

**PROJECT SPECIAL PROVISIONS
GEOENVIRONMENTAL**

CONTAMINATED SOIL (9/4/2025)

The Contractor's attention is directed to the fact that soil contaminated with petroleum hydrocarbon compounds exist within the project area. The known areas of contamination are indicated on corresponding plans sheets. Information relating to these contaminated areas, sample locations, and investigation reports will be available at the following web address by navigating to the correct letting year and month then selecting, "Plans and Proposals", "U-5711", "Individual Sheets/520 GeoEnvironmental":

<http://dotw-xfer01.dot.state.nc.us/dsplan/>

Petroleum contaminated soil may be encountered during any earthwork activities on the project. The Contractor shall only excavate those soils that the Engineer designates necessary to complete a particular task. The Engineer shall determine if soil is contaminated based on areas shown on the plans, petroleum odors, and unusual soil staining. Contaminated soil not required to be excavated is to remain in place and undisturbed. Undisturbed soil shall remain in place, whether contaminated or not. The Contractor shall transport all contaminated soil excavated from the project to a facility licensed to accept contaminated soil.

In the event that a stockpile is needed, the stockpile shall be created within the property boundaries of the source material and in accordance with the Diagram for Temporary Containment and Treatment of Petroleum-Contaminated Soil per North Carolina Department of Environmental Quality's (NCDEQ) Division of Waste Management UST Section GUIDELINES FOR EX SITU PETROLEUM CONTAMINATED SOIL REMEDIATION. If the volume of contaminated material exceeds available space on site, the Contractor shall obtain a permit from the NCDEQ UST Section's Regional Office for off-site temporary storage. The Contractor shall provide copies of disposal manifests completed per the disposal facilities requirements and weigh tickets to the Engineer.

Measurement and Payment:

The quantity of contaminated soil hauled and disposed of shall be the actual number of tons of material, which has been acceptably transported and weighed with certified scales as documented by disposal manifests and weigh tickets. The quantity of contaminated soil, measured as provided above, shall be paid for at the contract unit price per ton for "Hauling and Disposal of Petroleum Contaminated Soil".

The above price and payment shall be full compensation for all work covered by this section, including, but not limited to stockpiling, loading, transportation, weighing, laboratory testing, disposal, equipment, decontamination of equipment, labor, and personal protective equipment.

Payment shall be made under:

Pay Item

Hauling and Disposal of Petroleum Contaminated Soil

Pay Unit
Ton

DocuSigned by
Ethan J. Caldwell
E9A1CFAC49A2470
09/04/2025



*Pyramid Environmental & Engineering, P.C. Project # 2019-084
GeoEnvironmental Phase II Investigation (PHASE II) – Parcel 046 – Gary Garner*

**GEOENVIRONMENTAL PHASE II INVESTIGATION
PARCEL 046 – GARY GARNER
2445 N. FAYETTEVILLE STREET
ASHEBORO, RANDOLPH COUNTY, NORTH CAROLINA
STATE PROJECT: U-5711
WBS ELEMENT: 50160.1.1
APRIL 12, 2019**

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C-257 –Geology
C-1251 – Engineering

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**GEOENVIRONMENTAL PHASE II INVESTIGATION
PARCEL 046 – GARY GARNER
2445 N. FAYETTEVILLE STREET
ASHEBORO, RANDOLPH COUNTY, NORTH CAROLINA**

EXECUTIVE SUMMARY OF RESULTS

Pyramid Environmental & Engineering P.C. (Pyramid) has prepared this GeoEnvironmental Phase II Investigation (Phase II) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for Parcel 046, owned by Gary Garner. The property currently contains an active gas station surrounded by asphalt and grass medians at 2445 N. Fayetteville Street, Greensboro, NC. This Phase II was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's February 28, 2019, technical proposal. This Phase II is a part of State Project U-5711.

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 Right-Of-Way (ROW) and/or easements, whichever distance was greater. The Phase II 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.

The following statements summarize the results of the Phase II:

- **Site History:** Pyramid interviewed DEQ personnel, interviewed property owners, and reviewed aerial photographs to assess past uses of the property. Pyramid reviewed aerial photographs from 1993 – 2018 obtained from Google Earth. Historical information reviewed as part of the Phase II indicated that the property appears to have contained the commercial building in its current state and location since at least 1993.

A records review and the NCDOT GeoEnvironmental Planning Report both indicated that the site was associated with Groundwater Incident # 13619, UST Number WS-4115 Facility ID 00-0-0000019844 (Incident Name: Garner Brothers). Pyramid obtained all available records associated with this incident, which are included in **Appendix B**. Congruent to the statements above from the NCDOT GeoEnvironmental Planning Report, three USTs were removed from the site in 1992 and two USTs were abandoned in place beneath the building. Pyramid Environmental performed UST Closure Assessment services at the site in 1995 that included soil sampling for Total Petroleum Hydrocarbons (TPH). All analytical results were below detection limits (BDL) and it was recommended that the

Acronyms

BLS	Below Land Surface
BTEX	Benzene, Toluene, Ethylbenzene, & Xylenes
CADD	Computer Aided Design and Drafting
COC	Chain of Custody
CSA.....	Comprehensive Site Assessment
DEQ	Department of Environmental Quality
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

incident be closed. A letter was sent to the property owner from the NC Department of Environment and Natural Resources (NC DENR) in October 1995 indicating that the incident had been closed.

On March 29, 2019, Pyramid emailed the Randolph County parcel address (2445 N. Fayetteville Street, Greensboro, NC) to Ms. Karen Hall, NC Department of Environmental Quality (NC DEQ), with a request to investigate any environmental incidents associated with the parcel. Ms. Hall responded to the email and indicated that there were not any environmental incidents associated with the property other than the groundwater incident discussed above and the subsequent UST removals.

Pyramid Staff Professional Tim Leatherman performed a site investigation at the property. Mr. Leatherman did not observe any significant environmental risks on the property at the time of the investigation.

- **Geophysical Survey:** The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of seven EM anomalies were identified. All of the EM anomalies were directly attributed to visible cultural features at the ground surface. GPR was performed across EM anomalies associated with the building and a reinforced concrete pipe to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures. Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 046.
- **Limited Soil Assessment:** A total of eight soil borings were performed across the property. Soil samples were screened in the field using a Photo-Ionization Detector (PID) and select soil samples were analyzed for Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) using a QED Analyzer. The DEQ action level for TPH-GRO is 50 milligrams per kilogram (mg/kg) and the action level for TPH-DRO is 100 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 or GRO concentrations above DEQ action levels.

- **Limited Groundwater Assessment:** The water table was not encountered in the upper 10 feet of the soil column that was sampled during this Phase II. Review of the NCDOT engineering plans for this parcel indicate that groundwater will not be encountered during construction activities, based on shallow excavations only associated with the cut/fill operations and installation of drainage features. Therefore, it was not necessary to collect a groundwater sample.

- **Contaminated Soil Volumes:** None of the soil samples analyzed exhibited DRO or GRO concentrations above DEQ action levels.
- It should be noted that, if additional impacted soil is encountered during road construction outside of the area analyzed by this investigation, the impacted soil should be managed according to NC DEQ 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 GeoEnvironmental Phase II Investigation (Phase II) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for Parcel 046, owned by Gary Garner. The property currently contains a vacant commercial building surrounded by asphalt and grass medians at 2445 N. Fayetteville Street, Greensboro, NC. This Phase II was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's February 28, 2019, technical proposal. This Phase II is a part of State Project U-5711.

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 Right-Of-Way (ROW) and/or easements, whichever distance was greater. The Phase II 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. The location of the subject site is shown on **Figure 1**.

1.1 Background Information

Based on the NCDOT's February 21, 2019, *Request for Technical and Cost Proposal (RFP)*, the Phase II was conducted between the existing edge of pavement and the proposed ROW and/or easement lines (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 Phase II 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 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. Pyramid's geophysical staff provided additional private utility locating services to mark the on-site private, buried utilities.

2.0 SITE HISTORY

The NCDOT GeoEnvironmental Planning Report comments for Parcel 046 in the RFP documents provided to Pyramid on February 21, 2019, provided the following background information related to the site:

“Former Service Garage or gas station. No USTs or monitoring wells observed on site. 5 USTs were reportedly permanently closed in 1992. Three of them were reportedly removed and two others were filled in place. GWI incident 13619 was recorded in 1992 and closed out in 1995.

Pyramid interviewed DEQ personnel, interviewed property owners, and reviewed aerial photographs to assess past uses of the property. Pyramid reviewed aerial photographs from 1993 – 2018 obtained from Google Earth. Historical information reviewed as part of the Phase II indicated that the property appears to have contained the commercial building in its current state and location since at least 1993. All of these aerial photographs are included in **Appendix A**.

A records review and the NCDOT GeoEnvironmental Planning Report both indicated that the site was associated with Groundwater Incident # 13619, UST Number WS-4115 Facility ID 00-0-0000019844 (Incident Name: Garner Brothers). Pyramid obtained all available records associated with this incident, which are included in **Appendix B**. Congruent to the statements above from the NCDOT GeoEnvironmental Planning Report, three USTs were removed from the site in 1992 and two USTs were abandoned in place beneath the building. Pyramid Environmental performed UST Closure Assessment services at the site in 1995 that included soil sampling for Total Petroleum Hydrocarbons (TPH). All analytical results were below detection limits (BDL) and it was recommended that the incident be closed. A letter was sent to the property owner from the NC Department of Environment and Natural Resources (NC DENR) in October 1995 indicating that the incident had been closed.

On March 29, 2019, Pyramid emailed the Randolph County parcel address (2445 N. Fayetteville Street, Greensboro, NC) to Ms. Karen Hall, NC Department of Environmental Quality (NC DEQ), with a request to investigate any environmental incidents associated with the parcel. Ms. Hall responded to the email and indicated that there were not any environmental incidents associated with the property other than the groundwater incident discussed above and the subsequent UST removals.

Pyramid Staff Professional Tim Leatherman performed a site investigation at the property. Mr. Leatherman did not observe any significant environmental risks on the property at the time of the investigation.

3.0 GEOPHYSICAL INVESTIGATION

Pyramid's classifications of USTs for the purposes of this Phase II 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.

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of seven EM anomalies were identified. All of the EM anomalies were directly attributed to visible cultural features at the ground surface. GPR was performed across EM anomalies associated with the building and a reinforced concrete pipe to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures. Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 046.

The full details of the geophysical investigation are documented in Pyramid's Geophysical Investigation Report, dated April 5, 2019, which is included as **Appendix C**.

4.0 SOIL SAMPLING ACTIVITIES & RESULTS

4.1 Soil Assessment Field Activities

On April 8, 2019, Pyramid mobilized to the site, drilled soil borings and collected the proposed soil samples for the Phase II. Eight (8) soil borings (46-1 through 46-8) were advanced on the subject property. The soil borings were completed using a truck-mounted Geoprobe drill rig. 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 ROW and/or easement, or within other areas of concern such as proposed

drainage features and areas designated for soil removal as indicated by the NCDOT engineering plans. The locations of the borings are shown on **Figure 2**.

Soil samples were continuously collected in four-foot long disposable sleeves 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. In general, the soil sample with the highest PID reading was selected from each boring for QED Ultra-Violet Fluorescence (UVF) laboratory analysis. If field screening detected multiple elevated readings, then additional soil samples from each boring were selectively chosen for UVF analysis. 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. Petroleum odor was detected in borings 46-2, 46-3 and 46-5 at multiple depths 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 RED Lab. The DEQ & NCDOT now accept this instrument as an analytical method to provide total petroleum hydrocarbon (TPH) results for soil analysis for Phase II projects. Pyramid preserved the samples for UVF analysis in methanol-filled containers provided by RED Lab. The samples were shipped to RED Lab for analysis following the soil collection. 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).

4.2 Soil Sample Analytical Results

QED Results

The DEQ action level for TPH-GRO is 50 milligrams per kilogram (mg/kg) and the action level for TPH-DRO is 100 mg/kg. Soil samples were screened with an PID and select soil samples were analyzed for DRO and GRO using a QED Analyzer. None of the soil samples analyzed exhibited DRO or GRO concentrations above DEQ action levels. The soil sample QED results are summarized in **Table 2**. A copy of the QED analysis report is included in **Appendix E**.

4.3 Temporary Monitoring Well Installation

The water table was not encountered in the upper 10 feet of the soil column that was sampled during this Phase II. Review of the NCDOT engineering plans for this parcel indicate that groundwater will not be encountered during construction activities, based on shallow excavations only associated with the cut/fill operations and installation of drainage features. Therefore, it was not necessary to collect a groundwater sample.

5.0 CONCLUSIONS AND RECOMMENDATIONS

As requested by the NCDOT, Pyramid has completed a Phase II at Parcel 046 (Gary Garner) located at 2445 N. Fayetteville Street, Greensboro, NC. The following is a summary of the assessment activities and results.

5.1 Geophysical Investigation

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of seven EM anomalies were identified. All of the EM anomalies were directly attributed to visible cultural features at the ground surface. GPR was performed across EM anomalies associated with the building and a reinforced concrete pipe to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures. Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 046.

5.2 Limited Soil Assessment

The DEQ action level for TPH-GRO is 50 milligrams per kilogram (mg/kg) and the action level for TPH-DRO is 100 mg/kg. Soil samples were screened with an PID and select soil samples were analyzed for DRO and GRO using a QED Analyzer. None of the soil samples analyzed exhibited DRO or GRO concentrations above DEQ action levels.

5.3 Limited Groundwater Assessment

The water table was not encountered in the upper 10 feet of the soil column that was sampled during this Phase II. Review of the NCDOT engineering plans for this parcel indicate that groundwater will not be encountered during construction activities, based on shallow excavations only associated with the cut/fill operations and installation of drainage features. Therefore, it was not necessary to collect a groundwater sample.

5.4 Recommendations

Petroleum-Impacted Soils

No evidence of petroleum-impacted soils (DRO/GRO > DEQ Action Levels) 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 deeper soils are deemed unsuitable or 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 DEQ 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 Phase II was performed.

7.0 CLOSURE

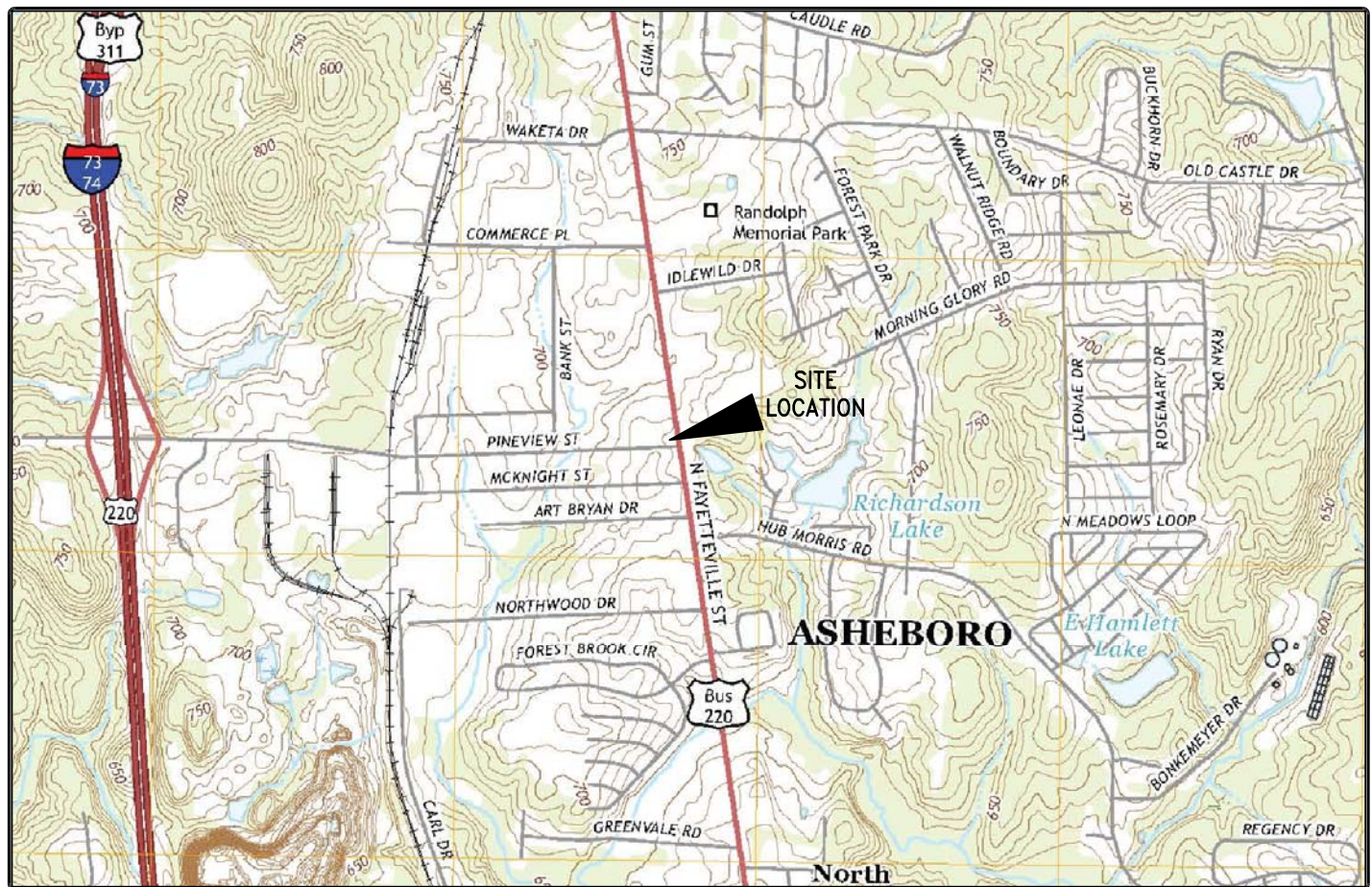
This report was prepared for, and is available solely for use by, the NCDOT and their designees. The contents thereof may not be used or relied upon by any other person without the express written consent and authorization of Pyramid Environmental & Engineering, P.C. (Pyramid). The observations, conclusions, 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: 2445 N. FAYETTEVILLE ST.

LOCATION: ASHEBORO, NORTH CAROLINA



USGS IDENTIFICATION

USGS 7.5
MINUTE MAP

ORIGINAL DATE:

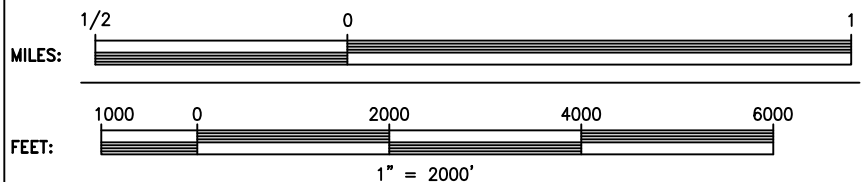
2016

PHOTOREVISION
DATE:

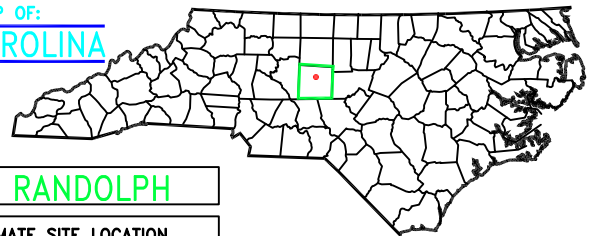
NA

RANDLEMAN, N.C.

SCALES

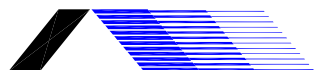


NOTES: ► TOPOGRAPHICAL CONTOUR INTERVAL = 10 FEET
 ► PHOTOREVISIONS DENOTED IN PURPLE

MAGNETIC
NORTHCOUNTY MAP OF:
NORTH CAROLINA

COUNTY: RANDOLPH

APPROXIMATE SITE LOCATION



PYRAMID
 ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT: NCDOT PROJECT U-5711

PROPERTY NAME: 2445 N. FAYETTEVILLE ST., PARCEL 46

CITY: ASHEBORO

STATE: NORTH CAROLINA

TITLE: TOPOGRAPHIC MAP

SCALE:
1"=2000'DATE:
4/2/19DRAWING NAME:
USGSTOPO

DRAWN BY: KAM

CHECK BY: EC

JOB NO.: 2019-084

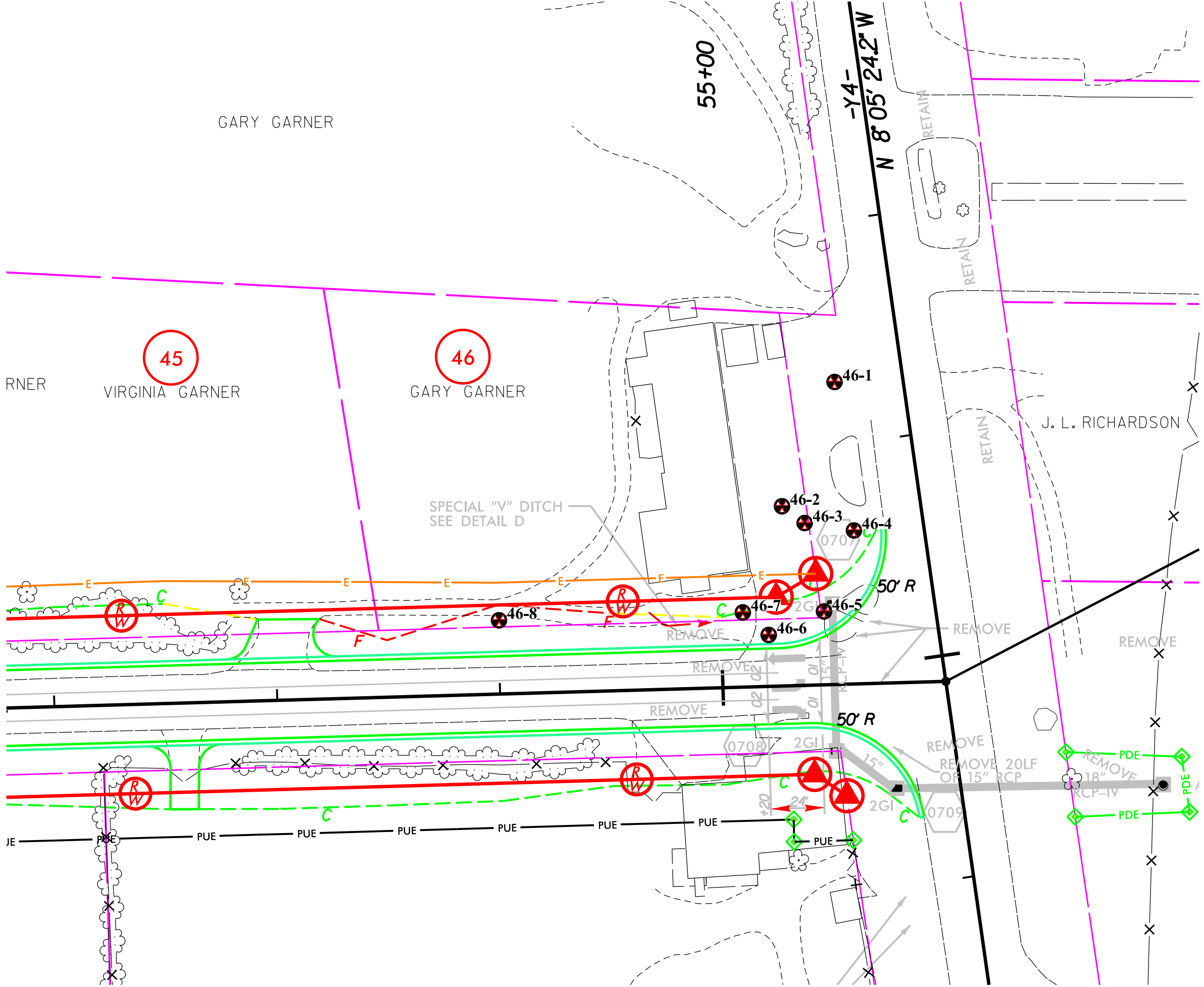
TYPE: PSA

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.



