

Prepared for:

North Carolina Department of Transportation

Geotechnical Engineering Unit

GeoEnvironmental Section

1589 Mail Service Center

Raleigh, North Carolina 27699-1589

Preliminary Site Assessment Report

Michael D. Greene Property

Parcel # 020

1983 Stone Rose Ave. (aka 1921 Stone Rose Ave.)

Rocky Mount, Nash County, North Carolina

Rocky Mounty –US 301 Bypass from NC 43-48 (Benvenue Rd.) to SR 1836

TIP Number: U-3330

WBS Element: 36596.1.1



10610 Metromont Parkway, Suite 206

Charlotte, North Carolina 28269

October 2, 2015

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10610 Metromont Parkway, Suite 206
Charlotte, North Carolina 28269

Prepared by:

A handwritten signature in blue ink that reads 'Troy L. Holzschuh'.

Troy L. Holzschuh
Assistant Project Manager

Reviewed by:

A handwritten signature in blue ink that reads 'Kathleen A. Roush'.

Kathleen Roush, L.G. RSM
Division Manager
NC Geologist License No. 1353



October 2, 2015

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1.0 INTRODUCTION

This report presents the results of a Preliminary Site Assessment (PSA) for the North Carolina Department of Transportation (NCDOT) Parcel 20 performed by Apex Companies, LLC (Apex) on behalf of the NCDOT. The subject site of this PSA report is to be affected by the realignment of the US 301 on-ramp from Sunset Avenue. The Site is located on 1983 Stone Rose Ave. (formerly 1921 Stone Rose Ave.) and is identified as Parcel 20, Michael D. Greene Property, within the NCDOT U-3330 design project. The property is located on the western quadrant of Stone Rose Avenue and Irving Street, as shown in the Vicinity Map, **Figure 1**. This is in Rocky Mount, Nash County, North Carolina. The investigation was conducted in accordance with Apex Company's Technical and Cost proposal dated May 28, 2015.

NCDOT contracted Apex to perform the PSA within the proposed right-of-way (ROW) and/or easement due to the potential presence of contamination at the site and the fact that excavation and grading may occur within the area. The PSA was performed to evaluate if soils have been impacted as a result of past and present uses of the property within the proposed investigation area, if buried underground storage tanks (USTs) are present in the area of investigation, and if groundwater is impacted.

The following report summarizes the geophysical survey, presents the location a ground penetrating radar (GPR) anomaly not characteristic of a UST in the investigation area, and describes the subsurface field investigation at the site. The report includes the evaluation of field screening, as well as field and laboratory analyses with regards to the presence or absence of soil and groundwater contamination within the area of investigation across Parcel 20. **Appendix A** includes a Photograph log for the site.

1.1 Site History

Parcel 20 has been identified with addresses of 1916, 1921 and 1983 Stone Rose Avenue over its years of use. Based on a search of the North Carolina Department of Environment and Natural Resources (NCDENR) UST database registry, the following historical information has been collected. Kmart Corporation previously occupied the site at 1916 Stone Rose Ave., and during its operation a 1,000 gallon capacity UST was installed on April 14, 1970. Its last known contents were new and used oil. The UST was permanently closed on March 31, 1998. Later, Express #516 occupied the site located at 1921 Stone Rose Avenue and installed three gasoline/gasoline mix USTs on December 11, 1976. Each were 12,000 gallons in capacity. The three USTs are listed as "temporarily closed" in the current UST database, suggesting the tanks could still be on site. No visual evidence of USTs were noted during field activities. Currently the site operates as Cherry's Detail Shop and no known tanks are associated with this property.

Apex personnel also reviewed the NCDENR Incident Management Database and Groundwater Incident #5088 is associated with this parcel. Apex contacted Brenda Hafshejani of the NCDENR UST Section, Raleigh Regional office. Ms. Hafshejani stated that this is an old incident number and NCDENR did not have additional information for this parcel. No further information is obtainable.

1.2 Site Description

The site is located in a commercial area of Rocky Mount in Nash County. The site is bordered to the north by the US 301 on Ramp. Sunset Avenue and the Center at Sunset shopping center borders the site to the west. Irving Street borders the site to the south and east. The lot beyond Irving St is a vacant lot. Merry Maids and Johnson Funeral Home are neighboring properties south and east of the vacant lot. Stone Rose Ave. and Cross Roads Plaza border the site to the east. Parcel 20 does appear on the NCDENR UST database registry however is not associated with known USTs. The geophysical surveyor, Taylor Wiseman and Taylor, did identify one GPR anomaly not characteristic of a UST in the investigation area.

2.0 GEOLOGY

2.1 Regional Geology

Parcel 20 is located within the Eastern Slate Belt. This belt contains slightly metamorphosed volcanic and sedimentary rocks similar to those in the Carolina Slate Belt. The rocks are poorly exposed and partially covered by Coastal Plain sediments. The metamorphic rocks, 500-600 million years old, are intruded by younger, approximately 300 million year old, granitic bodies. Gold was once mined in the belt, and small occurrences of molybdenite, an ore of molybdenum, have been prospected here. Crushed stone, clay, sand and gravel are currently mined in this belt.

2.2 Site Geology

Site geology was observed through the drilling and sampling of 11 direct push probe soil borings (SB) onsite. **Figure 2** presents the boring locations and site layout. Borings did not exceed a total depth of 10 feet below ground surface (bgs) since that depth was the maximum excavation depth for proposed drainage features. Soil consisting predominantly of tan to light grey clayey silt to an orange-white marbled silty clay with sand was observed across the parcel. Soil displayed varying degrees of moisture. Up-gradient borings intercepted water at approximately eight feet bgs while down-gradient borings intercepted water at approximately three feet bgs. Boring logs are presented in **Appendix B**.

3.0 FIELD ACTIVITIES

3.1 Preliminary Activities

Prior to commencing field sampling activities at the site, several tasks were accomplished in preparation for the subsurface investigation. A Health and Safety Plan (HASP) was prepared to include the site-specific health and safety information necessary for the field activities. North Carolina-One Call was contacted on July 9, 2015 to report the proposed drilling activities and subsequently notify all affected utilities for the parcel. Apex subcontracted Taylor Wiseman & Taylor (TWT) to locate subsurface utilities and other subsurface drilling hazards as well as to perform a geophysical survey. Regional Probing Services of Wake Forest, North Carolina was retained by Apex to perform the direct push sampling for soil borings. QROS was contacted for acquisition of a rented ultraviolet fluorescence (UVF) Hydrocarbon Analyzer and Eastern Solutions was contacted for rental of a Photoionization Detector (PID). Boring locations were strategically placed in a pattern within the area of investigation to maximize the opportunity to encounter potentially contaminated soil.

