  It should be noted that, if impacted soil is encountered during road construction outside of the area analyzed by this investigation, the impacted soil should be managed according to NC DENR Division of Waste Management (DWM) Guidelines and disposed of at a permitted facility.

1.0 Introduction

Pyramid Environmental & Engineering P.C. (Pyramid) has prepared this Preliminary Site Assessment (PSA) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for Parcel 002, Walter Powell. The Walter Powell property is currently operating as a truck stop service station and restaurant at 595 Bagley Road, Kenly, NC. This preliminary site assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's April 23, 2014, technical proposal. This PSA is a part of State Project I-3318BB.

The purpose of this assessment was to determine the presence or absence of underground storage tanks (USTs) and impacted soils between the existing edge of pavement and the proposed ROW and/or easements, whichever distance was greater. The PSA was conducted with particular attention to the areas to be cut as indicated by slope stake lines and cross sections or to be excavated for the installation of drainage features between the existing edge of pavement and proposed ROW/easements. The location of the subject site is shown on **Figure 1**.

1.1 Background Information

Based on the NCDOT's April 15, 2014, *Request for Technical and Cost Proposal*, the PSA was conducted between the existing edge of pavement and the proposed ROW and/or easements, whichever distance was greater, with emphasis on the areas to be cut as indicated by slope stake lines and cross sections or to be excavated for the installation of drainage features and/or other utilities, in accordance with the CADD files provided to Pyramid by the NCDOT. The PSA included the following:

- Research the properties for past uses and possible releases.
- Conduct a preliminary geophysical site assessment and limited soil assessment across the entire parcel with emphasis on the areas to be cut as indicated by slope stake lines and cross sections or to be excavated for the installation of drainage features and/or other utilities.
- If a NCDENR Groundwater Incident has been assigned to a parcel, then a single groundwater sample will be collected (or attempted) from the parcel if groundwater is encountered in any of the soil borings on that parcel incidentally during the course of attaining the depths required for objective of soil sampling. At parcels without NCDENR assigned Groundwater Incidents, if groundwater is likely to be encountered by subsequent excavation required by construction, then Pyramid will attempt to obtain a groundwater sample from the parcel.

1.2 Project Information

Prior to field activities, a Health and Safety Plan was prepared. Prior to drilling activities, the public underground utilities were located and marked by the North Carolina One-Call Service. A private utility locator, Northstate Utility Locating Incorporated of Colfax, North Carolina was used to mark the on-site private, buried utilities.

2.0 Site History

The NCDOT description of Parcel 002 in the RFP provided to Pyramid on April 15, 2014, provided the following background information related to the site:

> *"The site was observed to be an active gas station during a site reconnaissance on June 9, 2011. The site is located on the eastern side of Bagley Road, approximately 650 feet south of I-95. According to NCDENR's UST Section Registry there are five active USTs located on this property. The USTs were observed in the northwestern corner of the property. Groundwater incident 16493 has been assigned to this site."*

Pyramid interviewed DENR personnel, interviewed property owners, and reviewed aerial photographs to assess past uses of the property. Pyramid reviewed historical aerial photographs obtained from the Johnston County GIS website and Google Earth dating back to 1937. The 1937, 1948, 1956, 1971, 1988, 1993, 1999, 2004, 2006, 2008, 2009 and 2012 aerial photographs are included in **Appendix A**. Historical information reviewed as part of the PSA indicated that the Walter Powell property was first developed for commercial use between 1971 and 1988. The earliest aerial that appeared to show the building was the 1988 aerial. The 1971 aerial photo shows the property to be undeveloped agricultural land. Currently, the west side of the property contains the Big Boys Truck Stop facility, which includes a fuel service station and restaurant. Additionally, a second building is located to the north of Big Boys that houses a second restaurant. Fill ports were observed in front (west) of this second building as well as those associated with the Big Boys active fuel pumps. The NCDOT area of interest in not in close proximity to these structures.

On May 6, 2014, Pyramid emailed the Johnston County I-3318BB parcel address (595 Bagley Road in Kenly, NC) to Mr. Jeremy Poplawski, Johnston County Incident Manager, with the Fayetteville Regional Office for the DENR UST Section, with a request to investigate any environmental incidents associated with the parcel. On May 7, 2014, Mr. Poplawski responded to the email and stated that site address came back with two separate environmental incidents. The first was UST# FA-2285 (Incident #16493, mentioned in the NCDOT RFP) which was closed out in 1993. According to NCDENR's notes on file, there are no records in the Fayetteville Regional Office of this incident. Mr.

Poplawski checked the physical files and was only able to locate a tank registration form indicating that five tanks were installed in 1991 but no closure dates were found. He had no way of knowing if the tanks are still in the ground.

The second incident on file is UST# FA-3639 – Incident #29606. This incident was associated with a petroleum release at the Big Boys Truck Stop. The incident was closed out on November 11, 2010 with a Notice of Residual Petroleum deed recordation (Book 3920, Page 13-15. Pyramid reviewed the DENR documents associated with this incident that were provided to us electronically by Mr. Jeremy Poplawski. The documents included: 1) A Terraquest Environmental Consultants, PC (Terraquest) Site Check Report, 2) A UST-61 24-Hour Release and UST Leak Reporting Form, 3) A Terraquest Limited Site Assessment (LSA) Report, 4) Various DENR correspondence, 5) Letters of No Further Action and a Notice of Residual Petroleum from the DENR. The following provides a brief summary of the investigations at the site:

- October 2009 – Terraquest submits a Site Check Report for the Big Boys Truck Stop. Diesel contamination was found near the diesel pumps and a 24-Hour Release form was submitted.
- June 2010 – DENR requires that an LSA be performed at the property.
- September 2010 – Terraquest submits an LSA report for the property. They recommended that the site be closed out with a low risk and commercial land use ranking, along with a Notice of Residual Petroleum due to groundwater contamination.
- November 2010 – Terraquest submits a Notice of Residual Petroleum
- November 2010 – DENR approves a No Further Action for the property and closes the incident.

The associated reports and letters are included in **Appendix B**.

On May 13, 2014, Pyramid Project Manager Eric Cross performed a site visit at the property. The property contained an active truck stop (Big Boys Truck Stop) with fuel pumps, a convenience store, and a restaurant on the southwest portion of the parcel. Active USTs were associated with Big Boys Truck Stop (5 USTs, in accordance with the above research of DENR documents for the site). A second restaurant and building were located to the north of the main truck stop. Mr. Cross also observed three fill ports in front (west) of this second restaurant.

It should be noted that the entire area containing the USTs and truck stop is located a significant distance west of the NCDOT proposed construction at the bridge location. Specifically, the active UST area is approximately 800 feet west of the beginning of NCDOT proposed construction, and approximately 1000 feet west of the nearest surface water body (the Neuse River).

Mr. Cross interviewed the parcel owner, Mr. Walter Powell, during the site visit. Mr. Powell was not aware of any open environmental incidents associated with his parcel. He verified that active USTs are present at the truck stop facility. He was also not aware of any structures that may have been present in the past at the location of the proposed NCDOT construction, and he indicated that to his knowledge that area has always been undeveloped.

3.0 Geophysical Investigation

Pyramid's classifications of USTs for the purposes of this PSA report are based directly on the geophysical UST ratings provided to us by the NCDOT. These ratings are as follows:

Geophysical Surveys for Underground Storage Tanks
on NCDOT Projects

High Confidence	Intermediate Confidence	Low Confidence	No Confidence
Known UST Active tank - spatial location, orientation, and approximate depth determined by geophysics.	**Probable UST** Sufficient geophysical data from both magnetic and radar surveys that is characteristic of a tank. Interpretation may be supported by physical evidence such as fill/vent pipe, metal cover plate, asphalt/concrete patch, etc.	**Possible UST** Sufficient geophysical data from either magnetic or radar surveys that is characteristic of a tank. Additional data is not sufficient enough to confirm or deny the presence of a UST.	Anomaly noted but not characteristic of a UST. Should be noted in the text and may be called out in the figures at the geophysicist's discretion.

Pyramid performed electromagnetic (EM) and ground penetrating radar (GPR) surveys across the accessible portions of the Parcel. A significant portion of the parcel was inaccessible due to dense/tall vegetation and forest. All of the EM61 anomalies detected could be attributed to visible objects at the ground surface such as fences, signs, and other cultural features. The geophysical investigation did not record evidence of metallic USTs within the area of investigation on the east portion of the property.

The full details of the geophysical investigation are included in the Geophysical Investigation Report as **Appendix C**.

4.0 Soil Sampling Activities & Results

4.1 Soil Assessment Field Activities

On June 3 and 4, 2014, Pyramid mobilized to the site, drilled soil borings and collected the proposed soil samples for the PSA. Six (6) soil borings (2-1 through 2-6) were advanced on the subject property between the NCDOT proposed ROW and easements, and edge of pavement. Four of the soil borings were completed using a truck mounted GeoProbe drill rig, and two borings were completed using a hand auger. The selected locations were chosen to avoid public utilities along the adjacent roads and private

utilities associated with the business while remaining in the proposed right of way and/or easement.

The soil borings were installed at or adjacent to proposed drainage features, as indicated by the NCDOT engineering plans, or generally within the proposed ROW and/or easement to obtain additional information. The locations of the borings are shown on **Figure 2**.

Soil samples were continuously collected in four-foot long disposable sleeves (or directly from the hand auger bucket for borings 2-5 and 2-6) from each boring for geologic description, and visual examination for signs of contamination. Soil recovered from each sleeve was screened in the field using a Photo-Ionization Detector (PID) approximately every 2 feet depending on the soil recovery of each sleeve. In general, the soil sample with the highest PID reading was selected from each boring for laboratory analysis. If field screening detected an elevated reading, then additional soil samples from each boring were selectively analyzed with the QED UVF HC-1 Analyzer. The soil boring logs with the soil descriptions, visual examination, and PID screening results are included in **Appendix D**. The PID field screening results are summarized in **Table 1**. To prevent cross contamination, new disposable nitrile gloves were worn by the sampling technician during the sampling activities, and were changed between samples. No petroleum odor was detected in any of the borings during the field screening.

The soil samples selected for Total Petroleum Hydrocarbon (TPH) analyses were analyzed utilizing the QED UVF HC-1 Analyzer system from QROS-US. The NCDOT has indicated that this instrument is an acceptable method to provide total petroleum hydrocarbon (TPH) results for soil analysis for the PSA projects. Pyramid's QED-certified technician performed the soil analyses. The soil samples selected for analysis using the QED Analyzer were analyzed for TPH as diesel range organics (DRO) and TPH as gasoline range organics (GRO). The soil samples selected for analysis using the QED were preserved in the field with methanol and were analyzed at the end of each day using the QED.

4.2 Soil Sample Analytical Results

QED Results

The DENR action levels for both TPH-GRO and TPH-DRO are 10 mg/kg. Soil samples were screened with a PID, and select soil samples were analyzed for DRO and GRO using a QED Analyzer. None of the soil samples analyzed exhibited DRO and GRO concentrations above 10 mg/kg. The soil sample QED results are summarized in **Table 2**. A copy of the QED analysis report is included in **Appendix D**.

4.3 Temporary Monitoring Well Installation

Groundwater was not encountered in any of the borings down to their termination depths, therefore, it is unlikely the NCDOT will encounter groundwater during their construction

activities. All borings met refusal at their termination depths, preventing further advancement to investigate the potential of a deeper water table. A temporary well was not installed due to the lack of shallow groundwater at the site and the shallow refusal depths in all borings.

4.4 Groundwater Analytical Results

As discussed above, a groundwater sample was not obtained at the property, therefore, no laboratory analysis of groundwater was performed.

5.0 Conclusions and Recommendations

As requested by NCDOT, Pyramid has completed a PSA at the Walter Powell property located at 595 Bagley Road, Kenly, NC (Parcel 002). The following is a summary of the assessment activities and results. Personnel logs for all field work are included in **Appendix E.**

5.1 Geophysical Investigation

A significant portion of the parcel was inaccessible due to dense/tall vegetation and forest. All of the EM61 anomalies detected could be attributed to visible objects at the ground surface such as fences, signs, and other cultural features. The geophysical investigation did not record evidence of metallic USTs within the area of investigation on the east portion of the property.

5.2 Limited Soil Assessment

The DENR action levels for both TPH-GRO and TPH-DRO are 10 mg/kg. Soil samples were screened with a PID, and select soil samples were analyzed for DRO and GRO using a QED Analyzer. None of the samples analyzed exhibited DRO and GRO concentrations above 10 mg/kg. All QED results were either below 10 mg/kg DRO/GRO or at levels below detection by the instrument.

5.3 Limited Groundwater Assessment

Groundwater was not encountered in any of the borings down to their termination depths, therefore, it is unlikely the NCDOT will encounter groundwater during their construction activities. All borings met refusal at their termination depths, preventing further advancement to investigate the potential of a deeper water table. A temporary well was not installed due to the lack of shallow groundwater at the site and the shallow refusal depths in all borings.

5.4 Recommendations

Petroleum-Impacted Soils

No evidence of petroleum-impacted soils (DRO/GRO > 10mg/kg) was observed during this investigation. Therefore, no recommendations for the treatment, handling, or disposal of such materials are warranted.

It should be noted that, if impacted soil is encountered during road construction outside of the area analyzed by this investigation, the impacted soil should be managed according to NC DENR Division of Waste Management (DWM) Guidelines and disposed of at a permitted facility.

6.0 Limitations

The results of this preliminary investigation are limited to the boring locations completed during this limited assessment and presented in this report. The laboratory results only reflect the current conditions at the locations sampled on the date this PSA was performed.

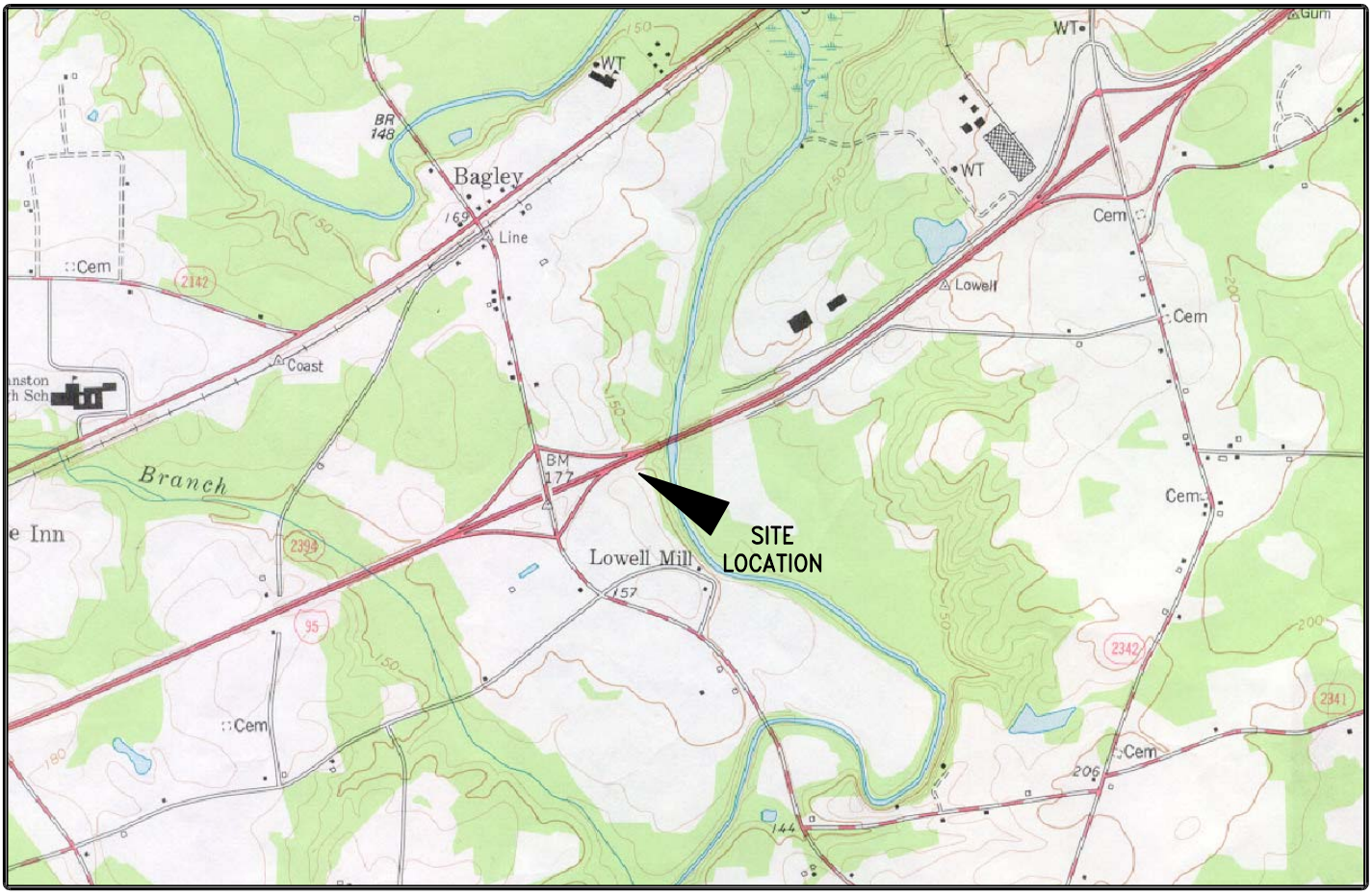
7.0 Closure

This report was prepared for, and is available solely for use by NCDOT and their designees. The contents thereof may not be used or relied upon by any other person without the express written consent and authorization of Pyramid Environmental & Engineering, P.C. (Pyramid). The observations, conclusions, and recommendations documented in this report are based on site conditions and information reviewed at the time of Pyramid's investigation. Pyramid appreciates the opportunity to provide this environmental service.

FIGURES

USGS TOPOGRAPHIC MAP

SITE: 595 BAGLEY ROAD. LOCATION: KENLY, NORTH CAROLINA



USGS IDENTIFICATION

USGS 7.5 MINUTE MAP	KENLY WEST, N.C.
ORIGINAL DATE:	1978
PHOTOREVISION DATE:	NA

	PRIMARY HIGHWAY, HARD SURFACE
	SECONDARY HIGHWAY, HARD SURFACE
	LIGHT-DUTY ROAD HARD OR IMPROVED SURFACE
	UNIMPROVED ROAD
	STATE ROAD
	U.S. ROUTE
	INTERSTATE ROUTE

SCALES

MILES: 1/2 0 1

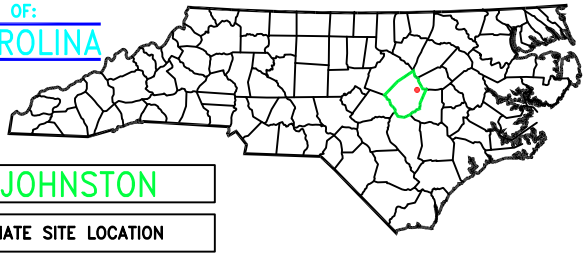
FEET: 1000 0 2000 4000 6000

1" = 2000'

NOTES: ▶ TOPOGRAPHICAL CONTOUR INTERVAL = 10 FEET
▶ PHOTOREVISIONS DENOTED IN PURPLE

MAGNETIC NORTH

COUNTY MAP OF: NORTH CAROLINA



COUNTY: JOHNSTON

APPROXIMATE SITE LOCATION

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT: NC DOT I-3318BB

PROPERTY NAME: PARCEL 002, WALTER POWELL

CITY: KENLY STATE: NORTH CAROLINA

TITLE: TOPOGRAPHIC MAP

SCALE: 1"=2000'

DATE: 6/16/14

DRAWING NAME: USGSTOPO

DRAWN BY: KAM

CHECK BY: TDL

JOB NO.: 2014-093

TYPE: PSA

FIGURE NUMBER: 1

NOTES

TOPOGRAPHIC MAP USED IN THIS GRAPHIC IS MAPPED, EDITED, AND PUBLISHED BY THE UNITED STATES GEOLOGIC SURVEY, DEPARTMENT OF THE INTERIOR, RESTON VIRGINIA.

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.