LEGEND

- EXISTING ROW
- EXISTING PROPERTY BOUNDARY
- PROPOSED ROW LINE
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT UTILITY EASEMENT
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE

46-1 SOIL SAMPLE LOCATION*

* ANALYTICAL RESULTS PRESENTED IN
TABLE 2 OF GEOENVIRONMENTAL PHASE II REPORT



TITLE SOIL SAMPLING LOCATIONS	
PROJECT PARCEL 46 ASHEBORO, NORTH CAROLINA NCDOT PROJECT U-5711	
 503 INDUSTRIAL AVENUE GREENSBORO, NC 27406 336.335.3174 (p) 336.691.0648 (f) License # C1251 Eng. / #C257 Geology	
DATE: 04-08-2019	REVISION NO. 0
PYRAMID PROJECT NO. 2019-084	FIGURE NO. 2

TABLES

TABLE 1
Summary of Soil Field Screening Results
NCDOT Project U-5711
Parcel 46 - Gary Garner
2445 N. Fayetteville Street
Asheboro, Randolph County, North Carolina

SOIL BORING 10/3/2018	SAMPLE ID	DEPTH (feet bgs)	PID READINGS (PPM)
46-1	46-1-0-2	0 to 2	0.5
	46-1-2-4	2 to 4	1.0
	46-1-4-6	4 to 6	1.4
	46-1-6-8	6 to 8	1.1
	46-1-8-10	8 to 10	1.0
46-2	46-2-0-2	0 to 2	0.8
	46-2-2-4	2 to 4	1.5
	46-2-4-6	4 to 6	25.0
	46-2-6-8	6 to 8	3.3
	46-2-8-10	8 to 10	1.5
46-3	46-3-0-2	0 to 2	0.6
	46-3-2-4	2 to 4	1.8
	46-3-4-6	4 to 6	2.8
	46-3-6-8	6 to 8	1.1
	46-3-8-10	8 to 10	3.8
46-4	46-4-0-2	0 to 2	1.3
	46-4-2-4	2 to 4	2.6
	46-4-4-6	4 to 6	1.4
	46-4-6-8	6 to 8	2.4
	46-4-8-10	8 to 10	1.5
46-5	46-5-0-2	0 to 2	1.8
	46-5-2-4	2 to 4	1.5
	46-5-4-6	4 to 6	3.2
	46-5-6-8	6 to 8	1.7
	46-5-8-10	8 to 10	1.4
46-6	46-6-0-2	0 to 2	3.7
	46-6-2-4	2 to 4	6.6
	46-6-4-6	4 to 6	2.5
	46-6-6-8	6 to 8	3.5
	46-6-8-10	8 to 10	3.6
46-7	46-7-0-2	0 to 2	2.5
	46-7-2-4	2 to 4	2.4
	46-7-4-6	4 to 6	3.3
	46-7-6-8	6 to 8	2.7
	46-7-8-10	8 to 10	1.9
46-8	46-8-0-2	0 to 2	3.0
	46-8-2-4	2 to 4	4.1
	46-8-4-6	4 to 6	3.1
	46-8-6-8	6 to 8	2.5
	46-8-8-10	8 to 10	3.2

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 U-5711
 Parcel 46 Gary Garner - 2445 N. Fayetteville Street
 Asheboro, Randolph County, North Carolina

SAMPLE ID	DATE	DEPTH (feet)	PID (ppm)	QROS - QED Analysis		
				GRO (mg/kg) (C5-C10)	DRO (mg/kg) (C10-C35)	TPH (mg/kg) (C5-C35)
46-1-4-6	4/8/2019	4-6	1.4	<0.6	<0.6	<0.6
46-2-4-6	4/8/2019	4-6	25.0	7	49.9	56.9
46-3-4-6	4/8/2019	4-6	2.8	<0.53	0.53	0.53
46-3-8-10	4/8/2019	8-10	3.8	<0.2	<0.2	<0.2
46-4-2-4	4/8/2019	2-4	2.6	<0.49	1.6	1.6
46-5-0-2	4/8/2019	0-2	1.8	<0.49	0.61	0.61
46-5-4-6	4/8/2019	4-6	3.2	<0.46	<0.46	<0.46
46-6-2-4	4/9/2019	2-4	6.6	<0.51	<0.51	<0.51
46-7-0-2	4/9/2019	0-2	2.5	<0.27	0.27	0.27
46-7-4-6	4/9/2019	4-6	3.3	<0.53	<0.53	<0.53
46-8-2-4	4/9/2019	2-4	4.1	<0.49	<0.49	<0.49
NC Initial Action Level - UST Section for 5035/5030-GRO; 3550-DRO				50	100	NA

PID= photo-ionization 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

* Bold values indicate concentrations above initial action levels

APPENDIX A

Parcels 046, 050 & 051

1993 Aerial



Parcels 046, 050 & 051

1999 Aerial



Parcels 046, 050 & 051

2002 Aerial



Parcels 046, 050 & 051

2017 Aerial



Parcel 046

Parcel 050

Parcel 051

Pineview-St

1712

N Fayetteville-St

McKnight-St

BUS 220

Google Earth

500 ft

Landis Court

Parcels 046, 050 & 051

2018 Aerial



Parcel 046

Parcel 050

Parcel 051

Pineview St

McKnight St

BUS
220

1712

N Fayetteville St

Google Earth

© 2018 Google

500 ft

Landis Court
N

APPENDIX B

RECEIVED
N.C. Dept. of ENV
MAR 8 1995
V. J. [unclear]
Raleigh, NC

**CLOSURE ASSESSMENT ADDENDUM
SOIL SAMPLING INVESTIGATION
PRODUCT LINE AREA**

GARNER BROTHERS PAWN SHOP
FAYETTEVILLE STREET & PINEVIEW STREET
ASHEBORO, NORTH CAROLINA
FACILITY # 0-019844

RA-3

Prepared for: Blease Garner
2445 North Fayetteville Street
Asheboro, North Carolina 27203

March 8, 1995

PYRAMID ENVIRONMENTAL, INC.
2706 Pinedale Road
Greensboro, NC 27408
(910) 282-9030

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY	1
2.0 SOIL SAMPLING AND DECONTAMINATION PROCEDURES.....	1
3.0 LABORATORY ANALYSIS.....	1
4.0 CONCLUSIONS / RECOMMENDATIONS.....	2
5.0 CLOSURE.....	2

FIGURES

- 1.) Site Location Map
- 2.) Site Detail Map

APPENDIX

- A. Lab Report and Chain of Custody

**Closure Assessment Addendum
Soil Sampling Investigation
Product Line Area
Garner Brothers Pawn Shop
Asheboro, North Carolina**

1.0 EXECUTIVE SUMMARY

On February 7, 1995, Pyramid Environmental, Inc. of Greensboro, North Carolina performed a soil sampling investigation at Garner Brothers' Pawn Shop located at the intersection of Fayetteville Street and Pineview Street in Asheboro, North Carolina (Figure 1). The purpose of this investigation was to assess site conditions beneath former product lines which formerly connected a gasoline underground storage tank (UST) to a pump island where the product was dispensed.

Two soil samples were taken beneath the location of the product lines and sent to a North Carolina certified laboratory for analysis using EPA Method 5030. The laboratory results indicate that the soil does not contain Total Petroleum Hydrocarbon (TPH) levels above the state regulatory level of 10 parts per million--ppm--by EPA Method 5030. Pyramid recommends closure of the site. A copy of the lab results are included in Appendix A.

2.0 SOIL SAMPLING AND DECONTAMINATION PROCEDURES

Soil samples were obtained from two locations beneath the product lines (see Figure 2). The samples were obtained from soil borings at a total depth of 3' from ground surface. The following decontamination procedures were followed while obtaining the samples:

Decontamination Procedures

1. A new pair of sterile, latex gloves were worn while obtaining each of the samples.
2. The samples were placed in separate clean glass jars and sealed with air-tight lids.

The samples were screened with an organic vapor meter (OVM) and placed in a cooler maintained at approximately 4° Celsius.

3.0 LABORATORY ANALYSIS

The samples were sent to a North Carolina certified laboratory for TPH analysis using EPA Method 5030. The results are shown in Table 1 and Figure 2. A complete copy of the lab results and chain of custody are contained in Appendix A.

Table 1: Soil Samples

Sample Number	EPA Method	Depth in feet	TPH 3550	Date Collected
LS-1	5030	3	BDL	2/7/95
LS-2	5030	3	BDL	2/7/95

TPH=Total Petroleum
Hydrocarbons
BDL=Below Detection Level

4.0 CONCLUSIONS / RECOMMENDATIONS

On February 7, 1995, Pyramid Environmental conducted a soil sampling investigation on the Garner property. The results of soil samples LS-1 (BDL=Below Detection Level) and LS-2 (BDL) collected for laboratory analysis did not indicate TPH levels above the state regulatory limit of 10 ppm by EPA Method 5030.

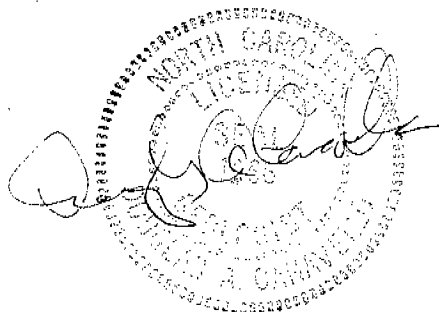
Based on laboratory analytical results and field investigations, Pyramid recommends no further assessment activities in the area of the former product lines.

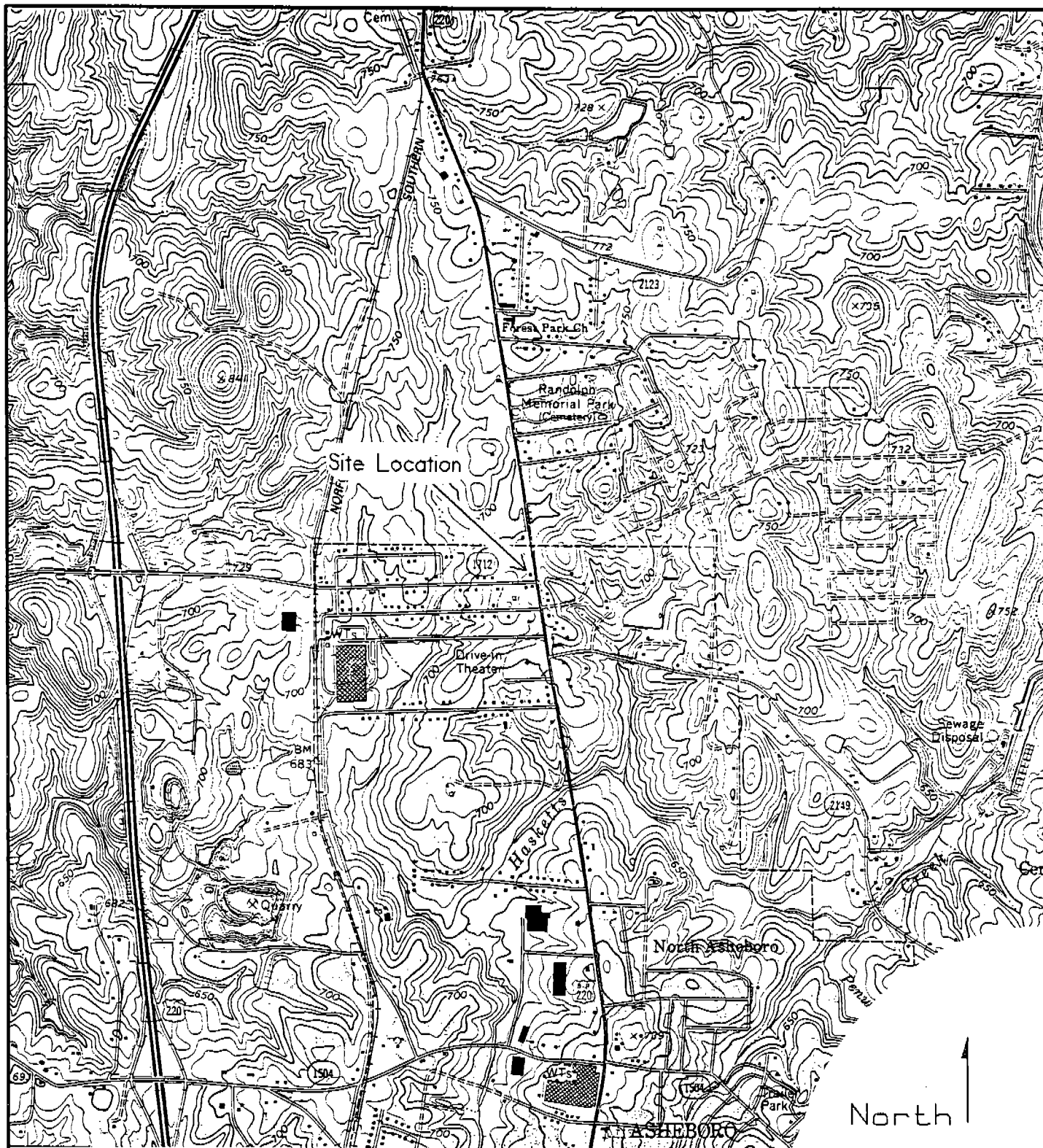
5.0 CLOSURE

The observations, conclusions and recommendations documented in this report are based on site conditions and information available at the time of Pyramid's investigation. Pyramid Environmental, Inc. appreciates the opportunity to provide this service.

Yours truly,

Douglas A. Canavello, PG
Pyramid Environmental, Inc.

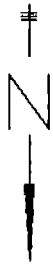




Scale: 1" = 2000'
 USGS Topographic Map
 Randleman, NC Quadrangle

PYRAMID ENVIRONMENTAL	
Garner Brothers Pawn Shop Asheboro, NC	
Site Location Map	
Feb. 1995	Figure 1

Fayetteville Street



Edge of Former Excavation Area
(Performed During Closure Assessment)

Former USTs
-2 550 gallon
gasoline tanks
-pump island
rested on end of
tanks

(concrete pad)

LS-1

Product Lines
(both lines ran in
single ditch)

LS-2

(asphalt)

(gravel)

Edge of
Excavation Area
(Performed During
Closure Assessment)

Former USTs
-2 3,000 gallon
gasoline tanks

Garner Brothers Pawn Shop

Sample Results			
Sample	Date	Depth of Sample	Method Result
LS-1	2/7/95	3'	5030 BDL
LS-2	2/7/95	3'	5030 BDL
BDL=Below Detection Limit			

Scale (ft)
0 15

PYRAMID ENVIRONMENTAL

Garner Brothers Pawn Shop
Asheboro, NC

Site Detail Map

Jan. 1995 Figure 2

APPENDIX A

Lab Report and Chain of Custody

H Y D R O L O G I C , I N C .

February 16, 1995

REPORTING:

Pyramid Environmental
2706 Pinedale Road
Greensboro, NC 27408

Attention: Doug Canavello

INVOICING:

Pyramid Environmental
2706 Pinedale Road
Greensboro, NC 27408

PROJECT NUMBER: FL953033

DATE COMPLETED: February 16, 1995

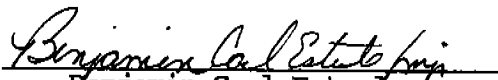
DATE RECEIVED: February 9, 1995

PROJECT DESCRIPTION:

Garner Brothers--2 soil samples analyzed for 5030.

Enclosed is the laboratory report for the project described above. If you have any questions or if we can be of further assistance, please feel free to contact Jamie Fore. We appreciate your business and look forward to serving you again soon.

Respectfully,


Benjamin Carl Esterle
Laboratory Director

H Y D R O L O G I C , I N C .

COMPANY NAME: Pyramid Environmental
COMPANY PROJECT NUMBER: GARNER BROTHERS

HYDROLOGIC PROJECT NUMBER: FL953033
HYDROLOGIC SAMPLE NUMBER: 953033
HYDROLOGIC LAB I.D. #: 399
SAMPLE IDENTIFICATION: LS-1
DATE SAMPLED: 2/7/95
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 2/16/95

METHOD TPH 5030

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (mg/kg)	<u>RESULT</u> (mg/kg)
Gasoline		2.0	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

H Y D R O L O G I C , I N C .

COMPANY NAME: Pyramid Environmental
COMPANY PROJECT NUMBER: GARNER BROTHERS

HYDROLOGIC PROJECT NUMBER: FL953033
HYDROLOGIC SAMPLE NUMBER: 953034
HYDROLOGIC LAB I.D. #: 399
SAMPLE IDENTIFICATION: IS-2
DATE SAMPLED: 2/7/95
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 2/16/95

METHOD TPH 5030

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (mg/kg)	<u>RESULT</u> (mg/kg)
Gasoline		2.0	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

F1953033

COMPANY NAME	CONTACT NAME
Pyramid Environmental	Doug Canavello

TELEPHONE NO. 910-282-9830

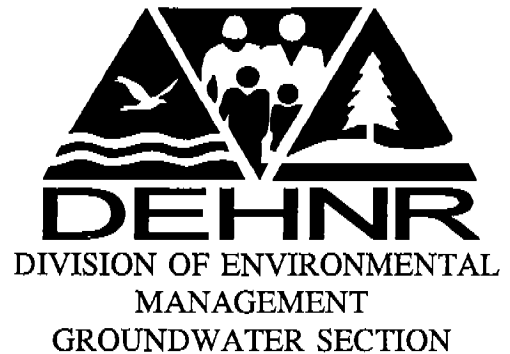
[illegible]

COMMENTS:

Relinquished by: (Signature)			Received by: (Signature)	Date	Time
Relinquished by: (Signature)			Received by: (Signature)	Date	Time
Dispatched by: (Signature)	Date	Time	Received for Laboratory by:	Date	Time
<i>John Tulin</i>	<i>2/9/95</i>	<i>8:00</i>	<i>[Signature]</i>	<i>2/9/95</i>	<i>11:00</i>
Method of Shipment:				Date	Time

State of North Carolina
Department of Environment,
Health and Natural Resources
Regional Health Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Leesha L. Fuller, Regional Manager



October 26, 1995

Mr. Donald B. Garner
Garner Brothers
2445 N. Fayetteville St.
Asheboro, NC 27203

SUBJECT: Underground Storage Tank (UST) Closure - Garner Brothers, 2445 N. Fayetteville St., Asheboro, Randolph County

Dear Mr. Garner:

On March 27, 1992 and August 14, 1995, we received the soil sample results and closure assessment from the underground storage tank closure at the subject location. As the implementing agency for the Federal Underground Storage Tank Program for the State of North Carolina, we have determined after careful review of your assessment that the UST system has been closed in accordance with NCAC Title 15A Subchapter 2N Sections .0802 and .0803. However, this does not absolve you of any responsibility for contamination that may not have been detected or noted during the site assessment.

If you have any questions, please feel free to contact Shuying Wang or me at the letterhead address and/or telephone number.

Sincerely,

A handwritten signature in black ink, which appears to read 'W. Waddell Watters', is written over a horizontal line.

W. Waddell Watters
Hydrogeologist

WWW/sw

cc: Regional Office Files
Central Files - Randolph County

RECEIVED
N.C. Dept. of EHN

NOV 3 1994

GARNER BROTHERS
2445 NORTH FAYETTEVILLE STREET
ASHEBORO, NC 27203
PHONE: (910) 672-0421

Winston-Salem
Regional Office

Dear Sir:

In regards to your Certified Mail Number: Z-691 946 129.

I am sending you all the information that I have concerning the UST closure assessment for this location.

In January of 1992, I sign a contract with Carolina Tank Services of Kannapolis to take care of everything pertaining to removal of our tanks. IT WAS MY UNDERSTANDING THAT THEY HAD TAKEN CARE OF EVERYTHING.

I have tried to get in touch with them, but I am unable to reach them. So I am sending you the information that I have.

Sincerely,

Donald B. Garner, Sr.

3:40
- 4:00 PM
(910) 625-4816

Site Investigation Report For Permanent Closure or Change-in-Service of U.S.T.

FOR
TANKS
IN
NC

Return Completed Form To:

The appropriate DEM Regional Office according to the county of the facility's location.
[SEE MAP ON REVERSE SIDE OF OWNER'S COPY (BLUE) FOR REGIONAL OFFICE ADDRESS].

State Use **OHIO Dept. of ENVR**
I.D. Number
Date Received **NOV 3 1994**

INSTRUCTIONS

Please complete and return within (30) days following completion of site investigation.

Regional Office

I. Ownership of Tank(s)

Donald B. Garner
Owner Name (Corporation, Individual, Public Agency, or Other Entity)
2445 N. Fayetteville Street
Street Address
Raleigh
County
Asheboro N.C. 27203
City
(919) 672-0421 State Zip Code
Area Code Telephone Number

II. Location of Tank(s)

Garner Brothers
Facility Name or Company
Facility ID # (if available)
2445 N. Fayetteville Street
Street Address or State Road
Raleigh Asheville 27203
County City Zip Code
(919) 672-0421
Area Code Telephone Number

III. Contact Person

Donald B. Garner Name Job Title Owner Telephone Number (919) 672-0421

Closure Contractor Carolina Tank Services 1206 N. Cannon Blvd. Kannapolis

Lab PAR 2217 (Name) Graham Park Drive Charlotte (Address)

(Name) (Address)

IV. U.S.T. Information

V. Excavation Condition

VI. Additional Information Required

Tank No.	Size in Gallons	Tank Dimensions	Last Contents	Water in Excavation		Free Product		Notable Odor or Visible Soil Contamination	
				Yes	No	Yes	No	Yes	No
1	3,000	18'L 5'W	Gasoline		XX		XX		XX
2	3,000	18'L 5'W	Gasoline		XX		XX		XX
3	550	6'L 44"W	Gasoline		XX		XX	XX	
4	550	6'L 44"W	Gasoline		XX		XX	XX	
5	2,000	12'L 5½'W	Gasoline		XX		XX		XX

See reverse side of blue copy (owner's copy) for additional information required by N.C. - DEM in the written report and sketch.

VII. Check List

Check the activities completed.

- ☒ Contact local fire marshal
- ☒ Notify DEM Regional Office before abandonment
- ☒ Drain & flush piping into tank
- ☒ Remove all product and residuals from tank
- ☒ Excavate down to tank
- ☒ Clean and inspect tank
- ☒ Remove drop tube, fill pipe, gauge pipe, vapor recovery tank connections, submersible pumps and other tank fixtures.
- ☒ Cap or plug all lines except the vent and fill lines.
- ☒ Purge tank of all product & flammable vapors.
- ☒ Cut one or more large holes in the tanks.
- ☒ Backfill the area.