3.2 Site Reconnaissance

Apex personnel performed a site reconnaissance July 24, 2014. During the site reconnaissance, the area was visually examined for the presence of USTs or areas/obstructions that could potentially affect the subsurface investigation and the boring locations were identified prior to boring activity which began July 25, 2015. Apex personnel also used the site visit as an opportunity to contact the property manager/owner to inform them of upcoming field activities.

3.3 Geophysics Survey Results

The geophysical survey of the site occurred the week of July 13th, 2015. TWT performed an electromagnetic (EM) survey followed by ground penetrating radar (GPR) surveys. Their Geophysical Report is presented in **Appendix C**. One unknown EM feature was identified and was investigated further with the GPR method. Results of GPR scans indicated evidence of an anomaly 3.5 feet below ground surface not characteristic of a UST. The anomaly location is depicted on **Figure 2**.

3.4 Well Survey

No water supply wells were observed, however multiple groundwater monitoring wells were observed on Parcel 20. The monitoring wells do not lie within the NCDOT design plan.

3.5 Soil Sampling

Apex conducted drilling activities at the site on July 25th, 2015. Apex drilling subcontractor Regional Probing Services advanced 11 direct push soil borings within the proposed expanded

NCDOT ROW. These 11 boring locations were placed by the possible UST or in a pattern to maximize the likelihood of intercepting potential soil contamination. **Figure 2** presents the Site Map with boring locations and identifications.

The purpose of soil sampling was to determine if a petroleum release has occurred within the ROW and/or easement of the parcel, and if so, to estimate the volume of impacted soil that might require special handling during construction activities.

Soil sampling was performed utilizing direct push methods accompanied by field screening with the PID and onsite quantitative analyses with the ultraviolet fluorescence (UVF) Hydrocarbon Analyzer. One to two intervals of the soil boring, exhibiting the most elevated PID readings, were selected for onsite quantitative analysis of total petroleum hydrocarbons (TPH) and polycyclic aromatic hydrocarbons (PAH) in soil using the QROS-QED UVF Hydrocarbon Analyzer. The analysis was performed onsite by Troy Holzschuh, a certified QED UVF technician with Apex. The UVF results were generated concurrent with soil boring activities so that rapid assessment could be utilized for strategic boring placement.

3.6 Groundwater Sampling

Apex personnel mobilized to the Site on July 28th, 2015 to obtain a grab sample from a temporary monitoring well installed on July 25th, 2015. The well was installed per the technical and cost proposal dated May 28th 2015, which states that if groundwater is encountered in any of the soil borings at a depth which may be encountered during site development, a single temporary monitoring well will be installed and sampled on that parcel. P20-B7 was chosen for the one inch temporary monitoring well because groundwater was encountered at 3 feet bgs and it is located near a cut section of the design project. The well was set at 11 feet bgs with ten feet of screen and backfilled with sand. Prior to sampling, the groundwater monitoring well was located and the cap was removed to allow equilibration. Once equilibrated, the water level measurement was recorded. The well was sampled with an electric peristaltic pump using new disposable polyethylene tubing. One well volume was purged and then Apex personnel collected samples using low flow techniques per EPA guidelines.

4.0 SAMPLING RESULTS

4.1 Soil Sampling Results

Based on PID field screening and onsite UVF hydrocarbon analysis from the July 2015 soil sampling there is no evidence of petroleum hydrocarbon contamination onsite, within the area of investigation.

Onsite Soil Screening and UVF Analysis

Elevated PID readings, above ten parts per million (ppm), were not observed in the borings conducted at the site. The PID readings were non-detectable. The PID field screening results are provided on the boring logs in **Appendix B**.

Soil concentrations of TPH gasoline range organics (GRO) and diesel range organics (DRO) measured using the onsite UVF unit are presented in **Table 1**, with instrument generated tables and chromatographs in **Appendix D**. **Figure 3** presents the GRO and DRO results at each boring.

Based on the UVF analyses GRO was not detected above the instrument reporting limits. DRO concentrations were identified on Parcel 20, however the concentrations do not exceed the regulatory action level of 10 milligram per kilogram (mg/kg).

4.2 Groundwater Sampling Results

Apex personnel sampled one temporary monitoring well on the site on July 28th, 2015. Depth to groundwater was measured at 3.08 feet bgs. The groundwater sample was analyzed for volatile organic compounds (VOCs) in accordance with Method 8260, semi-volatile organic compounds (SVOC) in accordance with Method 8270 and volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH) in accordance with the Massachusetts Department of Environmental Protection (MADEP) Method. The VOC analytics did indicate low levels of chloroform at a concentration of 1.6 micrograms per liter (µg/L), which is below its respective 15A NCAC 0.2L .0202 Groundwater Quality Standard (2L Standard) of 70 µg/L. All other VOC constituents were below the laboratory reporting limits. All SVOC, EPH and VPH constituents were below the laboratory reporting limits as well. The laboratory report and sampling log are included in **Table 2**, **Figure 4**, and **Appendix D**.

5.0 CONCLUSIONS

Based on site observations and onsite UVF analysis, no petroleum-impacted soil contamination was identified above the NCDENR Action level of 10 mg/kg, and no impacted groundwater was identified above the 2L Groundwater Quality Standards.

The following bulleted summary is based upon Apex's evaluation of field observations and onsite quantitative analyses of samples collected from the Site on July 25th, 2015.

- Results of the geophysical survey produced evidence of an anomaly not characteristic of a UST. The location of the anomaly is depicted on **Figure 2**.

- Eleven soil borings were advanced onsite and two soil samples were collected from each boring. Each sample was analyzed via UVF in the field utilizing a QROS QED Hydrocarbon Analyzer.
- DRO concentrations identified onsite were either below the instrument reporting limits or were below the NCDENR Action level of 10 mg/kg.
- GRO concentrations were not identified above the instrument reporting limits.
- One temporary monitoring well was sampled. The groundwater sample was analyzed for VOCs, SVOCs, VPH and EPH. Chloroform was detected at a concentration of 1.6 mg/L, which is below the 2L Standard. No other constituents were identified above the laboratory reporting limits.