-LRPA- POT Sta. 10+00.00
-L- POT Sta. 21+00.00 OFF 39 LT

002-5(4-6')
(0.33)
[<0.7]

002-4(0-2')
(<0.13)
[<0.7]

002-3(0-2')
(0.26)
[<0.6]

002-2(4-6')
(1.06)
[<0.7]

002-1(4-6')
(<0.13)
[<0.6]

002-6(1-2')
(0.49)
[<0.7]

002-7(3-4')
(0.31)
[<0.7]

LEGEND

- PROPOSED UTILITY EASEMENT
- EXISTING ROW
- EXISTING PROPERTY BOUNDARY
- PROPOSED ROW
- PROPOSED CONST. EASEMENT
- PROP. DRAINAGE UTIL. EASEMENT
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE
- PROPOSED SS TRANSITION LINE
- PROPOSED DRAINAGE PIPING

SOIL SAMPLE BORING LOCATION

BORING CONVERTED TO MONITORING WELL

AREA OF CONTAMINATION (>10 PPM)

(<6.1) TPH-DRO concentration (mg/kg)
[<6.1] TPH-GRO concentration (mg/kg)

0 50 100
FEET

N

TITLE
SOIL BORING LOCATIONS AND
ESTIMATED AREA OF CONTAMINATION

PROJECT
NCDOT ROW PROJECT I-33188B (34182.2.1)
WALTER POWELL - PARCEL 002
BAGLEY ROAD, JOHNSTON COUNTY, NC

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DATE: 6-11-14 | REVISION NO. 0

PYRAMID PROJECT NO. 2014-093 | FIGURE NO. 2

TABLES

TABLE 1
Summary of Soil Field Screening Results
NCDOT Project I-3318BB
595 Bagley Road - Parcel 002
Kenly, Johnston County, North Carolina

SOIL BORING	SAMPLE ID	DEPTH (feet bgs)	PID READINGS (PPM)
2-1	2-1(0-2)	0 to 2	1.0
	2-1(2-4)	2 to 4	7.0
	2-1(4-6)	4 to 6	10.0
2-2	2-2(2-4)	2 to 4	11.0
	2-2(4-6)	4 to 6	15.0
	2-2(6-8)	6 to 8	12.0
2-3	2-3(0-2)	0 to 2	11.0
2-4	2-4(0-2)	0 to 2	11.0
2-5	2-5(0-2)	0 to 2	12.0
	2-5(2-4)	2 to 4	11.0
	2-5(4-6)	4 to 6	8.0
2-6	2-6(0-1)	0 to 1	6.9
	2-6(1-2)	1 to 2	28.0
	2-6(2-4)	2 to 4	18.4
2-7	2-7(0-1)	0 to 1	17.5
	2-7(1-3)	1 to 3	22.0
	2-7(3-4)	3 to 4	26.5

bgs= below ground surface

PID= photo-ionization detector

PPM= parts-per-million

= sampled for lab analysis &/or QROS-QED analysis

OVA= Organic Vapor Analyzer

TABLE 2

Summary of Soil Sample QED Analytical Results for GRO/DRO

NCDOT State Project I-3318BB
595 Bagley Road - Parcel 002
Kenly, Johnston County, North Carolina

				QROS - QED Analysis		
SAMPLE ID	**DATE**	**DEPTH (feet)**	**PID (ppm)**	**GRO (mg/kg) (C5-C10)**	**DRO (mg/kg) (C10-C35)**	**TPH (mg/kg) (C5-C35)**
2-1(4-6)	6/3/2014	4 to 6	10.0	<0.6	<0.13	<0.6
2-2(2-4)	6/3/2014	2 to 4	15.0	<0.7	1.06	1.06
2-3(0-2)	6/3/2014	0 to 2	11.0	<0.6	0.26	0.26
2-4(0-2)	6/3/2014	0 to 2	11	<0.7	<0.13	<0.7
2-5(4-6)	6/3/2014	4 to 6	12	<0.7	0.33	0.33
2-6(1-2)	6/4/2014	1 to 2	28	<0.7	0.49	0.49
2-7(3-4)	6/4/2014	3 to 4	26.5	<0.7	0.31	0.31
NC Initial Action Level - UST Section for 5035/5030-GRO; 3550-DRO				10	10	NA

PID= photo-ionizaton detector
PPM= parts-per-million
GRO= Gasoline Range Organics
DRO= Diesel Range Organics
mg/kg= milligrams-per-kilogram
TPH= Total Petroleum Hydrocarbons (GRO + DRO)
NA= Not Applicable
"------" = No Laboratory Analysis

*** Bold values indicate concentrations above initial action levels**

APPENDIX A


8-15-37
SC-A P6
ABV-21-1949
ABV-21-1951
ABV-63-6054
1937 Aerial
Study Area

1948 Aerial

Study Area

2-27-65

ABV-2FF-283

1965 Aerial

Study Area

2-24-71

1971 Aerial

P-6

ABV - 4 MM - 96

Study Area


37101-2288
183L
1988 Aerial
Study Area

Google earth

feet 500

meters 100

Google earth

feet 500

meters 100

Google earth

feet 500

meters 100

Google earth

feet 500

meters 100

Google earth

feet 500

meters 100

Google earth

feet 500

meters 100

Google earth

feet 500

meters 100

APPENDIX B

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

Ict# 29606

October 28, 2009

Bob Heath
NCDWM-UST Section
Fayetteville Regional Office
Systel Building, Suite 714
225 Green Street
Fayetteville, NC 28301

Re: Site Check Report
Big Boys Truck Stop
595 Bagley Road
Kenly, NC 27542
Terraquest Project Number: 09309
NCDWM-UST Incident No.: Pending
NCDWM-UST Facility ID#: 0-034820

Dear Mr. Heath:

Terraquest Environmental Consultants, P.C., on behalf of Big Boys, Inc., has completed the enclosed Site Check Report for the Big Boys Truck Stop facility located on 595 Bagley Road, in Kenly, NC. Should you have any questions regarding this report please give us a call at (919) 563-9091.

Sincerely,

TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C.

Jonathan R. Grubbs, P.G.
Vice President

Enclosure: Site Check Report

cc: Walter Powell – Big Boys, Inc.

100 E. Ruffin Street • Mebane, North Carolina 27302
Telephone (919) 563-9091 • Facsimile (919) 563-9095
www.terraquestpc.com

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

OCT 30 2009

SITE CHECK REPORT

BIG BOYS, INC.
595 BAGLEY ROAD
KENLY, NORTH CAROLINA

Latitude: 35º 33' 58.71" N Longitude: 78º 9' 55.86" W
35.5663083 78.165516

Release Information

Date Discovered: September 18, 2009 (Lab Confirmed)
Estimated Release Quantity: Unknown
Release Cause/Source: Diesel Dispensers #1 & #2
NCDWM-UST Facility ID: 0-034820
NCDWM-UST Incident No.: Pending

UST System Owner/Responsible Party
Big Boys, Inc.
Post Office Box 280
Kenly, NC 27541

Property Owner:
Walter Lee Powell
Post Office Box 280
Kenly, NC 27541

TerraQuest Project No. 09309
October 12, 2009

100 E. Ruffin Street • Mebane, North Carolina 27302
Telephone (919) 563-9091 • Facsimile (919) 563-9095
www.terraquestpc.com

CERTIFICATION FOR THE SUBMITTAL
OF AN ENVIRONMENTAL / GEOLOGICAL ASSESSMENT

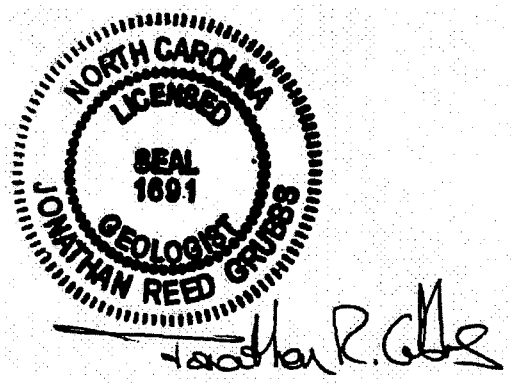
Attached is the Site Check Report for:

Release Address:	Big Boys, Inc.		
Address:	595 Bagley Road		
City:	Kenly	State: NC	Zip Code: 27542
Phone:	(919) 284-4046		

Property Owner:	Big Boys, Inc.		
Address:	Post Office Box 280		
City:	Kenly	State: NC	Zip Code: 27542
Phone:	(919) 284-4046		

I, Jonathan R. Grubbs, a Licensed Geologist in the State of North Carolina for TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C. do hereby certify that I am familiar with and have reviewed all material including figures within this report and that to the best of my knowledge the data, site assessments, figures, and other associated materials are correct and accurate. All work was performed under my direct supervision. My seal and signature are affixed below. Additional seals and/or signatures are also affixed below.

TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C.



Jonathan R. Grubbs, P.G.
Vice President

TABLE OF CONTENTS

1.0 INTRODUCTION

On behalf of Big Boys, Inc., Terraquest Environmental Consultants, P.C. (Terraquest) has performed site check activities in the vicinity of the diesel dispensers #1 and #2 of the commercial underground storage tank (UST) system located at the Big Boys, Inc. truck stop property located at 595 Bagley Road in Kenly, NC. A site check of the #1 & #2 diesel dispensers was performed as the result of a compliance inspection that was performed by Pam Harrelson of the North Carolina Division of Waste Management – UST Section (NCDWM-UST). The inspection suggested that a suspected release at the #1 & #2 diesel dispensers due to the presence of stained soil/gravel beneath the dispensers. Terraquest spoke with Ms. Harrelson and determined that the NCDWM-UST wanted the site check assessment to investigate the soils in the vicinity of the #1 & #2 diesel dispensers. The scope of this report documents the site check activities performed at the subject property. The site location is shown in Figure 1. A site layout map is included in Figure 2.

The following contractor contacts are applicable to the Site Check activities:

Primary Consultant:

Terraquest Environmental Consultants, P.C.
100 E. Ruffin Street, Mebane, NC 27302
(919) 563-9091

Laboratory:

Accutest Laboratories Southeast
4405 Vineland Road, Suite C-15
Orlando, FL 32811
(407) 425-6700
State Certification No. 573

2.0 SITE HISTORY & SITE VICINITY INFORMATION

According to the NCDWM-UST Registered Petroleum UST Database, the UST system at the subject property was installed on January 8, 1991 and consists of three 12,000-gallon gasoline and two 20,000-gallon diesel USTs. The USTs are of steel construction. The product lines of fiberglass

construction. The dispensers do not have containment sumps located beneath them. The product type, capacity, date installed, date closed, and release detection information for the UST system are listed in Table 1.

The site is a convenience storage and truck stop at an exit along Interstate 95. Surrounding properties are primarily agricultural and residential with another truck stop located to the north of Interstate 95. The site and surrounding properties are believed to derive their drinking water from the City of Kenly municipal water supply system.

The site is located in the Eastern Slate Belt Physiographic Province of North Carolina. Regolith soils in the surrounding area are mostly sandy clays. Bedrock was not encountered in any of the soil borings. The closest surface water body Little River is located approximately 950 feet to the east.

3.0 INITIAL ABATEMENT ACTIVITIES

3.1 Site Check Activities

On August 13, 2009, Terraquest mobilized to the Big Boy's, Inc. property to collect soil samples beneath the #1 and #2 dispensers as per the NCDWM-UST Site Check soil sampling protocol. Due to the presence of pea gravel immediately beneath the dispensers and the inability to move the dispensers for easier access, soil borings could not be advanced into soils beneath the dispensers. On September 2, 2009, Terraquest returned to the facility with a Geoprobe direct push machine to advance a soil sampler between the dispensers and through the pea gravel. The location of soil boring was located in between the #1 & #2 diesel dispensers. A soil sample was collected from the soil boring (B1). A discussion of the soil sampling procedures and results is continued in Section 4.0.

The B1 boring was advanced in soils to a depth of 8.5 feet below ground level (BGL), a depth below the estimated bottom of the dispenser. Table 2 lists the sample depth for B1. The location of boring B1 is identified in Figure 2.

4.0 FIELD AND LABORATORY ANALYSES

4.1 Soil Sampling Methodology and Results – Site Check

Soil sample B1 was collected at the site using direct push technology. Direct push technology consists of advancing a sampling device into the subsurface soils by applying static pressure, by applying impacts, by applying vibration, or any combination thereof, to the above ground portion of the sampler extensions until the sampler has advanced to the desired depth (ASTM D6282). A single tube sample system was utilized to collect soil samples. A single tube sample system uses a hollow extension / drive rod to advance and retrieve the sampler. Within the hollow extension is a new, single-use, PVC sleeve that the soil sample is collected within. The sampler was decontaminated using a Liquinox and tap water solution between each boring. The specific direct push equipment utilized was a Geoprobe® 6610DT.

Soil sample B1 was submitted for laboratory analysis by EPA Method 8015 using the sample preparation method 5030 and extraction method 3550. The sample was placed in laboratory-prepared containers by Terraquest personnel donning new nitrile gloves. The soil sample was labeled with the sample location, sample depth, sample identification, date of collection, time of collection, and the analytical method. The sample was immediately placed on ice, sent to a North Carolina-certified laboratory, and analyzed before the expiration of the analytical methods prescribed holding time. Chain-of-custody documentation was maintained for the sample collected. Technical methods and standards procedures utilized by Terraquest during the assessment for soil boring installation, protocol for the PID screening instrument, and equipment decontamination procedures are included in Appendix A.

Soil lithologies encountered during the borings included mostly sandy lean clays. The soil boring log for boring B1 is included in Appendix B.

Analytical results revealed the presence of petroleum-type contaminants above the NCDWM-UST Action Limit of 10 milligrams per kilogram (mg/kg) for diesel (3550) in the B1 soil sample at a

concentration of 254 mg/kg. The gasoline (5030) analytical result was 3.90 mg/kg. Analytical results are summarized in Table 2. Sample locations and results are shown in Figure 2. The complete analytical report is contained in Appendix C.

5.0 FREE PRODUCT CHECK

No free product was observed in the soil boring or beneath the dispensers #1 & #2 during the site check activities.

6.0 POTENTIAL SOURCES OF PETROLEUM HYDROCARBONS

An active commercial gasoline and diesel UST system exists at the Big Boys, Inc. property. This UST system was installed in 1991. Prior to the completion of this site check assessment, the UST system had not had previous indications of it operating improperly. Terraquest has attached the product line leak detection report from June 2009. Results of the test reveal that the diesel product lines that supply diesel dispensers #1 & #2 are operating correctly. No other sources of petroleum hydrocarbons were noted in the vicinity of the commercial UST system. A review of the NCDWM-UST Release Incident Database reveals no previous release incidents associated with the current UST system. Copies of the product line tightness tests are included in Appendix E.

7.0 NATURE AND ESTIMATED QUANTITY OF RELEASE

The nature of the release is diesel believed to have originated from the diesel dispensers. This assumption is based upon the analytical results from the soil sample collected from between the diesel USTs. The amount of the release is currently unknown.

8.0 CONCLUSIONS/RECOMMENDATIONS

Terraquest has assembled data regarding the site vicinity and nature of the release in order to comply with Title 15A NCAC 2L and NCAC 2N regulations. Based upon the data gathered from this limited investigation, the following conclusions can be made:

- Analytical results of a soil sample collected from the between the #1 & #2 diesel dispensers confirms that a release has occurred in the vicinity of the diesel dispensers UST.

- Since a release was detected from the #1 & #2 diesel dispensers, Terraquest completed a 24-hr Reporting Form and submitted it to the NCDWM-UST Raleigh Regional Office. A copy of the 24-Hour Reporting Form is included in Appendix D.

- Since in situ soil contamination was detected at concentrations above the 10 mg/kg Action Limit for diesel-type fuels, the NCDWM-UST Guidelines state additional assessment and remedial activities of the release incident may be required, namely classifying the risk ranking.

- Big Boys, Inc. has performed product line tightness tests of the diesel product lines supplying the #1 & #2 diesel dispensers. The test results confirm that the product lines are tight. The dispenser dispensers have also been inspected. Based upon the inspections, they appear to be operating correctly with no overt evidence that they are leaking.

9.0 LIMITATIONS

This report is limited to the investigation of petroleum hydrocarbons in the vicinity of the #1 & #2 diesel dispensers located on the Big Boys, Inc. property. No representations are made concerning any other impacts to the environment except those described in this report. The opinions and conclusions arrived at in this report are in accordance with North Carolina Division of Waste Management regulations and guidelines and industry-accepted geologic and hydrogeologic practices at this time and location. No warranty is implied or intended.

REFERENCES

North Carolina Administrative Code, Title 15A, Chapter 2, Subchapter 2N, Section .0700, January 1, 1991, "Criteria and Standards Applicable to Underground Storage Tanks".

North Carolina Department of Environment and Natural Resources, Division of Waste Management UST Section, UST Section *Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement*, July 1, 2007 Change 2, Effective July 15, 2008.

USGS 7.5-Minute Quadrangle Topographic Maps, Kenly West, North Carolina.

Table 1 SITE HISTORY (UST SYSTEM INFORMATION)

Date 9/16/09 Incident Name: Big Boys Inc. Incident No.: Pending Facility ID No.: 0-034820

[illegible] UST	[illegible] Product	[illegible] Capacity (gallons)	[illegible] Date Installed	[illegible] Tank Closed	[illegible] Release Reported to DWQ
T1	Gasoline	12,000	1/8/1991	In Use	Unknown
T2	Gasoline	12,000	1/8/1991	In Use	Unknown
T3	Gasoline	12,000	1/8/1991	In Use	Unknown
T4	Diesel	20,000	1/8/1991	In Use	Unknown
T5	Diesel	20,000	1/8/1991	In Use	Unknown

Notes:

1. Information obtained from the NC Petroleum UST Database.
3. T1 through T5 steel construction.

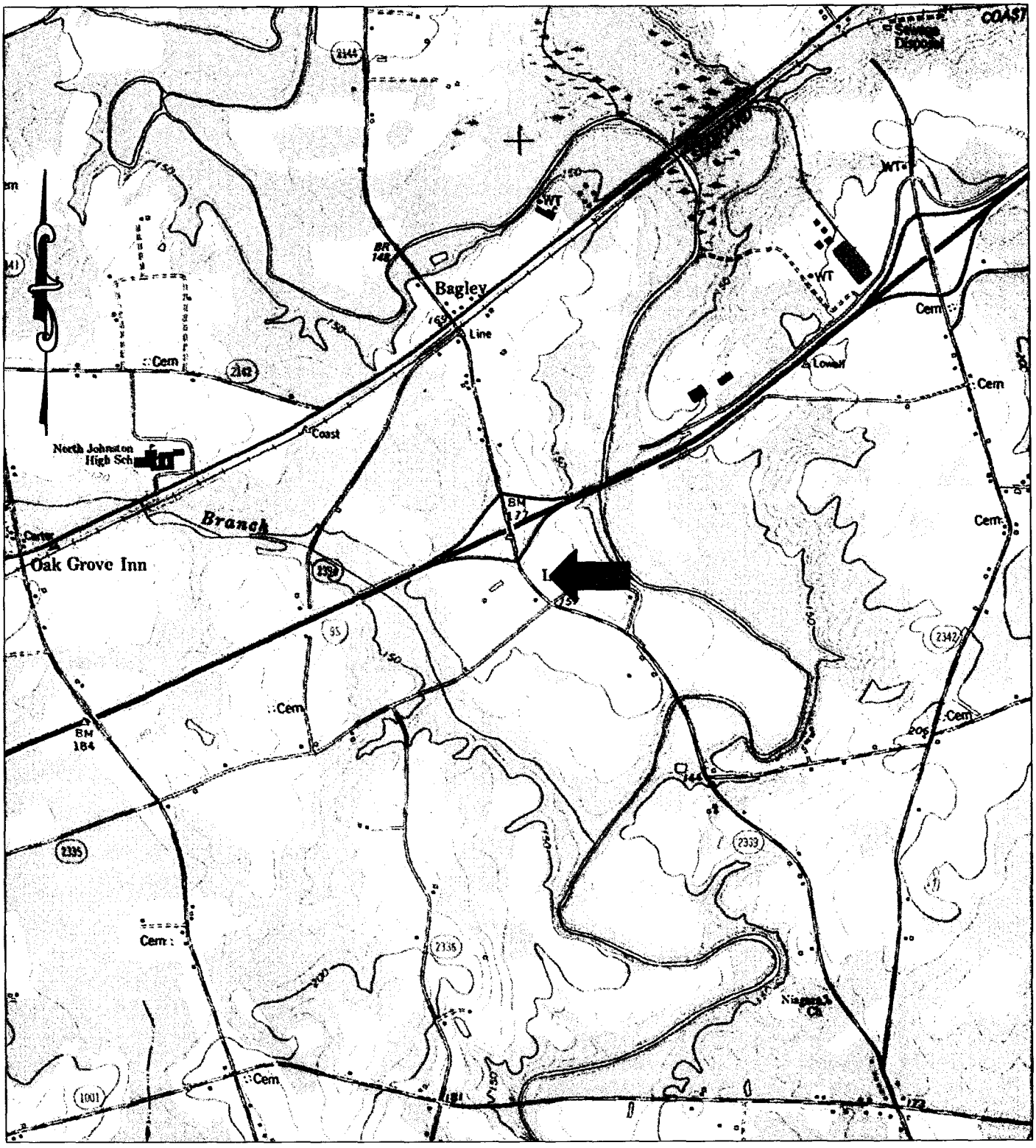
Table 2 Summary of Soil Sampling Results

Date: 9/18/09 Incident Name: Big Boys Inc. Incident No.: Pending Facility ID No.: 0-034820

Analytical Method				5030/GRO	3550/GRO
	Contaminant of Concern				
Sample ID	Date Collected	Sample Depth	PID (ppm)	TPH low fraction	TPH high fraction
B1	9/2/09	5.5' - 8.5'	16.1	**3.90**	**254**
TPH Action Level				10	10

Notes:

1. All results in mg/kg = parts per million; all sample depths in feet below ground level; ppm - parts per million.
2. **Bold** denotes a compound detection.
3. Shading denots a TPH Action Level Violation
4. < - denotes less than sample detection limit.