Date Tank(s) Permanently closed: FEB 20 1992
Date of Change-in-Service: _____

ABANDONMENT IN PLACE

- ☐ Fill tank until material overflows tank opening;
- ☐ Plug or cap all openings;
- ☐ Disconnect and cap or remove vent line
- ☐ Solid inert material used - please specify: _____

REMOVAL

- ☒ Create vent hole
- ☐ Label tank
- ☒ Dispose of tank in approved manner
- Final tank destination: Cordon's Iron and Metal

VIII. Certification (Read and Sign)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Print name and official title of owner or owner's authorized representative

DONALD B. GARNER, SR

Signature

Donald B. Garner, Sr.

Date Signed

3-26-92

Notice of Intent to Permanently Close Underground Storage Tank(s)FOR
TANKS
IN
NCNorth Carolina - Department of Environment, Health, & Natural Resources
Division of Environmental Management - Groundwater Section - U.S.T.
P.O. Box 27687
Raleigh, NC 27611 (919)733-8303N.C. Dept. of EHN
State Use Only
I. D. Number NOV 3 1994
Date ReceivedWinston-Salem
Regional Office**INSTRUCTIONS**

Please complete and return thirty (30) days prior to permanently closing tank(s).

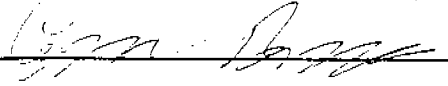
I. OWNERSHIP OF TANK(S)**II. LOCATION OF TANK(S)**Tank Owner Name: Donald B. Garner
(Corporation, Individual, Public Agency, or Other Entry)
Street Address: 2445 N. Fayetteville Street
County: RandolphFacility Name or Company: Garner Brothers
Street Address or State Road: 2445 N. Fayetteville St.
County: RandolphCity: Asheboro State: N.C. Zip Code: 27203City: Asheboro State: N.C. Zip Code: 27203Telephone Number (Area Code): (919) 672-0421Telephone Number (Area Code): (919) 672-0421**Contact Person**Name: Donald B. Garner Job Title: Owner Telephone Number: (919) 672-0421**TANK REMOVAL OR CLOSURE IN PLACE**

1. Contact Local Fire Marshall.
2. Plan the Closure Event.
3. Make Site Soil Assessments.
4. Remove Tanks or Close in Place in a Safe and Secure Manner Per API Pubs. "2015 Cleaning" and "1604 Removal & Disposal".
5. Provide a sketch Locating Tanks and Soil Tests.
6. Keep Records for 3 Years.

TANK(S) CLOSURE OPERATIONS TO BE PERFORMED BY:(Contractor) Name: Carolina Tank ServicesAddress: 1206 N. Cannon Blvd. Kannapolis State: N.C. Zip Code: 28083Contact: Cyrus Brooks III Phone: (704) 932-5501**TANK(S) SCHEDULED FOR CLOSURE OR TO BE CLOSED**

TANK NUMBER	TANK ID #	TANK CAPACITY	LAST CONTENTS	CLOSURE METHOD
				Remove Close in Ground
Tank 1		<u>4,000 gallon</u>	<u>Gasoline</u>	☒ ☐
Tank 2		<u>2,000 gallon</u>	<u>Gasoline</u>	☒ ☐
Tank 3		<u>2,000 gallon</u>	<u>Gasoline</u>	☒ ☐
Tank 4		<u>550 gallon</u>	<u>Gasoline</u>	☒ ☐
Tank 5		<u>550 gallon</u>	<u>Gasoline</u>	☒ ☐
Tank 6				☐ ☐
Tank 7				☐ ☐
Tank 8				☐ ☐
Tank 9				☐ ☐

Name and Official title of Owner's Authorized Representative

Cyrus Brooks III ☒ Operations Manager*Scheduled Removal Date: 2-17-92Signature: Date Submitted: 1-14-92

*If scheduled removal date changes, Forty-eight hours verbal notice of tank removal is required.

GW/UST-3

White Copy - Owner

Blue Copy - Central Office

Yellow Copy - Regional Office

Pink Copy - Central Files

Herman's Tank Removal & Grading Service

312 Jackson Park Road
Kannapolis, North Carolina 28081
(704) 932-5501

CONTRACT

Contract Submitted to:

Work to be Performed at:

Name Mr. Donald B. Garner		Company Name Garner Brothers	Date Submitted 1-6-92
Street City 2445 N. Fayetteville St. Asheboro		Street City 2445 N. Fayetteville St. Asheboro	
State and Zip Code County N.C.		State and Zip Code County N.C.	
Phone (919) 672-0421	Date of Plans	Phone (919) 672-0421	Facility ID#

CONTACT PERSON

Name: Donald B. Garner Job Title: Owner Phone No.: (919) 672-0421

We Hereby Propose to Furnish Materials and Labor Necessary for the Completion of:

All work to be performed as per scope of work outline in the proposal dated 1-6-92.

Carolina Tank Service will not be liable or responsible for any present and/or unknown hazardous materials, gasoline, diesel, kerosene, etc., that may be on site or that may have been released to the subterranean environment. We will not be responsible for damages to underground power lines, telephone lines, water lines, sewer lines, that are not properly located and marked. Any unknown conditions encountered in the performance of our work will be considered as extra work and will be discussed with the owner/client and if agreed upon by the owner/client and Carolina Tank Services, the additional work will then be billed at time and materials plus cost and 20%.

WE PROPOSE hereby to furnish material and labor -- complete in accordance with above specifications, for the sum of: \$ 11,500.00

Payment to be made as follows: Payment must be made in full as soon as the work is complete and the Chain-of-Custody has been received by the owner.

Respectfully Submitted: Cyrus H. Brooks III (Operations Manager) *Cyrus H. Brooks III*

As Per Roy Sykes (Carolina Tank Services) *Roy Sykes*

Note: This Proposal may be Withdrawn by Us if not Accepted Within -0- Days.

ACCEPTANCE OF CONTRACT: The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature

Donald B. Garner, Jr.

Date of Acceptance:

1-10-92

Signature

John S. Rice
Laboratory Director

John S. Rice
Laboratory Director

Herman's Tank Disposal Company
1116 N. Main Street
Kannapolis, NC 28081
704-932-5501

Certificate of Disposal

Tank # 1201

Size 3,000 gallon

This to certify that the above tank has been disposed of by Herman's Tank Disposal Company in accordance with and exceeding EPA regulations on Petroleum Tank Disposal. On 2-20-92 this tank was cut into 30" by 18' strips of steel scrap and shipped to Foil's Recycling Center in Harrisburg, NC to be melted down into new steel.

Certified by Reg. Supt. Herman's Tank Disposal Co. Date 3-26-92

Herman's Tank Disposal Company
1116 N. Main Street
Kannapolis, NC 28081
704-932-5501

Certificate of Disposal

Tank # 1200

Size 3,000 gallon

This to certify that the above tank has been disposed of by Herman's Tank Disposal Company in accordance with and exceeding EPA regulations on Petroleum Tank Disposal. On 2-20-92 this tank was cut into 30" by 18' strips of steel scrap and shipped to Foil's Recycling Center in Harrisburg, NC to be melted down into new steel.

Certified by Roy Sykes/Herman's Tank Disposal Co. Date 3-26-92

Herman's Tank Disposal Company
1116 N. Main Street
Kannapolis, NC 28081
704-932-5501

Certificate of Disposal

Tank #11199

Size 550 gallon

This to certify that the above tank has been disposed of by Herman's Tank Disposal Company in accordance with and exceeding EPA regulations on Petroleum Tank Disposal. On 2-20-92 this tank was cut into 30" by 18' strips of steel scrap and shipped to Foil's Recycling Center in Harrisburg, NC to be melted down into new steel.

Certified by Ray Sykes/Herman's Tank Disposal Co. Date 3-26-92

Herman's Tank Disposal Company
1116 N. Main Street
Kannapolis, NC 28081
704-932-5501

Certificate of Disposal

Tank # 1198

Size 550 gallon

This to certify that the above tank has been disposed of by Herman's Tank Disposal Company in accordance with and exceeding EPA regulations on Petroleum Tank Disposal. On 2-20-92 this tank was cut into 30" by 18' strips of steel scrap and shipped to Foil's Recycling Center in Harrisburg, NC to be melted down into new steel.

Certified by Loy Sykes/Herman's Tank Disposal Co. Date 3-26-92

Herman's Tank Disposal Company
1116 N. Main Street
Kannapolis, NC 28081
704-932-5501

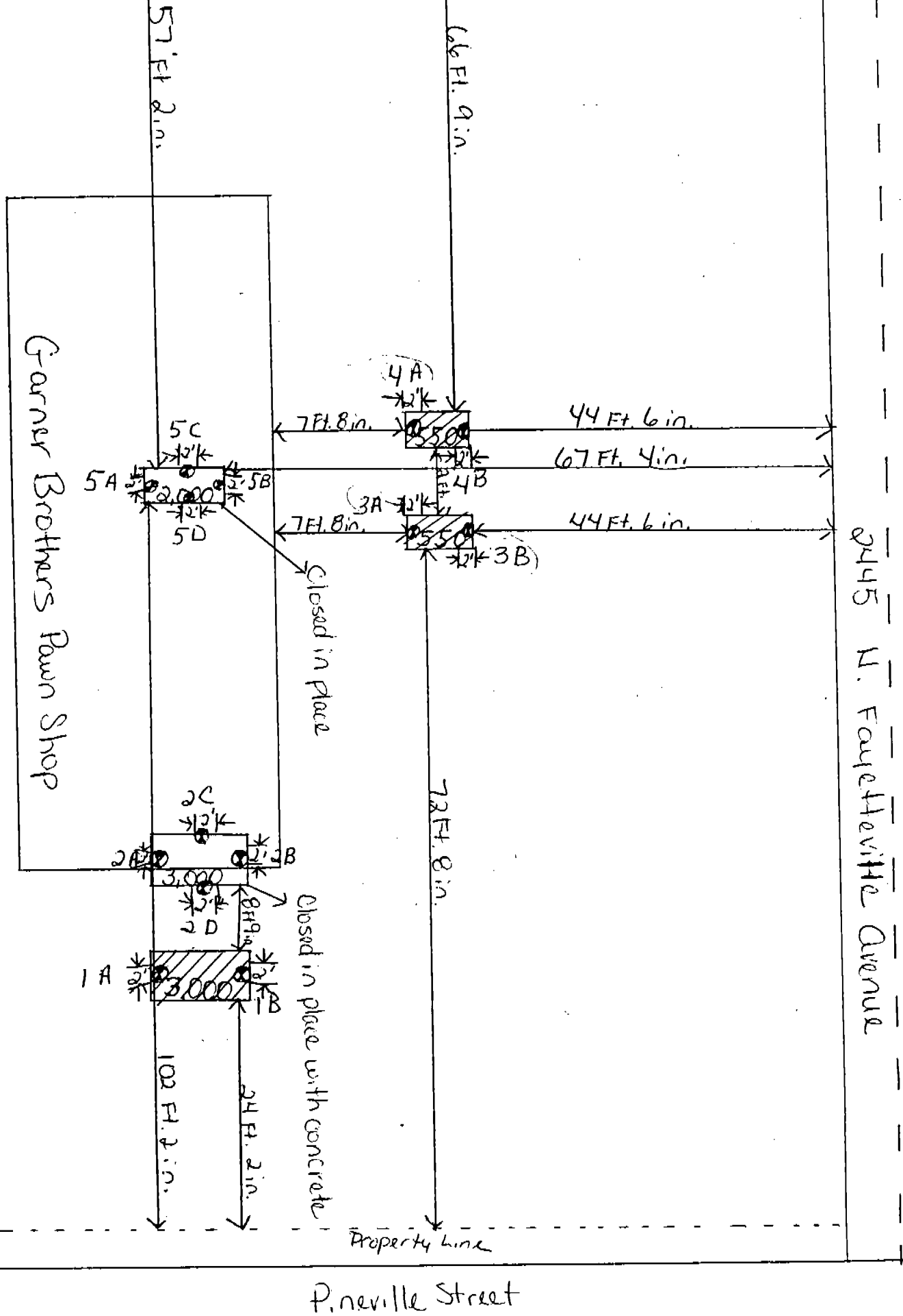
Certificate of Disposal

Tank # 1197

Size 2,000 gallon

This to certify that the above tank has been disposed of by Herman's Tank Disposal Company in accordance with and exceeding EPA regulations on Petroleum Tank Disposal. On 2-20-92 this tank was cut into 30" by 18' strips of steel scrap and shipped to Foil's Recycling Center in Harrisburg, NC to be melted down into new steel.

Certified by Ray Sykes/Herman's Tank Disposal Co. Date 3-26-92



CHAIN OF CUSTODY

PAR Laboratories, Inc.

Shipping
2217 Graham Park Drive
Charlotte, NC 28273



704/588-8333

Mailing
P.O. Box 411483
Charlotte, NC 28241-1483

It is essential that all information be recorded on this Chain of Custody document for acceptance by PAR Laboratories, Inc. and the North Carolina Department of Health and Environmental Control.

COMPANY NAME (BILLING) <u>Carolina Tank Services</u> ADDRESS <u>1206 N. Cannon Blvd.</u> CITY, STATE & ZIP CODE <u>Kannapolis, N.C. 28083</u> CONTACT PERSON & TELEPHONE NUMBER <u>Roy or Tina Sykes (704) 932-5501</u>	COMMENTS: <u>Garner Brothers</u> FILE
SAMPLED BY: <u>Charles Sykes</u>	
SAMPLE TYPE: DW ☐ WW ☐ GWMW ☐ HW ☐ SOIL ☒ OTHER ☐	
SAMPLES MAINTAINED @ <4°C YES ☒ NO ☐ PRESERVED: YES ☒ NO ☐	

SAMPLE LOCATION & STATION NUMBER	C	G	SET UP DATE/TIME	COLLECTION DATE/TIME	ANALYSIS REQUESTED
1-A				2-19-92/2:15	E.P.A. Method 5030 & 3550
1-B				2-19-92/2:20	" "
2-A				2-20-92/2:10	" "
2-B				2-20-92/2:20	" "
2-C				2-20-92/2:30	" "
2-D				2-20-92/2:40	" "
3-A				2-19-92/2:27	" "
3-B				2-19-92/2:30	" "
4-A				2-19-92/2:34	" "
4-B				2-19-92/2:37	" "

RELINQUISHED BY: <u>Charles Sykes</u> DATE/TIME: <u>2-25-92 1200</u>	RECEIVED BY: <u>Roy Johnson</u> DATE/TIME: <u>25 Feb 1200</u>
RELINQUISHED BY: _____ DATE/TIME: _____	RECEIVED BY: _____ DATE/TIME: _____
RELINQUISHED BY: _____ DATE/TIME: _____	RECEIVED BY: _____ DATE/TIME: _____

C=COMPOSITE G=GRAB DW=DRINKING H₂O WW=WASTE H₂O
 GWMW=GROUND H₂O MONITORING WELL HW=HAZARDOUS WASTE

File Name: CHAIN-NC 6-26-91

Shipping



PAR
LABORATORIES INC

704/588-8333

Mailing

P.O. Box 411483

Charlotte, NC 28241-1483

It is essential that all information be recorded on this Chain of Custody document for acceptance by PAR Laboratories, Inc. and the North Carolina Department of Health and Environmental Control.

COMPANY NAME (BILLING) Carolina Tank Services		COMMENTS: Garner Brothers FILE
ADDRESS 1206 N. Cannon Blvd.		
CITY, STATE & ZIP CODE Kannapolis, N.C. 28083		
CONTACT PERSON & TELEPHONE NUMBER Roy or Tina Sykes (704) 932-5501		
SAMPLE TYPE: DW ☐ WW ☐ GWMW ☐ HW ☐ SOIL ☒ OTHER ☐		SAMPLED BY: Charles Sykes
SAMPLES MAINTAINED @ <4°C YES ☒ NO ☐ PRESERVED: YES ☒ NO ☐		

[illegible]

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
<i>Charles L. ...</i>	<i>2-25-92 1200</i>	<i>Ken Johnson</i>	<i>25 Feb 1200</i>
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME

C=COMPOSITE G=GRAB DW=DRINKING H₂O WW=WASTE H₂O
GWMW=GROUND H₂O MONITORING WELL HW=HAZARDOUS WASTE

File Name: CHAIN-NC 6-26-91



PAR Laboratories, Inc.
2217 GRAHAM PARK DRIVE
P.O. BOX 411483
CHARLOTTE, NC 28241-1483
704/588-8333

FILE

MARCH 6, 1992

REFERENCE NO: 92 789

MADE FOR: CAROLINA TANK SERVICES
1206 N. CANNON BLVD.
KANNAPOLIS, NC 28083

ATTENTION: ROY SYKES

ANALYSES OF: SOIL SAMPLES

MARKED: GARNER BROTHERS & AS LISTED

RECEIVED ON: 2/26/92

ANALYSES:

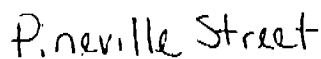
SAMPLE TOTAL PETROLEUM HYDROCARBONS*
(mg/kg AS RECEIVED)

1-A	<10
1-B	<10
2-A	<10
2-B	<10
2-C	<10
2-D	<10
3-A	21
3-B	34
4-A	52
4-B	<10
5-A	<10
5-B	<10
5-C	<10
5-D	<10

* EPA METHOD 3550/5030 GC/FID

RESPECTFULLY SUBMITTED:
PAR LABORATORIES, INC.

A handwritten signature in dark ink, appearing to read "John S. Rice".
JOHN S. RICE
LABORATORY DIRECTOR



2445 N. Fayetteville Avenue



PAR Laboratories, Inc.
2217 GRAHAM PARK DRIVE
P.O. BOX 411483
CHARLOTTE, NC 28241-1483
704/588-8333

MARCH 6, 1992

REFERENCE NO: 92 789

MADE FOR: CAROLINA TANK SERVICES
1206 N. CANNON BLVD.
KANNAPOLIS, NC 28083

ATTENTION: ROY SYKES

ANALYSES OF: SOIL SAMPLES

MARKED: GARNER BROTHERS & AS LISTED

RECEIVED ON: 2/26/92

ANALYSES:

SAMPLE	TOTAL PETROLEUM HYDROCARBONS*
	(mg/kg AS RECEIVED)
1-A	<10
1-B	<10
2-A	<10
2-B	<10
2-C	<10
2-D	<10
3-A	21
3-B	34
4-A	52
4-B	<10
5-A	<10
5-B	<10
5-C	<10
5-D	<10

* EPA METHOD 3550/5030 GC/FID

RESPECTFULLY SUBMITTED:
PAR LABORATORIES, INC.

A handwritten signature in cursive script, appearing to read "John S. Rice".
JOHN S. RICE
LABORATORY DIRECTOR

PAR Laboratories, Inc.

Shipping
2217 Graham Park Drive
Charlotte, NC 28273



704/588-8333

Mailing
P.O. Box 411483
Charlotte, NC 28241-1483

It is essential that all information be recorded on this Chain of Custody document for acceptance by PAR Laboratories, Inc. and the North Carolina Department of Health and Environmental Control.

COMPANY NAME (BILLING) Carolina Tank Services	COMMENTS: <u>Garner Brothers</u>
ADDRESS 1206 N. Cannon Blvd.	
CITY, STATE & ZIP CODE Kannapolis, N.C. 28083	
CONTACT PERSON & TELEPHONE NUMBER Roy or Tina Sykes (704) 932-5501	
SAMPLE TYPE: DW ☐ WW ☐ GWMW ☐ HW ☐ SOIL ☒ OTHER ☐	
SAMPLES MAINTAINED @ <4°C YES ☒ NO ☐ PRESERVED: YES ☒ NO ☐	

SAMPLE LOCATION & STATION NUMBER	C	G	SET UP DATE/TIME	COLLECTION DATE/TIME	ANALYSIS REQUESTED
1-A				2-19-92/2:25	E.P.A. method 5030 & 3550
1-B				2-19-92/2:30	" "
2-A				2-20-92/2:10	" "
2-B				2-20-92/2:20	" "
2-C				2-20-92/2:30	" "
2-D				2-20-92/2:40	" "
3-A				2-19-92/2:27	" "
3-B				2-19-92/2:30	" "
4-A				2-19-92/2:34	" "
4-B				2-19-92/2:37	" "

RELINQUISHED BY: <u>Charles Sykes</u>	DATE/TIME: <u>2-25-92 1200</u>	RECEIVED BY: <u>Ray Johnson</u>	DATE/TIME: <u>25 Feb 1200</u>
RELINQUISHED BY: _____	DATE/TIME: _____	RECEIVED BY: _____	DATE/TIME: _____
RELINQUISHED BY: _____	DATE/TIME: _____	RECEIVED BY: _____	DATE/TIME: _____

C=COMPOSITE G=GRAB DW=DRINKING H₂O WW=WASTE H₂O
GWMW=GROUND H₂O MONITORING WELL HW=HAZARDOUS WASTE

File Name: CHAIN-NC 6-26-91

OF CUSTOMER
PAR Laboratories, Inc.Shipping
2217 Graham Park Drive
Charlotte, NC 28273

704/588-8333

Mailing
P.O. Box 411483
Charlotte, NC 28241-1483

It is essential that all information be recorded on this Chain of Custody document for acceptance by PAR Laboratories, Inc. and the North Carolina Department of Health and Environmental Control.

COMPANY NAME (BILLING) Carolina Tank Services		COMMENTS: Garner Brothers
ADDRESS 1206 N. Cannon Blvd.		
CITY, STATE & ZIP CODE Kannapolis, N.C. 28083	SAMPLED BY: Charles Sykes	
CONTACT PERSON & TELEPHONE NUMBER Roy or Tina Sykes (704) 932-5501		
SAMPLE TYPE: DW ☐ WW ☐ GWMW ☐ HW ☐ SOIL ☒ OTHER ☐		
SAMPLES MAINTAINED @ <4°C YES ☒ NO ☐ PRESERVED: YES ☒ NO ☐		

SAMPLE LOCATION & STATION NUMBER	C	G	SET UP DATE/TIME	COLLECTION DATE/TIME	ANALYSIS REQUESTED
5-A				2-20-92/3:10	E.P.A. Method 5030 & 3550
5-B				2-20-92/3:22	" "
5-C				2-20-92/3:25	" "
5-D				2-20-92/3:30	" "

RELINQUISHED BY: <i>Charles Sykes</i>	DATE/TIME 2-25-92 1200	RECEIVED BY: <i>Greg Johnson</i>	DATE/TIME 25 Feb 1200
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME

C=COMPOSITE G=GRAB DW=DRINKING H₂O WW=WASTE H₂O
GWMW=GROUND H₂O MONITORING WELL HW=HAZARDOUS WASTE



Pyramid Environmental, Inc.

RECEIVED
N.C. Dept. of EHNR
AUG 14 1995
Winston-Salem
Regional Office

August 11, 1995

Shuying Wong
NCDEHNR, DEM
585 Waughtown Street
Winston-Salem, North Carolina 27107

Re: Underground Storage Tank (UST) Closure Assessment at Garner Brothers
2445 N. Fayetteville St., Asheboro, Randolph County

Dear Ms. Wong:

In February of 1995, Pyramid Environmental, Inc. was contracted to assist Mr. Garner in completing closure requirements at the Garner Brothers site. The closure activities are in conjunction with the UST's removed by Carolina Tank Services February 19, 1992. This letter is in response to your May 24, 1995 correspondence regarding the above referenced site. The following information has been requested:

- The location, method, and any manifest (or any records) associated with the disposal of the contaminated soil.
- The location map and Chain-Of-Custody associated with the sampling reported on June 16, 1992
- Samples under former dispensers or identification of the sample locations.