6.0 RECOMMENDATIONS

Based on these PSA results, Apex does not recommend further assessment or soil sampling in the area of investigation.

TABLES

Table 1
UVF Onsite Hydrocarbon Analytical Soil Data from July 2015
U-3330, Parcel 20, Michael D. Greene Property
Rocky Mount, North Carolina

Sample ID Number	Sample Date	Sample Depth (ft bgs)	GRO (mg/kg) (C5-C10)	DRO (mg/kg) (C10-C35)
NCDENR Action Level in mg/kg			10	10
P20-B1	7/25/2015	4 to 5	<0.52	<0.21
P20-B1	7/25/2015	9 to 10	<0.55	<0.22
P20-B2	7/25/2015	4 to 5	<0.6	3.4
P20-B2	7/25/2015	9 to 10	<0.58	2.4
P20-B3	7/25/2015	4 to 5	<0.66	<0.27
P20-B3	7/25/2015	7 to 7.5	<0.52	<0.21
P20-B4	7/25/2015	4 to 5	<0.48	5.1
P20-B4	7/25/2015	7 to 7.5	<0.52	4.7
P20-B5	7/25/2015	4 to 5	<0.42	0.75
P20-B5	7/25/2015	7 to 7.5	<0.56	0.9
P20-B6	7/25/2015	2 to 3	<0.42	0.67
P20-B6	7/25/2015	9 to 10	<0.46	<0.19
P20-B7	7/25/2015	2 to 2.5	<0.44	2
P20-B7	7/25/2015	9 to 10	<0.51	0.33
P20-B8	7/25/2015	4 to 5	<0.58	<0.23
P20-B8	7/25/2015	9 to 10	<0.42	<0.17
P20-B9	7/25/2015	2 to 2.5	<0.64	<0.25
P20-B9	7/25/2015	9 to 10	<0.64	<0.25
P20-B10	7/25/2015	2 to 3	<0.49	9.7
P20-B10	7/25/2015	9 to 10	<0.66	0.27
P20-B11	7/25/2015	2 to 3	<0.61	<0.24

NOTES:

(mg/kg) = Milligrams per kilogram
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
ft bgs = feet below ground surface
Bold Concentrations indicate an exceedance of NC DENR Action Level of 10 mg/Kg

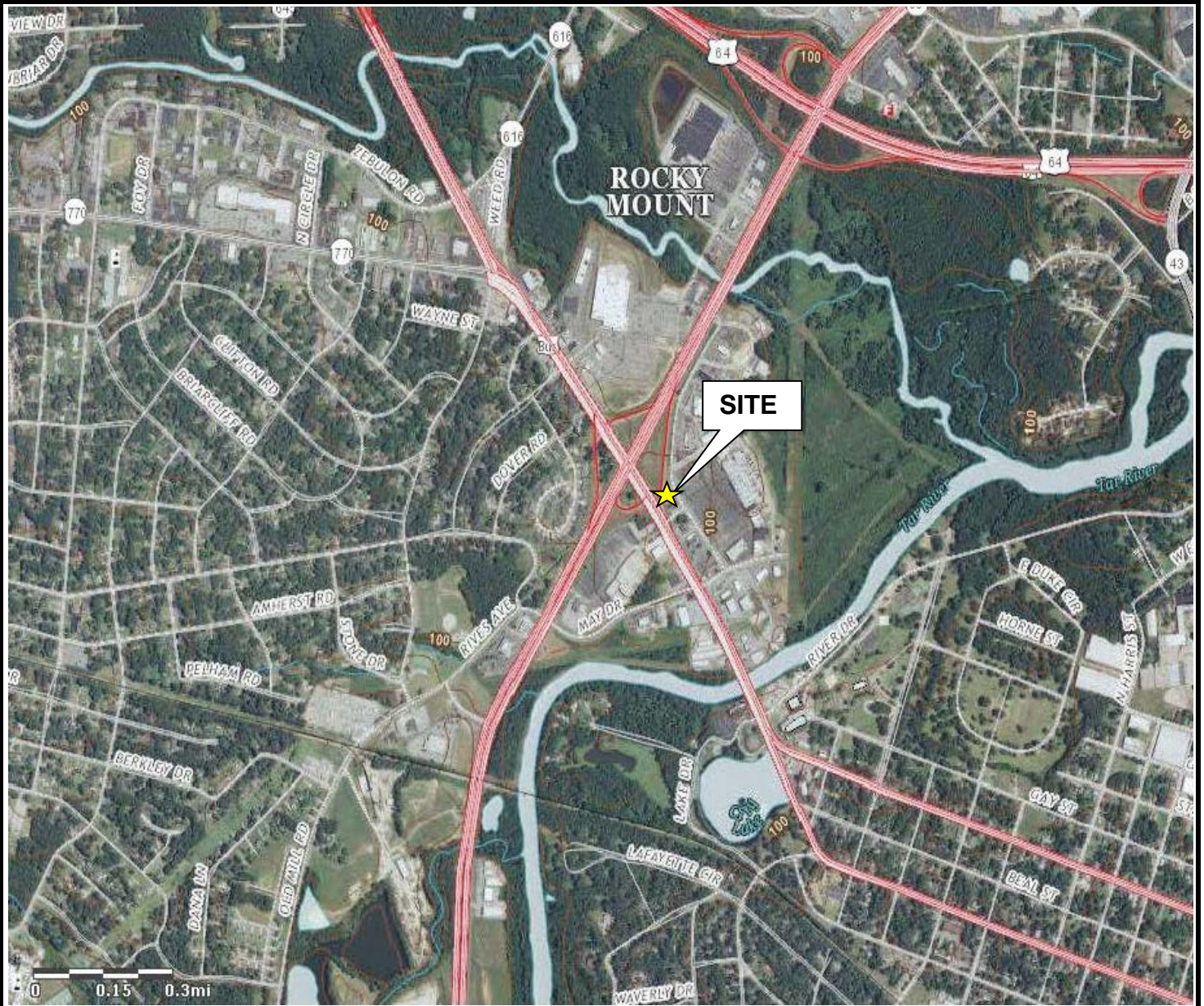
TABLE 2
Summary of Groundwater Detections
Michael D. Greene Property
Rocky Mount, North Carolina

Location	Sample Date	VOC by 8260
		Cloroform
15A NCAC 2L Groundwater Quality Standard		70
P20-B7	8/28/2015	1.6
Notes: 1 All concentrations are presented in micrograms per liter - ug/L (ppb).		