MAP SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP OF KENLY WEST, NC

GRAPHIC SCALE

0' 2,000' 4,000'

TERRAquest

ENVIRONMENTAL CONSULTANTS, P.C.

SITE LOCATION MAP

BIG BOYS, INC.
595 BAGLEY ROAD
KENLEY, NC

BIG BOYS, INC.			KENLY, NC
PROJECT NO. 09309	DRAWN BY: JRG	DATE: 9/30/09	
SCALE: 1" = 2000'	CHECKED BY: MJB	FIGURE NO. 1	

LEGEND

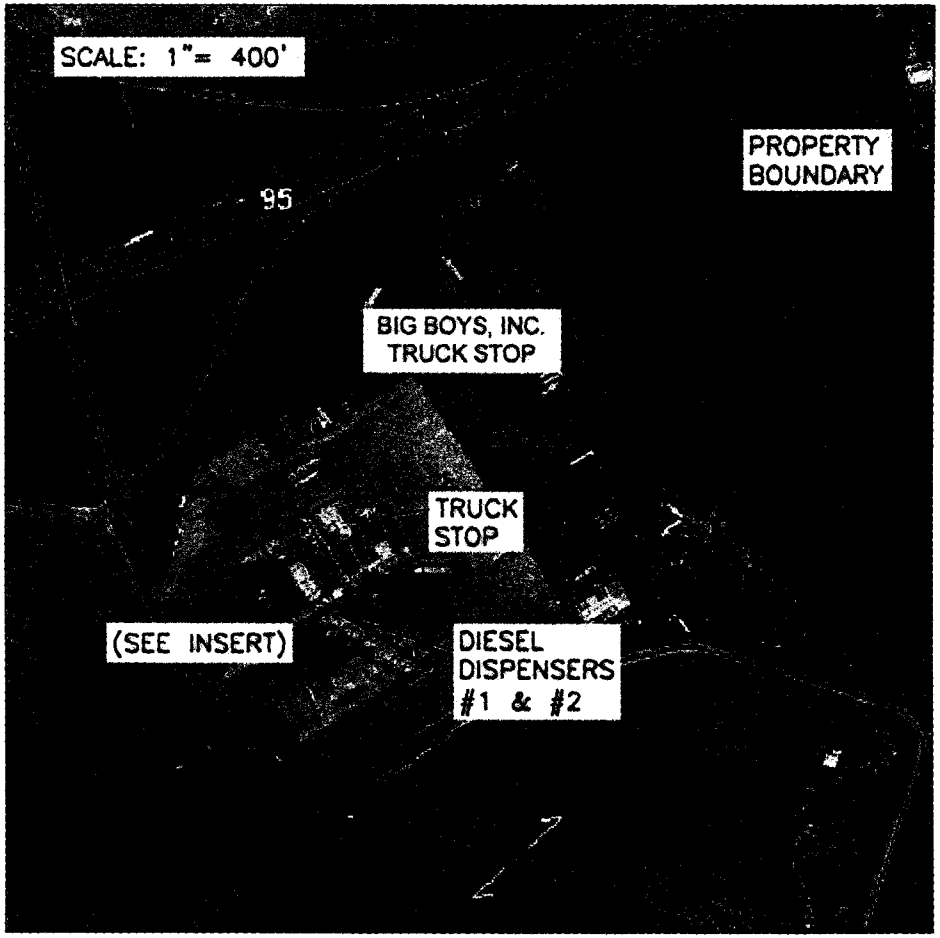
● SOIL SAMPLE LOCATION

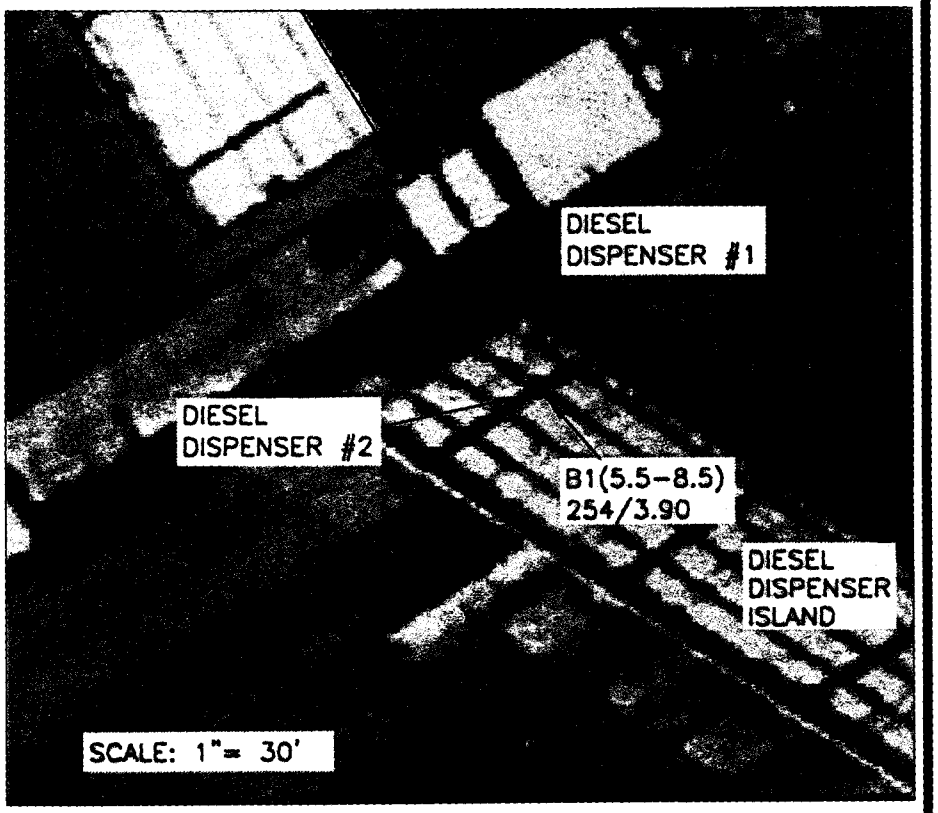
B1 (5.5–8.5) (SAMPLE DEPTH IN FEET BELOW GROUND SURFACE)

254/3.90 TPH DRO (3550)/ TPH 5030 (GRO) ANALYTICAL RESULTS

ALL RESULTS IN MILLIGRAMS PER KILOGRAM (MG/KG).

SEE THE ANALYTICAL RESULTS IN TABLE 2 AND COMPLETE ANALYTICAL REPORT IN APPENDIX C.





SITE LAYOUT & SOIL SAMPLE MAP

BIG BOYS, INC.
595 BAGLEY ROAD
KENLY, NC

BIG BOYS, INC. KENLY, NC

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

PROJECT NO.	09309	DATE:	10/15/09
CHECKED BY:	MJB	SCALE:	VARIES
DRAWN BY:	JRG	FIGURE NO.	2

UST-61 — 24-Hour Release and UST Leak Reporting Form

For Releases in NC

This form should be completed and submitted to the UST Section's regional office following a known or suspected release from an underground storage tank (UST) system. This form is required to be submitted within 24 hours of discovery of a known or suspected release

(DWM USE ONLY)
Incident # _____ Risk (H,I,L,U)_____
Received On _____ Received By _____
Reported by (*circle one*): Phone, Fax or Report
Region _____

Suspected Contamination? (Y/N) N
Confirmed GW Contamination? (Y/N) N
Confirmed Soil Contamination ?(Y/N) Y
Free Product? (Y/N) N If Yes, State Greatest Thickness _____

Facility ID Number 0-034820
Date Leak Discovered 9/18/09 (Lab)
Comm/Non-Commercial? Comm.
Reg/Non-regulated? Regulated

INCIDENT DESCRIPTION

Incident Name: Big Boys, Inc.

Address: 595 Bagley Road | County: Johnston

City/Town: Kenly | Zip Code: 27542 | Regional Office (*circle one*): Asheville, Mooresville, Fayetteville, (Raleigh) Washington, Wilmington, Winston-Salem

Latitude (decimal degrees): 35° 33' 58.71" Longitude (decimal degrees) : 78° 9' 55.86"

Obtained by:
- ☐ GPS
- ☑ Topographic map
- ☐ GIS Address matching
- ☐ Other
- ☐ Unknown

Describe location:

Briefly describe suspected or confirmed release: *(including but not limited to: nature of release, date of release, amount of release, amount of free product present and recovery efforts, initial responses conducted, impacts to receptors)*

Release detected during the site check investigation of the #1 & #2 diesel dispensers.

Diesel product line tests passed and the dispensers do not appear to be leaking.

The date and quantity of the release is unknown. No free product was detected.

Municipal water is available.

HOW RELEASE WAS DISCOVERED

(Check one)

- ☐ Release Detection Equipment or Methods
- ☐ During UST Closure/Removal
- ☐ Property Transfer
- ☐ Visual/Odor
- ☐ Water in Tank
- ☐ Water Supply Well Contamination
- ☐ Groundwater Contamination
- ☐ Surface Water Contamination
- ☑ Other (specify) Site Check

SOURCE OF CONTAMINATION

Primary Source of Contamination

- ☑ Confirmed UST Release *(Check one below)*:
  - ☑ A. Dispenser
  - ☐ B. Line Release
  - ☐ C. Tank Release
  - ☐ D. Spill/Overfill
  - ☐ E. Exact Failure Location Unknown or Multiple Failures

Primary Contaminant Type *(Check one)*

- ☑ Gasoline/Diesel/Kerosene
- ☐ Heating Oil
- ☐ Other Petroleum Products
- ☐ Metals
- ☐ Other Inorganics
- ☐ Other Organics

Location *(Check one)*

- ☑ Facility
- ☐ Residence
- ☐ Other

Setting *(Check one)*

- ☐ Residential
- ☐ Industrial
- ☐ Urban
- ☑ Rural

Ownership
1. Municipal 2. Military 3. Unknown (4. Private) 5. Federal 6. County 7. State

Operation Type
1. Public Service 2. Agricultural 3. Residential 4. Education/Relig. 5. Industrial (6. Commercial) 7. Mining

IMPACT ON DRINKING WATER SUPPLIES

Water Supply Wells Affected? 1. Yes 2. No (3. Unknown)

Number of Water Supply Wells Affected _____

Water Supply Wells Contaminated: (*Include Users Names, Addresses and Phone Numbers. Attach additional sheet if necessary*)

1.

2.

3.

UST SYSTEM OWNER

UST Owner/Company			
Big Boys, Inc.			
Point of Contact		**Address**	
Walter Powell		Post Office Box 280	
City	**State**	**Zip Code**	**Telephone Number**
Kenly	NC	27542	919-284-4046

UST SYSTEM OPERATOR

UST Operator/Company		Address	
Same as previous			
City	**State**	**Zip Code**	**Telephone Number**

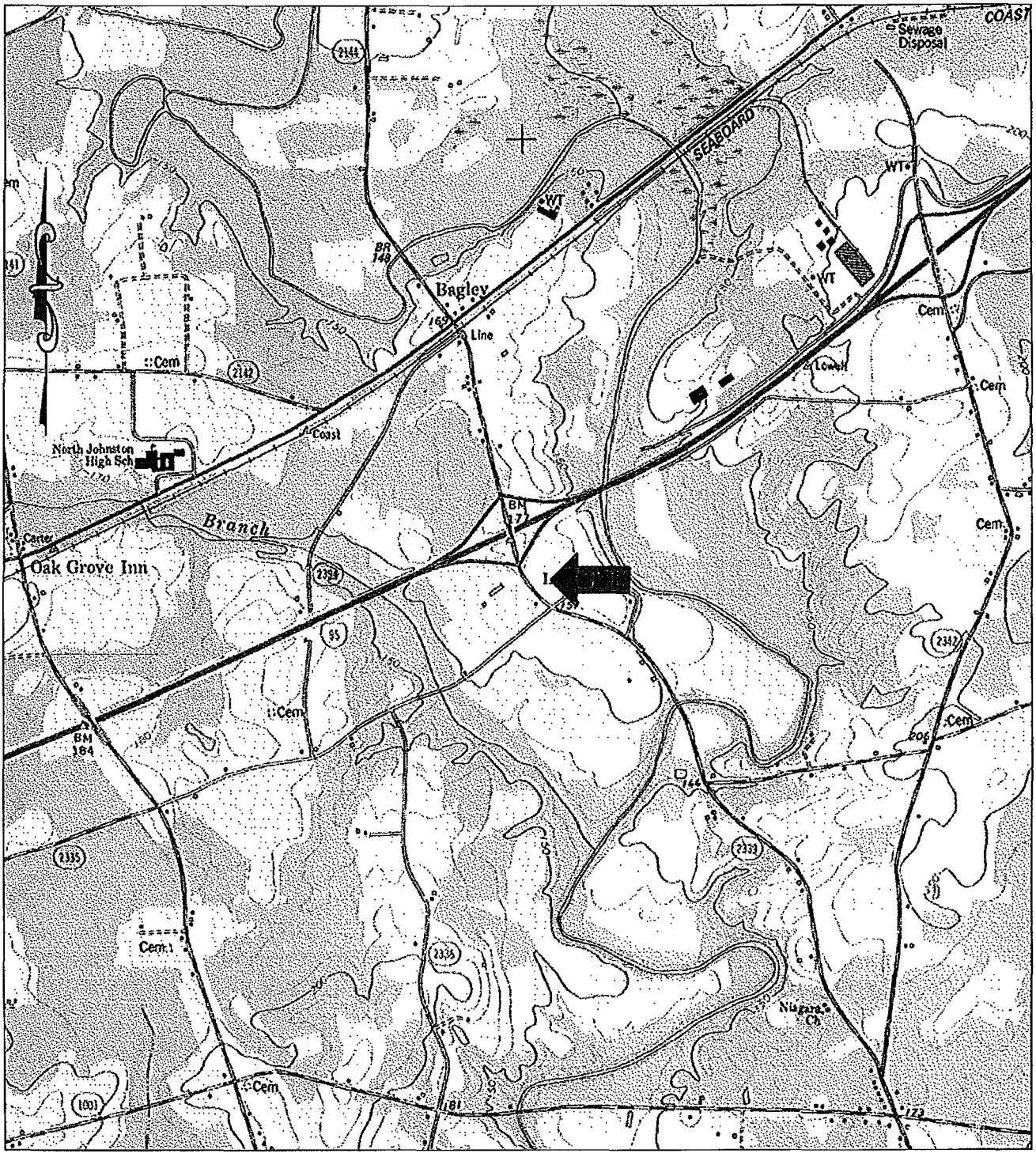
LANDOWNER AT LOCATION OF UST INCIDENT

Landowner		Address	
Walter Powell		Post Office Box 280	
City	**State**	**Zip Code**	**Telephone Number**
Kenly	NC	27542	919-284-4046

Draw Sketch of Area (showing two major road intersections) or Attach Map

See Attached Map

Person Reporting Incident Jonathan Grubbs	Company TerraQuest Environmental Consultants, P.C.	Telephone Number (919) 563-9091
Title Vice President	Address 100 East Ruffin Street, Mebane, NC 27302	Date 9/18/09



MAP SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP OF KENLY WEST, NC

GRAPHIC SCALE

0' 2,000' 4,000'

TERRAquest

ENVIRONMENTAL CONSULTANTS, P.C.

SITE LOCATION MAP

BIG BOYS, INC.
595 BAGLEY ROAD
KENLEY, NC

BIG BOYS, INC.				KENLY, NC
PROJECT NO.	09309	DRAWN BY:	JRG	DATE: 9/30/09
SCALE:	1" = 2000'	CHECKED BY:	MJB	FIGURE NO. 1

ACURITE™

Line Test Data Sheet

Date: June 2, 2009

Location: Bay B. xp
I-95 & Bagley Rd Ex. 105
Kenly, NC. 27542.

Test Number: 20297

Operator: Brian Vick.

6-2-09

Product	Reg. 1	Reg. 2	Premium	Diesel
Pump Manufacturer	Red Jacket	Red Jacket	Red Jacket	Tokheim
Isolation Mechanism (*Pump*)	Isolator	Isolator.	Isolator.	Ball Valves
(*1 1/2 times working pressure*) Test Pressure	50 PSI	50 PSI	50 PSI	50 PSI
Initial Cylinder Level (*ICL*)	.070	.020	.010	.025
Final Cylinder Level (*FCL*)	.070	.020	.010	.025
Leak Volume = ICL - FCL	0	0	0	0
Time Completed	11:30	12:35	1:30	2:55
Time Started	11:00	12:05	1:00	2:25
Total Test Time (*30 min. minimum*)	30	30	30	30
Conclusion (*Pass or Fail*)	Pass	Pass	Pass	Pass
Petroleum Equipment Service Wilson, NC 27893				35

Comments: 3/4

TSC 1000 Leak Detector Tester
DATA COLLECTION AND REPORT FORM

Facility Name: Big Boys

Facility Address: I-95 & Bagley Rd Exit 101
Kenly, N.C 27542

Facility Phone: 919-284-4046 Test Date: June 2, 2009

Test Contractor: Petroleum Equipment Service
711 South Goldsboro Street
Wilson, North Carolina 27893

Contractor Phone#: 252-237-6047

Product	Leak Detector Model	Serial Number	Line PSI	Seating PSI	Slow Flow PSI	Flow Rate at 10 PSI	PASS or FAIL
Regelud	Vapaless	?	29	13	16	2	✓
Reg 2	Vapaless	?	30	15	16	1	✓
Prem	Vapaless	?	28	12	18	2	✓
Diesel	Red Jacket	?	35	18	20	4	✓
Diesel 2	Red Jk	?	35	14	21	4	✓

Test Technician: Brian Vick Signature: Brian Vick

Date: June 2, 2009 Time: 3:30

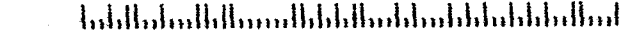
Comments: Leak detector Functioning properly

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

DENR – UST SECTION
FAYETTEVILLE REGIONAL OFFICE
ROBERT HEALTH, HYDROGEOLOGIST II
225 GREEN STREET, SUITE 714
FAYETTEVILLE NC 28301



SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MR. WALTER POWELL
595 BAGLEY ROAD
KENLY NC 27542

JUN 04 2010

DIVISION OF WASTE MANAGEMENT
FAYETTEVILLE REGIONAL OFFICE

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Walter Powell ☐ Agent ☑ Addressee

B. Received by *(Printed Name)*

C. Date of Delivery 6-3-10

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7008 1300 0001 1492 0541

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue, Governor

Division of Waste Management
UST Section

Dee Freeman, Secretary
Dexter R. Matthews, Director

June 2, 2010

CERTIFIED MAIL 7008 1300 0001 1492 0541
RETURN RECEIPT REQUESTED

Mr. Walter Powell
595 Bagley Road
Kenly, NC 27542

Re: Notice of Regulatory Requirements
15A NCAC 2L .0405
Risk-based Assessment and Corrective Action
for Petroleum Underground Storage Tanks

Big Boys Truck Stop
595 Bagley Road, Kenly
Johnston County
Incident Number: 29606
Risk Classification: Unknown
Ranking: Unknown

Dear Mr. Powell:

The Site Check Report received by the UST Section, Fayetteville Regional Office on October 30, 2009 has been reviewed. The report indicates that soil contamination exceeds or equals the 10 mg/kg total petroleum hydrocarbons (TPH) screening limit (or exceeds the lower of the residential or soil-to-groundwater maximum soil contaminant concentrations (MSCCs) established in Title 15A NCAC 2L .0411). Therefore, the UST Section hereby confirms that you must comply with assessment and reporting requirements of Title 15A NCAC 2L .0405, within the timeframes specified in the attached rule.

The requirements of Title 15A NCAC 2L .0405 include the preparation and submittal of a Limited Site Assessment (LSA) Report, in accordance with the rule and the most recent version of the *Guidelines for Assessment and Corrective Action for UST Releases*, within 120 days of discovery of the release.