Below is a summary of the information requested:

- No manifest associated with the disposal of the contaminated soil is available. Approximately 150 cubic yards of contaminated soil were removed from the 2445 N. Fayetteville Street site by Carolina Tank Service June 15 and 16, 1992. Eight soil samples (A-1, A-2, A-3, A-4, A-5, B-1 B-2, and C-1) were collected after excavation activities were complete to document the remaining total petroleum hydrocarbon level. The laboratory results from the confirmation samples were below the laboratory detection limit. The excavated soil was stockpiled behind the store by Carolina Tank Service. Mr. Garner was not aware of regulatory criteria for petroleum contaminated soil stockpiled on-site. Consequently, the soil was used some time later that year as

fill material in front of Mr. Garner's home located at 486 Fern Street, Asheboro, North Carolina (Figure 3).

On July 26, 1995 a member of the Pyramid staff collected a composite soil sample (CS-1) from the flower bed to document TPH levels (Figure 3). The soil sample was sent to a state certified laboratory for analysis of total petroleum hydrocarbons by EPA Method 5030. Laboratory analytical results of the composite sample is below detection limits (lab report and Chain-of-Custody attached).

- A map showing soil sample (June 16, 1992 lab report) locations, depth of sample and laboratory analytical results is attached as Figure 2.
- Samples were not collected below the two pump dispensers formerly in operation at the site. One pump was located on top of each 550 gallon UST removed in February of 1992. The soils around and under the dispensers has been excavated and removed. Figure 2 shows the former pump dispenser locations.

If you have any questions or comments please feel free to contact us at (910) 282-9030.

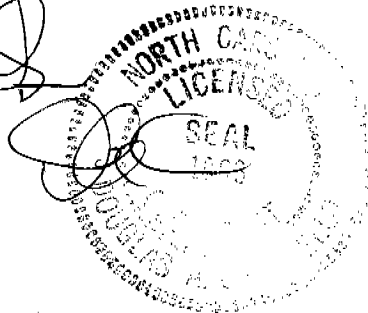
Sincerely,

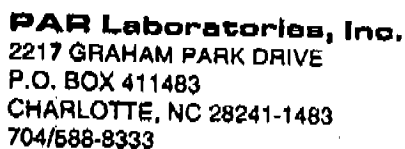


Lynne H. Lazzara



Douglas A. Canavello PG
Pyramid Environmental





Reference No: 92 2225

Attention: Roy Sykes

Marked: Sample #1 - A-1 Contamination
 Sample #2 - A-2 Contamination
 Sample #3 - A-3 Contamination
 Sample #4 - A-4 Contamination
 Sample #5 - A-5 Contamination

Analyses:

Sample	1	2	3	4	5
	(mg/kg)				
TPH 3550	<10	<10	<10	<10	<10
TPH 5030	<10	<10	<10	<10	<10

EPA Method 3550/6030 GC/FID

Respectfully submitted:
PAR Laboratories, Inc.

John S. Rice
John S. Rice
Laboratory Director



PAR Laboratories, Inc.
2217 GRAHAM PARK DRIVE
P.O. BOX 411483
CHARLOTTE, NC 28241-1483
704/588-8333

June 16, 1992

Reference No: 92-2226

Made For: Carolina Tank Services
1206 North Cannon Blvd.
Kannapolis, NC 28083

Attention: Roy Sykes

Analyses Of: Soil Samples from Garner Bros.

Marked: Sample #1 - B-1 Contamination
Sample #2 - B-2 Contamination
Sample #3 - C-1 Contamination

Received On: 6/15/92; 6/15/92; 6/15/92

Analyses:

Sample	1	2	3
	(mg/kg)		
TPH 3550	<10	<10	<10
TPH 5030	<10	<10	<10

EPA Method 3550/5030 GC/FID

Respectfully submitted:
PAR Laboratories, Inc.

A handwritten signature in dark ink, appearing to read "John S. Rice".
John S. Rice
Laboratory Director

17 Graham Park Drive
Charlotte, NC 28273



704/588-8333

Mailing
P.O. Box 411483
Charlotte, NC 28241-1483

It is essential that all information be recorded on this Chain of Custody document for acceptance by PAR Laboratories, Inc. and the North Carolina Department of Health and Environmental Control.

COMPANY NAME (BILLING)

Carolina Tank Services

COMMENTS:

Garner Brothers
Contamination

ADDRESS

1206 N. Cannon Blvd.

CITY, STATE & ZIP CODE

Kannapolis, N.C. 28083

SAMPLED BY:

Charles Sykes

CONTACT PERSON & TELEPHONE NUMBER

Roy or Tina Sykes (704) 932-5501

SAMPLE TYPE:

DW

WW

GWMW

HW

SOIL

OTHER

SAMPLES MAINTAINED @ 4°C

YES

NO

PRESERVED:

YES

NO

SAMPLE LOCATION &
STATION NUMBER

C

G

SET UP
DATE/TIMECOLLECTION
DATE/TIMEANALYSIS
REQUESTED

A-1 Contamination

✓

6/12/92 1:30pm

EPA methods
5030 & 3550

A-2 "

✓

" " 1:37pm

" "

A-3 "

✓

" " 1:43pm

" "

A-4 "

✓

" " 1:50pm

" "

A-5 "

✓

" " 2:00pm

" "

B-1 "

✓

" " 2:07pm

" "

B-2 "

✓

" " 2:18pm

" "

C-1 "

✓

" " 2:25pm

" "

RELINQUISHED BY:

DATE/TIME

6-15-92 3:01

RECEIVED BY:

DATE/TIME

6/15 3:01

RELINQUISHED BY:

DATE/TIME

RECEIVED BY:

DATE/TIME

RELINQUISHED BY:

DATE/TIME

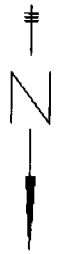
RECEIVED BY:

DATE/TIME

C=COMPOSITE G=GRAB DW=DRINKING H₂O WW=WASTE-H₂O
GWMW=GROUND H₂O MONITORING WELL HW=HAZARDOUS WASTE

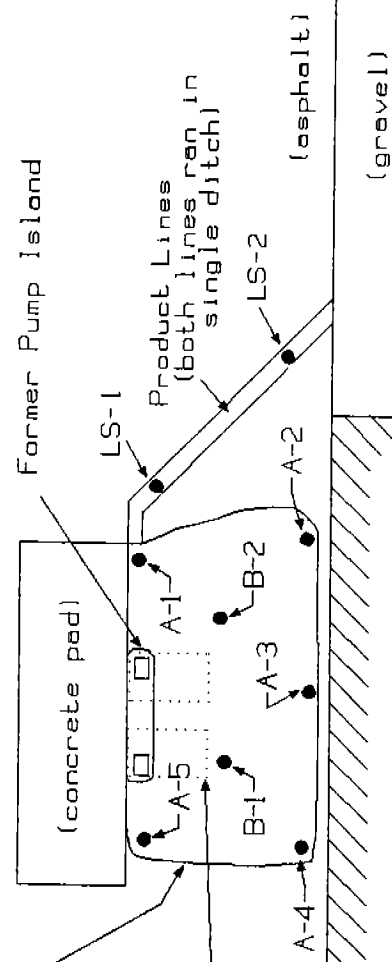
File Name: CHAIN-NC 6-26-91

Fayetteville Street



Edge of Former Excavation Area
Performed During Closure Assessment
of the following:

- Former USTs
- 2 550 gallon gasoline tanks
- pump island rested on end of tanks



Garner Brothers Pawn Shop

Sample Results				
Sample	Date	Depth of Sample	Method	Method
A-1	6/12/92		BOL	BOL
A-2	6/12/92		BOL	BOL
A-3	6/12/92		BOL	BOL
A-4	6/12/92		BOL	BOL
A-5	6/12/92		BOL	BOL
B-1	6/12/92		BOL	BOL
B-2	6/12/92		BOL	BOL
C-1	8/12/92		BOL	BOL
LS-1	2/7/95	3'	BOL	NA
LS-2	2/7/95	3'	BOL	NA

BOL - Below Detection Limit
NA - Not Applicable

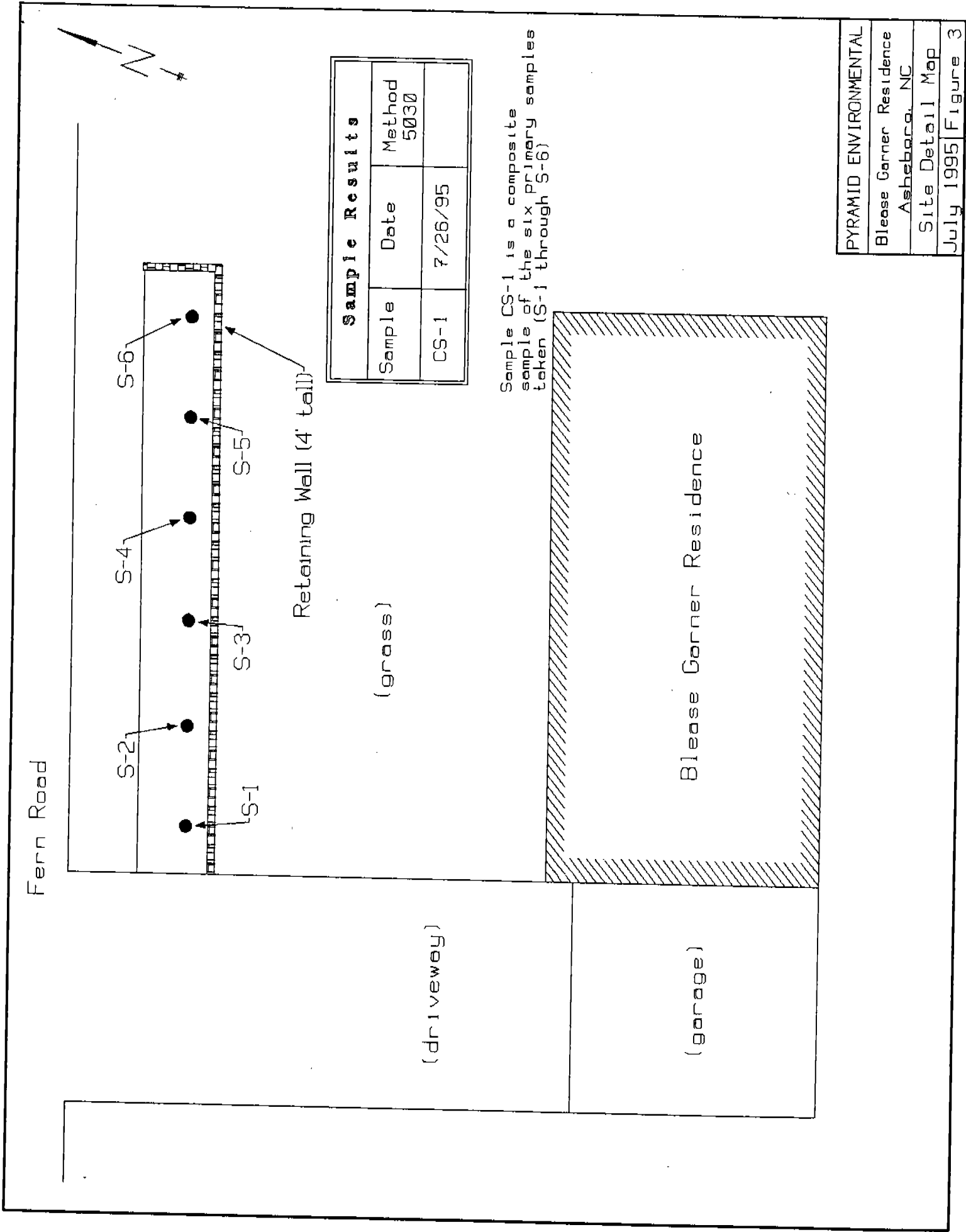
Scale (ft)
0 15

PYRAMID ENVIRONMENTAL

Garner Brothers Pawn Shop
Asheboro, NC

Site Detail Map

Jan. 1995 Figure 2



F195/2537

COMPANY NAME Dynamid Environmental CONTACT NAME Doug Canard TELEPHONE NO. 910-282-9030

[illegible]

COMMENTS:

Relinquished by: (Signature)			Received by: (Signature)	Date	Time
Relinquished by: (Signature)			Received by: (Signature)	Date	Time
Dispatched by: (Signature)	Date	Time	Received for Laboratory by:	Date	Time
Method of Shipment:					

H Y D R O L O G I C , I N C .

COMPANY NAME: Pyramid Environmental
COMPANY PROJECT NUMBER: GARNER BROTHERS

HYDROLOGIC PROJECT NUMBER: FL9512537
HYDROLOGIC SAMPLE NUMBER: 9512537
HYDROLOGIC LAB I.D. #: 399
SAMPLE IDENTIFICATION: CS-1
DATE SAMPLED: 7/26/95
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 8/4/95

METHOD TPH 5030

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (mg/kg)	<u>RESULT</u> (mg/kg)
Gasoline		2.0	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: ESTIMATED QUANTITATION BASED ON REPEATED LOW SURROGATE RECOVERY.

H Y D R O L O G I C , I N C .

August 4, 1995

REPORTING:

Pyramid Environmental
2706 Pinedale Road
Greensboro, NC 27408

Attention: Doug Canavello

INVOICING:

Pyramid Environmental
2706 Pinedale Road
Greensboro, NC 27408

PROJECT NUMBER: FL9512537

DATE COMPLETED: August 4, 1995

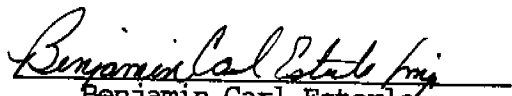
DATE RECEIVED: July 28, 1995

PROJECT DESCRIPTION:

Garner Brothers--1 soil sample analyzed for 5030.

Enclosed is the laboratory report for the project described above. If you have any questions or if we can be of further assistance, please feel free to contact Jamie Fore. We appreciate your business and look forward to serving you again soon.

Respectfully,


Benjamin Carl Esterle
Laboratory Director

APPENDIX C



PYRAMID GEOPHYSICAL SERVICES
(PROJECT 2019-084)

GEOPHYSICAL SURVEY

METALLIC UST INVESTIGATION:
PARCEL 046
NCDOT PROJECT U-5711 (50160.1.1)

2445 N. FAYETTEVILLE ST., ASHEBORO, NC

APRIL 5, 2019

Report prepared for: Dennis Li, Ph.D., L.G.
NCDOT Geotechnical Engineering Unit
1020 Birch Ridge Drive
Raleigh, NC 27610

Prepared by: _____

A handwritten signature in black ink, appearing to read "E. Cross".

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

Reviewed by: _____

A handwritten signature in black ink, appearing to read "Doug Canavella".

Douglas A. Canavella, 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 046 – 2445 N. Fayetteville St.
Asheboro, Randolph County, North Carolina

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Field Methodology..... 2

Discussion of Results..... 3

Discussion of EM Results..... 3

Discussion of GPR Results..... 4

Summary & Conclusions 5

Limitations 5

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- Figure 1 – Parcel 046 - Geophysical Survey Boundaries and Site Photographs
- Figure 2 – Parcel 046 - EM61 Results Contour Map
- Figure 3 – Parcel 046 - GPR Transect Locations and Images
- Figure 4 – Overlay of Metal Detection Results on NCDOT Engineering Plans

LIST OF ACRONYMS

CADD	Computer Assisted Drafting and Design
DF	Dual Frequency
EM.....	Electromagnetic
GPR.....	Ground Penetrating Radar
GPS	Global Positioning System
NCDOT.....	North Carolina Department of Transportation
ROW	Right-of-Way
UST	Underground Storage Tank

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT) at Parcel 046, located at 2445 N. Fayetteville St., in Asheboro, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5711). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from March 12 – April 1, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

Geophysical Results: The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of seven EM anomalies were identified. All of the EM anomalies were directly attributed to visible cultural features at the ground surface. GPR was performed across EM anomalies associated with the building and a reinforced concrete pipe to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures. Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 046.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT) at Parcel 046, located at 2445 N. Fayetteville St., in Asheboro, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5711). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from March 12 – April 1, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The site included a vacant commercial building surrounded by concrete, asphalt, and grass surfaces. An aerial photograph showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. Pyramid collected the EM data using a Geonics EM61-MK2 (EM61) metal detector integrated with a Geode External GPS/GLONASS receiver. 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 is geo-referenced and can be overlain on aerial photographs and CADD drawings. A boundary grid was established around the perimeter of the site 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 along north-south trending or east-west trending,

generally 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 15.0 software programs.

GPR data were acquired across select EM anomalies on April 1, 2019, using a Geophysical Survey Systems, Inc. (GSSI) UtilityScan DF unit equipped with a dual frequency 300/800 MHz antenna. Data were collected both in reconnaissance fashion as well as along formal transect lines across EM features. The GPR data were viewed in real-time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 6 feet, based on dielectric constants calculated by the DF unit in the field during the reconnaissance scans. GPR transects across specific anomalies were saved to the hard drive of the DF unit for post-processing and figure generation.

Pyramid’s classifications of USTs for the purposes of this report are based directly on the geophysical UST ratings provided 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.

DISCUSSION OF RESULTS

Discussion of EM Results

A contour plot of the EM61 results obtained across the survey area at the property is presented in **Figure 2**. Each EM anomaly is numbered for reference in the figure. The

following table presents the list of EM anomalies and the cause of the metallic response, if known:

LIST OF METALLIC ANOMALIES IDENTIFIED BY EM SURVEY

Metallic Anomaly #	Cause of Anomaly	Investigated with GPR
1	Mailbox/signs	
2	Utility	
3	Hydrant	
4	Utility/drop inlet	
5	Building	☑
6	Reinforced Concrete Pipe	☑
7	Sign	

All of the EM anomalies were directly attributed to visible cultural features at the ground surface, including a mailbox, signs, utilities, a hydrant, a reinforced concrete pipe, and the building. GPR was performed in the vicinity of the reinforced concrete pipe and adjacent to the building to confirm that the metallic interference associated with these features did not obscure any potential USTs.

Discussion of GPR Results

Figure 3 presents the locations of the formal GPR transects performed at the property, as well as the transect images. A total of 2 formal GPR transects were performed at the site. Transect 1 was performed on the south side of the building and Transect 2 was performed across the reinforced concrete pipe. No evidence of any buried structures such as USTs was observed.

Collectively, the geophysical data did not record any evidence of metallic USTs within the survey area at Parcel 046. **Figure 4** provides an overlay of the geophysical metal detection results onto the NCDOT MicroStation engineering plans for reference.

SUMMARY & CONCLUSIONS

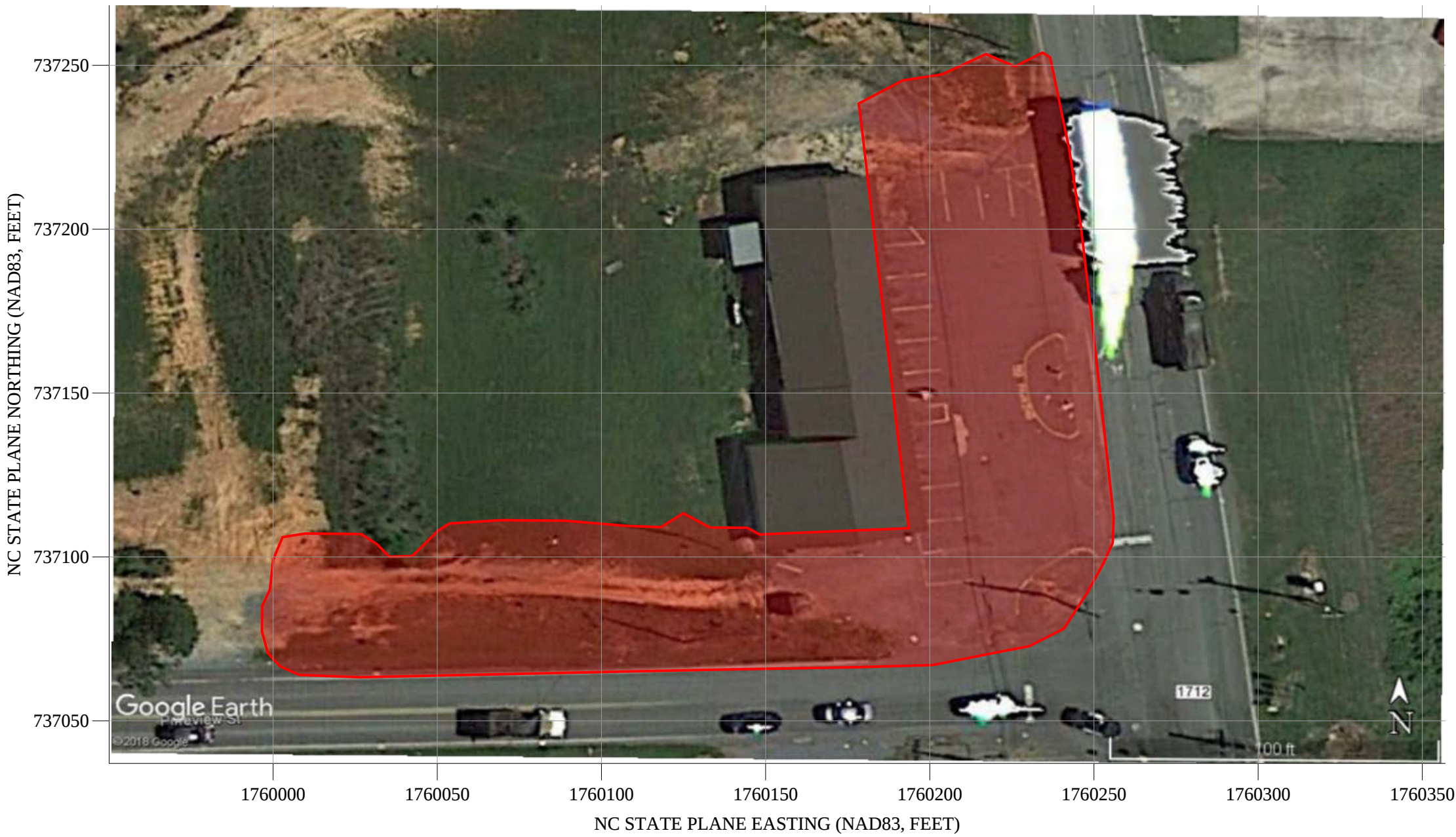
Pyramid's evaluation of the EM61 and GPR data collected at Parcel 046 in Asheboro, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area.
- All of the EM anomalies were directly attributed to visible cultural features at the ground surface.
- GPR was performed across EM anomalies associated with the building and a reinforced concrete pipe to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures.
- Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 046.