FIGURES

**Figure 1
Site Location Map**

**Parcel #20
1921 Stone Rose Avenue
Rocky Mount, North Carolina**



USGS, National Geospatial Program
1) Topographic Map, Rocky Mount, NC,
7.5 Minute
Year: 2013
2) Orthoimagery, USGS EROS Ortho 1
Foot
Year: 2011



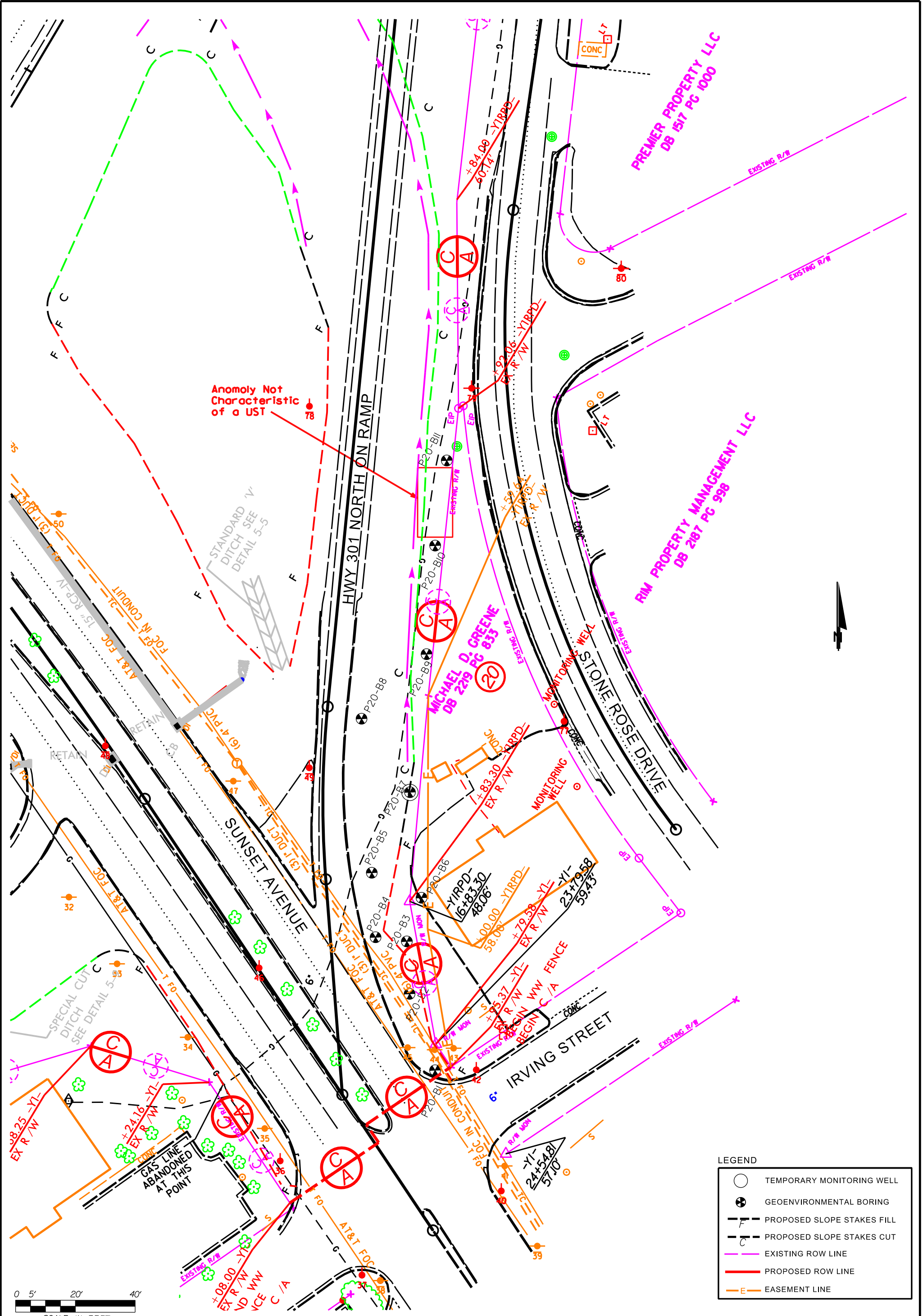
10610 Metromont Parkway, Suite 206
Charlotte, NC
Telephone: (704) 799-6390

Project:
NCDOT – Nash Co.