Because a release or discharge has been confirmed, a Licensed Geologist or a Professional Engineer, certified by the State of North Carolina, is required to prepare and certify all reports submitted to the Department in accordance with Title 15A NCAC 2L .0103(e) and 2L .0111(b).

Please note that before you sell, transfer, or request a "No Further Action" determination for a property that has not been remediated to below "unrestricted use" standards, you must file a Notice of Residual Petroleum ("Notice") with the Register of Deeds in the county where the property is located (NCGS 143B-279.9 and 143B-279.11).

Failure to comply with the State's rules in the manner and time specified may result in the assessment of civil penalties and/or the use of other enforcement mechanisms.

If you have any questions regarding trust fund eligibility or reimbursement from the Commercial or Noncommercial Leaking Petroleum Underground Storage Tank Cleanup Funds, please contact the UST Section Trust Fund Branch at (919) 733-8486. If you have any questions regarding the actions that must be taken or the rules mentioned in this letter, please contact me at the address or telephone number listed below.

Sincerely,

Robert F. Heath
Hydrogeologist
Fayetteville Regional Office

cc: Larry Sullivan, Johnston County Health Department
Jonathan Grubbs, Terraquest Environmental Consultants, P.C.

UST Regional Offices

Asheville (ARO) – 2090 US Highway 70, Swannanoa, NC 28778 **(828) 296-4500**

Fayetteville (FAY) – 225 Green Street, Suite 714, Systel Building, Fayetteville, NC 28301 **(910) 433-3300**

Mooresville (MOR) – 610 East Center Avenue, Suite 301, Mooresville, NC 28115 **(704) 663-1699**

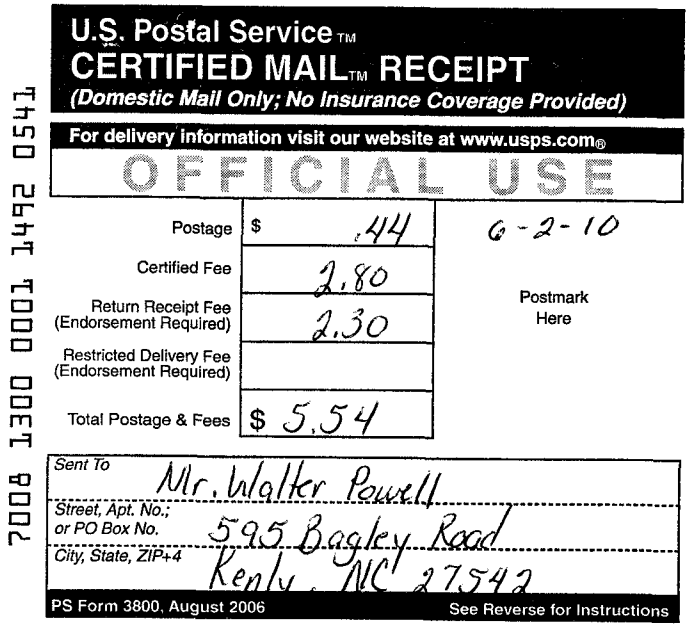
Raleigh (RRO) – 1628 Mail Service Center, Raleigh, NC 27699 **(919) 791-4200**

Washington (WAS) – 943 Washington Square Mall, Washington, NC 27889 **(252) 946-6481**

Wilmington (WIL) – 127 Cardinal Drive Extension, Wilmington, NC 28405 **(910) 796-7215**

Winston-Salem (WS) – 585 Waughtown Street, Winston-Salem, NC 27107 **(336) 771-5000**

Guilford County Environmental Health, 400 West Market Street, Suite 300, Greensboro, NC 27401, **(336) 641-3771**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Total Postage & Fees $ 5.54
6-2-10
Postmark Here
Sent To Mr. Walter Powell
Street, Apt. No.; or PO Box No. 595 Bagley Road
City, State, ZIP+4 Kenly, NC 27542
PS Form 3800, August 2006 See Reverse for Instructions
7008 1300 0001 1492 0541

Elaine F. Marshall
Secretary

North Carolina
DEPARTMENT OF THE SECRETARY OF STATE
PO Box 29622 Raleigh, NC 27626-0622 (919)807-2000

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Corporation Names

Name	Name Type
NC BIG BOY'S TRUCK STOP, INCORPORATED	Legal

Business Corporation Information

SOSID:	0436896
Status:	Admin. Dissolved
Date Formed:	9/9/1997
Citizenship:	Domestic
State of Inc.:	NC
Duration:	*Perpetual*

Registered Agent

Agent Name:	Powell, Teresa
Registered Office Address:	595 Bagley Road Kenly NC 27542
Registered Mailing Address:	595 Bagley Road Kenly NC 27542
Principal Office Address:	*No Address*
Principal Mailing Address:	PO Box 280 Kenly NC 27542

Stock

Class	Shares	No Par Value
COMMON	100000	

Elaine F. Marshall
Secretary

North Carolina
DEPARTMENT OF THE SECRETARY OF STATE
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Corporate Filings For: BIG BOY'S TRUCK STOP, INCORPORATED

Image	Date	Document Id	Event	Document
	9/9/1997	972485098	Creation Filing	INC - Articles of Incorporation
	11/24/1997	973280383	Annual Report	ANRT - Annual Report
	7/6/2004	2004 368 06578	Notice Annual Report	ADMN - ADM Notice
	5/5/2005	2005 369 37635	Destruction Filing	ADIS - ADM Dissolution

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TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

October 14, 2010

Bob Heath
NCDWM-UST Section
Fayetteville Regional Office
Systel Building, Suite 714
225 Green Street
Fayetteville, NC 28301

Re: Limited Site Assessment Report Submittal
Big Boys Inc.
595 Bagley Rd.
Kenly, Johnston County, NC
Terraquest Project No.: 09309
NCDWM-UST Incident No.: Pending

Dear Mr. Heath:

On behalf of the responsible party, Big Boys, Inc., Terraquest Environmental Consultants, P.C. is submitting the enclosed Limited Site Assessment (LSA) Report for the 595 Bagley Road property located in Kenly, NC. This report summarizes the results of limited site assessment activities.

Please call us at (919) 563-9091 should you have any questions. Thank you.

Sincerely,

TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C.

Jonathan R. Grubbs, P.G.
Vice President

Enclosure: Limited Site Assessment Report – Big Boys, Inc.

100 E. Ruffin Street • Mebane, North Carolina 27302
Telephone (919) 563-9091 • Facsimile (919) 563-9095
www.terraquestpc.com

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

LIMITED SITE ASSESSMENT REPORT

(PHASE I)

BIG BOYS, INC.
595 BAGLEY ROAD
KENLY, JOHNSTON COUNTY, NORTH CAROLINA

Latitude: 35º 33' 58.71" N Longitude: 78º 9' 55.86" W

Release Information

Date Discovered: September 18, 2009 (Lab Confirmed)
Estimated Release Quantity: Unknown
Release Cause/Source: Diesel Dispensers #1 & #2
NCDWM-UST Facility ID: 0-034820
NCDWM-UST Incident No.: Pending

UST System Owner/Responsible Party
Big Boys, Inc.
Post Office Box 280
Kenly, NC 27541

Property Owner:
Walter Lee Powell
Post Office Box 280
Kenly, NC 27541

Terraquest Project No. 09309
September 30, 2010

100 E. Ruffin Street • Mebane, North Carolina 27302
Telephone (919) 563-9091 • Facsimile (919) 563-9095
www.terraquestpc.com

CERTIFICATION FOR THE SUBMITTAL
OF AN ENVIRONMENTAL / GEOLOGICAL ASSESSMENT

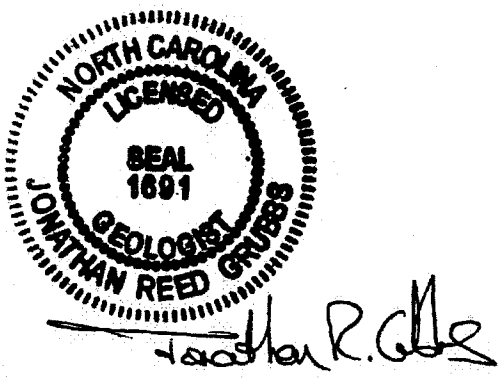
Attached is the Limited Site Assessment Report (Phase I) for:

Release Address:	Big Boys, Inc.		
Address:	595 Bagley Road		
City:	Kenly	State: NC	Zip Code: 27542
Phone:	(919) 284-4046		

Property Owner:	Big Boys, Inc.		
Address:	Post Office Box 280		
City:	Kenly	State: NC	Zip Code: 27542
Phone:	(919) 284-4046		

I, Jonathan R. Grubbs, a Licensed Geologist in the State of North Carolina for TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C. do hereby certify that I am familiar with and have reviewed all material including figures within this report and that to the best of my knowledge the data, site assessments, figures, and other associated materials are correct and accurate. All work was performed under my direct supervision. My seal and signature are affixed below. Additional seals and/or signatures are also affixed below.

TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C.



Jonathan R. Grubbs, P. G.
Vice President

TABLE OF CONTENTS

1.0 INTRODUCTION

On behalf of Big Boys, Inc., Terraquest Environmental Consultants, P.C. (Terraquest) has performed limited site assessment (LSA) activities in the vicinity of the diesel dispensers #1 and #2 of the commercial underground storage tank (UST) system located at the Big Boys, Inc. truck stop property located at 595 Bagley Road in Kenly, NC. As noted in the Site Check report, on file with the North Carolina Division of Waste Management - UST Section's Fayetteville Regional Office (NCDWM-UST FRO), a concentration of diesel fuel has been detected in soils in the vicinity of diesel dispensers #1 and #2. The site location is shown in Figure 1. Figure 2 is a site vicinity map depicting properties within 1,500 feet of the site. A site layout map showing the UST location is included as Figure 3.

Results of the Phase I LSA and reconnaissance activities document the presence of groundwater contamination above the applicable Title 15A NCAC 2L .0202 Groundwater Quality Standards (2L Standards), no surface water bodies within 500 feet of the source area, and no drinking water supply wells within 1,000 feet of the source area.

2.0 SITE HISTORY & INITIAL ABATEMENT ACTIVITIES

According to the NCDWM-UST Registered Petroleum UST Database, the UST system at the subject property was installed on January 8, 1991 and consists of three 12,000-gallon gasoline and two 20,000-gallon diesel USTs. The USTs are of steel construction. The product lines of fiberglass construction. The dispensers do not have containment sumps located beneath them. The product type, capacity, date installed, date closed, and release detection information for the UST system are listed in Table 1.

Site Check Activities

On August 13, 2009, Terraquest mobilized to the Big Boy's, Inc. property to collect soil samples beneath the #1 and #2 dispensers as per the NCDWM-UST Site Check soil sampling protocol. Due to the presence of pea gravel immediately beneath the dispensers and the inability to move the dispensers for easier access, soil borings could not be advanced into soils beneath the dispensers. On September 2, 2009, Terraquest returned to the facility with a Geoprobe direct push machine to advance a soil sampler between the dispensers and through the pea gravel. The location of the B1 soil boring was located in between the #1 & #2 diesel dispensers. The B1 soil boring was advanced to a depth of 8.5 feet below ground level (BGL), a depth below the estimated bottom of the dispenser. Soil sample B1 was collected from a depth 5.5 to 8.5 feet BGL and submitted for laboratory analysis by EPA Method 8015 using the sample preparation method 5030 and extraction method 3550. Technical methods and standards procedures utilized by Terraquest during the assessment for soil boring installation, protocol for the PID screening instrument, and equipment decontamination procedures are included in Appendix A. Analytical results revealed the presence of petroleum-type contaminants above the NCDWM-UST Action Limit of 10 milligrams per kilogram (mg/kg) for diesel (3550) in the B1 soil sample at a concentration of 254 mg/kg. The gasoline (5030) analytical result was 3.90 mg/kg. Analytical results are summarized in Table 2. Sample locations and results are shown in Figure 3.

A Site Check report dated October 2, 2010 was completed and submitted to the NCDWM-UST FRO that documented the site check soil sampling activities.

3.0 RISK CHARACTERIZATION AND RECEPTOR INFORMATION

In order to determine the risk classification of the site, Terraquest personnel performed a detailed reconnaissance within a 1,500-foot radius of the source area. The reconnaissance effort consisted of obtaining tax department and zoning information of properties within 1,500 feet, conducting door-to-door visits of properties within 1,000 feet, and collecting other

pertinent information of the properties within 1,500 feet from the appropriate local and state officials.

Terraquest personnel inspected all properties within 1,500 feet of the site and attempted to contact all of the property owners within 1,000 feet of the site in person or by telephone. A less detailed drive-by reconnaissance effort was conducted for properties located 1,000 to 1,500 feet from the site. Terraquest personnel found no drinking water supply wells within 1,000 feet of the source area. One inactive and one active irrigation water supply wells were noted on residential properties beyond 1,000 feet. A drinking water supply well was noted on a property east of the Little River along Cummins Drive, but it was beyond 1,500 feet from the release area. According to the Town of Kenly Water Department, municipal water is available to all of the properties within 1,000 feet of the subject or surrounding properties and all of the properties with commercial or residential structures are connected to the municipal water system. Table 3 lists the surrounding property owners. Figure 2 depicts a layout of properties within 1,500 feet of the site and the locations of the water supply wells. Table 4 lists the water supply well information.

Land usage in the immediate surrounding vicinity consists of the subject property's truck stop, Interstate 95, farm land, and a few residences. No school, daycare center, hospital, playground, park, recreation area, church, nursing home, or other place of public assembly is located within 1,500 feet of the release incident. The closest residence is approximately 1,000 feet to the southwest along Lowell Mill Road. The Johnston County tax records and zoning department list the properties within 1,500 feet of the site as having Highway and Freeway Business (B-2H and B-4F), and agricultural residential (AR) zoning classifications. The zoning classifications of properties within 1,500 feet are depicted in Figure 2.

Terraquest personnel did not note any areas where a harmful diesel vapors could accumulate during the site check or LSA site visits.

A review of topographical maps and a reconnaissance of the surrounding area revealed no surface water bodies within 500 feet of the source area. The closest surface water body is the Little River approximately 1,000 feet to the east. The Little River is depicted in Figures 1 and 2.

The site should be ranked as a Low risk according to the NCDWM-UST *Guidelines for Assessment and Corrective Action for UST Releases.* This "Low" risk ranking stems from the absence of the any "High" or "Intermediate" risk ranking criteria. The land-use classification of the property should be "commercial" given that the Big Boy's Truck Stop and Interstate 95 occupy a majority of the property within 1,000 feet of the release incident. The remaining properties within 1,000 feet are undeveloped farm land. A copy of the completed Limited Site Assessment Risk Classification and Land Use Form is included as Appendix A.

4.0 SITE GEOLOGY AND HYDROGEOLOGY

According to the Geologic Map of North Carolina, the site is located in the Eastern Slate Belt of the Piedmont Physiographic Region of North Carolina in an area underlain by felsic metavolcanic tuffs and flows. Bedrock was not encountered during the Site Check or LSA activities. Based upon observations made during the soil boring and monitoring well installations, the following lithology exists at the site:

0'- 1' BGL
Concrete (0-0.5') and Gravel (0.5' – 1.0')

0'- 20' BGL
Sandy Lean Clay (CL)
Med. Stiff, yellowish-orange, mostly clay, little fine sand, moist @ 12 feet BGL.

On August 20, 2010, Terraquest personnel supervised the installation of the Type II monitoring well MW1 in the vicinity of the diesel dispensers #1 and #2 within 5 feet of the B1 boring location. The monitoring well could not be constructed in the same B1 borehole due to the presence of utilities and 5 feet of pea gravel. The well was constructed of Schedule 40, 2-inch diameter PVC and installed to a depth of 20 feet BGL to ensure a sufficient water column for

sampling purposes. The depth to water measured in MW1 on August 30, 2010 was 5.77 feet BGL. A potentiometric surface map could not be generated for the site since only one monitoring well was installed. Monitoring well construction data is summarized in Table 5.

Site topography is depicted in Figure 1. The drilling location of monitoring well MW1 is depicted in Figure 3. The soil boring log, well construction record, and well installation detail for monitoring well MW1 are contained in Appendix B. Technical Methods and Standards Procedures utilized by Terraquest during the assessment for the monitoring well installation, groundwater sampling, and equipment decontamination procedures are included in Appendix C.

5.0 FIELD AND LABORATORY ANALYSIS

5.1 Soil Sampling Methodology and Results

Since the B1 soil sample collected during the site check activities was collected in the saturated zone (5.5 to 8.5 feet BGL) and only pea gravel was present above the B1 sample interval, no soil samples were collected during the LSA activities. The summary of the B1 soil sampling activities is included in Section 2.0.

5.2 Groundwater Sampling Methodology and Results

Prior to sampling, monitoring well MW1 was developed on August 20, 2010. Well development was performed on the monitoring well to minimize the accumulation of fine silt particles in the well and on the borehole wall using a using a new single-use disposable polyethylene bailer. On August 30, 2010, monitoring well MW1 was sampled using a new single-use disposable polyethylene bailer. The depth to water measured in monitoring well MW1 was 5.77 feet below the top of the well casing. The groundwater sample was placed into the appropriate laboratory-prepared sample containers and labeled with the sample location, sample

identification, date of collection, time of collection, and analytical method. The sample was immediately placed on ice, sent to a North Carolina-certified laboratory, and analyzed before the expiration of the analytical methods' prescribed holding time. Chain-of-custody documentation was maintained for the sample. The groundwater sample was analyzed for diesel-type constituents by EPA Method 625 Base Neutrals and Acid Extractables (BNA) plus 10 Non-Target Peaks and Massachusetts Department of Environmental Protection (MADEP) Extractable Petroleum Hydrocarbons (EPH) targeting semi-volatile organics and EPA Method 6200B + methyl tert-butyl ether (MTBE) + di-isopropyl ether (IPE) and MADEP Volatile Petroleum Hydrocarbons (VPH) targeting volatile organics. .

Analytical results for the groundwater sample collected from monitoring well MW1 indicate the presence of MTBE in excess of its Title 15A NCAC 2L .0202 Groundwater Quality Standard (2L Standard). No groundwater contaminants were detected at concentrations greater than their Gross Contamination Levels (GCLs) or 10 times their Title 15A NCAC 2B Surface Water Quality Standards (2B Standards). Table 6 summarizes the groundwater analytical results and applicable standards. Groundwater analytical results for monitoring well MW1 are displayed in Figure 3. The full analytical report is contained in Appendix D.

6.0 FREE PRODUCT INVESTIGATION

Since Terraquest's involvement at the site, no free product in the form of diesel has been observed in the B1 soil boring or monitoring well MW1.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Terraquest performed various activities associated with the completion of a Phase I LSA. Primary assessment efforts focused on determining potential receptors in the area, as well as trying to assess the amount, if any, of groundwater contamination on-site; both critical steps in determining the risk ranking of the site. Based upon the findings of this LSA, the site should

receive a "Low" risk ranking with a "Commercial" land use classification. With the "Low" risk ranking, the diesel release incident should be closed out.

Analytical results for the groundwater sample collected from monitoring well MW1 indicate the presence of MTBE at a concentration in excess of its 2L Standards. MTBE was a common additive to gasoline.

For site closure, a Notice of Residual Petroleum (NORP) will need to be completed due to the presence of groundwater contamination above the 2L standards. The NORP would establish groundwater at the subject property could not be used as a water supply. Once a NORP is completed, a "Notice of No Further Action" (NFA) letter will be issued for the release incident by the NCDWM-UST. Once an NFA is issued, public notification will be completed and the monitoring well at the site will be abandoned in accordance with the Title 15A NCAC 2C regulations.

8.0 LIMITATIONS

This report is limited to the investigation of only petroleum hydrocarbons, such as diesel, and does not imply that other unforeseen adverse impacts to the environment are not present at the Big Boys, Inc. property in Kenly, NC. In addition, subsurface heterogeneities not identified during the current study may influence the migration of groundwater or contaminants in unpredicted ways. The limited amount of sampling and testing conducted during this study cannot practically reveal all subsurface heterogeneities. Furthermore, subsurface conditions, particularly groundwater flow, elevations, and water quality may vary through time. The opinions and conclusions arrived at in this report are in accordance with North Carolina Department of Environment and Natural Resources regulations and guidelines and industry-accepted geologic and hydrogeologic practices at this time and location. No warranty is implied or intended.

REFERENCES

Brown, et al., 1985, Geologic Map of North Carolina, North Carolina Department of Natural Resources and Community Development, 1:500,000 scale.

Johnston County Geographical Information System Department.

North Carolina Administrative Code, Title 15A, Chapter 2, Subchapter 2B, Section .0200, April 1, 1997, "Classifications and Water Quality Standards Applicable to Surface Waters and Wetlands of North Carolina".