LIMITATIONS

Geophysical surveys have been performed and this report was 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 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 Survey Area
(Facing Approximately Northwest)



View of Survey Area
(Facing Approximately West)



503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT

PARCEL 46
ASHEBORO, NORTH CAROLINA
NCDOT PROJECT U-5711

TITLE

PARCEL 46 - GEOPHYSICAL SURVEY
BOUNDARIES AND SITE PHOTOGRAPHS

DATE

4/2/2019

CLIENT

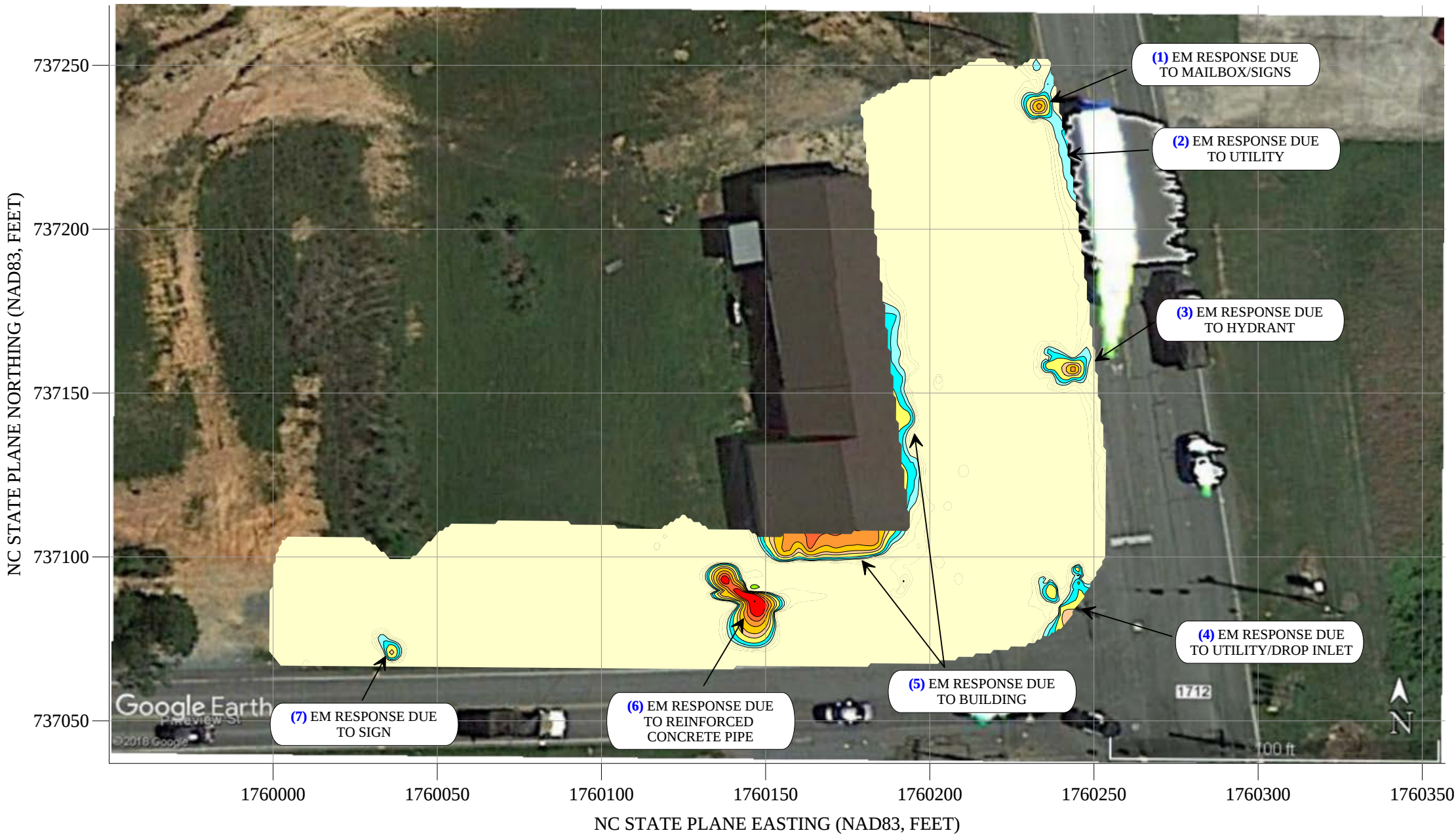
NCDOT

PYRAMID
PROJECT #:

2019-084

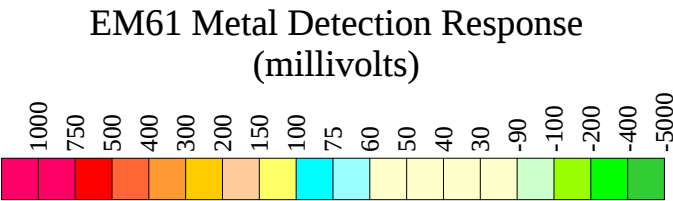
FIGURE 1

EM61 METAL DETECTION RESULTS



NO EVIDENCE OF METALLIC USTs WAS OBSERVED.

The contour plot shows the differential results of the EM61 instrument in millivolts (mV). The differential results focus on larger metallic objects such as USTs and drums. The EM61 data were collected on March 12, 2019, using a Geonics EM61 instrument. Verification GPR data were collected using a GSSI UtilityScan DF instrument with a dual frequency 300/800 MHz antenna on April 1, 2019.



503 INDUSTRIAL AVENUE
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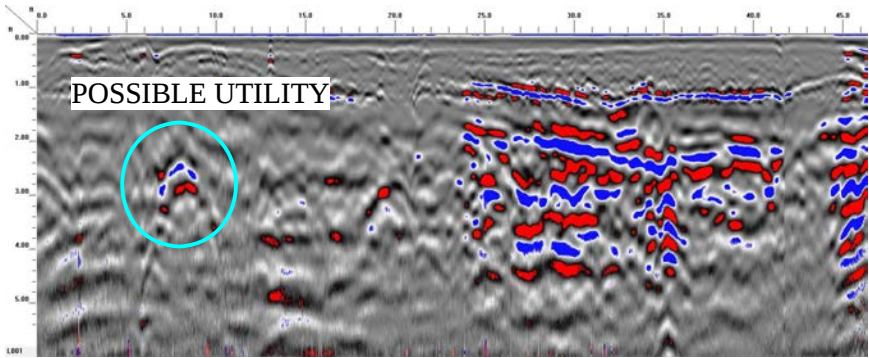
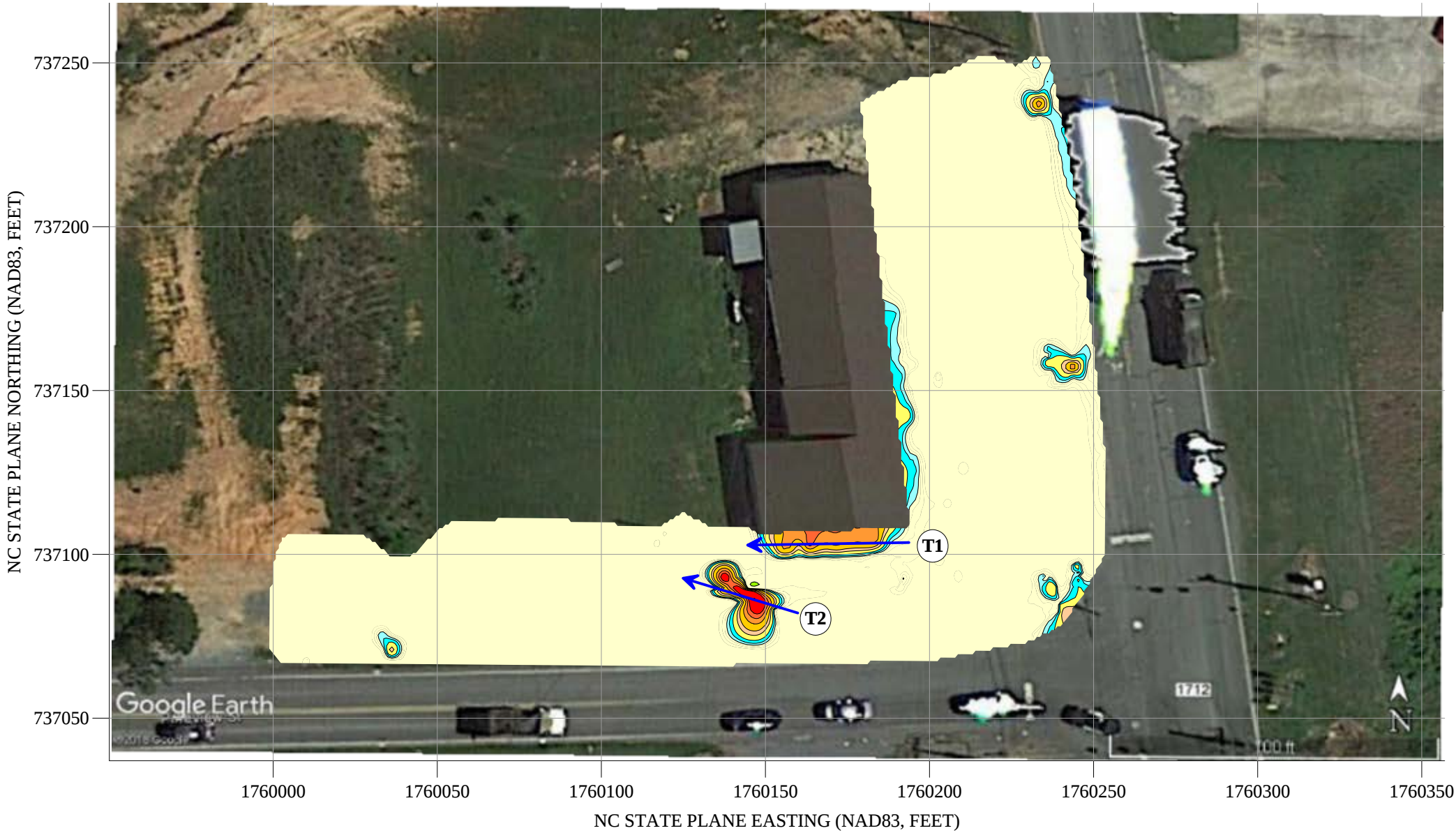
PROJECT
PARCEL 46
ASHEBORO, NORTH CAROLINA
NCDOT PROJECT U-5711

TITLE
PARCEL 46 - EM61 METAL DETECTION
CONTOUR MAP

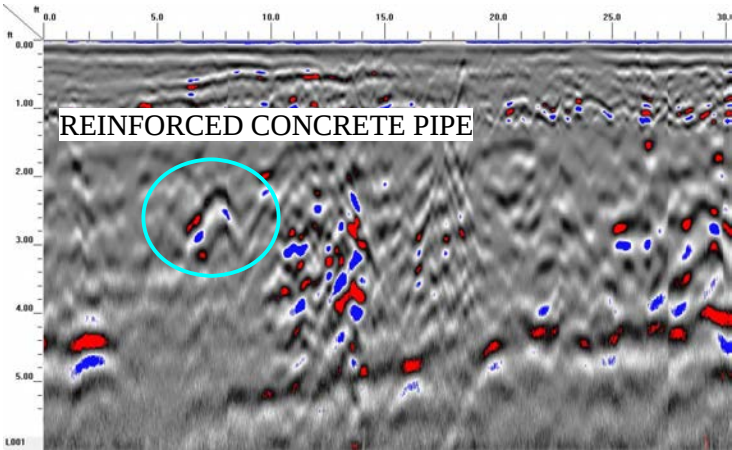
DATE
4/2/2019
PYRAMID
PROJECT #: 2019-084

CLIENT
NCDOT
FIGURE 2

GPR TRANSECT LOCATIONS



GPR TRANSECT 1 (T1)



GPR TRANSECT 2 (T2)

N ↑



503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
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License # C1251 Eng. / License # C257 Geology

PROJECT

PARCEL 46
ASHEBORO, NORTH CAROLINA
NCDOT PROJECT U-5711

TITLE

PARCEL 46 - GPR TRANSECT LOCATIONS
AND IMAGES

DATE

4/2/2019

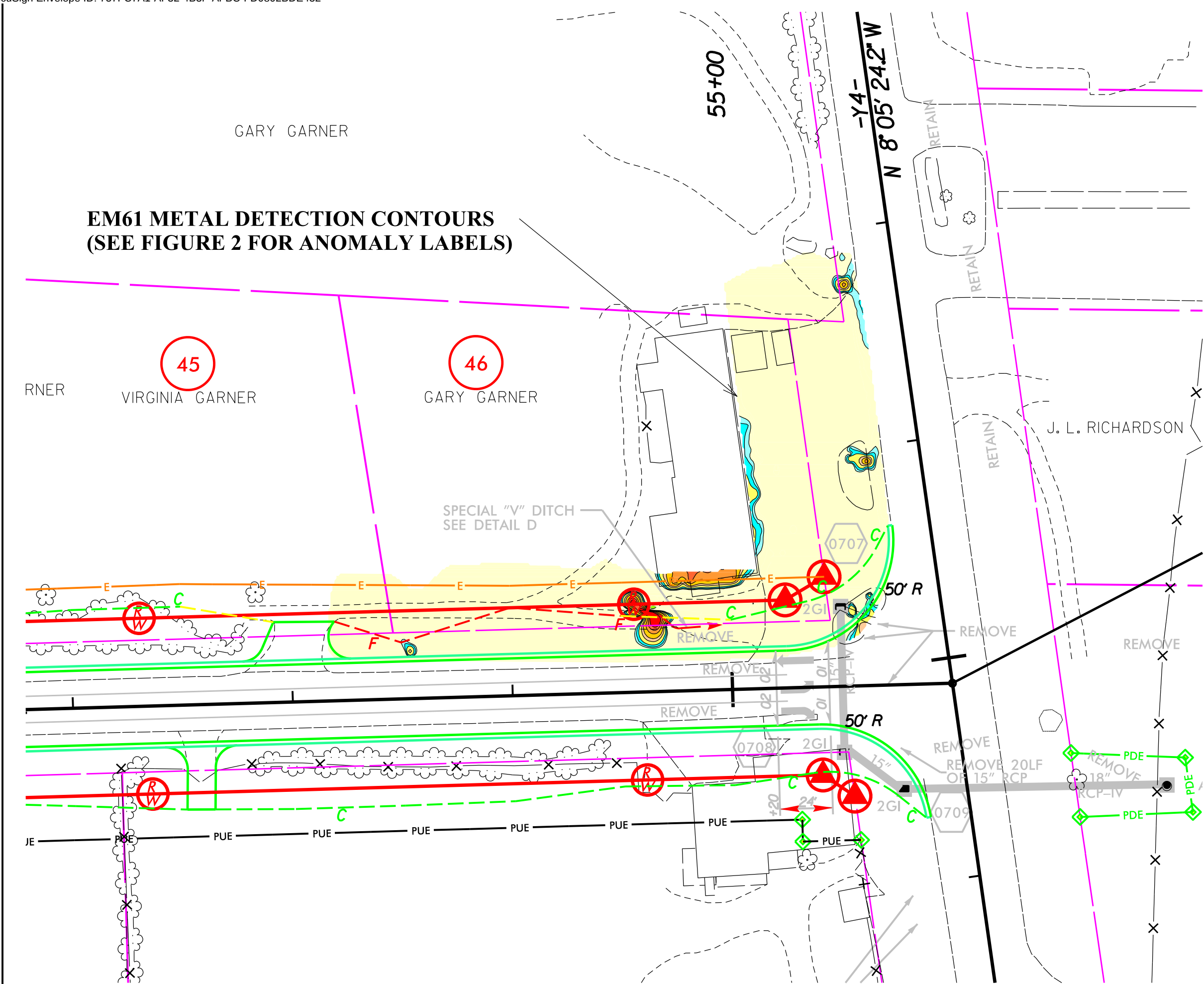
CLIENT

NCDOT

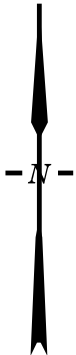
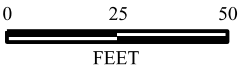
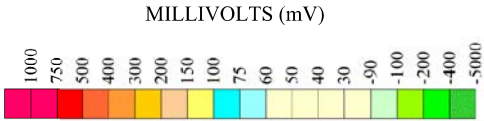
PYRAMID
PROJECT #:

2019-084

FIGURE 3



- LEGEND**
- EXISTING ROW
 - EXISTING PROPERTY BOUNDARY
 - PROPOSED ROW LINE
 - TEMPORARY CONSTRUCTION EASEMENT
 - PROPOSED PERMANENT UTILITY EASEMENT
 - PROPOSED SS CUT LINE
 - PROPOSED SS FILL LINE



TITLE OVERLAY OF METAL DETECTION RESULTS ON NCDOT ENGINEERING PLANS	
PROJECT PARCEL 46 ASHEBORO, NORTH CAROLINA NCDOT PROJECT U-5711	
 503 INDUSTRIAL AVENUE GREENSBORO, NC 27406 336.335.3174 (p) 336.691.0648 (f) License # C1251 Eng. / #C257 Geology	
DATE: 04-02-2019	REVISION NO. 0
PYRAMID PROJECT NO. 2019-084	FIGURE NO. 4

APPENDIX D

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 46, Asheboro, NC (2019-084)	BORING/WELL NO:	46B1
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 46, NE portion
START DATE:	04/08/19	COMPLETED:	04/08/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
----------------	---	--

[illegible]

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 0 _____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 46, Asheboro, NC (2019-084)	BORING/WELL NO:	46B2
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 46, SE portion
START DATE:	04/08/19	COMPLETED:	04/08/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
----------------	---	--

[illegible]

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 0 _____.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 46, Asheboro, NC (2019-084)	BORING/WELL NO:	46B3
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 46, SE portion
START DATE:	04/08/19	COMPLETED:	04/08/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
----------------	---	--

	Surface - Asphalt	Core Sample Depths
0-2	Brown, silty-clay (CL), firm, moist, slight petroleum odor	PID= 0.6 PPM
2-4	Brown, silty-clay (CL), firm, moist, slight petroleum odor	PID= 1.8 PPM
4-6	Brown, silty-clay (CL), firm, moist, slight petroleum odor	PID= 2.8 PPM
6-8	Light brown, sandy-clayey-silt (ML), moist, slight petroleum odor	PID= 1.1 PPM
8-10	Light brown, sandy-clayey-silt (ML), moist, no odor	PID= 3.8 PPM

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) ____

SCREEN LENGTH (ft) ____

DEPTH TO TOP OF SAND ____

DEPTH TO TOP SEAL ____

DEPTH (ft) ____

DEPTH (ft) ____

BENTONITE USED ____

DIAMETER (in) ____

DIAMETER (in) ____

BAGS OF SAND ____

MATERIAL ____.

MATERIAL ____.

BAGS OF CEMENT USED ____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 46, Asheboro, NC (2019-084)	BORING/WELL NO:	46B4
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 46, SE portion
START DATE:	04/08/19	COMPLETED:	04/08/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
----------------	---	--

[illegible]

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 0 _____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 46, Asheboro, NC (2019-084)	BORING/WELL NO:	46B5
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 46, SE portion
START DATE:	04/08/19	COMPLETED:	04/08/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
----------------	---	--

[illegible]

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 0 _____.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 46, Asheboro, NC (2019-084)	BORING/WELL NO:	46B6
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 46, SE portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
----------------	---	--

	Surface - Asphalt	Core Sample Depths
0-2	Brown, sandy-clayey-silt (ML), moist, no odor	PID= 3.7 PPM
2-4	Brown, sandy-clayey-silt (ML), moist, no odor	PID= 6.6 PPM
4-6	Brown, sandy-clayey-silt (ML), moist, no odor	PID= 2.5 PPM
6-8	Brown, sandy-clayey-silt (ML), moist, no odor	PID= 3.5 PPM
8-10	Brown, sandy-silty-clay to silty clay (CL), moist, no odor	PID= 3.6 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 0.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 46, Asheboro, NC (2019-084)	BORING/WELL NO:	46B7
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 46, SE portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
----------------	---	--

[illegible]

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 0 _____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 46, Asheboro, NC (2019-084)	BORING/WELL NO:	46B8
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 46, SW portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
----------------	---	--

[illegible]

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 0 _____.

APPENDIX E



Hydrocarbon Analysis Results

Client: PYRAMID ENVIRONMENTAL

Address: 503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406

Samples taken

Monday, April 8, 2019

Samples extracted

Monday, April 8, 2019

Samples analysed

Thursday, April 11, 2019

Contact: TIM LEATHERMAN

Operator

CAROLINE STEVENS

Project: NCDOT RANDOLPH PARCEL 46/2019-084

U00902

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
										C5 - C10	C10 - C18	C18	
s	46-1-4-6	24.1	<0.6	<0.6	<0.6	<0.6	<0.12	<0.19	<0.024	0	0	0	PHC not detected,(BO)
s	46-2-4-6	22.4	<0.56	7	49.9	56.9	5.7	<0.18	<0.022	94.6	5.4	0	Undeg.Diesel 84.7%,(FCM)
s	46-3-4-6	21.3	<0.53	<0.53	0.53	0.53	<0.11	<0.17	<0.021	0	89	11	Deg Fuel 73.2%,(FCM)
s	46-3-8-10	7.9	<0.2	<0.2	<0.2	<0.2	<0.04	<0.06	<0.008	0	0	0	.(FCM),(BO)
s	46-4-2-4	19.4	<0.49	<0.49	1.6	1.6	0.78	<0.16	<0.019	0	80	20	Deg.PHC 87.7%,(FCM)
s	46-5-0-2	19.7	<0.49	<0.49	0.61	0.61	0.29	<0.16	<0.02	0	78.8	21.2	Road Tar 77.9%,(FCM)
s	46-5-4-6	18.6	<0.46	<0.46	<0.46	<0.46	<0.09	<0.15	<0.019	0	0	0	PHC not detected,(BO)
s	46-6-2-4	20.3	<0.51	<0.51	<0.51	<0.51	<0.1	<0.16	<0.02	0	0	0	PHC not detected,(BO)
s	46-7-0-2	10.9	<0.27	<0.27	0.27	0.27	0.15	<0.09	<0.011	0	75.2	24.8	V.Deg.PHC 92.8%,(FCM)
s	46-7-4-6	21.1	<0.53	<0.53	<0.53	<0.53	<0.11	<0.17	<0.021	0	0	0	PHC not detected

Initial Calibrator QC check OK

Final FCM QC Check OK

101.4 %

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

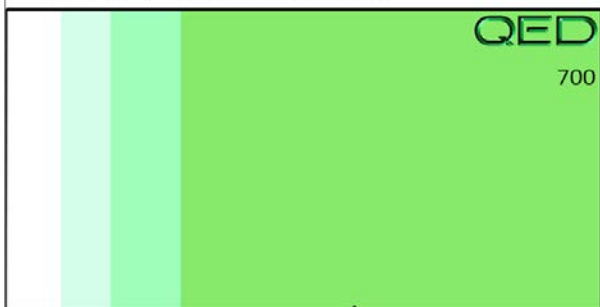
Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

B = Blank Drift : (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : (OCR) = Outside cal range : (M) = Modified Result.

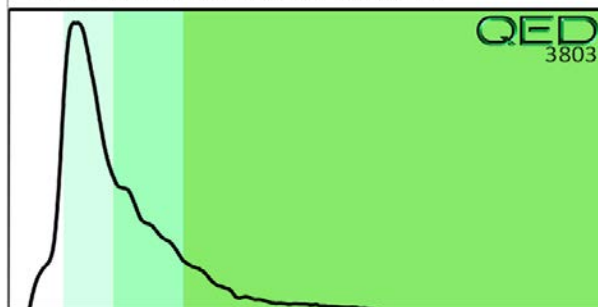
% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only.