Apex Job #: 510424-001

Date: August 2015





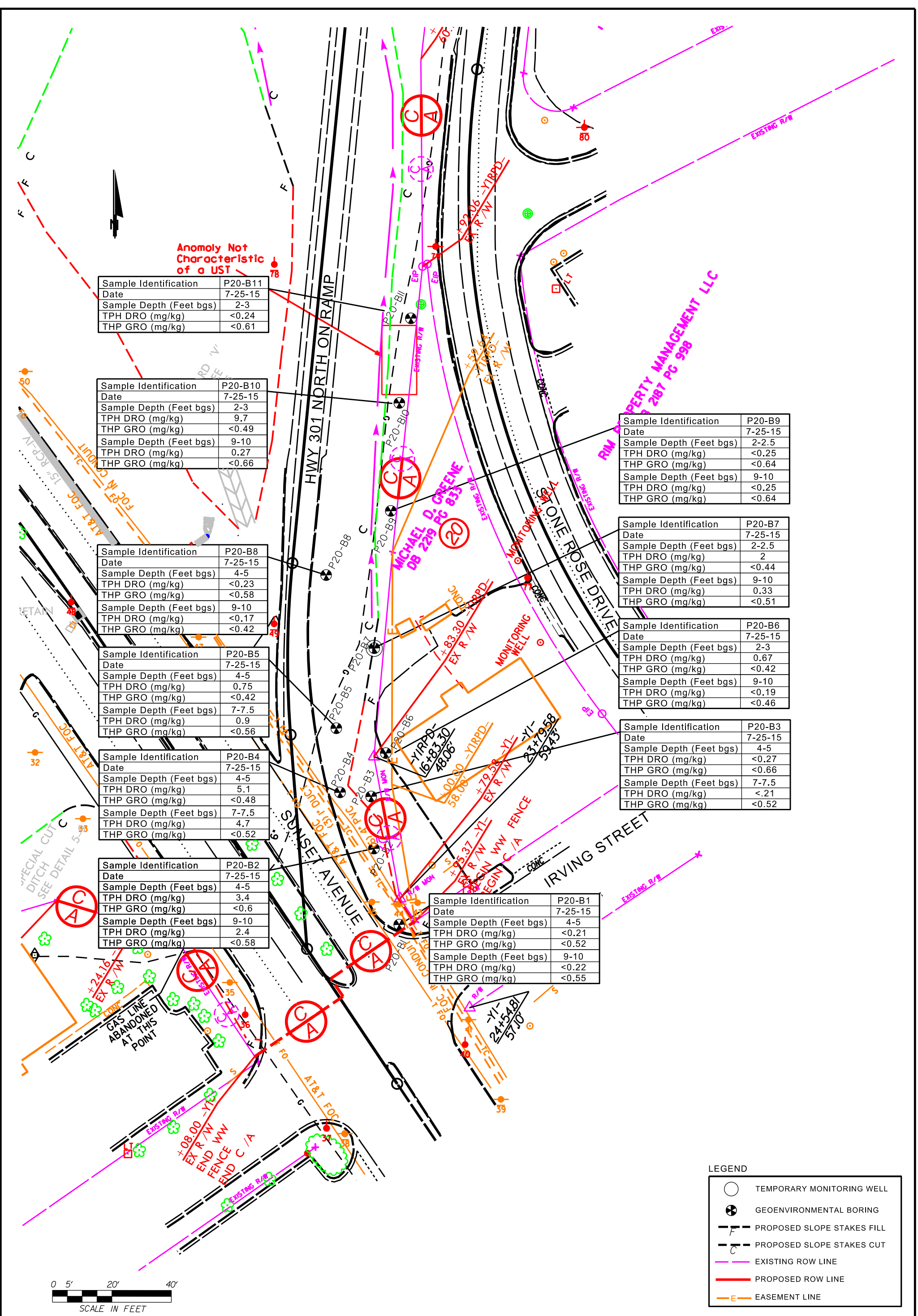
LEGEND

	TEMPORARY MONITORING WELL
	GEOENVIRONMENTAL BORING
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING ROW LINE
	PROPOSED ROW LINE
	EASEMENT LINE

APEX
 APEX COMPANIES, LLC
 10610 METROMONT PARKWAY
 SUITE 206
 CHARLOTTE, NC 28117
 PHONE: (704) 799-6390

**FIGURE 2
 PARCEL 20
 SITE MAP WITH
 SOIL BORING
 LOCATIONS**

Date:	8/1/15	1921 STONE ROSE AVENUE ROCKY MOUNT, NC 27801		
Proj. #	510424.001			
File:	parcel_20.dgn	Project Title:		
CAD File:		Client:		
Approx. Scale:	1" = 50'	Drawn by:	MJO	NC DOT