North Carolina Administrative Code, Title 15A, Chapter 2, Subchapter 2L, Section .0202, November 20, 1998, "Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina ".

North Carolina Department of Environment and Natural Resources, Division of Waste Management UST Section, UST Section *Guidelines for Assessment and Corrective Action for UST Releases*, July 15, 2008.

USGS 7.5-Minute Quadrangle Topographic Maps, Kenly West, North Carolina.

Table 1
SITE HISTORY (UST SYSTEM INFORMATION)
Date 9/16/09
Incident Name: Big Boys Inc. Incident No.: 29606
Facility ID No.: 0-034820

UST/AST	Product	Capacity (gallons)	Date Installed	Date Closed	Release Discovered?
T1	Gasoline	12,000	1/8/1991	In Use	Unknown
T2	Gasoline	12,000	1/8/1991	In Use	Unknown
T3	Gasoline	12,000	1/8/1991	In Use	Unknown
T4	Diesel	20,000	1/8/1991	In Use	Unknown
T5	Diesel	20,000	1/8/1991	In Use	Unknown

Notes:
1. Information obtained from the NC Petroleum UST Database.
3. T1 through T5 steel construction.

Table 2	Summary of Soil Sampling Results: Site Check	
Date: 9/18/09	Incident Name: Big Boys Inc. Incident No.: 29606	Facility ID No.: 0-034820

Analytical Method				5030/GRO	3550/GRO
	Contaminant of Concern				
Sample ID	Date Collected	Sample Depth	PID (ppm)	TPH low fraction	TPH high fraction
B1	9/2/09	5.5' - 8.5'	16.1	**3.90**	**254**
TPH Action Level				10	10

Notes:

1. All results in mg/kg = parts per million; all sample depths in feet below ground level; ppm - parts per million.
2. **Bold** denotes a compound detection.
3. Shading denots a TPH Action Level Violation.
4. < - denotes less than sample detection limit.

Table 3	SURROUNDING PROPERTY OWNERS		
Date: 8/10/10	Incident Name: Big Boys Inc. Incident No.: 29606		Facility ID No.: 0-034820
Tax Parcel Number (PIN Number)	Property Owner	Property Owner Address	Property Address
264600-92-1682	David Alden	S.R. 2340 (Cummins Dr.) Kenly, NC	P.O. Box 387 Pine Level, NC 27568
265600-02-2814	Kenneth M. Taylor	S.R. 2340 Kenly, NC	2413 Millstone Harbor Drive Raleigh, NC 27603
264600-91-4819	Rubert L. Langston	Lowell Mill Road Kenly, NC	23705 11th Street Trevor, WI 53179
264600-80-4901	Roxy Drive, LLC	Lowell Mill Road Kenly, NC	110 Roxy Drive Selma, NC 27576
264600-71-2617	Walter Lee Powell	Bagley Road Kenly, NC	P.O. Box 280 Kenly, NC 27542
	North Carolina Dept. of Transportation	Interstate 95 and Bagley Road Kenly, NC	Interstate 95 and Bagley Road Kenly, NC
		SITE	
264600-82-5304	Walter Lee Powell	595 Bagley Road Kenly, NC 27542	P.O. Box 280 Kenly, NC 27542

Notes:
1. Information gathered from field interviews and Johnston County Geographic Information System.
2. Last 4 digits of MAP ID numbers correspond with those displayed on Figure 2.

Table 4 — WATER SUPPLY WELL INFORMATION

Date: 8/20/10 — Incident Name: Big Boys Inc. Incident No.: 29606 — Facility ID No.: 0-034820

Well ID No.	Well Owner/Address	Well Address	Well Use	Well Depth (feet BGS)	Type of Well	Casing Depth (feet BGS)	Screen Interval (feet BGS)	Distance from Source Area of Release (feet)
PW1	Sec. of Housing & Urban Development 2306 W. Meadowview Road Greensboro, NC 27407	2091 Lowell Mill Road Kenly, NC 27542	Not in use	unknown	unknown	unknown	unknown	1,100
PW2	Doug and Laurene Holland 2470 Lowell Mill Road Kenly, NC 27542	2470 Lowell Mill Road Kenly, NC 27542	Irrigation	unknown	unknown	unknown	unknown	1,200
PW3	Dusty and Crystal Toler 1933 Old Cornwallis Road Princeton, NC 27569	675 Cummins Drive Kenly, NC 27542	Sole source	unknown	unknown	unknown	unknown	1,780

Notes:
1. "BGS" = feet below ground surface, "NA" = not applicable.
2. Information obtained from TerraQuest field interviews.
3. Well ID numbers are displayed on Figure 2.

Table 5 MONITORING WELL CONSTRUCTION INFORMATION

8/23/2010 Incident Name: Big Boys Inc. Incident No.: 29606 Facility ID No.: 0-034820

Well ID	Date Installed	Date Water Level Measured	Inner Well Casing Depth (ft. BGS)	Screened Interval (x to y ft. BGS)	Bottom of Well (ft. BGS)	Top of Casing Elevation (ft.)	Depth to Water from Top of Casing (ft.)	Free Product Thickness (ft.)	Groundwater Elevation (ft.)	Comments
MW1	8/20/2010	8/30/2010	20	3 - 20	20	100.00	5.77	-	94.23	Type II Well

Notes:

1. All units in feet. Depth to water measurements estimated with water finding paste.
2. - Indicates no detection of free product found in the well.
3. NA - Not Applicable

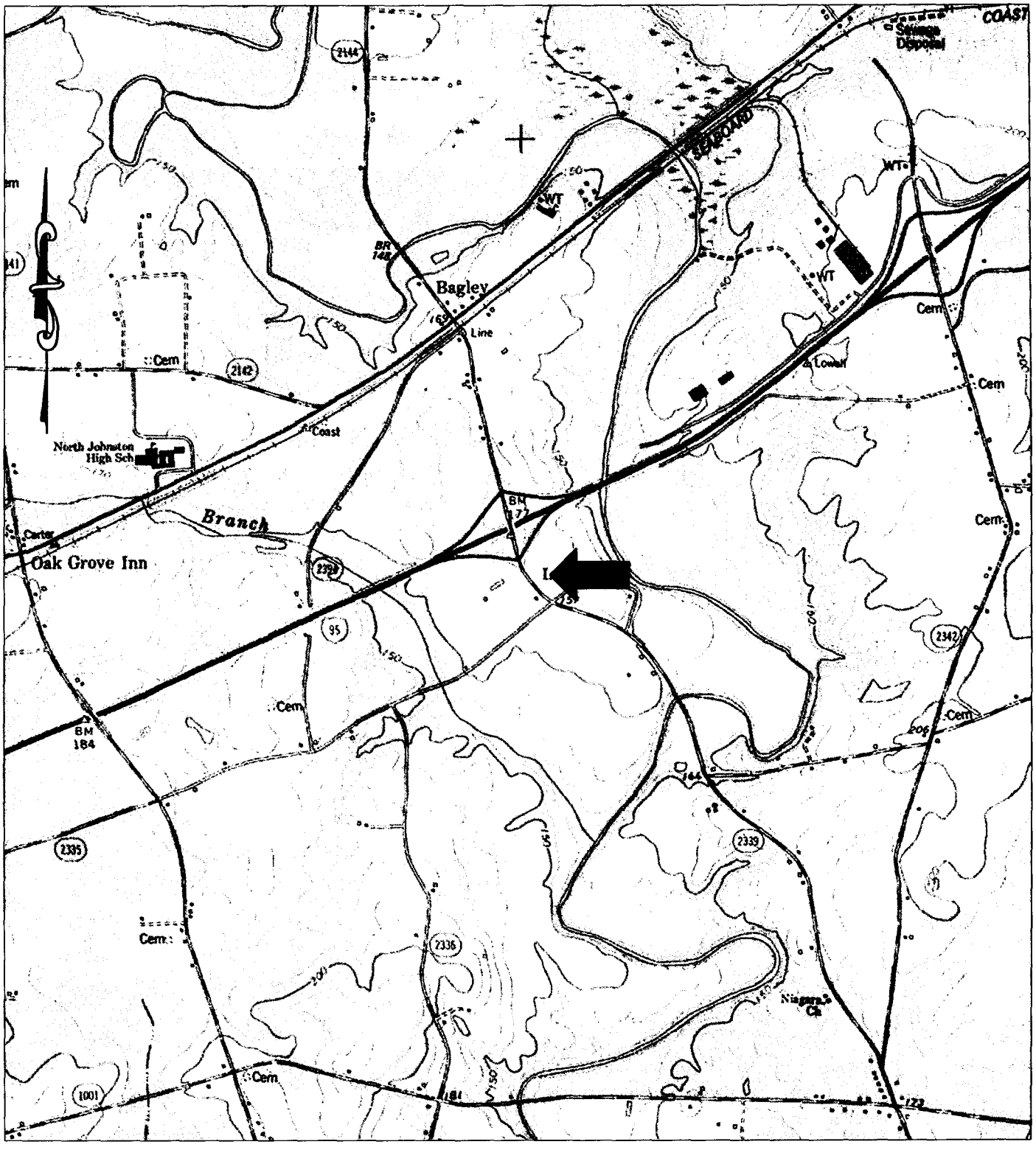
Table 6
Date: 9/22/10

SUMMARY OF GROUNDWATER SAMPLING RESULTS
Incident Name: Big Boys Inc. Incident No.: 29606

Facility ID No.: 0-034820

Analytical Method		6200B	6200B	6200B	6200B	6200B	6200B	6200B	6200B	MADEP:VPH	MADEP:VPH/EPH	MADEP:EPH	MADEP:VPH/EPH
Contaminant of Concern													
Well ID	Date Collected	Benzene	Toluene	Ethylbenzene	Total Xylenes	IPE	MTBE	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
MW1	8/30/2010	<0.55	<0.55	<0.55	<1.65	<0.60	**69**	<0.50	<0.55	<50	<40	<10	<20
	2L Standard	1	600	600	500	70	20	400	400	400	700	10,000	200
	Gross Contamination Level	5,000	260,000	84,500	85,500	70,000	20,000	28,500	25,000	NE	NE	NE	NE

Notes:
1. All results in µg/L.
2. **BOLD** denotes a detection.
3. *Shading denotes a 2L Standard violation.*
4. "NE" not established.



MAP SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP OF KENLY WEST, NC

GRAPHIC SCALE

0' 2,000' 4,000'

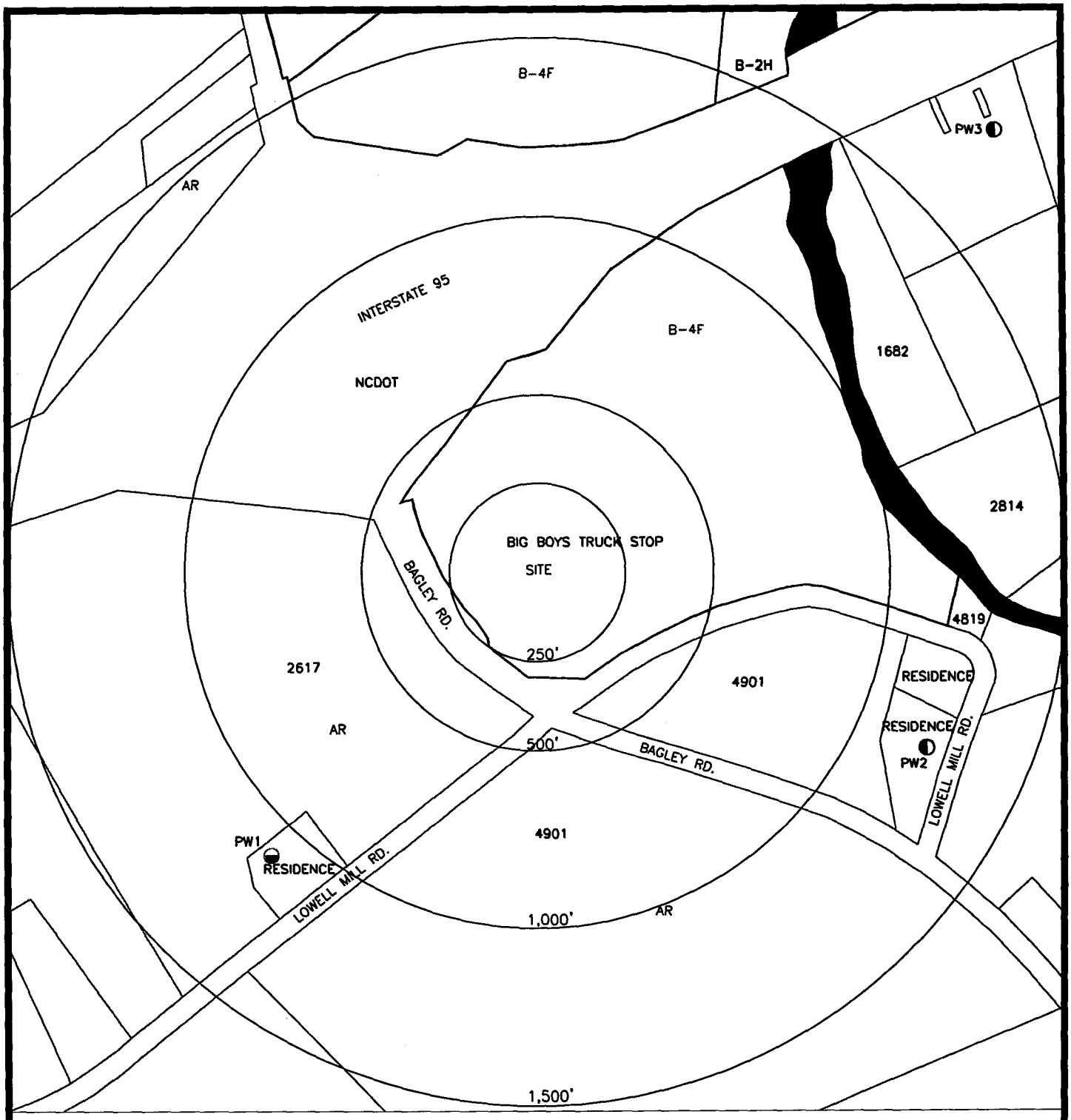
TERRAquest

ENVIRONMENTAL CONSULTANTS, P.C.

SITE LOCATION MAP

BIG BOYS, INC.
595 BAGLEY ROAD
KENLY, JOHNSTON COUNTY, NC

BIG BOYS, INC.					KENLY, NC
PROJECT NO.	09309	DRAWN BY:	JRG	DATE:	9/30/09
SCALE:	1" = 2000'	CHECKED BY:	MJB	FIGURE NO.	1



LEGEND

- ACTIVE, SOLE-SOURCE WATER SUPPLY WELL
- SECONDARY-SOURCE WATER SUPPLY WELL
- UNUSED POTABLE WELL (NOT ABANDONED)

ZONING

B-4F: FREEWAY INTERCHANGE
B-2H: HIGHWAY BUSINESS
AR: AGRICULTURAL RESIDENTIAL
2617 – LAST 4 DIGITS OF JOHNSTON CO. PIN #.
SEE TABLE 3 OF LSA REPORT FOR PROPERTY OWNERS.

GRAPHIC SCALE

0' 200' 400' 800'

1" = 400'

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

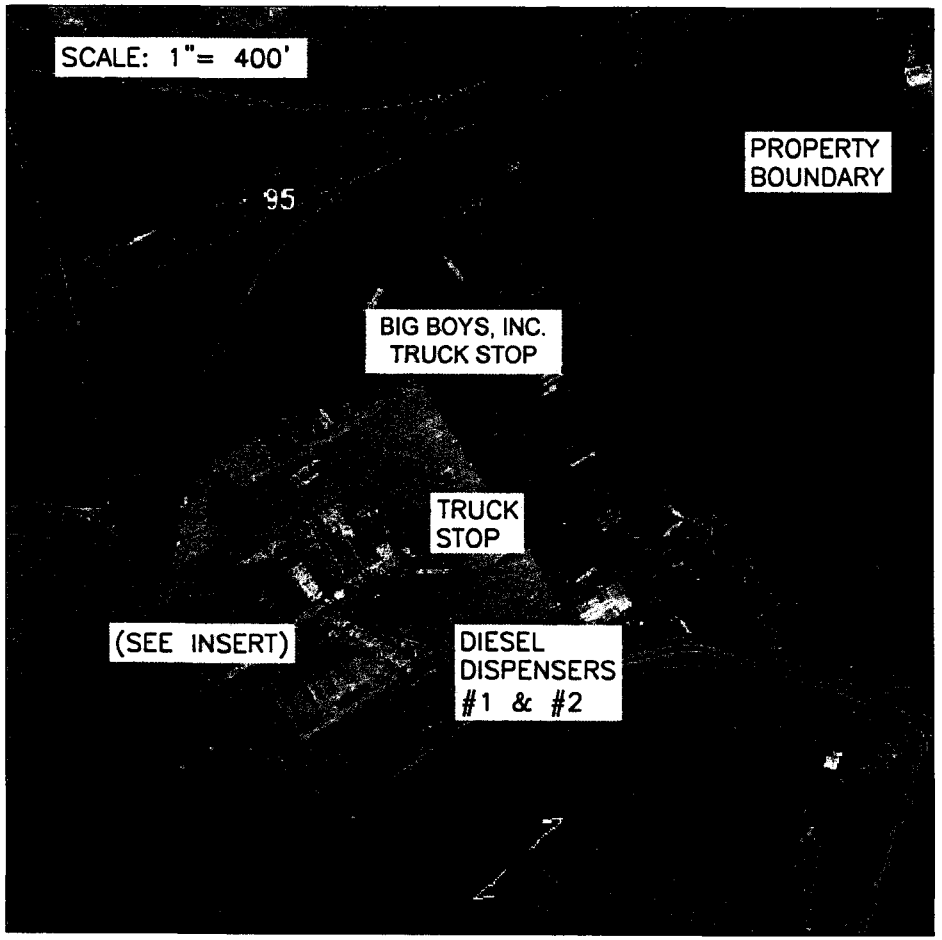
SITE VICINITY MAP

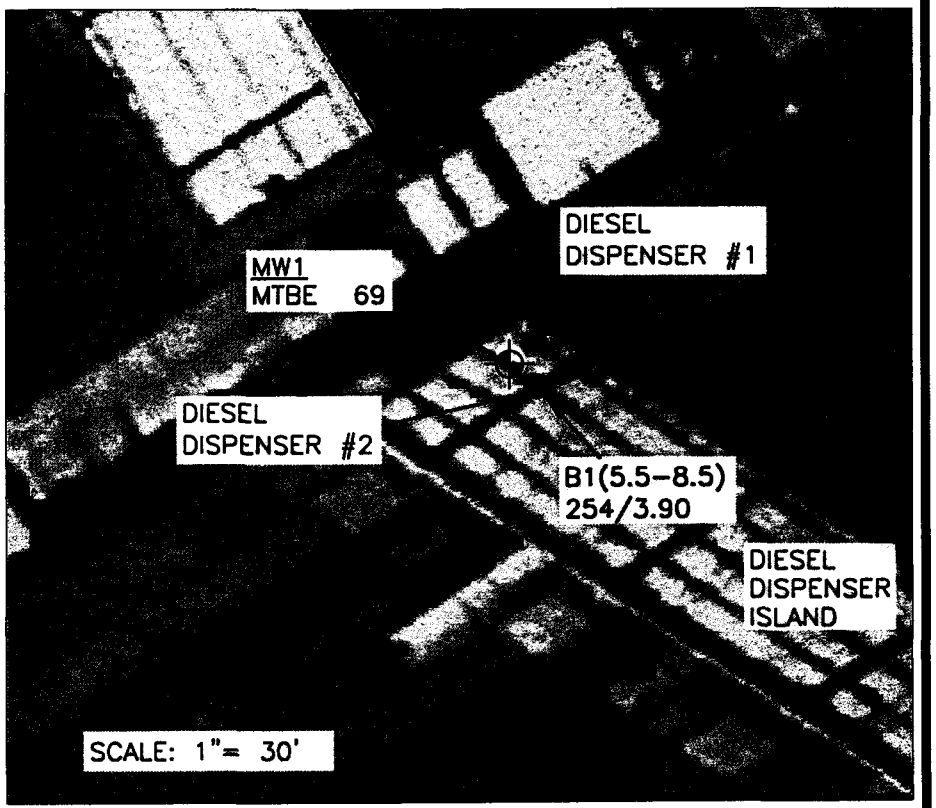
BIG BOYS, INC.
595 BAGLEY ROAD
KENLY, JOHNSTON COUNTY, NC

BIG BOYS, INC.				KENLEY, NC
PROJECT NO.	09309	DRAWN BY:	ACW	DATE: 8/20/10
SCALE:	1" = 400'	CHECKED BY:	JRG	FIGURE NO. 2

LEGEND

- GROUNDWATER MONITORING WELL LOCATION
- SITE CHECK SOIL SAMPLE LOCATION
- B1 (5.5–8.5) (SAMPLE DEPTH IN FEET BELOW GROUND SURFACE)
- 254/3.90 TPH DRO (3550)/ TPH 5030 (GRO) ANALYTICAL RESULTS
- ALL RESULTS IN MILLIGRAMS PER KILOGRAM (MG/KG).
- SEE THE SOIL ANALYTICAL RESULTS IN TABLE 2.