Data generated by HC-1 Analyser

46-1-4-6 : PHC not detected,(BO)



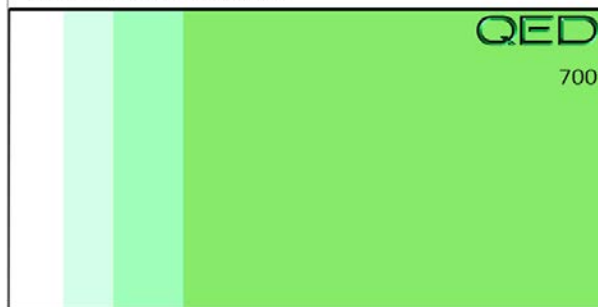
46-2-4-6 : Undeg.Diesel 84.7%,(FCM)



46-3-4-6 : Deg Fuel 73.2%,(FCM)



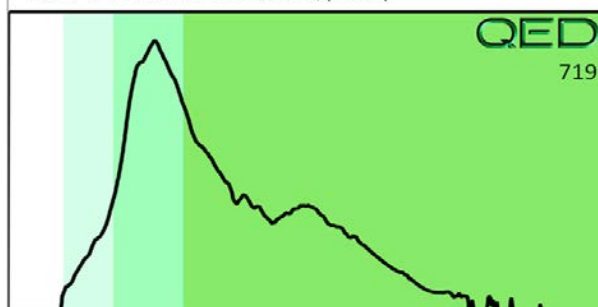
46-3-8-10 : ,(FCM),(BO)



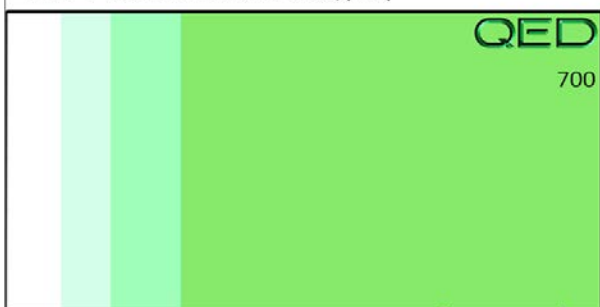
46-4-2-4 : Deg.PHC 87.7%,(FCM)



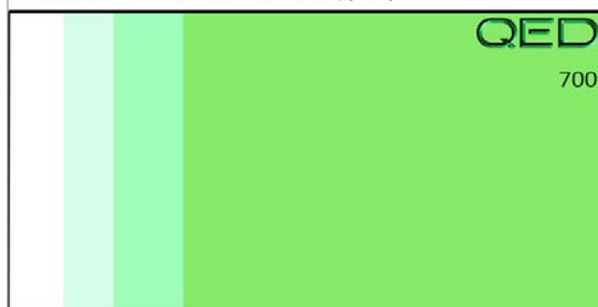
46-5-0-2 : Road Tar 77.9%,(FCM)



46-5-4-6 : PHC not detected,(BO)



46-6-2-4 : PHC not detected,(BO)



46-7-0-2 : V.Deg.PHC 92.8%,(FCM)



46-7-4-6 : PHC not detected





Hydrocarbon Analysis Results

Client: PYRAMID ENVIRONMENTAL
Address: 503 INDUSTRIAL AVENUE
 GREENSBORO, NC 27406

Samples taken Tuesday, April 9, 2019
Samples extracted Tuesday, April 9, 2019
Samples analysed Thursday, April 11, 2019

Contact: TIM LEATHERMAN

Operator CAROLINE STEVENS

Project: NCDOT RANDOLPH PARCEL 46/2019-084

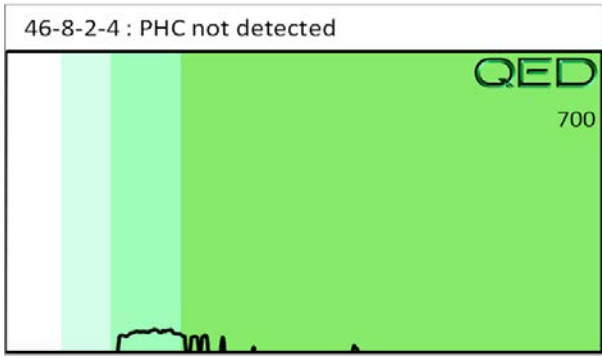
													U00902
Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	% Ratios			HC Fingerprint Match
										C5 - C10	C10 - C18	C18	
s	46-8-2-4	19.7	<0.49	<0.49	<0.49	<0.49	<0.1	<0.16	<0.02	0	100	0	PHC not detected
Initial Calibrator QC check			OK		Final FCM QC Check					OK		98.8 %	

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

B = Blank Drift : (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : (OCR) = Outside cal range : (M) = Modified Result.

% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only. **Data generated by HC-1 Analyser**



APPENDIX F

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT U-5711 Phase II

PROJECT NO.: 2019-084

Name: Leatherman, Heenan

Dates: 3/12/19 & 4/1/19

TASKS PERFORMED: Site reconnaissance, geophysical surveys, utility locating

T. Leatherman, J. Heenan

Mobilize to site. Site, recon, geophysics, utility locating.

Average daily time: ~8:00 AM - 5:00PM

*Pyramid Environmental & Engineering, P.C. Project # 2019-084
GeoEnvironmental Phase II Investigation (PHASE II) – Parcel 050 – JHS Master Capital, LLC*

GEOENVIRONMENTAL PHASE II INVESTIGATION
PARCEL 050 – JHS MASTER CAPITAL, LLC
2439 N. FAYETTEVILLE STREET
ASHEBORO, RANDOLPH COUNTY, NORTH CAROLINA
STATE PROJECT: U-5711
WBS ELEMENT: 50160.1.1
APRIL 12, 2019

Report prepared for:

Mr. Dennis Li, Ph.D., LG
GeoEnvironmental Section
Geotechnical Engineering Unit
North Carolina Department of Transportation
1020 Birch Ridge Drive
Raleigh, NC 27610

Report prepared by:

Eric C. Cross, LG
NC License #2181

DocuSigned by:

Eric Cross
3292E33596454F4...

Report reviewed by:

Michael G. Jones, LG
NC License #1168



PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.
P.O. BOX 16265
GREENSBORO, NC 27416-0265
(336) 335-3174

C-257 –Geology
C-1251 – Engineering

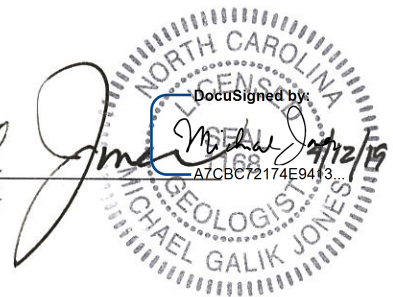


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Acronyms

BLS	Below Land Surface
BTEX	Benzene, Toluene, Ethylbenzene, & Xylenes
CADD	Computer Aided Design and Drafting
COC	Chain of Custody
CSA.....	Comprehensive Site Assessment
DEQ	Department of Environmental Quality
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

**GEOENVIRONMENTAL PHASE II INVESTIGATION
PARCEL 050 – JHS MASTER CAPITAL, LLC
2439 N. FAYETTEVILLE STREET
ASHEBORO, RANDOLPH COUNTY, NORTH CAROLINA**

EXECUTIVE SUMMARY OF RESULTS

Pyramid Environmental & Engineering P.C. (Pyramid) has prepared this GeoEnvironmental Phase II Investigation (Phase II) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for Parcel 050, owned by JHS Master Capital, LLC. The property currently contains a vacant commercial building surrounded by grass, gravel and dirt open land at 2439 N. Fayetteville Street, Greensboro, NC. This Phase II was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's February 28, 2019, technical proposal. This Phase II is a part of State Project U-5711.

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 Right-Of-Way (ROW) and/or easements, whichever distance was greater. The Phase II 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.

The following statements summarize the results of the Phase II:

- **Site History:** Pyramid interviewed DEQ personnel, interviewed property owners, and reviewed aerial photographs to assess past uses of the property. Pyramid reviewed aerial photographs from 1993 – 2018 obtained from Google Earth. Historical information reviewed as part of the Phase II indicated that the property appears to have operated as a junk yard and possibly service station from at least 1993 to 2017 based on extensive vehicles parked across the site. The 2018 aerial does not show any vehicles at the site.

On March 29, 2019, Pyramid emailed the Randolph County parcel address (2439 N. Fayetteville Street, Greensboro, NC) to Ms. Karen Hall, NC Department of Environmental Quality (NC DEQ), with a request to investigate any environmental incidents associated with the parcel. Ms. Hall responded to the email and indicated that there were not any environmental incidents associated with the property.

Pyramid Staff Professional Tim Leatherman performed a site investigation at the property. Mr. Leatherman did not observe any significant environmental risks on the property at the time of the investigation.

- **Geophysical Survey:** The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of ten EM anomalies were identified. The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface. GPR was performed across EM anomalies associated with the building and vehicles to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures.

Buried metallic anomalies located on the west side of the parcel were also investigated by GPR. GPR recorded evidence of isolated high-amplitude reflectors associated with increases in signal penetration relative to the surrounding soil that are typical indicators of scattered buried metallic debris. No evidence of larger buried structures was observed. It should be noted that the buried metallic debris identified by this survey is located within the NCDOT proposed ROW/easement and may be encountered during construction activities.

Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 050. **The survey did record evidence of buried metallic debris within the proposed NCDOT ROW/easement on the west side of the parcel.**

- **Limited Soil Assessment:** A total of eight soil borings were performed across the property. Soil samples were screened in the field using a Photo-Ionization Detector (PID) and select soil samples were analyzed for Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) using a QED Analyzer. The DEQ action level for TPH-GRO is 50 milligrams per kilogram (mg/kg) and the action level for TPH-DRO is 100 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 or GRO concentrations above DEQ action levels.

- **Limited Groundwater Assessment:** The water table was not encountered in the upper 10 feet of the soil column that was sampled during this Phase II. Review of the NCDOT engineering plans for this parcel indicate that groundwater will not be encountered during construction activities, based on shallow excavations only associated with the cut/fill operations and installation of drainage features. Therefore, it was not necessary to collect a groundwater sample.

- **Contaminated Soil Volumes:** None of the soil samples analyzed exhibited DRO or GRO concentrations above DEQ action levels.
- It should be noted that, if additional impacted soil is encountered during road construction outside of the area analyzed by this investigation, the impacted soil should be managed according to NC DEQ 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 GeoEnvironmental Phase II Investigation (Phase II) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for Parcel 050, owned by JHS Master Capital, LLC. The property currently contains a vacant commercial building surrounded by grass, gravel and dirt open land at 2439 N. Fayetteville Street, Greensboro, NC. This Phase II was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's February 28, 2019, technical proposal. This Phase II is a part of State Project U-5711.

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 Right-Of-Way (ROW) and/or easements, whichever distance was greater. The Phase II 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. The location of the subject site is shown on **Figure 1**.

1.1 Background Information

Based on the NCDOT's February 21, 2019, *Request for Technical and Cost Proposal (RFP)*, the Phase II was conducted between the existing edge of pavement and the proposed ROW and/or easement lines (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 Phase II 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 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. Pyramid's geophysical staff provided additional private utility locating services to mark the on-site private, buried utilities.

2.0 SITE HISTORY

The NCDOT Pre-Scope comments for Parcel 050 in the RFP documents provided to Pyramid on February 21, 2019, provided the following background information related to the site:

“A vacant building along with a vacant land in the back. It was possible once a service garage and former gas station, part of land in the back have been used as a junk yard and all of junk cars have been removed within the past 12 months. No USTs or monitoring wells observed on site. No record can be located in NCDEQ’s incident database.”

Pyramid interviewed DEQ personnel, interviewed property owners, and reviewed aerial photographs to assess past uses of the property. Pyramid reviewed aerial photographs from 1993 – 2018 obtained from Google Earth. Historical information reviewed as part of the Phase II indicated that the property appears to have operated as a junk yard and possibly service station from at least 1993 to 2017 based on extensive vehicles parked across the site. The 2018 aerial does not show any vehicles at the site. All of these aerial photographs are included in **Appendix A**.

On March 29, 2019, Pyramid emailed the Randolph County parcel address (2439 N. Fayetteville Street, Greensboro, NC) to Ms. Karen Hall, NC Department of Environmental Quality (NC DEQ), with a request to investigate any environmental incidents associated with the parcel. Ms. Hall responded to the email and indicated that there were not any environmental incidents associated with the property.

Pyramid Staff Professional Tim Leatherman performed a site investigation at the property. Mr. Leatherman did not observe any significant environmental risks on the property at the time of the investigation.

3.0 GEOPHYSICAL INVESTIGATION

Pyramid’s classifications of USTs for the purposes of this Phase II 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.

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of ten EM anomalies were identified. The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface. GPR was performed across EM anomalies associated with the building and vehicles to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures.

Buried metallic anomalies located on the west side of the parcel were also investigated by GPR. GPR recorded evidence of isolated high-amplitude reflectors associated with increases in signal penetration relative to the surrounding soil that are typical indicators of scattered buried metallic debris. No evidence of larger buried structures was observed. It should be noted that the buried metallic debris identified by this survey is located within the NCDOT proposed ROW/easement and may be encountered during construction activities.

Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 050. The survey did record evidence of buried metallic debris within the proposed NCDOT ROW/easement on the west side of the parcel.

The full details of the geophysical investigation are documented in Pyramid's Geophysical Investigation Report, dated March 26, 2019, which is included as **Appendix B**.

4.0 SOIL SAMPLING ACTIVITIES & RESULTS

4.1 Soil Assessment Field Activities

On April 8, 2019, Pyramid mobilized to the site, drilled soil borings and collected the proposed soil samples for the Phase II. Eight (8) soil borings (50-1 through 50-8) were advanced on the subject property. The soil borings were completed using a truck-mounted Geoprobe drill rig. 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 ROW and/or easement, or within other areas of concern such as proposed drainage features and areas designated for soil removal as indicated by the NCDOT engineering plans. The locations of the borings are shown on **Figure 2**.

Soil samples were continuously collected in four-foot long disposable sleeves 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. In general, the soil sample with the highest PID reading was selected from each boring for QED Ultra-Violet Fluorescence (UVF) laboratory analysis. If field screening detected multiple elevated readings, then additional soil samples from each boring were selectively chosen for UVF analysis. The soil boring logs with the soil descriptions, visual examination, and PID screening results are included in **Appendix C**. 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. Possible petroleum odor was detected in boring 50-8 from 0-2 feet below the ground surface 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 RED Lab. The DEQ & NCDOT now accept this instrument as an analytical method to provide total petroleum hydrocarbon (TPH) results for soil analysis for Phase II projects. Pyramid preserved the samples for UVF analysis in methanol-filled containers provided by RED Lab. The samples were shipped to RED Lab for analysis following the soil collection. 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).

4.2 Soil Sample Analytical Results

QED Results

The DEQ action level for TPH-GRO is 50 milligrams per kilogram (mg/kg) and the action level for TPH-DRO is 100 mg/kg. Soil samples were screened with an PID and select soil samples were analyzed for DRO and GRO using a QED Analyzer. None of the soil samples analyzed exhibited DRO or GRO concentrations above DEQ action levels. 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

The water table was not encountered in the upper 10 feet of the soil column that was sampled during this Phase II. Review of the NCDOT engineering plans for this parcel indicate that groundwater will not be encountered during construction activities, based on shallow excavations only associated with the cut/fill operations and installation of drainage features. Therefore, it was not necessary to collect a groundwater sample.

5.0 CONCLUSIONS AND RECOMMENDATIONS

As requested by the NCDOT, Pyramid has completed a Phase II at Parcel 050 (JHS Master Capital, LLC) located at 2439 N. Fayetteville Street, Greensboro, NC. The following is a summary of the assessment activities and results.

5.1 Geophysical Investigation

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of ten EM anomalies were identified. The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface. GPR was performed across EM anomalies associated with the building and vehicles to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures.

Buried metallic anomalies located on the west side of the parcel were also investigated by GPR. GPR recorded evidence of isolated high-amplitude reflectors associated with increases in signal penetration relative to the surrounding soil that are typical indicators of scattered buried metallic debris. No evidence of larger buried structures was observed. It should be noted that the buried metallic debris identified by this survey is located within the NCDOT proposed ROW/easement and may be encountered during construction activities.

Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 050. **The survey did record evidence of buried metallic debris within the proposed NCDOT ROW/easement on the west side of the parcel.**

5.2 Limited Soil Assessment

The DEQ action level for TPH-GRO is 50 milligrams per kilogram (mg/kg) and the action level for TPH-DRO is 100 mg/kg. Soil samples were screened with an PID and select soil samples were analyzed for DRO and GRO using a QED Analyzer. None of the soil samples analyzed exhibited DRO or GRO concentrations above DEQ action levels.

5.3 Limited Groundwater Assessment

The water table was not encountered in the upper 10 feet of the soil column that was sampled during this Phase II. Review of the NCDOT engineering plans for this parcel indicate that groundwater will not be encountered during construction activities, based on shallow excavations only associated with the cut/fill operations and installation of drainage features. Therefore, it was not necessary to collect a groundwater sample.

5.4 Recommendations

Petroleum-Impacted Soils

No evidence of petroleum-impacted soils (DRO/GRO > DEQ Action Levels) 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 deeper soils are deemed unsuitable or 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 DEQ 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 Phase II was performed.

7.0 CLOSURE

This report was prepared for, and is available solely for use by, the 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: 2439 N. FAYETT

LOCATION:



USGS IDENTIFICATION

USGS 7.5

MINUTE MAP

ORIGINAL DATE:

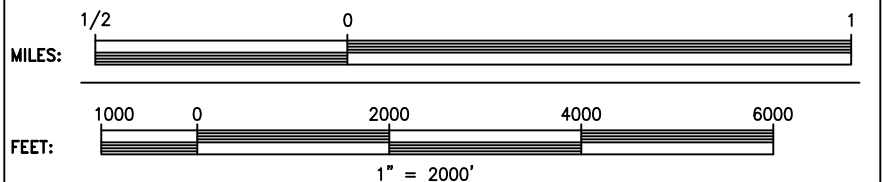
2016

PHOTOREVISION
DATE:

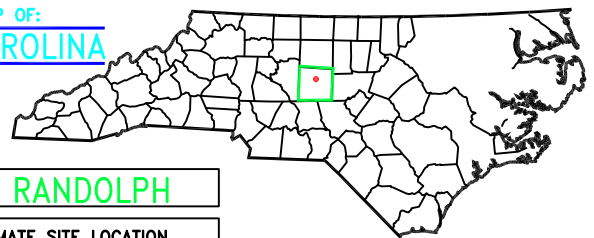
NA

RANDLEMAN, N.C.

SCALES

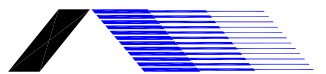


	PRIMARY HIGHWAY, HARD SURFACE
	SECONDARY HIGHWAY, HARD SURFACE
	LIGHT-DUTY ROAD HARD OR IMPROVED SURFACE
	UNIMPROVED ROAD
	STATE ROAD
	U.S. ROUTE
	INTERSTATE ROUTE

MAGNETIC
NORTHCOUNTY MAP OF:
NORTH CAROLINA

COUNTY: RANDOLPH

APPROXIMATE SITE LOCATION



PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT: NCDOT PROJECT U-5711
PROPERTY NAME: 2439 N. FAYETTEVILLE ST., PARCEL 50
CITY: ASHEBORO STATE: NORTH CAROLINA
TITLE: TOPOGRAPHIC MAP

SCALE:
1"=2000'

DATE:
4/2/19

DRAWING NAME:
USGSTOPO

DRAWN BY: KAM

CHECK BY: EC

JOB NO.: 2019-084

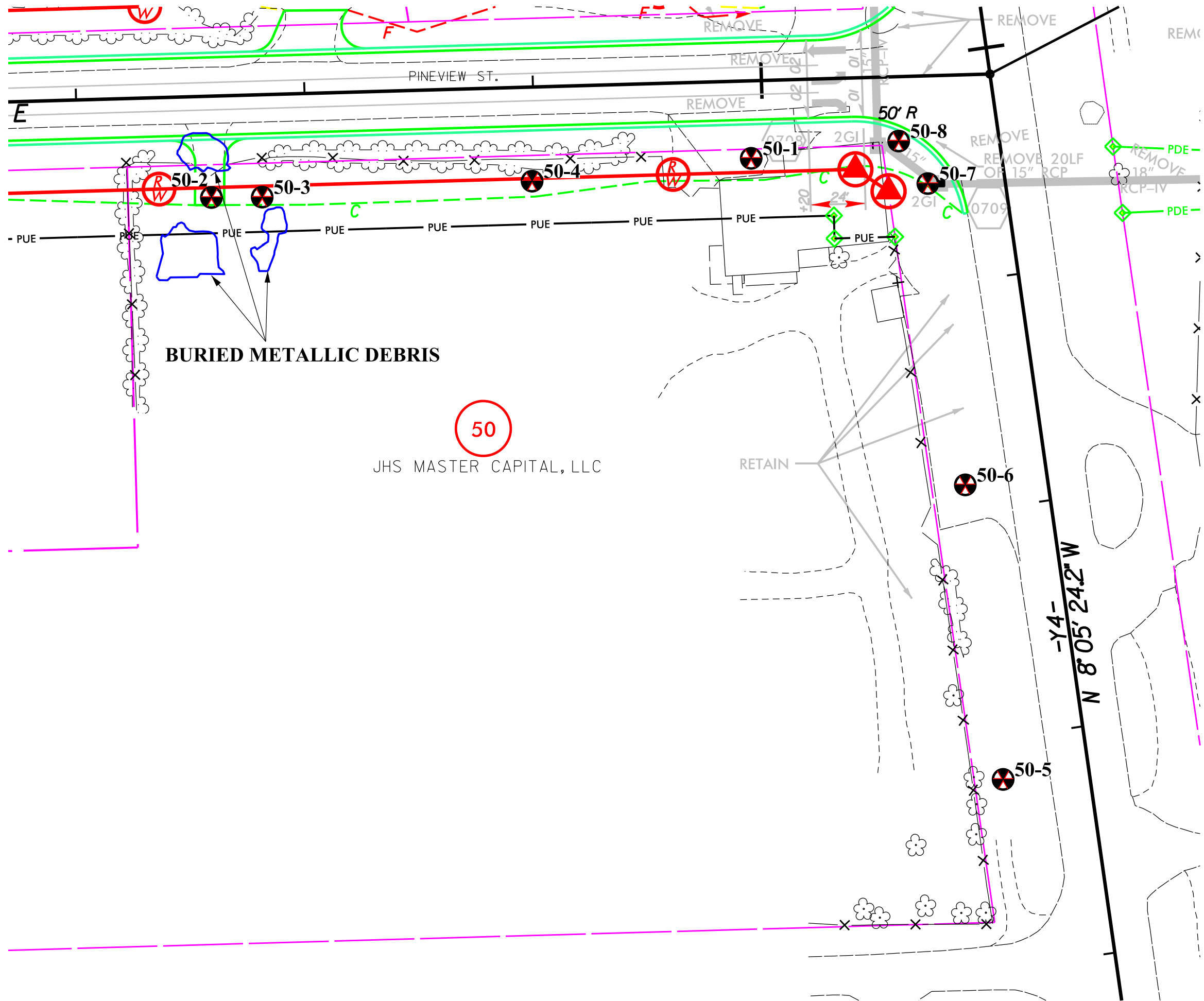
TYPE: PSA

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.