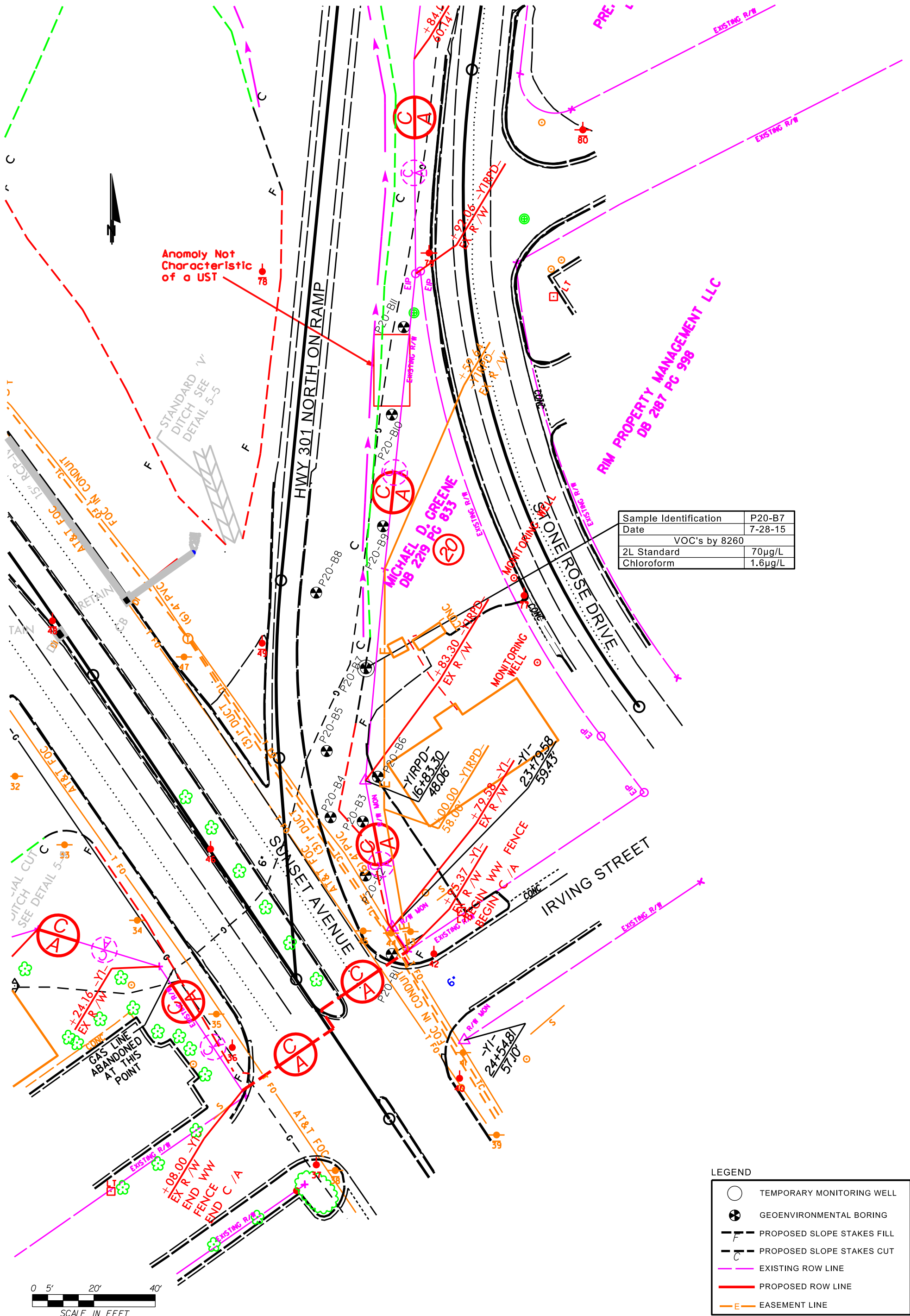


**FIGURE 3
PARCEL 20
ONSITE UVF HYDROCARBON
ANALYSIS RESULTS**

LEGEND

- TEMPORARY MONITORING WELL
- ⊗ GEOENVIRONMENTAL BORING
- F- PROPOSED SLOPE STAKES FILL
- C- PROPOSED SLOPE STAKES CUT
- - - EXISTING ROW LINE
- - - PROPOSED ROW LINE
- E- EASEMENT LINE

Date:	8/1/15	1921 STONE ROSE AVENUE ROCKY MOUNT, NC 27801		
Proj. #	510424.001			
parcel_20.dgn		Project Title:		
CAD File:		1" = 50'	MJO	NC DOT
Approx. Scale:		Drawn by:	Client:	



LEGEND

	TEMPORARY MONITORING WELL
	GEOENVIRONMENTAL BORING
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING ROW LINE
	PROPOSED ROW LINE
	EASEMENT LINE

FIGURE 4
PARCEL 20
SITE MAP WITH GROUND WATER
DETECTIONS

APPENDIX A
PHOTOGRAPH LOG



Photo 1

Viewing the Site Prior to Drilling Activities.



Photo 2

Viewing a portion of the investigation area and Regional Probing preparing to drill next to possible UST.



Photo 3

Utilities are located in site investigation area.



Photo 4

Temporary monitoring well installed on site.

APPENDIX B
BORING LOGS



Apex Companies, LLC

Boring Log

Boring/Well No.: P20-B6	Site Name: Michael D. Greene Property
Date: 7-25-15	Location: Rocky Mount, Nash Co., NC
Job No.: 510424-001	Sample Method: Direct Push
AMEC Rep: Troy L. Holzschuh	Drilling Method: Direct Push
Drilling Company: Regional Probing Services	Driller Name/Cert #: Larry Opper/3322A

Remarks:

Depth (ft BLS)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
0-1	0.0		Brown, Silt, Moist
1-3	0.0		Tan, Sandy Silt, Moist (Water at 3 feet bgs)
3-5	0.0		Tan, Clayey Silt, Wet
5-7	0.0		
7-9	0.0		
9-10	0.0		
			Boring terminated at 10 feet

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P20-B7	Site Name: Michael D. Greene Property
Date: 7-25-15	Location: Rocky Mount, Nash Co., NC
Job No.: 510424-001	Sample Method: Direct Push
AMEC Rep: Troy L. Holzschuh	Drilling Method: Direct Push
Drilling Company: Regional Probing Services	Driller Name/Cert #: Larry Opper/3322A

Remarks:

Depth (ft BLS)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
0-3	0.0		Tan, Silt, Moist
3-5	0.0		Tan, Clayey Silt, Moist; Water at 3 feet bgs
5-7	0.0		
7-9	0.0		
9-11	0.0		
			Boring terminated at 11 feet
			Temporary well installed for a grab sample. Details are below.

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval: N/A
Total Depth: 11 feet bgs	Outer Casing Diameter: N/A
Screen Interval: 6 to 11 feet	Bentonite Interval: N/A
Sand Interval: 4 to 11 feet	Slot Size: 0.10
Grout Interval: N/A	Static Water Level: 3.08



Apex Companies, LLC

Boring Log

Boring/Well No.: P20-B9	Site Name: Michael D. Greene Property
Date: 7-25-15	Location: Rocky Mount, Nash Co., NC
Job No.: 510424-001	Sample Method: Direct Push
AMEC Rep: Troy L. Holzschuh	Drilling Method: Direct Push
Drilling Company: Regional Probing Services	Driller Name/Cert #: Larry Opper/3322A

Remarks:

Depth BLS)	(ft	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
0-2		0.0		Tan, Silt, Moist
2-4		0.0		Tan/Gray, Clayey Silt, Moist - Wet (Water at 3 feet bgs)
4-6		0.0		Gray, Sandy Clayey, Silt, Wet
6-8		0.0		Gray, Clayey Silt, Wet
8-10		0.0		
				Boring terminated at 10 feet

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P20-B11	Site Name: Michael D. Greene Property
Date: 7-25-15	Location: Rocky Mount, Nash Co., NC
Job No.: 510424-001	Sample Method: Direct Push
AMEC Rep: Troy L. Holzschuh	Drilling Method: Direct Push
Drilling Company: Regional Probing Services	Driller Name/Cert #: Larry Opper/3322A

Remarks:

Depth (ft) BLS)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
0-3	0.0		Tan, Silt, Moist
3-6	0.0		Gray/Orange, Marbled, Clayey Silt, Moist
			Boring Terminated at 65 feet due to geoprobe refusal.

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:

APPENDIX C
GEOPHYSICAL REPORT



Taylor Wiseman & Taylor

ENGINEERS | SURVEYORS | SCIENTISTS

3500 Regency Parkway, Suite 260 – Cary, NC 27518

Office: (919) 297-0085 Fax: (919) 297-0090

August 26, 2015

TWT # 70668.5002.00

Apex Companies, LLC
Attn: Ms. Katie Lippard
10610 Metromont Parkway
Suite 206
Charlotte, NC 28269

RE: SUE Geophysical Assessment
NCDOT Project U-3330
US 301 Bypass
Rocky Mount, NC (Nash County)

Ms. Lippard:

Taylor Wiseman & Taylor (**TWT**) is submitting this Subsurface Utility Engineering (SUE) Geophysical Assessment report to document services performed under Subcontracting Services Agreement number 51-315, dated 7/8/2015, for Apex Job number 510424.001. TWT was subcontracted by Apex Companies, LLC to perform a utility mark-out and underground storage tank (UST) investigation with electromagnetic designating equipment and ground penetrating radar (GPR). These services were performed at six (6) locations that are defined as follows:

- 1) Parcel 20 (Greene) – 1921 Stone Rose Avenue/Drive – see Figure 1
- 2) Parcel 37 (National) – 770 N Wesleyan Blvd – see Figure 2
- 3) Parcel 45 (Medlin) – 829 Hunter Hill Road – see Figure 3
- 4) Parcel 49 (Bishop Partners) – 921 N. Wesleyan Blvd – see Figure 4
- 5) Parcel 69 (Cliett, Inc.) – 1001 N. Wesleyan Blvd – see Figure 5
- 6) Parcels 22,23,24 & 25 (Tarrytown) – 2320 Sunset Avenue – see Figure 6

The limits and findings for each investigation are documented on the Figures attached hereto. As noted on the Figures, TWT utilized a Vivax Pro Loc 2, and Vivax Metrotech 810 for the electromagnetic designation and a Mala X3M GPR with a 250 MHz antenna. There were some areas at the sites where the GPR cart could not be pushed. Steep slopes, ditches and wooded areas presented some of these limitations. Each Figure clearly identifies the areas where GPR could not be performed.

Each Figure shows the underground utility lines that were detected by way of the electromagnetic designating. Each Figure shows any anomalies that were detected with the GPR.

Parcel 20 (refer to Figure 1) is the only parcel where the GPR detected an anomaly. The anomaly was not characteristic of a UST and has been duly noted that way on the Figure.

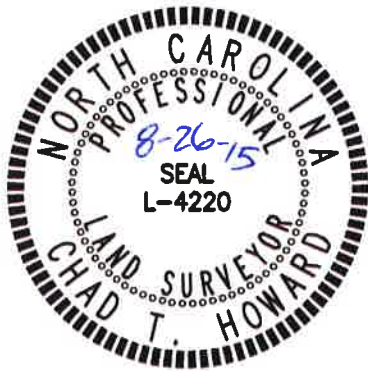
The conclusions for this geophysical assessment submitted herein are based upon the data obtained from non-invasive testing. As such, even within the surveyed area, the survey cannot be considered 100 percent accurate due to inherent method limitations, survey limitations, site features, and/or unforeseen site-specific conditions. Accordingly, the possibility exists that not all subsurface, man-made features have been located.

Properties of the subsurface materials (e.g., clay content, moisture, etc.) can have a significant impact on the effective depth of penetration of the GPR survey. Accordingly, non-metallic tanks, tanks at depths below about 5 feet, and tanks outside of the survey area may not have been detected using the

geophysical techniques. In addition, due to interference, there may be areas within the proposed survey area where an interpretation of subsurface features was not feasible.

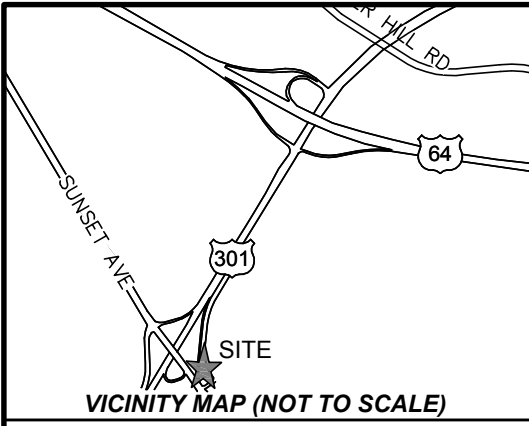
Regardless of the thoroughness of a geophysical study, there is always a possibility that actual conditions may not match the interpretations. The results should be considered accurate only to the degree implied by the methods used and the method's limitations and data coverage. Accordingly, the possibility exists that not all subsurface features at a project site will be located due to either subsurface soil conditions or the occurrence of features outside the lateral limits and below the depth of penetration of the methods used. The location and/or determination (or the lack thereof) of potential USTs is based on our review of provided information and of the geophysical survey. Under no circumstances does TWT assume any responsibility for damages resulting from the presence of subsurface features that may exist but were not identified by our survey.

TWT welcomes the opportunity to assist you with future geophysical survey needs. Should you have any questions regarding this report, please call or email.