GROUNDWATER SAMPLE MW1 ANALYZED BY EPA 6200B, 625BNA, & MADEP VPH/EPH.

ALL GROUNDWATER ANALYTICAL RESULTS IN PARTS PER BILLION (PPB).

MTBE – METHYL TERT-BUTYL ETHER

ONLY COMPOUNDS DETECTED AT CONCENTRATIONS GREATER THAN THEIR 2L STANDARDS LISTED. SEE TABLE 5 FOR A COMPLETE LISTING OF DETECTED COMPOUNDS.

SITE LAYOUT, SITE CHECK SOIL RESULTS, & LSA GROUNDWATER ANALYTICAL RESULTS MAP

BIG BOYS, INC.
595 BAGLEY ROAD
KENLY, JOHNSTON COUNTY, NC

BIG BOYS, INC. KENLY, NC

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

PROJECT NO.	09309	DATE:	9/25/10
CHECKED BY:	MJB	SCALE:	VARIES
DRAWN BY:	JRG	FIGURE NO.	3

Limited Site Assessment Risk Classification and Land Use Form

Part I - Groundwater/Surface Water/Vapor Impacts

High Risk

1. Has the discharge or release contaminated any water supply well including any used for non-drinking purposes? YES (NO)
   If yes, explain.

2. Is a water supply well used for drinking water located within 1,000 feet of the source area of the discharge or release? YES (NO)

3. Is a water supply well used for any purpose (e.g., irrigation, washing cars, industrial cooling water, filling swimming pools) located within 250 feet of the source area of the release or discharge? YES (NO)

4. Does groundwater within 500 feet of the source area of the discharge or release have the potential for future use in that there is no other source of water supply other than the groundwater? YES (NO)
   Explain
   The area is provided with public water by the Town of Kenly.

5. Do vapors from the discharge or release pose a threat of explosion because of accumulation of the vapors in a confined space or pose any serious threat to public health, public safety, or the environment? YES (NO)
   Explain.

   Terraquest personnel did not note any areas where a harmful diesel vapors could accumulate during the site check or LSA site visits.

6. Are there any other factors that would cause the discharge or release to pose an imminent danger to public health, public safety, or the environment? YES (NO)
   If yes, explain.

Intermediate Risk

7. Is a surface water body located within 500 feet of the source area of the discharge or release? YES/NO
   The Little River is located approximately 1,000 feet to the east.

   If yes, does the maximum groundwater contaminant concentration exceed the surface water quality standards and criteria found in 15A NCAC 2B .0200 by a factor of 10? YES/NO

8. Is the source area of the discharge or release located within a designated wellhead protection area as defined in 42 USC 300h-7(e)? YES/NO
   If yes, explain

   No wellhead protection programs have been established in the surrounding area.

9. Is the discharge or release located in the Coastal Plain physiographic region as designated on a map entitled "Geology of North Carolina" published by the Department in 1985? YES/NO

   The release incident is located within the Eastern Slate Belt of the Piedmont physiographic region.

   If yes, is the source area of the discharge or release located in an area in which there is a recharge to an unconfined or semi-confined deeper aquifer that is being used or may be used as a source of drinking water? YES/NO
   If yes, explain.

10. Do levels of groundwater contamination exceed the gross contamination levels established (see Table 7) by the Department? YES/NO

    See Table 5.

Part II - Land Use

Property Containing Source Area of Discharge or Release

The questions below pertain to the property containing the source area of the release.

1. Does the property contain one or more primary or secondary residences (permanent or temporary)? YES/NO
   Explain.

   The site is a Big Boys Truck Stop.

2. Does the property contain a school, daycare center, hospital, playground, park, recreation area, church, nursing home, or other place of public assembly? YES/NO
   Explain.

   The site is a Big Boys Truck Stop.

3. Does the property contain a commercial (e.g., retail, warehouse, office/business space, etc.) Or industrial (e.g., manufacturing, utilities, industrial research and development, chemical/petroleum bulk storage, etc.) Enterprise, an inactive commercial or industrial enterprise, or is the land undeveloped? YES/NO
   Explain.

   The site is a Big Boys Truck Stop.

4. Do children visit the property? YES/NO
   Explain.

   Children can visit the property.

5. Is access to the property reliably restricted consistent with its use (e.g., by fences, security personnel, or both)? YES/NO
   Explain.

   There are no restrictions to accessing the property.

   Do pavement, buildings, or other structures cap the contaminated soil? YES/NO
   Explain.

   Asphalt and concrete

   If yes, what mechanisms are in place or can be put in place to ensure that the contaminated soil will remain capped in the foreseeable future?

   Maintenance of the asphalt and concrete cover

6. What is the zoning status of the property?
   Business – Freeway Interchange

7. Is the use of the property likely to change in the next 20 years?
   Explain.
   It is unknown if the property-use could change; however, given its location and zoning it is unlikely.

Property Surrounding Source Area of Discharge or Release

The questions below pertain to the area within 1,500 feet of the source area of the discharge or release (excludes property containing source area of the release):

1. What is the distance from the source area of the release to the nearest primary or secondary residence (permanent or temporary)?

   Approximately 1,000 feet to the southwest along Lowell Mill Road.

2. What is the distance from the source area of the release to the nearest school, daycare center, hospital, playground, park, recreation area, church, nursing home, or other place of public assembly?

   Greater than 1,500 feet.

3. What is the zoning status of properties in the surrounding area?

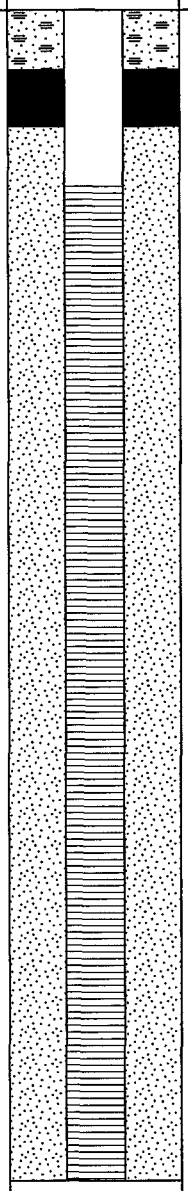
   The properties in the surrounding area are zoned Business – Freeway Interchange, Business – Highway Business, and Agricultural Residential.

4. Briefly characterize the use and activities of the land in the surrounding area.
   The surrounding properties within 1,500 feet consist of the subject property's truck stop, farm land, and a few residences.

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

BORING LOG/MONITORING WELL INSTALLATION DETAIL

Contractor: TerraQuest | **Date Started:** 8/20/10 | **Boring Number:** MW1
Drill Method: Solid Stem Auger | **Date Finished:** 8/20/10
Driller: N Perry | **Logged by:** N Perry

Sample	Blow Counts	Completion	PID (ppm)	Depth Feet	Lithology	Description
				5 10 15 20		Concrete (0-0.5')/Gravel (0.5'-1.0') Sandy Clay (CL) med. dense, yellowish-orange. mostly clay, little fine sand, dry, moisture beginning @ 12' BGL. *Boring Terminated @ 20 feet BGL.*

Scale as shown; Hatch pattern denotes soil sample depth;
Solid denotes lab sample depth; Lithology hatch pattern legend is attached;

Well Construction

2" diameter Sch. 40 PVC; .010" slotted screen
Sand: No. 2 sand; Grout: poured portland; Bentonite: poured pellets
Manhole: flush 8" diameter steel
NA - Not Applicable; BGL - Below Ground Level

Site:
Big Boys, Inc.
595 Bagley Road
Kenly, NC 27542

Client:
Big Boys, Inc.
Post Office Box 280
Kenly , NC 27542

Project No.: 09309 | **Page** 1

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 3329

1. WELL CONTRACTOR:
Nick Perry
Well Contractor (Individual) Name
TerraQuest Environmental Cons.
Well Contractor Company Name
100 E Ruffin St.
Street Address
Mebane NC 27302
City or Town State Zip Code
(919) 563-9091
Area code Phone number

2. WELL INFORMATION:
WELL CONSTRUCTION PERMIT#
OTHER ASSOCIATED PERMIT#(if applicable)
SITE WELL ID #(if applicable) MW1

3. WELL USE (Check One Box) Monitoring ☑ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 8/20/10

4. WELL LOCATION:
595 Bagley Rd.
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
CITY: Kenly COUNTY Johnston
TOPOGRAPHIC / LAND SETTING: (check appropriate box)
☐Slope ☐Valley ☐Flat ☐Ridge ☐Other
LATITUDE 35 ° 33 ' 58.7100 " DMS **OR** DD
LONGITUDE 78 ° 9 ' 55.8600 " DMS **OR** 7x.xxxxxxxxx DD
Latitude/longitude source: ☐GPS ☐Topographic map
(location of well must be shown on a USGS topo map andattached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)
Bib Boys Truck Stop
Facility Name Facility ID# (if applicable)
595\
Street Address
Kenly NC 27542
City or Town State Zip Code
Big Boys
Contact Name
P.O. Box 280
Mailing Address
Kenly NC 27542
City or Town State Zip Code
(919) 284-4046
Area code Phone number

6. WELL DETAILS:
a. **TOTAL DEPTH:**
b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☑
c. **WATER LEVEL** Below Top of Casing: FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. **YIELD (gpm):** **METHOD OF TEST**
f. **DISINFECTION: Type** **Amount**
g. **WATER ZONES** (depth):
Top Bottom Top Bottom
Top Bottom Top Bottom
Top Bottom Top Bottom

7. CASING:	Depth	Diameter	Thickness/ Weight	Material
Top 0	Bottom 3 Ft.	2 in.	sch 40	PVC
Top	Bottom Ft.			
Top	Bottom Ft.			

8. GROUT:	Depth	Material	Method
Top 0	Bottom 1 Ft.	Portland	Pour
Top 1	Bottom 2 Ft.	Bentonite	Pour
Top	Bottom Ft.		

9. SCREEN:	Depth	Diameter	Slot Size	Material
Top 3	Bottom 10 Ft.	in.	.010 in.	PVC
Top	Bottom Ft.	in.	in.	
Top	Bottom Ft.	in.	in.	

10. SAND/GRAVEL PACK:

Depth		Size	Material
Top 2	Bottom 20 Ft.	coarse	Sand
Top	Bottom Ft.		
Top	Bottom Ft.		

11. DRILLING LOG

Top	Bottom	Formation Description
0	20'	SANDY CLAY

12. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR — DATE 8/26/10

PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b
Rev. 2/09

NCDENR

North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue, Governor

Division of Waste Management
UST Section

Dee Freeman, Secretary
Dexter R. Matthews, Director

October 19, 2010

Walter Lee Powell
Big Boys, Inc
P.O. Box 280
Kenly, NC 27541

Re: Notice of Regulatory Requirements
NCGS 143B-279.9 and 143B-279.11
Notice of Residual Petroleum

Big Boys, Inc.
595 Bagley Road, Kenly
Johnston County
Incident Number: 29606
Risk Classification: Low
Ranking: LUR

Dear Mr. Powell:

North Carolina General Statute (NCGS) 143B279.9 and 143B-279.11 require a Notice of Residual Petroleum (Notice) to be filed with the Register of Deeds in Johnston County, where the release is located, when a release from an underground storage tank has not been remediated to below "unrestricted use standards". The Notice is required either prior to conveyance of a contaminated property or prior to receiving a Notice of No Further Action. "Unrestricted use standards" for groundwater are the groundwater quality standards and interim standards contained in Title 15A NCAC 2L .0202, and "unrestricted use standards" for soil are the residential maximum soil contaminant concentrations (MSCCs) established in Title 15A NCAC 2L .0411.

The Notice must be prepared in accordance with the attached instructions and format. It must contain a legal description of the property containing the source of contamination and legal descriptions of any other properties which you own (or control) which are contaminated by the release. The Notice must also include appropriate land use restrictions for these properties. In addition, the Notice must identify all other properties (adjacent, adjoining, downgradient, etc.) on which contamination is known to exist at the time the Notice is prepared.

The Notice must be sent to this regional office of the UST Section within 30 days of the date of this letter for approval and notarization. The approved and notarized Notice must then be filed by you with the Register of Deeds, and a certified copy of the filed Notice must be submitted to this office within 30 days of its return to you.

Effective October 1, 2004, the Department requires that all work following the submittal of the Limited Site Assessment Report (Title 15A NCAC 2L .0405) be preapproved if State Trust Fund reimbursement is anticipated. To comply with this requirement, a completed Preapproval/Claim Authorization Form, encompassing the required remedial activities, must be received in this office within

14 days of the date of this letter. Upon completion of the preapproved activities, you should submit your claim promptly. Reimbursement funds are budgeted based on completed preapprovals, but lengthy delays in reimbursement can occur if claims are not submitted immediately following work completion.

Failure to comply with this letter is a violation of North Carolina law and may result in the assessment of civil penalties and/or the use of other enforcement mechanisms available to the state. If you have any questions regarding this letter, please contact me at the address or telephone number listed below.

Sincerely,

Robert F. Heath
Hydrogeologist
Fayetteville Regional Office

Attachment: Instructions for Preparing Notice of Residual Petroleum

Cc: Jonathan R. Grubbs, P.G., Terraquest Environmental Consultants, Inc.

UST Regional Offices

Asheville (ARO) – 2090 US Highway 70, Swannanoa, NC 28778 **(828) 296-4500**

Fayetteville (FAY) – 225 Green Street, Suite 714, Systel Building, Fayetteville, NC 28301 **(910) 433-3300**

Mooresville (MOR) – 610 East Center Avenue, Suite 301, Mooresville, NC 28115 **(704) 663-1699**

Raleigh (RRO) – 1628 Mail Service Center, Raleigh, NC 27699 **(919) 791-4200**

Washington (WAS) – 943 Washington Square Mall, Washington, NC 27889 **(252) 946-6481**

Wilmington (WIL) – 127 Cardinal Drive Extension, Wilmington, NC 28405 **(910) 796-7215**

Winston-Salem (WS) – 585 Waughtown Street, Winston-Salem, NC 27107 **(336) 771-5000**

Guilford County Environmental Health, 400 West Market Street, Suite 300, Greensboro, NC 27401, **(336) 641-3771**

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.

December 2, 2010

Bob Heath
NCDWM-UST Section
Fayettevile Regional Office
225 Green St., Ste. 714
Systel Building
Fayetteville, NC 28301

RECEIVED
DEC 0 6 2010
DENR –FAYETTEVILLE REGIONAL OFFICE

Re: Registered Notice of Residual Petroleum
Big Boys, Inc.
595 Bagley Road
Kenly, Johnston County, North Carolina
NCDWM-UST Incident No.: 29606
Terraquest Project No.: 09309

Dear Mr. Heath:

Please find attached a registered Notice of Residual Petroleum (NORP) for the above referenced release incident. If you have any questions regarding the NORP, please contact us at (919) 563-9091

Sincerely,

TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C.

Jonathan R. Grubbs, P.G.
Vice President

Enclosure: Registered NORP

100 E. Ruffin Street • Mebane, North Carolina 27302
Telephone (919) 563-9091 • Facsimile (919) 563-9095
www.terraquestpc.com

Filed in JOHNSTON COUNTY, NC
CRAIG OLIVE, Register of Deeds
Filed 11/22/2010 8:56:50 AM
BOOK 3920 PAGE 13 - 15
INSTRUMENT # 2010302093
Real Estate Excise Tax: $0
Deputy/Assistant Register of Deeds: L KIRBY

NOTICE OF RESIDUAL PETROLEUM

Big Boys, Inc.
595 Bagley Road, Kenly, Johnston County, North Carolina

The property that is the subject of this Notice (hereinafter referred to as the "Site") contains residual petroleum and is an Underground Storage Tank (UST) incident under North Carolina's Statutes and Regulations, which consist of N.C.G.S. 143-215.94 and regulations adopted thereunder. This Notice is part of a remedial action for the Site that has been approved by the Secretary (or his/her delegate) of the North Carolina Department of Environment and Natural Resources (or its successor in function), as authorized by N.C.G.S. Section 143B-279.9 and 143B-279.11. The North Carolina Department of Environment and Natural Resources shall hereinafter be referred to as "DENR".

NOTICE

Petroleum product was released and/or discharged at the Site. **Petroleum constituents remain on the site, but are not a danger to public health and the environment, provided that the restrictions described herein, and any other measures required by DENR pursuant to N.C.G.S. Sections 143B-279.9 and 143B-279.11, are strictly complied with.** This "Notice of Residual Petroleum" is composed of a description of the property, the location of the residual petroleum, and the land use restrictions on the Site. The Notice has been approved and notarized by DENR pursuant to N.C.G.S. Sections 143B-279.9 and 143B-279.11 and has/shall be recorded at the Johnston County Register of Deeds' office Book ____, Page ____.

Source Property

Walter Lee Powell of Kenly, NC is the owner in fee simple of all or a portion of the Site, which is located in the County of Johnston, State of North Carolina, and is known and legally described as:

BEGINNING at a concrete marker set in the right-of-way line of interstate Highway No. 95 on the south side of the right-of-way at the confluence of the ramp leading from N.C.S.R 2339 to the northbound lane of Interstate Highway No. 95 and the line runs thence with the southern right-of-way like of Interstate Highway No. 95 North 38 degrees 18 minutes 55 seconds East 499.86 feet to a concrete monument, North 74 degrees 15 minutes 23 seconds East 104.80 feet to a concrete monument, North 41 degrees 03 minutes 15 seconds East 296.33 feet to a concrete monument, North 55 degrees 17 minutes 15 seconds East 105 feet to an iron stake, North 59 degrees 05 minutes 50 seconds East 220.84 feet to a concrete monument and North 65 degrees 41 minutes 50 seconds East 262.30 feet to an iron stake with pointers on the west bank of Little River; thence with the west bank of Little River as it meanders in a southerly direction, the

following courses and distances being a tie line which begins at a stake set South 65 degrees 41 minutes 50 seconds West 34.52 feet from the stake with pointers on the west bank of Little River and from beginning point for the tie line, the tie line is South 09 degrees 07 minutes 25 seconds East 602.48 feet, South 15 degrees 26 minutes 25 seconds East 274.91 feet and South 42 degrees 17 minutes 06 seconds East 245.42 feet to an iron stake set in the J.B. Honeycutt et ux line, the true corner being a point on the riverbank; and from the corner on the riverbank with J.B. Honeycutt et ux property the line runs thence with the Honeycutt line South 19 degrees 28 minutes 33 seconds West 247.75 feet to an iron stake set in the centerline of the N.C.S.R. 2335; thence with the centerline of said road in a westerly direction North 69 degrees 58 minutes 18 seconds West 104.93 feet, North 45 degrees 22 minutes 46 seconds West.120.69 feet, South 46 degrees 43 minutes 09 seconds West 144.03 feet, South 44 degrees 18 minutes 24 seconds West 255.23 feet, South 64 degrees 01 minute 11 seconds West 114.50 feet, South 56 degrees 04 minutes 08 seconds West 182.85 feet to a stake set in the centerline of N.C.S.R. 2335, being located North 56 degrees 04 minutes 08 seconds East 105.12 feet from the intersection of the centerlines of N.C.S.R 2339 and N.C.S.R. 2335; thence North 33 degrees 55 minutes 52 seconds West 30.00 feet to the northern right-of-way line of N.C.S.R. 2335 at the sight distance line for the northeast quadrant of the intersection of N.C.S.R 2335 and N.C.S.R. 2339; thence with the sight distance line South 89 degrees 49 minutes 47 seconds West 148.96 feet to a stake set in the eastern right-of-way line of N.C.S.R. 2339; thence with the eastern right-of-way line of N.C.S.R.2339 the following courses and distances: North 50 degrees 12 minutes 09 seconds West 150.00 feet to a stake, North 47 degrees 56 minutes 21 seconds East 20.00 feet, North 40 degrees 34 minutes 51 seconds West 94.71 feet, North 35 degrees 11 minutes 36 seconds West 87.43 feet, North 29 degrees 01 minute 07 second West 108.13 feet, North 21 degrees 30 minutes 37 seconds West 99.74 feet and North 25 degrees 46 minutes 15 seconds West 74.10 feet to the point and place of BEGINNING and being all of Tracts 1 and 2, containing in the aggregate approximately 27.23 acres, according to a plat and survey by Bobby Rex Kornegay, Registered Surveyor, dated January 9, 1979, and revised August 10,1988, styled "Property of Joseph Brooks Honeycutt and wife, Barbara Webb Honeycutt."