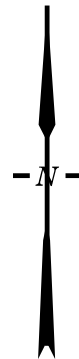
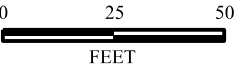
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.



LEGEND

- EXISTING ROW
- EXISTING PROPERTY BOUNDARY
- PROPOSED ROW LINE
- TEMPORARY CONSTRUCTION EASEMENT
- PUE
- PROPOSED PERMANENT UTILITY EASEMENT
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE
- SOIL SAMPLING LOCATION*

*ANALYTICAL RESULTS PRESENTED IN
TABLE 2 OF GEOENVIRONMENTAL PHASE II REPORT



TITLE SOIL SAMPLING LOCATIONS	
PROJECT PARCEL 50 ASHEBORO, NORTH CAROLINA NCDOT PROJECT U-5711	
 503 INDUSTRIAL AVENUE GREENSBORO, NC 27406 336.335.3174 (p) 336.691.0648 (f) License # C1251 Eng. / #C257 Geology	
DATE: 04-08-2019	REVISION NO. 0
PYRAMID PROJECT NO. 2019-084	FIGURE NO. 2

TABLES

TABLE 1
Summary of Soil Field Screening Results
NCDOT Project U-5711
Parcel 50 - JHS Master Capital, LLC
2439 N. Fayetteville Street
Asheboro, Randolph County, North Carolina

SOIL BORING 10/3/2018	SAMPLE ID	DEPTH (feet bgs)	PID READINGS (PPM)
50-1	50-1-0-2	0 to 2	3.1
	50-1-2-4	2 to 4	1.9
	50-1-4-6	4 to 6	1.7
	50-1-6-8	6 to 8	1.1
	50-1-8-10	8 to 10	2.5
50-2	50-2-0-2	0 to 2	3.0
	50-2-2-4	2 to 4	5.0
	50-2-4-6	4 to 6	1.5
	50-2-6-8	6 to 8	2.7
	50-2-8-10	8 to 10	0.5
50-3	50-3-0-2	0 to 2	2.0
	50-3-2-4	2 to 4	0.8
	50-3-4-6	4 to 6	0.8
	50-3-6-8	6 to 8	1.5
	50-3-8-10	8 to 10	1.1
50-4	50-4-0-2	0 to 2	1.2
	50-4-2-4	2 to 4	1.0
	50-4-4-6	4 to 6	1.3
	50-4-6-8	6 to 8	0.9
	50-4-8-10	8 to 10	1.0
50-5	50-5-0-2	0 to 2	0.6
	50-5-2-4	2 to 4	0.4
	50-5-4-6	4 to 6	0.4
	50-5-6-8	6 to 8	1.8
	50-5-8-10	8 to 10	1.3
50-6	50-6-0-2	0 to 2	2.3
	50-6-2-4	2 to 4	2.5
	50-6-4-6	4 to 6	2.9
	50-6-6-8	6 to 8	3.6
	50-6-8-10	8 to 10	3.1
50-7	50-7-0-2	0 to 2	2.2
	50-7-2-4	2 to 4	1.0
	50-7-4-6	4 to 6	2.0
	50-7-6-8	6 to 8	1.3
	50-7-8-10	8 to 10	1.0
50-8	50-8-0-2	0 to 2	2.0
	50-8-2-4	2 to 4	1.3
	50-8-4-6	4 to 6	2.1
	50-8-6-8	6 to 8	1.5
	50-8-8-10	8 to 10	0.8

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 U-5711
Parcel 50 JHS Master Capital, LLC - 2439 N. Fayetteville Street
Asheboro, Randolph County, North Carolina

SAMPLE ID	DATE	DEPTH (feet)	PID (ppm)	QROS - QED Analysis		
				GRO (mg/kg) (C5-C10)	DRO (mg/kg) (C10-C35)	TPH (mg/kg) (C5-C35)
50.1-2-4	4/9/2019	2-4	3.1	<0.26	<0.26	<0.26
50-2-0-2	4/9/2019	0-2	3.0	5.3	2.5	7.8
50-2-2-4	4/9/2019	2-4	5.0	<0.32	0.75	0.75
50-3-0-2	4/9/2019	0-2	2.0	<0.32	<0.32	<0.32
50-4-0-2	4/9/2019	0-2	1.2	<0.29	0.29	0.29
50-4-4-6	4/9/2019	4-6	1.3	<0.3	<0.3	<0.3
50-5-0-2	4/9/2019	0-2	0.6	<0.31	1.7	1.7
50-5-6-8	4/9/2019	6-8	1.8	<0.3	<0.3	<0.3
50-6-2-4	4/9/2019	2-4	2.5	<0.3	<0.3	3.9
50-6-4-6	4/9/2019	4-6	2.9	<0.33	<0.33	<0.33
50-7-0-2	4/9/2019	0-2	2.2	3.2	1.2	4.4
50-8-0-2	4/9/2019	0-2	2.0	3.5	2.5	6
50-8-4-6	4/9/2019	4-6	2.1	0.62	<0.23	0.62
NC Initial Action Level - UST Section for 5035/5030-GRO; 3550-DRO				50	100	NA

PID= photo-ionization detector

GRO= Gasoline Range Organics

TPH= Total Petroleum

NA= Not Applicable

PPM= parts-per-million

DRO= Diesel Range Organics

Hydrocarbons (GRO + DRO)

mg/kg= milligrams-per-kilogram

* Bold values indicate concentrations above initial action levels

APPENDIX A

Parcels 046, 050 & 051

1993 Aerial



Parcel 046

Parcel 050

Parcel 051

Pineview St

1712

N Fayetteville St

McKnight St

BUS
220

Google Earth

Image U.S. Geological Survey

Landis Court
N

500 ft

Parcels 046, 050 & 051

1999 Aerial



Parcels 046, 050 & 051

2002 Aerial



Google Earth

Parcels 046, 050 & 051

2017 Aerial



Parcels 046, 050 & 051

2018 Aerial



APPENDIX B



PYRAMID GEOPHYSICAL SERVICES
(PROJECT 2019-084)

GEOPHYSICAL SURVEY

METALLIC UST INVESTIGATION:
PARCEL 050
NCDOT PROJECT U-5711 (50160.1.1)

2439 N. FAYETTEVILLE ST., ASHEBORO, NC

APRIL 5, 2019

Report prepared for: Dennis Li, Ph.D., L.G.
NCDOT Geotechnical Engineering Unit
1020 Birch Ridge Drive
Raleigh, NC 27610

Prepared by: _____

A handwritten signature in black ink, appearing to read "E. Cross".

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

Reviewed by: _____

A handwritten signature in black ink, appearing to read "Doug Canavella".

Douglas A. Canavella, 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 050 – 2439 N. Fayetteville St.
Asheboro, Randolph County, North Carolina

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LIST OF ACRONYMS

CADD	Computer Assisted Drafting and Design
DF	Dual Frequency
EM.....	Electromagnetic
GPR.....	Ground Penetrating Radar
GPS	Global Positioning System
NCDOT.....	North Carolina Department of Transportation
ROW	Right-of-Way
UST	Underground Storage Tank

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT) at Parcel 050, located at 2439 N. Fayetteville St., in Asheboro, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5711). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from March 12 – April 1, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

Geophysical Results: The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of ten EM anomalies were identified. The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface. GPR was performed across EM anomalies associated with the building and vehicles to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures.

Buried metallic anomalies located on the west side of the parcel were also investigated by GPR. GPR recorded evidence of isolated high-amplitude reflectors associated with increases in signal penetration relative to the surrounding soil that are typical indicators of scattered buried metallic debris. No evidence of larger buried structures was observed. It should be noted that the buried metallic debris identified by this survey is located within the NCDOT proposed ROW/easement and may be encountered during construction activities.

Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 050. The survey did record evidence of buried metallic debris within the proposed NCDOT ROW/easement on the west side of the parcel.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT) at Parcel 050, located at 2439 N. Fayetteville St., in Asheboro, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5711). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from March 12 – April 1, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The site included a vacant commercial building surrounded by concrete, asphalt, and grass surfaces. An aerial photograph showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. Pyramid collected the EM data using a Geonics EM61-MK2 (EM61) metal detector integrated with a Geode External GPS/GLONASS receiver. 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 is geo-referenced and can be overlain on aerial photographs and CADD drawings. A boundary grid was established around the perimeter of the site 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 along north-south trending or east-west trending,

generally 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 15.0 software programs.

GPR data were acquired across select EM anomalies on April 1, 2019, using a Geophysical Survey Systems, Inc. (GSSI) UtilityScan DF unit equipped with a dual frequency 300/800 MHz antenna. Data were collected both in reconnaissance fashion as well as along formal transect lines across EM features. The GPR data were viewed in real-time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 6 feet, based on dielectric constants calculated by the DF unit in the field during the reconnaissance scans. GPR transects across specific anomalies were saved to the hard drive of the DF unit for post-processing and figure generation.

Pyramid’s classifications of USTs for the purposes of this report are based directly on the geophysical UST ratings provided 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.

DISCUSSION OF RESULTS

Discussion of EM Results

A contour plot of the EM61 results obtained across the survey area at the property is presented in **Figure 2**. Each EM anomaly is numbered for reference in the figure. The

following table presents the list of EM anomalies and the cause of the metallic response, if known:

LIST OF METALLIC ANOMALIES IDENTIFIED BY EM SURVEY

Metallic Anomaly #	Cause of Anomaly	Investigated with GPR
1	Utility	
2	Fence/metal debris	☑
3	Utility/building	☑
4	Drop inlets	
5	Utility	
6	Utility	
7	Hydrant	
8	Fence	
9	Vehicles	☑
10	Suspected Buried Metallic Debris	☑

The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface, including utilities, a fence, visible debris, the building, drop inlets, a hydrant, and vehicles. GPR was performed in the vicinity of the vehicles and adjacent to the building to confirm that the metallic interference associated with these features did not obscure any potential USTs. GPR was also performed across EM Anomaly 10, suspected to be the result of buried debris, to verify the nature of this anomaly.

Discussion of GPR Results

Figure 3 presents the locations of the formal GPR transects performed at the property, as well as select transect images. All of the transect images are included in **Appendix A**. A total of 8 formal GPR transects were performed at the site. GPR Transects 1-4 were performed across the metallic features associated with EM Anomaly 10. These transects all recorded isolated high-amplitude reflectors associated with increases in signal penetration relative to the surrounding soil that are typical indicators of scattered buried metallic debris. No evidence of any larger structures such as USTs was observed. It should be noted that this suspected metallic debris is located within the proposed NCDOT easements and may be encountered during construction activities.

The remaining GPR transects were performed around the vehicles and the building and did not record any evidence of significant buried structures such as USTs.

Collectively, the geophysical data did not record any evidence of metallic USTs within the survey area at Parcel 050. The survey did record evidence of buried metallic debris within the proposed NCDOT ROW/easement on the west side of the parcel. **Figure 4** provides an overlay of the geophysical metal detection results, including the buried metallic debris, onto the NCDOT MicroStation engineering plans for reference.

SUMMARY & CONCLUSIONS

Pyramid's evaluation of the EM61 and GPR data collected at Parcel 050 in Asheboro, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area.
- The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface.
- GPR was performed across EM anomalies associated with the building and vehicles to verify that the metallic interference associated with these features did not obscure any potential USTs. GPR did not record any evidence of significant buried structures.
- Buried metallic anomalies located on the west side of the parcel were also investigated by GPR. GPR recorded evidence of isolated high-amplitude reflectors associated with increases in signal penetration relative to the surrounding soil that are typical indicators of scattered buried metallic debris. No evidence of larger buried structures was observed.
- It should be noted that the buried metallic debris identified by this survey is located within the NCDOT proposed ROW/easement and may be encountered during construction activities.
- Collectively, the geophysical data did not record any evidence of USTs within the geophysical survey area at Parcel 050. The survey did record evidence of buried

metallic debris within the proposed NCDOT ROW/easement on the west side of the parcel.

LIMITATIONS

Geophysical surveys have been performed and this report was 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 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 Survey Area
(Facing Approximately West)



View of Survey Area
(Facing Approximately West)



503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT
PARCEL 50
ASHEBORO, NORTH CAROLINA
NCDOT PROJECT U-5711

TITLE
PARCEL 50 - GEOPHYSICAL SURVEY
BOUNDARIES AND SITE PHOTOGRAPHS

DATE
4/2/2019
PYRAMID
PROJECT #:
2019-084

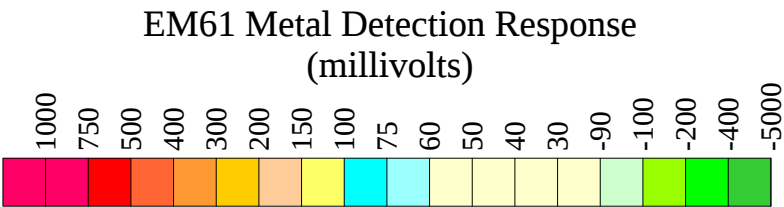
CLIENT
NCDOT
FIGURE 1

EM61 METAL DETECTION RESULTS



**NO EVIDENCE OF METALLIC
USTs WAS OBSERVED.**

The contour plot shows the differential results of the EM61 instrument in millivolts (mV). The differential results focus on larger metallic objects such as USTs and drums. The EM61 data were collected on March 12 & April 1, 2019, using a Geonics EM61 instrument. Verification GPR data were collected using a GSSI UtilityScan DF instrument with a dual frequency 300/800 MHz antenna on April 1, 2019.



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PROJECT

PARCEL 50
ASHEBORO, NORTH CAROLINA
NCDOT PROJECT U-5711

TITLE

PARCEL 50 - EM61 METAL DETECTION
CONTOUR MAP

DATE

4/2/2019

CLIENT

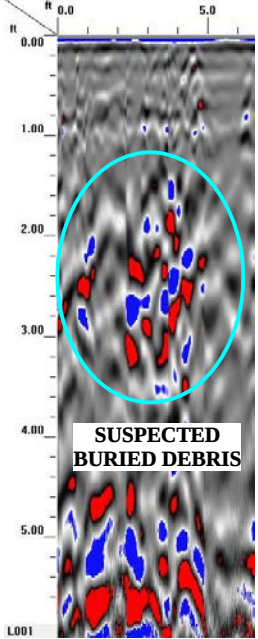
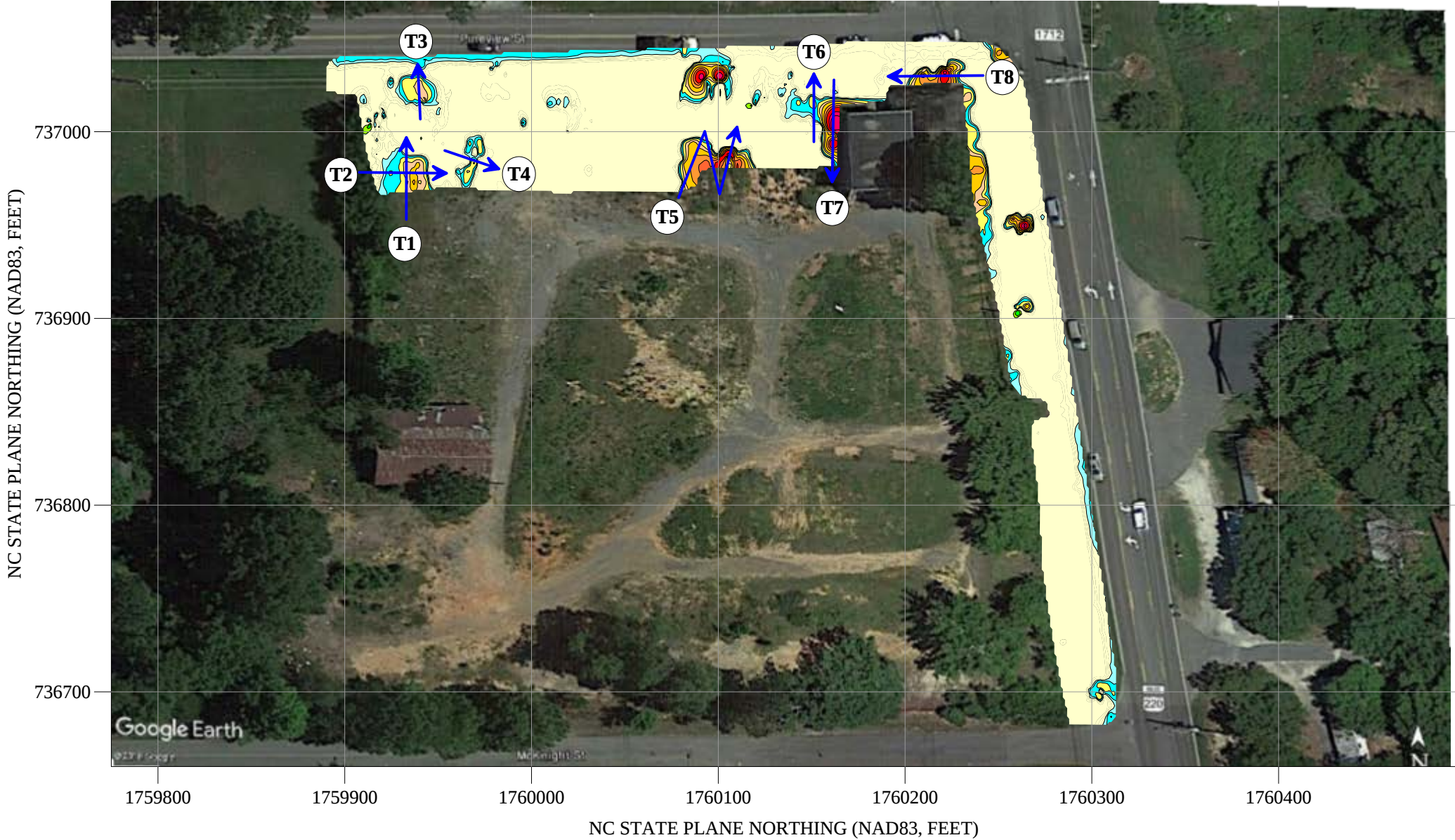
NCDOT

PYRAMID
PROJECT #:

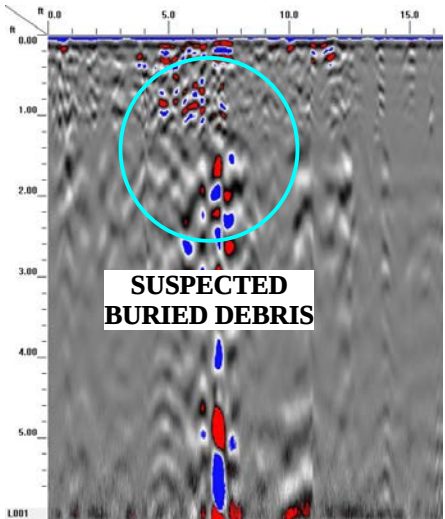
2019-084

FIGURE 2

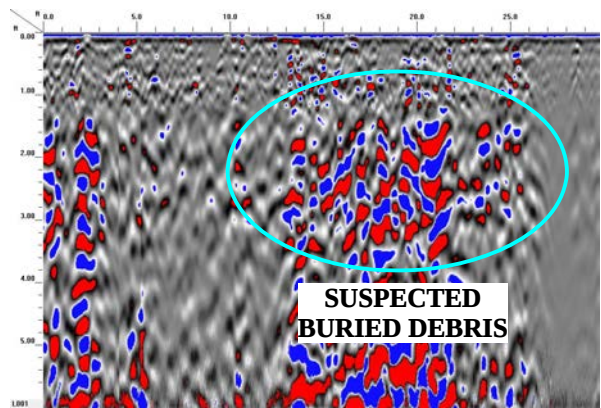
GPR TRANSECT LOCATIONS



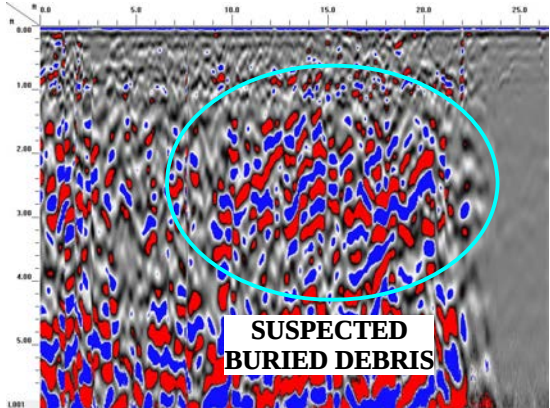
GPR TRANSECT 3 (T3)



GPR TRANSECT 4 (T4)



GPR TRANSECT 1 (T1)



GPR TRANSECT 2 (T2)



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PROJECT

PARCEL 50
ASHEBORO, NORTH CAROLINA
NCDOT PROJECT U-5711

TITLE

PARCEL 50 - GPR TRANSECT LOCATIONS
AND SELECT IMAGES

DATE

4/2/2019

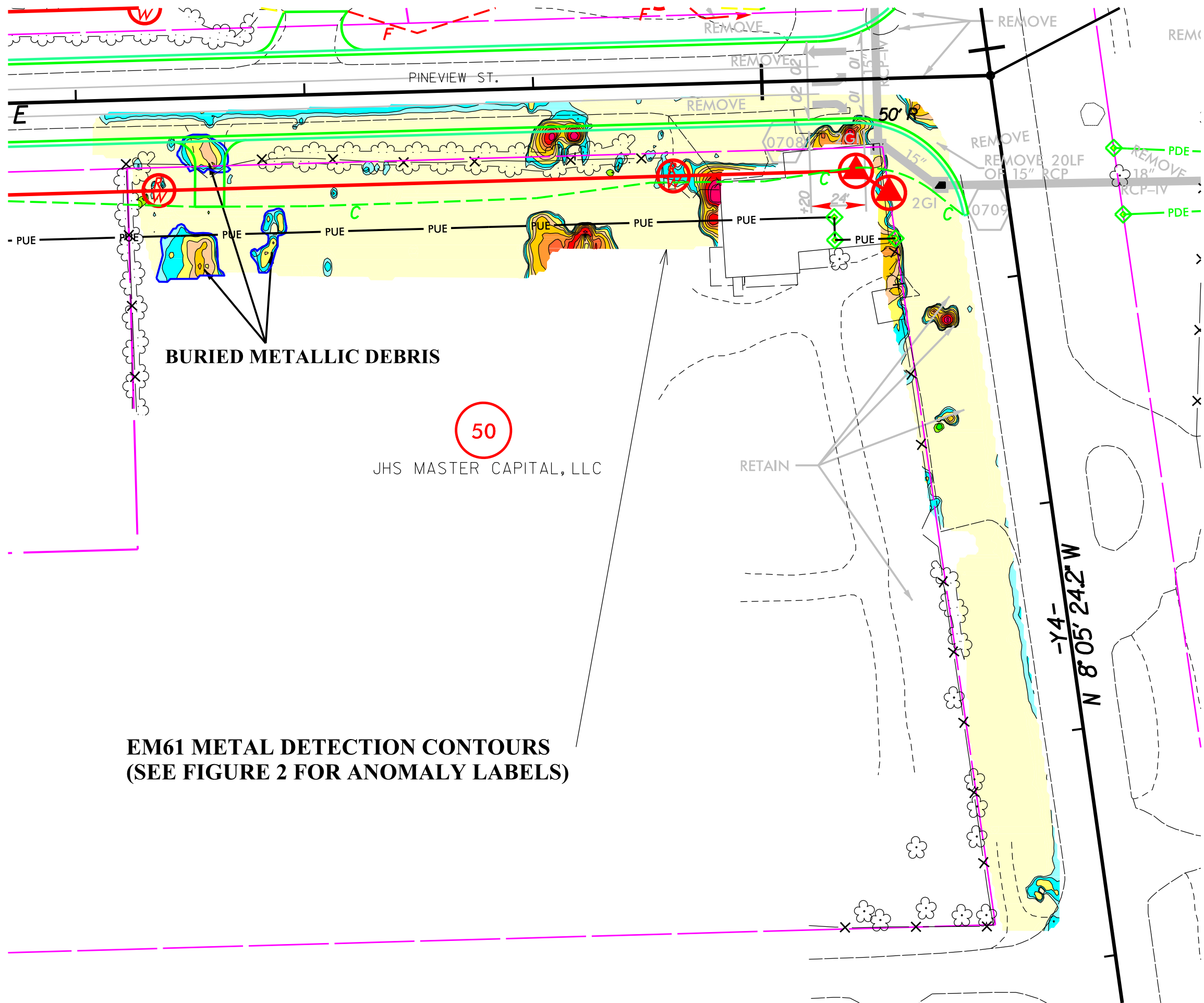
CLIENT

NCDOT

PYRAMID
PROJECT #:

2019-084

FIGURE 3



BURIED METALLIC DEBRIS

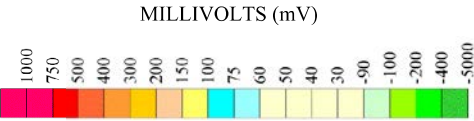
50

JHS MASTER CAPITAL, LLC

EM61 METAL DETECTION CONTOURS
(SEE FIGURE 2 FOR ANOMALY LABELS)

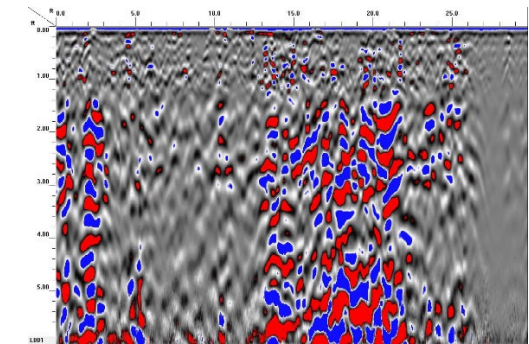
LEGEND

- EXISTING ROW
- EXISTING PROPERTY BOUNDARY
- PROPOSED ROW LINE
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT UTILITY EASEMENT
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE

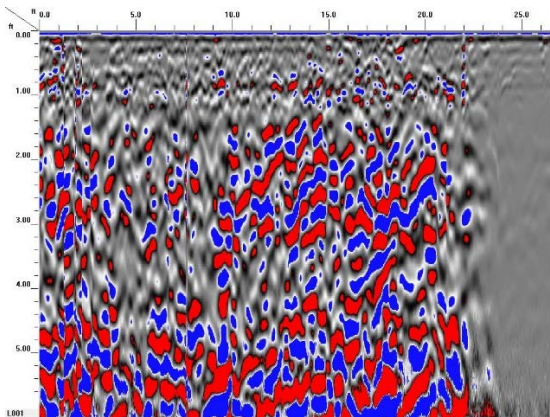


TITLE	OVERLAY OF METAL DETECTION RESULTS ON NCDOT ENGINEERING PLANS	
PROJECT	PARCEL 50 ASHEBORO, NORTH CAROLINA NCDOT PROJECT U-5711	
	503 INDUSTRIAL AVENUE GREENSBORO, NC 27406	
	336.335.3174 (p) 336.691.0648 (f) License # C1251 Eng. / #C257 Geology	
DATE: 04-02-2019	REVISION NO. 0	
PYRAMID PROJECT NO. 2019-084	FIGURE NO. 4	

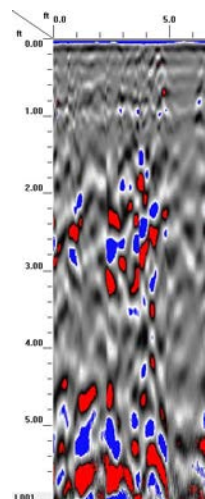
Appendix A – GPR Transect Images



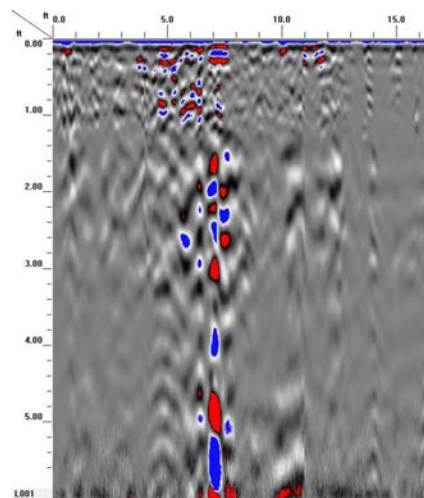
GPR TRANSECT 1



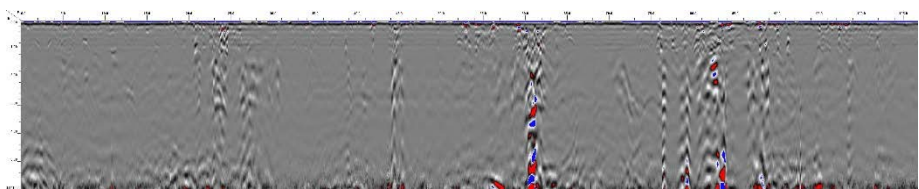
GPR TRANSECT 2



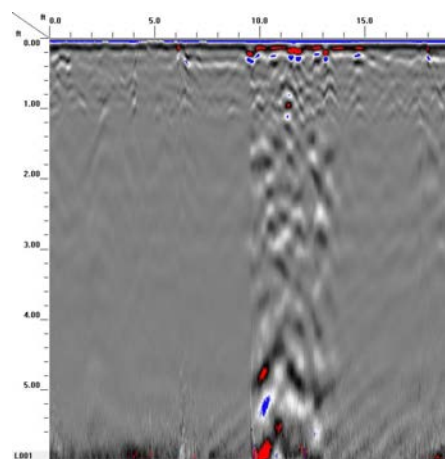
GPR TRANSECT 3



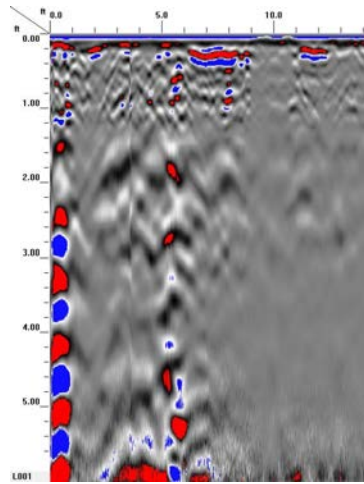
GPR TRANSECT 4



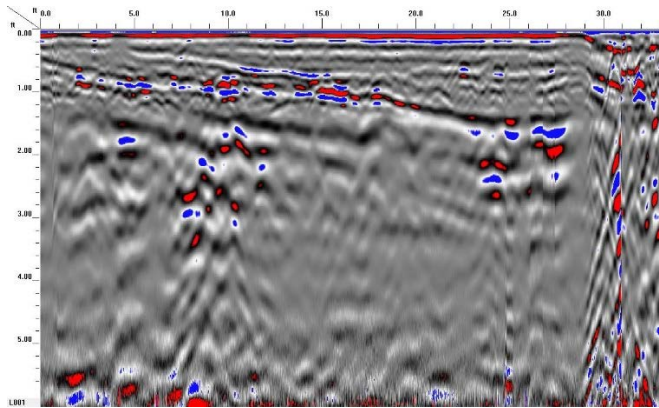
GPR TRANSECT 5



GPR TRANSECT 6



GPR TRANSECT 7



GPR TRANSECT 8

APPENDIX C

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 50, Asheboro, NC (2019-084)	BORING/WELL NO:	50B1
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 50, NW portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
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[illegible]

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 0 _____.

Pyramid Environmental & Engineering, P.C.

FIELD DRILLING RECORD

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 50, Asheboro, NC (2019-084)	BORING/WELL NO:	50B2
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 50, NW portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
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	Surface - Gravel	Core Sample Depths
0-2	Brown, sandy-silty-clay to silty-clay (CL), firm to hard, moist, no odor	PID= 3.0 PPM
2-4	Brown, saprolite, sandy-clayey-silt to sandy-silt (ML), moist, no odor	PID= 5.0 PPM
4-6	Brown, saprolite, sandy-clayey-silt to sandy-silt (ML), moist, no odor	PID= 1.5 PPM
6-8	Brown, saprolite, sandy-clayey-silt to sandy-silt (ML), moist, no odor	PID= 2.7 PPM
8-10	Brown, saprolite, sandy-clayey-silt to sandy-silt (ML), moist, no odor	PID= 0.5 PPM

MONITORING WELL INFORMATION (IF APPLICABLE)

RISER LENGTH (ft) _____

SCREEN LENGTH (ft) _____

DEPTH TO TOP OF SAND _____

DEPTH TO TOP SEAL _____

DEPTH (ft) _____

DEPTH (ft) _____

BENTONITE USED _____

DIAMETER (in) _____

DIAMETER (in) _____

BAGS OF SAND _____

MATERIAL _____.

MATERIAL _____.

BAGS OF CEMENT USED 0.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 50, Asheboro, NC (2019-084)	BORING/WELL NO:	50B3
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 50, NW portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
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[illegible]

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 0 _____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 50, Asheboro, NC (2019-084)	BORING/WELL NO:	50B4
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 50, N portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
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[illegible]

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 0 _____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 50, Asheboro, NC (2019-084)	BORING/WELL NO:	50B5
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 50, SE portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
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[illegible]

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 0 _____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 50, Asheboro, NC (2019-084)	BORING/WELL NO:	50B6
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 50, E portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
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[illegible]

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 0 _____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 50, Asheboro, NC (2019-084)	BORING/WELL NO:	50B7
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 50, NE portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
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[illegible]

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 0 _____.

PROJECT NAME: PROJECT NUMBER:	NC DOT U-5711, Parcel 50, Asheboro, NC (2019-084)	BORING/WELL NO:	50B8
SITE LOCATION:	Randolph County, NC	BORING/WELL LOCATION:	Parcel 50, NE portion
START DATE:	04/09/19	COMPLETED:	04/09/19
GEOLOGIST:	T. Leatherman	DRILLER:	Catlin
DRILL METHOD:	Geoprobe	SAMPLE METHOD:	Macro-core
BORING DIA:	2-inch	CASING DIA:	N/A
TOTAL DEPTH:	10 feet	CASING DEPTH:	N/A

DEPTH (ft.)	VISUAL MANUAL SOIL CLASSIFICATION COLOR, TEXTURE, STRUCTURE, CONSISTENCY, ODOR, ETC.	OVA RESULTS PERCENT RECOVERY BLOW COUNTS
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[illegible]

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 0 _____.

APPENDIX D



Hydrocarbon Analysis Results

Client: PYRAMID ENVIRONMENTAL
Address: 503 INDUSTRIAL AVENUE
 GREENSBORO, NC 27406

Samples taken
Samples extracted
Samples analysed

Tuesday, April 9, 2019
 Tuesday, April 9, 2019
 Thursday, April 11, 2019

Contact: TIM LEATHERMAN

Operator

CAROLINE STEVENS

Project: NCDOT RANDOLPH PARCEL 50/2019-084

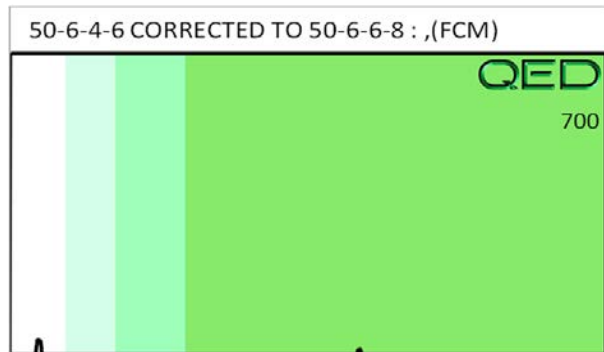
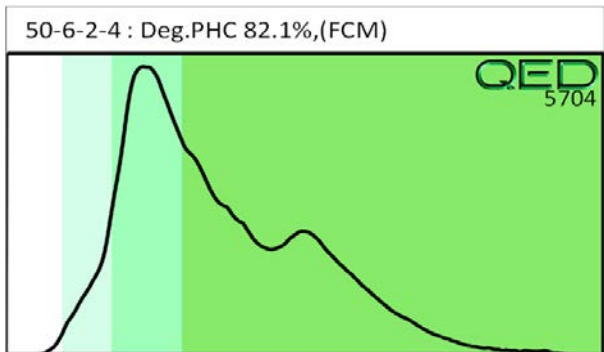
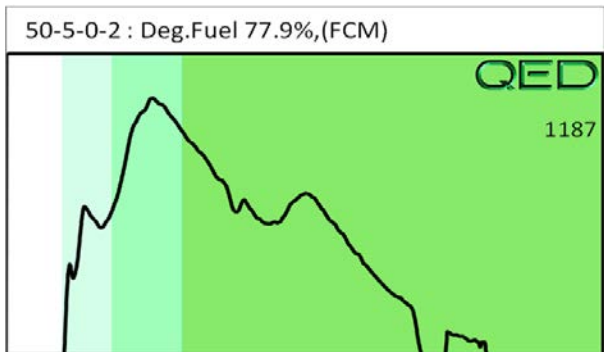
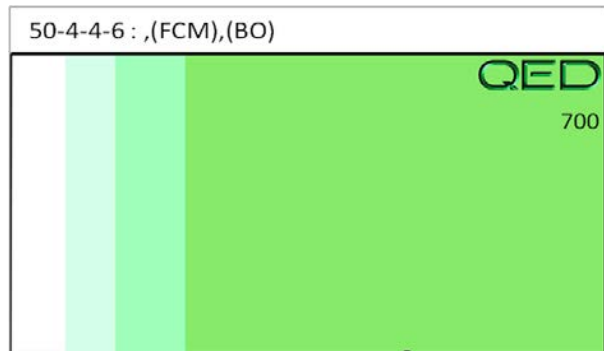
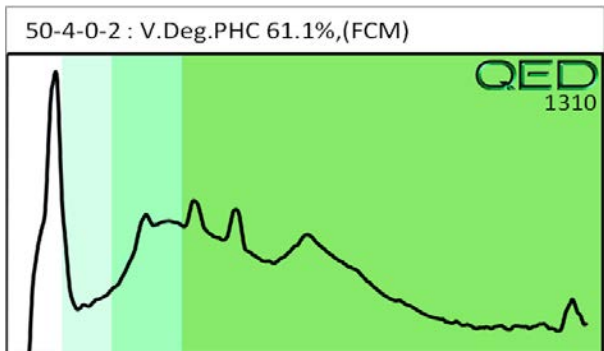
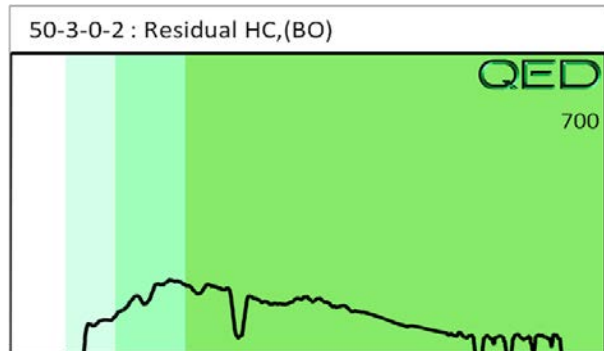
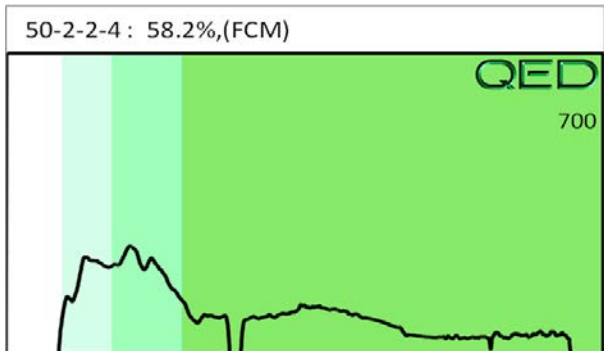
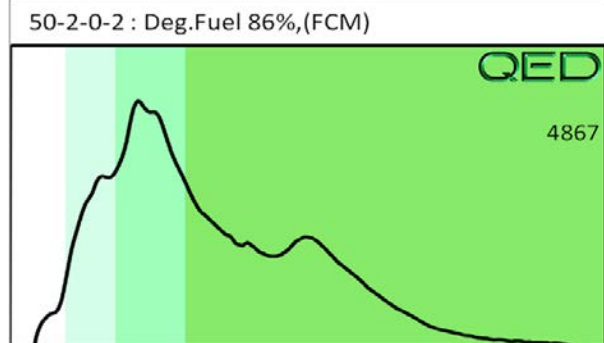
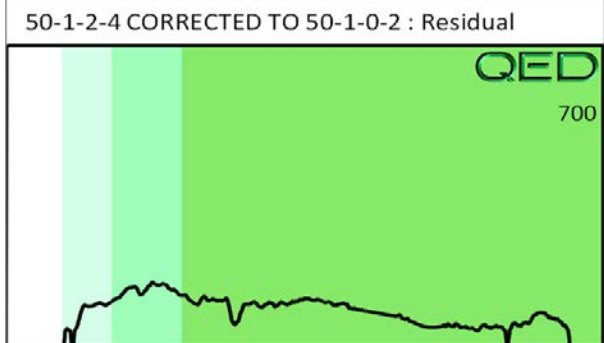
													U00902
Matrix	Sample ID	Dilution used	BTX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	% Ratios			HC Fingerprint Match
										C5 - C10	C10 - C18	C18	
s	50-1-2-4 CORRECTED TO 50-1-0-2	10.4	<0.26	<0.26	<0.26	<0.26	<0.05	<0.08	<0.01	0	0	100	Residual HC,(BO)
s	50-2-0-2	12.7	<0.32	5.3	2.5	7.8	2	<0.1	<0.013	82.4	13.6	4	Deg.Fuel 86%,(FCM)
s	50-2-2-4	12.8	<0.32	<0.32	0.75	0.75	0.33	<0.1	<0.013	0	78.9	21.1	58.2%,(FCM)
s	50-3-0-2	12.8	<0.32	<0.32	<0.32	<0.32	<0.06	<0.1	<0.013	0	0	100	Residual HC,(BO)
s	50-4-0-2	11.5	<0.29	<0.29	0.29	0.29	0.2	<0.09	<0.011	0	65.2	34.8	V.Deg.PHC 61.1%,(FCM)
s	50-4-4-6	11.9	<0.3	<0.3	<0.3	<0.3	<0.06	<0.09	<0.012	0	0	0	,(FCM),(BO)
s	50-5-0-2	12.3	<0.31	<0.31	1.7	1.7	0.9	<0.1	<0.012	0	70.8	29.2	Deg.Fuel 77.9%,(FCM)
s	50-5-6-8	12.1	<0.3	<0.3	<0.3	<0.3	<0.06	<0.1	<0.012	0	0	0	,(FCM)
s	50-6-2-4	12.0	<0.3	<0.3	3.9	3.9	1.9	<0.1	<0.012	0	78.4	21.6	Deg.PHC 82.1%,(FCM)
s	50-6-4-6 CORRECTED TO 50-6-6-8	13.1	<0.33	<0.33	<0.33	<0.33	<0.07	<0.1	<0.013	0	0	0	,(FCM)
Initial Calibrator QC check			OK		Final FCM QC Check					OK		102.5 %	

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

B = Blank Drift : (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : (OCR) = Outside cal range : (M) = Modified Result.

% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only. **Data generated by HC-1 Analyser**





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U00902

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
										C5 - C10	C10 - C18	C18	
s	50-7-0-2	13.3	<0.33	3.2	1.2	4.4	0.53	<0.11	<0.013	91.5	6.1	2.4	Deg.Fuel 83.9%,(FCM)
s	50-8-0-2	12.7	<0.32	3.5	2.5	6	2	<0.1	<0.013	74.4	20.2	5.4	Deg.Fuel 79.4%,(FCM)
s	50-8-4-6	9.0	<0.23	0.62	<0.23	0.62	<0.05	<0.07	<0.009	99.5	0.5	0	.(FCM)
Initial Calibrator QC check			OK		Final FCM QC Check			OK		95 %			

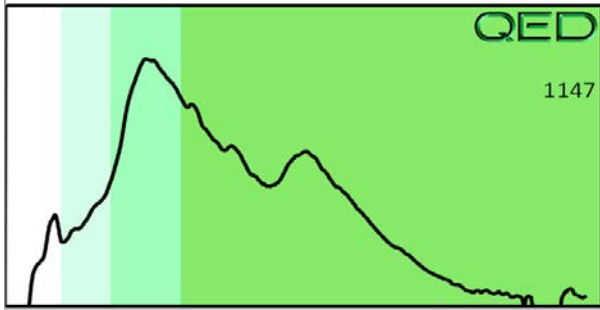
Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

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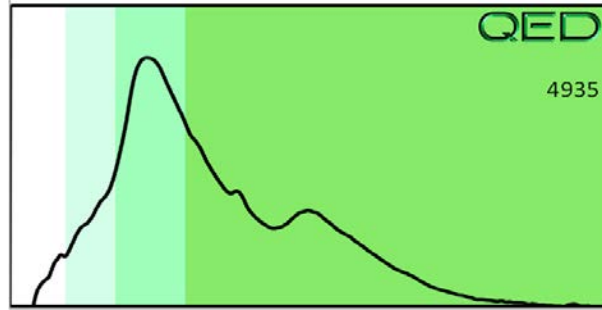
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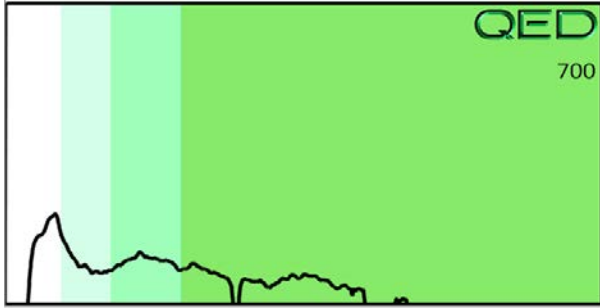
50-7-0-2 : Deg.Fuel 83.9%,(FCM)



50-8-0-2 : Deg.Fuel 79.4%,(FCM)



50-8-4-6 : ,(FCM)



APPENDIX E

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT U-5711 Phase II

PROJECT NO.: 2019-084

Name: Leatherman, Heenan

Dates: 3/12/19 & 4/1/19

TASKS PERFORMED: Site reconnaissance, geophysical surveys, utility locating

T. Leatherman, J. Heenan

Mobilize to site. Site, recon, geophysics, utility locating.

Average daily time: ~8:00 AM - 5:00PM