For protection of public health and the environment, the following land use restrictions required by N.C.G.S. Section 143B-279.9(b) shall apply to all of the above-described real property. These restrictions shall continue in effect as long as residual petroleum remains on the site in excess of unrestricted use standards and cannot be amended or cancelled unless and until the Johnston County Register of Deeds receives and records the written concurrence of the Secretary (or his/her delegate) of DENR (or its successor in function).

PERPETUAL LAND USE RESTRICTIONS

Groundwater: *Groundwater from the site is prohibited from use as a water supply. Water supply wells of any kind shall not be installed or operated on the site.*

ENFORCEMENT

The above land use restriction(s) shall be enforced by any owner, operator, or other party responsible for the Site. The above land use restriction(s) may also be enforced by DENR through any of the remedies provided by law or by means of a civil action, and may also be enforced by any unit of local government having jurisdiction over any part of the Site. Any attempt to cancel this Notice without the approval of DENR (or its successor in function) shall be subject to enforcement by DENR to the full extent of the law. Failure by any party required or authorized to enforce any of the above restriction(s) shall in no event be deemed a waiver of the right to do so thereafter as to the same violation or as to one occurring prior or subsequent thereto.

IN WITNESS WHEREOF, Walter Powell has caused this Notice to be executed pursuant to N.C.G.S. Sections 143B-279.9 and 143B-279.11, this 9th day of November, 2010.

By: Walter Powell
Walter Powell

Signatory's name typed or printed: Walter Powell

NORTH CAROLINA
Johnston COUNTY

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she signed the foregoing document: Walter Powell

Date: 11-9-10

Patricia B. Allen
Patricia B. Allen
Notary's printed or typed name
Notary Public

(Official Seal)

PATRICIA B. ALLEN NOTARY PUBLIC JOHNSTON COUNTY, N.C.

My commission expires
7-27-2013

Approved for the purposes of N.C.G.S. 143B-279.11

Gene Jackson
(signature of Regional Supervisor)
Gene Jackson, Regional Supervisor
(printed name of Regional Supervisor)
Fayetteville Regional Office

UST Section
Division of Waste Management
Department of Environment and Natural Resources

Cumberland COUNTY, North Carolina

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she signed the foregoing document: Gene Jackson *(full printed name of Regional Supervisor)*

Date: 11-15-2010

Kenneth E. Currie
Kenneth E. Currie
Notary's printed or typed name
Notary Public

(Official Seal)

KENNETH E. CURRIE NOTARY PUBLIC ROBESON COUNTY, NC MY COMMISSION EXPIRES 11-21-2014

My commission expires:
11-21-2014

Revised September 28, 2007

North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue, Governor

Division of Waste Management
UST Section

Dee Freeman, Secretary
Dexter R. Matthews, Director

November 15, 2010

Mr. Walter Lee Powell
Big Boys, Inc.
P.O. Box 280
Kenly, NC 27541

Re: Notice of No Further Action
15A NCAC 2L .0407(d)
Risk-based Assessment and Corrective Action
for Petroleum Underground Storage Tanks

Big Boys, Inc.
595 Bagley Road, Kenly
Johnston County
Incident Number: 29606
Risk Classification: Low
Ranking: LUR

Dear Mr. Powell:

The Limited Site Assessment Report/ Site Closure Request received by the UST Section, Fayetteville Regional Office on October 18, 2010 and the Notice of Residual Petroleum received on November 12, 2010 have been reviewed. The review indicates that groundwater contamination meets the cleanup requirements for a low-risk site but exceeds the groundwater quality standards established in Title 15A NCAC 2L .0202.

The UST Section determines that no further action is warranted for this incident. This determination shall apply unless the UST Section later finds that the discharge or release poses an unacceptable risk or a potentially unacceptable risk to human health or the environment. Pursuant to Title 15A NCAC 2L .0407(a) you have a continuing obligation to notify the Department of any changes that might affect the risk or land use classifications that have been assigned.

Be advised that as groundwater contamination exceeds the groundwater quality standards established in Title 15A NCAC 2L .0202, groundwater within the area of contamination or within the area where groundwater contamination is expected to migrate is not suitable for use as a water supply.

As groundwater contamination exceeds the groundwater quality standards established in Title 15A NCAC 2L .0202 , pursuant to NCGS 143B-279.9 and 143B-279.11, you must file the approved Notice of Residual Petroleum (attached) with the Register of Deeds in the county in which the release is located and submit a certified copy to the UST Section within 30 days of receipt of this letter. This No Further Action determination will not become valid until the UST Section receives a certified copy of the Notice of Residual Petroleum which is filed with the Register of Deeds.

As groundwater contamination exceeds the groundwater quality standards established in Title 15A NCAC 2L .0202 , public notice in accordance with 15A NCAC 2L .0409(b) also is required. Thus, within 30 days of receipt of this letter, a copy of the letter must be provided by certified mail, or by posting in a prominent place, if certified mail is impractical, to the local health director, the chief administrative officer of each political jurisdiction in which the contamination occurs, all property owners and occupants within or contiguous to the area containing contamination, and all property owners and occupants within or contiguous to the area where the contamination is expected to migrate. Within 60 days of receiving this no further action letter, this office must be provided with proof of receipt of the copy of the letter or of refusal by the addressee to accept delivery of the copy of the letter or with a description of the manner in which the letter was posted. This No Further Action determination will not become valid until public notice requirements are completed. Interested parties may examine the Soil Cleanup Report/ Site Closure Request by contacting this regional office and may submit comments on the site to the regional office at the address or telephone number listed below.

This No Further Action determination applies only to the subject incident; for any other incidents at the subject site, the responsible party must continue to address contamination as required.

If you have any questions regarding this notice, please contact me at the address or telephone number listed below.

Sincerely,

Robert F. Heath
Hydrogeologist
Fayetteville Regional Office

Attachments: Notice of Residual Petroleum

cc: Larry Sullivan, Johnston County Health Department
Jonathan R. Grubbs, Terraquest Environmental Consultants, P.C.

UST Regional Offices

Asheville (ARO) – 2090 US Highway 70, Swannanoa, NC 28778 **(828) 296-4500**

Fayetteville (FAY) – 225 Green Street, Suite 714, Systel Building, Fayetteville, NC 28301 **(910) 433-3300**

Mooresville (MOR) – 610 East Center Avenue, Suite 301, Mooresville, NC 28115 **(704) 663-1699**

Raleigh (RRO) – 1628 Mail Service Center, Raleigh, NC 27699 **(919) 791-4200**

Washington (WAS) – 943 Washington Square Mall, Washington, NC 27889 **(252) 946-6481**

Wilmington (WIL) – 127 Cardinal Drive Extension, Wilmington, NC 28405 **(910) 796-7215**

Winston-Salem (WS) – 585 Waughtown Street, Winston-Salem, NC 27107 **(336) 771-5000**

Guilford County Environmental Health, 400 West Market Street, Suite 300, Greensboro, NC 27401, **(336) 641-3771**

You are logged in to iBeam as Jeremy Poplawski. 12:56 PM EDT May 7, 2014

Waste Management | UST Facilities

Facility | Contact | Financial Provider

Facility | Contact | Tanks | Financial Responsibility | UST Details | UST 6A/6B | Sump Details | Contractor/Professional Engineer | Documents

Facility Identification

Facility Name	Facility ID	Owner Name	Owner ID
BIG BOYS, INC.	00-0-0000034820	BIG BOYS INC	5407

Facility Tank List [-]

ID#	Product	Size	Status	Install Date	Temporary Closed Date	Permanently Closed Date	Registration Received	Billable	Tank Upg	Comp Tank	Reg Tank	Root Tank
1	Gasoline, Gas Mix	12000	Current	08/01/1991			Yes	Yes	Yes	No	Yes	
2	Gasoline, Gas Mix	12000	Current	08/01/1991			Yes	Yes	Yes	No	Yes	
3	Gasoline, Gas Mix	12000	Current	08/01/1991			Yes	Yes	Yes	No	Yes	
4	Diesel	20000	Current	08/01/1991			Yes	Yes	Yes	No	Yes	
5	Diesel	20000	Current	08/01/1991			Yes	Yes	Yes	No	Yes	

Cancel | Find Facility | Select Id

internet - Based enterprise application management

APPENDIX C

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.

PYRAMID ENVIRONMENTAL & ENGINEERING
(PROJECT 2014-093)

GEOPHYSICAL SURVEY

PARCEL 002 –
WALTER POWELL
595 BAGLEY ROAD, KENLY, NC
NCDOT PROJECT I-3318BB (WBS 34182.2.1)

KENLY, JOHNSTON COUNTY, NC

JUNE 19, 2014

Report prepared for: **Mr. Gordon Box**
GeoEnvironmental Project Manager
Geotechnical Engineering Unit
1020 Birch Ridge Drive
Raleigh, NC 27610

Prepared by: _____

Eric C. Cross, P.G.
NC License #2181

Reviewed by: _____

Douglas A. Canavello, P.G.
NC License #1066

503 INDUSTRIAL AVENUE, GREENSBORO, NC 27406
P: 336.335.3174 F: 336.691.0648
C257: GEOLOGY C1251: ENGINEERING

GEOPHYSICAL INVESTIGATION REPORT
Parcel 002, 595 Bagley Road
Kenly, Johnston County, North Carolina

Table of Contents

Figures

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT), at the Walter Powell property, Parcel 002, 595 Bagley Road, Kenly, Johnston County, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project I-3318BB). The geophysical survey boundaries at the project site were designed to include the portions of the property between the existing edge of pavement and the proposed ROW and easements, whichever distance was greater. The geophysical investigation consisted of an electromagnetic (EM) induction-metal detection survey.

Geophysical Results: The EM61 survey provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area. A significant portion of the parcel was inaccessible due to dense/tall vegetation and forest. All of the EM61 anomalies detected could be attributed to visible objects at the ground surface such as fences, signs, and other cultural features. The geophysical investigation did not record evidence of metallic USTs at the property.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT), at the Walter Powell property, Parcel 002, 595 Bagley Road, Kenly, Johnston County, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project I-3318BB). The geophysical survey boundaries at the project site were designed to include the portions of the property between the existing edge of pavement and the proposed ROW and easements, whichever distance was greater. The survey grid spanned approximately 355 feet from west to east and a maximum of approximately 155 feet from north to south. Conducted on May 21, 2014, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The parcel operated as a gas station and restaurant truck stop. The main structures associated with the facility were to the southwest of the geophysical survey area. The survey area itself consisted primarily of open grassy areas and heavily vegetated areas sloping down to the river at the east parcel boundary. It should be noted that significant portions of the parcel that were within the proposed ROW and/or easements were not accessible by the geophysical equipment due to the vegetation. Surveys were performed in all accessible areas. Aerial photographs showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

The geophysical investigation consisted of an electromagnetic (EM) induction-metal detection survey. The EM survey was performed on May 21, 2014, using a Geonics EM61 metal detection instrument integrated with a Trimble AG-114 GPS antennae. The integrated GPS system allows the location of the instrument to be recorded in real-time during data collection, resulting in an EM data set that geo-referenced and can be overlain on aerial photographs and CADD drawings. A boundary grid was established around the perimeter of the site and at select interior locations with marks every 10 feet to maintain orientation of the instrument throughout the survey and assure complete coverage of the area.

According to the instrument specifications, the EM61 can detect a metal drum down to a maximum depth of approximately 8 feet. Smaller objects (1-foot or less in size) can be detected to a maximum depth of 4 to 5 feet. The EM61 data were digitally collected at approximately 0.8 foot intervals generally along north-south trending or east-west trending, parallel survey lines spaced five feet apart. The data were downloaded to a computer and reviewed in the field and office using the Geonics NAV61 and Surfer for Windows Version 11.0 software programs.

All anomalies recorded by the EM61 survey were attributed to utilities and other cultural features (see discussion below), thus a ground penetrating radar (GPR) survey was not required.

DISCUSSION OF RESULTS

A contour plot of the EM61 differential results obtained across survey area at the property is presented in **Figure 2**. The differential results are obtained from the difference between the top and bottom coils of the EM61 instrument. The differential results focus on the larger metal objects such as drum and UST-size objects and ignore the smaller insignificant metal objects.

Discussion of EM Anomalies: The EM response at the northwest corner of the survey area was the result of a large highway food information sign. The EM response across the center of the survey area was the result of a chain link fence dividing the highway ROW from the rest of the parcel. The remaining EM responses were associated with visible cultural features such as metal guy wires, a power pole and a manhole cover. No features of unknown origin were detected, ths a GPR survey was not required.

Figure 3 provides an overlay of the EM61 contour map on the NCDOT engineering plans for the site to provide a reference of proposed ROW and construction features with the geophysical data.

The geophysical investigation did not record any evidence of metallic USTs at the property within the survey area limits. It should be re-stated that a significant portion of the parcel was inaccessible due to dense/tall vegetation.

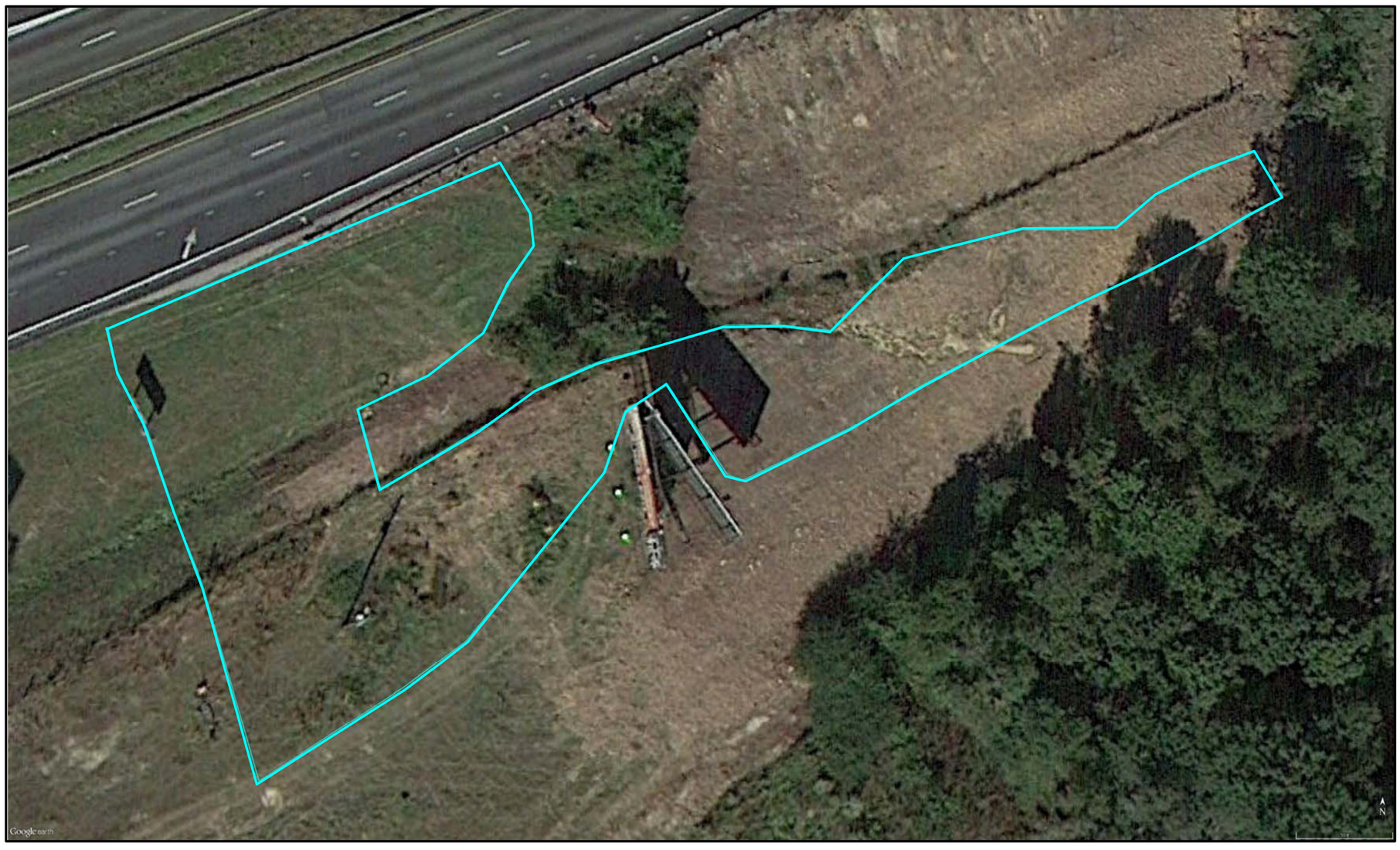
SUMMARY & CONCLUSIONS

Our evaluation of the EM61 data collected across Parcel 002 in Kenly, North Carolina, provides the following summary and conclusions:

- The EM61 survey provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area.
- A significant portion of the parcel was inaccessible due to dense/tall vegetation and forest.
- All of the EM61 anomalies detected could be attributed to visible objects at the ground surface such as fences, signs, and other cultural features.
- The geophysical investigation did not record evidence of metallic USTs at the property.

LIMITATIONS

Geophysical surveys have been performed and this report prepared for the NCDOT in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR surveys are non-unique and may not represent actual subsurface conditions. The EM61 and GPR results obtained for this project have not conclusively determined the definitive presence or absence of metallic USTs, but that the evidence collected is sufficient to result in the conclusions made in this report. Additionally, it should be understood that areas containing extensive vegetation, reinforced concrete, or other restrictions to the accessibility of the geophysical instruments could not be fully investigated.



Approximate Boundaries of Geophysical Survey Area

View of East Portion of Survey Area
(Facing Approximately East)

View of Northwest Portion of Survey Area
(Facing Approximately Northeast)

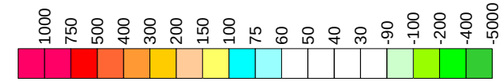
TITLE	PARCEL 002: EM61 GEOPHYSICAL SURVEY PATH AND SITE PHOTOGRAPHS
PROJECT	NCDOT PROJECT I-3318BB (34182.2.1) KENLY, JOHNSTON COUNTY, NC
PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.	503 INDUSTRIAL AVENUE GREENSBORO, NC 27460 (336) 335-3174 (p) (336) 691-0648 (f) License # C1251 Eng. / License # C257 Geology
DATE 6/17/2014	CLIENT NCDOT
PYRAMID PROJECT #: 2014-093	**FIGURE 1**

EM61 Differential Results

NO EVIDENCE OF METALLIC USTs OBSERVED

The contour plot shows the differential results of the EM61 instrument in millivolts (mV). The differential response focuses on larger, buried metallic objects such as drums and USTs and ignores smaller miscellaneous buried, metal debris.The EM61 data were collected on May 21, 2014, using a Geonics EM61 instrument. Ground penetrating radar (GPR) data were not required due to all EM anomalies being directly attributed to cultural features.

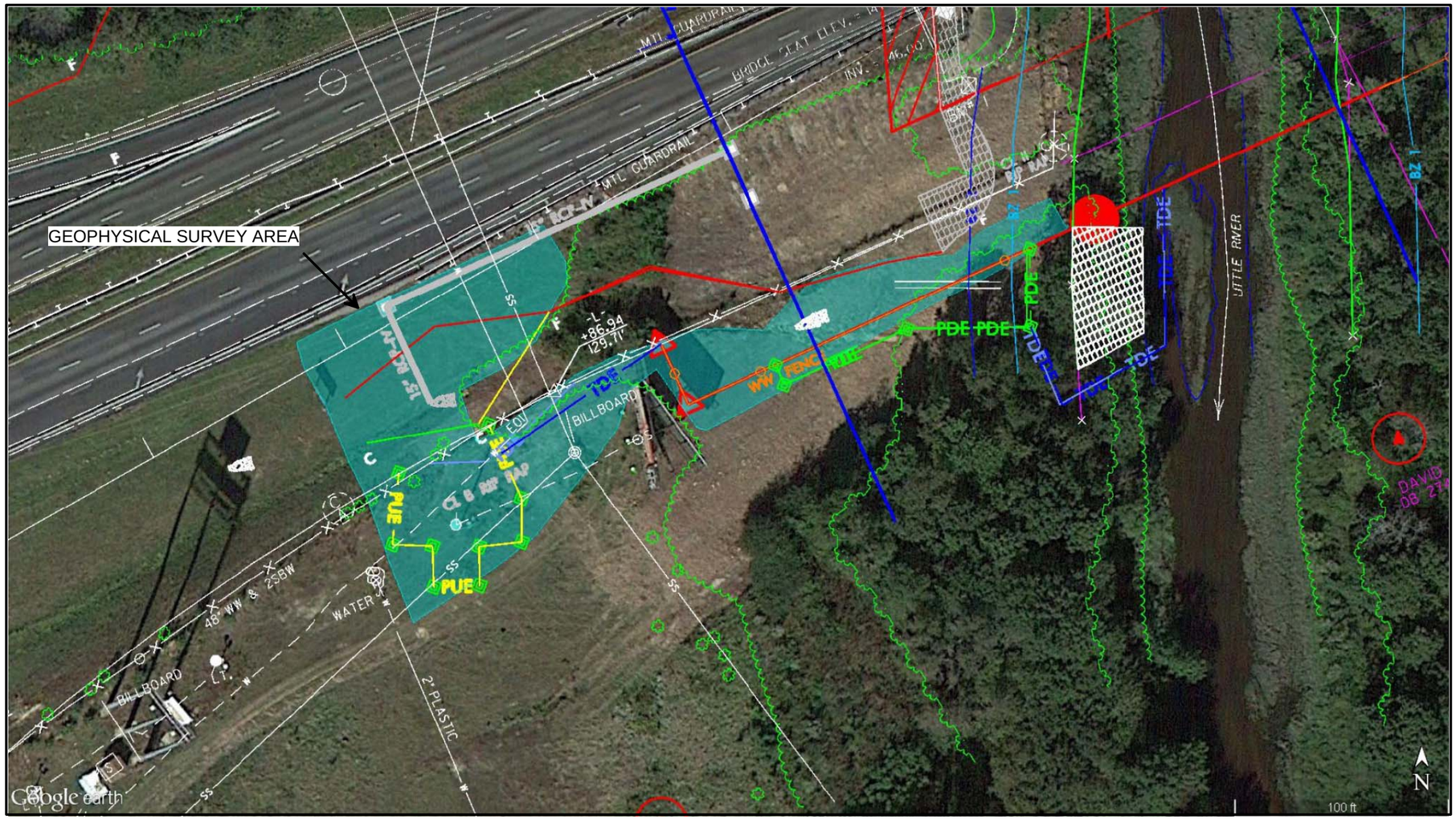
EM61 Metal Detection Response (millivolts)



TITLE	PARCEL 002: EM61 DIFFERENTIAL RESULTS CONTOUR MAP
PROJECT	NCDOT PROJECT I-3318BB (34182.2.1) KENLY, JOHNSTON COUNTY, NC

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27460
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

DATE	6/19/2014	CLIENT	NCDOT
PYRAMID PROJECT #:	2014-093		**FIGURE 2**



Geophysical Survey Area Overlain on NCDOT Engineering Plans
(areas not included in survey are the result of dense/tall vegetation)

TITLE	PARCEL 002: GEOPHYSICAL SURVEY AREA OVERLAIN ON NCDOT CADD
PROJECT	NCDOT PROJECT I-3318BB (34182.2.1) KENLY, JOHNSTON COUNTY, NC
PYRAMID ENVIRONMENTAL & ENGINEERING, P.C	503 INDUSTRIAL AVENUE GREENSBORO, NC 27460 (336) 335-3174 (p) (336) 691-0648 (f) License # C1251 Eng. / License # C257 Geology
DATE 6/17/2014	CLIENT NCDOT
PYRAMID PROJECT #: 2014-093	**FIGURE 3**

APPENDIX D

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT I-3318BB Parcel 002 Walter Powell 2014-093	**BORING/WELL NO:**	2-1
SITE LOCATION:	595 Bagley Road, Kenly, Johnston County, NC	**BORING/WELL LOCATION:**	center parcel S of fence
START DATE:	6/3/14	**COMPLETED:**	6/3/14
GEOLOGIST:	T. Leatherman	**DRILLER:**	Solutions, IES
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Macro-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	6 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
	Depths correspond to changes in soil type	
0-2'	sandy clayey silt (ML); brown, dry to slightly moist, no odor	PID=2-1(0-2): 1 PPM
2-4'	sandy clayey silt (ML); brown, dry to slightly moist, no odor	PID=2-1(2-4): 7 PPM
4-6'	sandy clayey silt (ML); brown with weathered rock frags, moist, no odor	PID=2-1(4-6): 10 PPM
	refusal at 6', no groundwater encountered	

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT I-3318BB Parcel 002 Walter Powell 2014-093	**BORING/WELL NO:**	2-2
SITE LOCATION:	595 Bagley Road, Kenly, Johnston County, NC	**BORING/WELL LOCATION:**	SE parcel in PUE area
START DATE:	6/3/14	**COMPLETED:**	6/3/14
GEOLOGIST:	T. Leatherman	**DRILLER:**	Solutions, IES
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Macro-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	8 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
	Depths correspond to changes in soil type	
0-2'	sand (SP); brown, dry to moist, no odor	
2-4'	clayey sand (SC); brown, moist, no odor	PID=2-2(2-4): 11 PPM
4-6'	sand (SP) with gravel to clayey silt (ML); brown & lt gray, moist, no odor	PID=2-2(4-6): 15 PPM
6-8'	sandy clayey silt (ML); reddish brown, rock frags, moist, no odor	PID=2-2(6-8): 12 PPM
	refusal at 8', no groundwater encountered	

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT I-3318BB Parcel 002 Walter Powell 2014-093	**BORING/WELL NO:**	2-3
SITE LOCATION:	595 Bagley Road, Kenly, Johnston County, NC	**BORING/WELL LOCATION:**	SW corner drainage feature
START DATE:	6/4/14	**COMPLETED:**	6/4/14
GEOLOGIST:	T. Leatherman	**DRILLER:**	Solutions, IES
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Macro-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	2 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
	Depths correspond to changes in soil type	
0-2'	sandy clayey silt (ML); reddish brown to brown, rock at 2', moist, no odor	PID=2-3(0-2): 11 PPM
	refusal at 2', no groundwater encountered	

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT I-3318BB Parcel 002 Walter Powell 2014-093	**BORING/WELL NO:**	2-4
SITE LOCATION:	595 Bagley Road, Kenly, Johnston County, NC	**BORING/WELL LOCATION:**	NW corner drainage feature
START DATE:	6/4/14	**COMPLETED:**	6/4/14
GEOLOGIST:	T. Leatherman	**DRILLER:**	Solutions, IES
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Macro-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	2 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
	Depths correspond to changes in soil type	
0-2'	sandy clayey silt (ML); reddish brown to brown, rock at 2', moist, no odor	PID=2-4(0-2): 11 PPM
	refusal at 2', no groundwater encountered	

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT I-3318BB Parcel 002 Walter Powell 2014-093	**BORING/WELL NO:**	2-5
SITE LOCATION:	595 Bagley Road, Kenly, Johnston County, NC	**BORING/WELL LOCATION:**	NE section drainage feature
START DATE:	6/4/14	**COMPLETED:**	6/4/14
GEOLOGIST:	T. Leatherman	**DRILLER:**	Solutions, IES
DRILL METHOD:	Geoprobe	**SAMPLE METHOD:**	Macro-core
BORING DIA:	2-inch	**CASING DIA:**	None
TOTAL DEPTH:	6 feet	**CASING DEPTH:**	None

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
	Depths correspond to changes in soil type	
0-2'	sandy clayey silt (ML); brown, rock frags, slightly moist, no odor	PID=2-5(0-2): 12 PPM
2-4'	sandy clayey silt (ML); brown, rock frags, slightly moist, no odor	PID=2-5(2-4): 11 PPM
4-6'	sandy clayey silt (ML); brown, rock frags, rock at 6', slightly moist, no odor	PID=2-5(4-6): 8 PPM
	refusal at 6', no groundwater encountered	

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT I-3318BB Parcel 001 Kenneth Etheridge 2014-093	**BORING/WELL NO:**	2-6
SITE LOCATION:	375 Bagley Road, Kenly, Johnston County, NC	**BORING/WELL LOCATION:**	E parcel in riprap
START DATE:	6/4/14	**COMPLETED:**	6/4/14
GEOLOGIST:	T. Leatherman	**DRILLER:**	Pyramid Env.
DRILL METHOD:	Hand auger	**SAMPLE METHOD:**	Hand auger
BORING DIA:	2-inch	**CASING DIA:**	none
TOTAL DEPTH:	4 feet	**CASING DEPTH:**	none

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
	Depths correspond to changes in soil type	
0-2'	sandy clayey silt (ML); brown, slightly moist, no odor	PID=2-6(0-1): 6.9 PPM
2-4'	sandy clayey silt (ML); brown to tan, rock frags, moist, no odor	PID=2-6(1-2): 28 PPM
	Groundwater not encountered	PID=2-6(2-4): 18.4 PPM

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: **PROJECT NUMBER:**	NC DOT I-3318BB Parcel 001 Kenneth Etheridge 2014-093	**BORING/WELL NO:**	2-7
SITE LOCATION:	375 Bagley Road, Kenly, Johnston County, NC	**BORING/WELL LOCATION:**	E parcel in TDE
START DATE:	6/4/14	**COMPLETED:**	6/4/14
GEOLOGIST:	T. Leatherman	**DRILLER:**	Pyramid Env.
DRILL METHOD:	Hand auger	**SAMPLE METHOD:**	Hand auger
BORING DIA:	2-inch	**CASING DIA:**	none
TOTAL DEPTH:	4 feet	**CASING DEPTH:**	none

DEPTH (ft.)	**VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.**	**OVA RESULTS PERCENT RECOVERY BLOW COUNTS**
	Depths correspond to changes in soil type	
0-1'	sandy silt (ML); dark brown, dry, no odor	PID=2-7(0-1): 17.5 PPM
1-3'	sandy clayey silt (ML); brown to tan, moist, no odor	PID=2-7(1-3): 22 PPM
3-4'	sandy clayey silt (ML); brown to tan, moist, no odor	PID=2-7(3-4): 26.5 PPM
	Groundwater not encountered	

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
SCREEN LENGTH (ft) ___ DEPTH (ft) _____ DIAMETER (in) ___ MATERIAL _____.
DEPTH TO TOP OF SAND _____ BAGS OF SAND ___.
DEPTH TO TOP SEAL _____ BENTONITE USED _____ BAGS OF CEMENT USED ___.

APPENDIX E

QED

AQROS

Hydrocarbon Analysis Results

Client: NCDOT - Johnston County I-3318BB
Address: 595 Bagley Road Kenly, NC; Parcel 2

Samples taken 2-1 thru 2-5
Samples extracted 2-1 thru 2-5
Samples analysed 2-1 thru 2-5

Contact:

Operator Ryan Kramer

Project: NCDOT - Johnston County I-3318BB, Parcel 2

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	2-1 (4-6)	13.0	<0.6	<0.6	<0.13	<0.7	<0.13	<0.01	<0.013	0	0	0	Background Organics
s	2-2 (4-6)	13.0	<0.7	<0.7	1.06	1.06	<0.13	<0.01	<0.013	0	100	0	Deg.Fuel Residue (FCM) 41.4%
s	2-3 (0-2)	12.0	<0.6	<0.6	0.26	0.26	0.25	0.04	<0.012	80.9	7.9	11.2	PAH
s	2-4(0-2)	13.0	<0.7	<0.7	<0.13	<0.13	<0.13	<0.01	<0.013	0	13.8	86.2	V.Deg.PHC 61.1%
s	2-5 (4-6)	14.0	<0.7	<0.7	0.33	0.33	0.26	0.08	<0.014	0	45.8	54.2	Deg.Fuel 70.6%

Initial Calibrator QC check OK

Final FCM QC Check OK 93.9%

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content

Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library

(SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present

QED

AQROS

Hydrocarbon Analysis Results

Client: NCDOT - Johnston County I-3318BB
Address: 595 Bagley Road Kenly, NC; Parcel 2

Samples taken 2-6 and 2-7
Samples extracted 2-6 and 2-7
Samples analysed 2-6 and 2-7

Contact:

Operator Ryan Kramer

Project: NCDOT - Johnston County I-3318BB, Parcel 2

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	2-6 (1-2)	14.0	<0.7	<0.7	0.49	0.49	<0.14	<0.01	<0.014	0	9.6	90.4	Deg.Diesel (FCM) (P) 14.4%
s	2-7 (3-4)	13.0	<0.7	<0.7	0.31	0.31	0.29	0.07	<0.013	84	0.7	15.3	Background Organics (P)

Initial Calibrator QC check OK

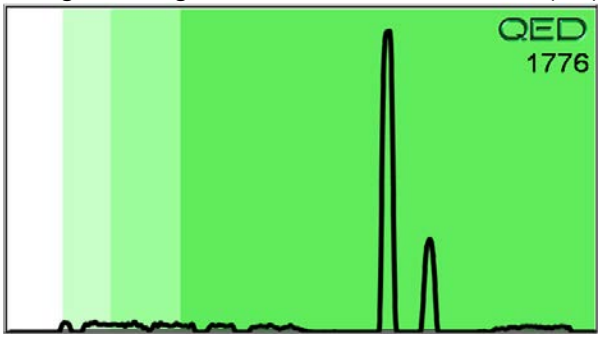
Final FCM QC Check OK 103.8%

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content

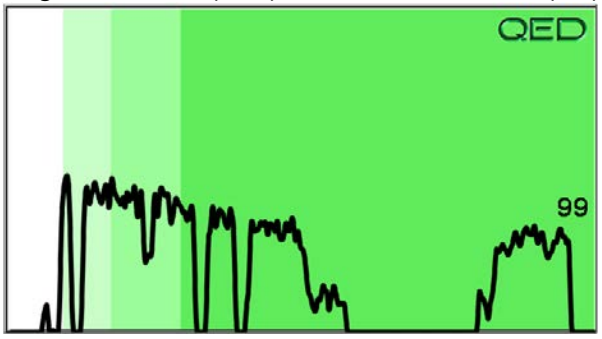
Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library

(SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present

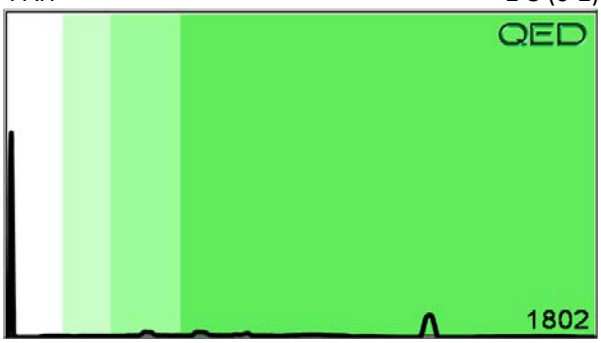
Background Organics 2-1 (4-6)



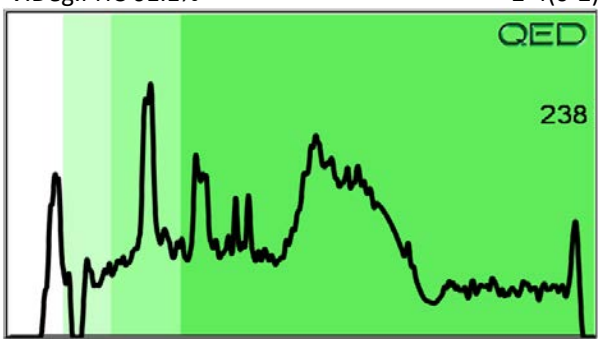
Deg.Fuel Residue (FCM) 41.4% 2-2 (4-6)



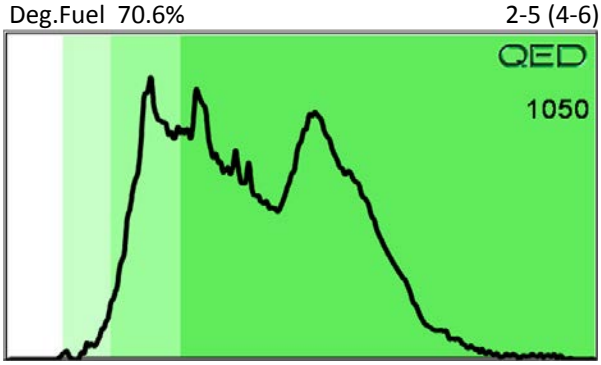
PAH 2-3 (0-2)



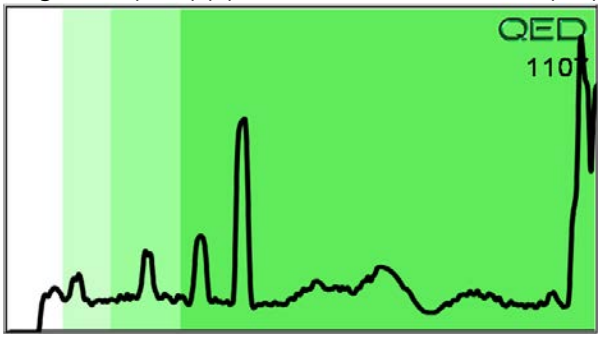
V.Deg.PHC 61.1% 2-4(0-2)



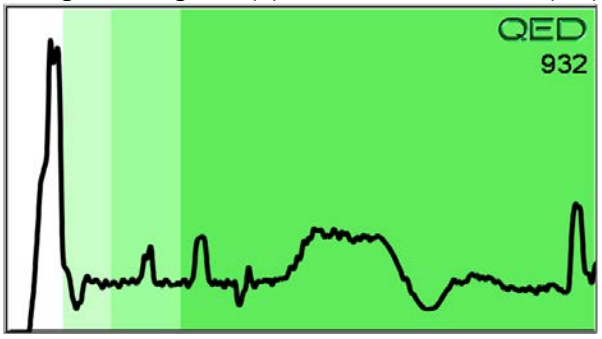
Deg.Fuel 70.6% 2-5 (4-6)



Deg.Diesel (FCM) (P) 14.4% 2-6 (1-2)



Background Organics (P) 2-7 (3-4)



APPENDIX F

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Johnston County PSAs **PROJECT NO.:** I-3318BB
PARCELS 1, 2, 5, 8

Name: Eric Cross **Date:** 5/13/14 **Mon** [**Tue**] **Wed Th Fri Sat Sun**

TASKS PERFORMED:

E. Cross:
Mobilize to site. Performed site visit reconnaissance.
Leave site: ~3:30PM

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Johnston County PSAs **PROJECT NO.:** I-3318BB
PARCELS 1, 2, 5, 8

Name: Eric Cross & Alan McFadden **Date:** 5/21/14 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

E. Cross & A. McFadden:
Mobilize to site. Performed geophysical surveys and data processing in evening.
Leave site: ~5:30PM

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Johnston County PSAs **PROJECT NO.:** I-3318BB
PARCELS 1, 2, 5, 8

Name: Eric Cross & Alan McFadden **Date:** 5/22/14 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

E. Cross & A. McFadden:
Mobilize to site. Performed geophysical surveys.
Leave site: ~12:30PM

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Johnston County PSAs **PROJECT NO.:** I-3318BB
PARCELS 1, 2, 5, 8

Name: Eric Cross **Date:** 5/23/14 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

E. Cross:
Mobilize to site. Performed geophysical surveys (GPR) and data processing.
Leave site: ~5:00PM

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Johnston County PSAs **PROJECT NO.:** I-3318BB
PARCELS 1, 2, 5, 8

Name: Eric Cross & Tim Leatherman **Date:** 5/29/14 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

E. Cross & T. Leatherman:
Mobilize to site. Placed proposed boring locations and supervised private utility locating.
Leave site: ~5:00PM

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Johnston County PSAs **PROJECT NO.:** I-3318BB
PARCELS 1, 2, 5, 8

Name: Tim Leatherman & Ryan Kramer **Date:** 6/2/14 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

T. Leatherman & R. Kramer:
Mobilize to site. Supervised Geoprobe sampling, performed QED analysis (some in evening). Leave site: ~5:30PM

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Johnston County PSAs **PROJECT NO.:** I-3318BB
PARCELS 1, 2, 5, 8

Name: Tim Leatherman & Ryan Kramer **Date:** 6/3/14 **Mon** [**Tue**] **Wed Th Fri Sat Sun**

TASKS PERFORMED:

T. Leatherman & R. Kramer:
Mobilize to site. Supervised Geoprobe sampling, performed QED analysis (some in evening). Leave site: ~4:30PM

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Johnston County PSAs **PROJECT NO.:** I-3318BB
PARCELS 1, 2, 5, 8

Name: Tim Leatherman & Ryan Kramer **Date:** 6/4/14 **Mon Tue Wed Th Fri Sat Sun**

TASKS PERFORMED:

T. Leatherman & R. Kramer:
Mobilize to site. Supervised Geoprobe sampling, performed QED analysis.
Leave site: ~3:00PM