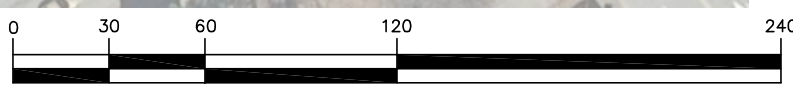
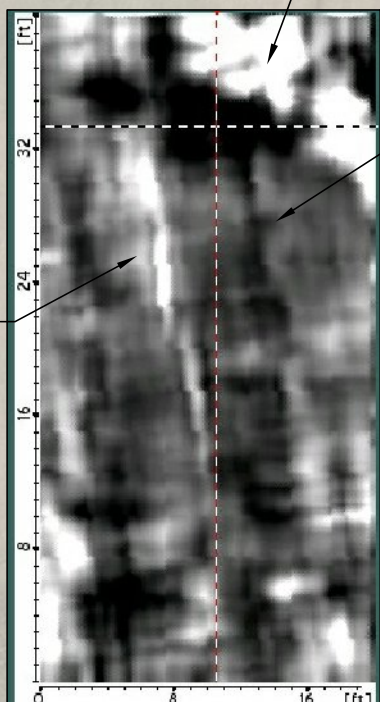
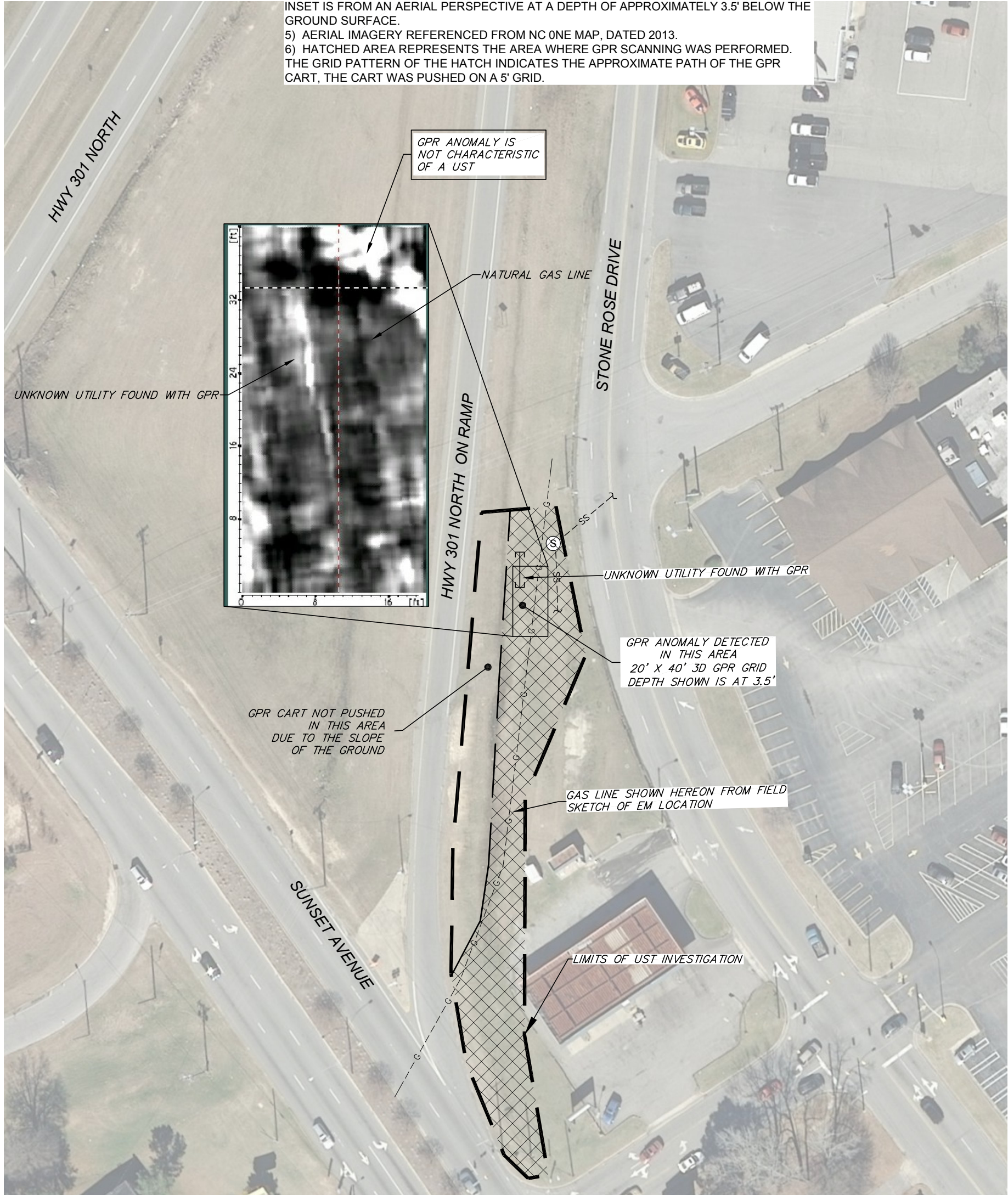
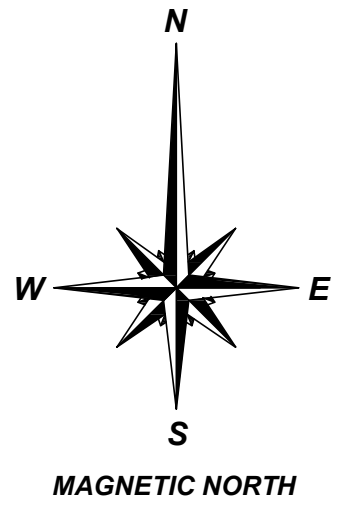
Best regards,

Chad T. Howard, PLS
Survey & SUE Division Manager
Taylor Wiseman & Taylor
(919) 215-1472
howard@taylorwiseman.com

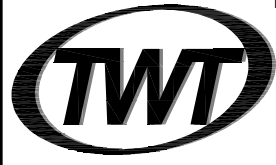


GENERAL NOTES

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- 3) THE LOCATION OF THE UTILITIES SHOWN HEREON SHOULD BE CONSIDERED APPROXIMATE. THIS DOCUMENT IS A SKETCH; IT IS NOT A SURVEY; NO FIELD SURVEYING WAS PERFORMED.
- 4) THERE WAS ONE AREA WITHIN THE LIMITS, THAT THE GPR FOUND AN ANOMALY. THE INSET IS FROM AN AERIAL PERSPECTIVE AT A DEPTH OF APPROXIMATELY 3.5' BELOW THE GROUND SURFACE.
- 5) AERIAL IMAGERY REFERENCED FROM NC ONE MAP, DATED 2013.
- 6) HATCHED AREA REPRESENTS THE AREA WHERE GPR SCANNING WAS PERFORMED. THE GRID PATTERN OF THE HATCH INDICATES THE APPROXIMATE PATH OF THE GPR CART, THE CART WAS PUSHED ON A 5' GRID.



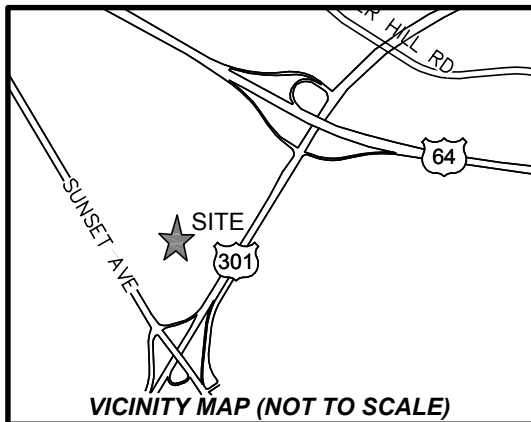
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TAYLOR WISEMAN & TAYLOR
 ENGINEERS | SURVEYORS | SCIENTISTS
 SUBSURFACE UTILITY ENGINEERS
 3500 REGENCY PARKWAY
 SUITE 260, CARY, NC 27518
 PHONE (919) 297-0085 FAX (919) 297-0090
 NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESSMENT
 for APEX COMPANIES LLC.
 NCDOT PROJECT U-3330, PARCEL 20
 1921 STONE ROSE DRIVE
 NASH COUNTY - ROCKY MOUNT, NC

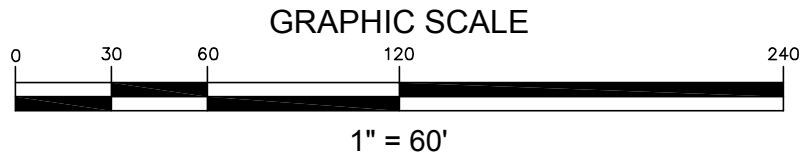
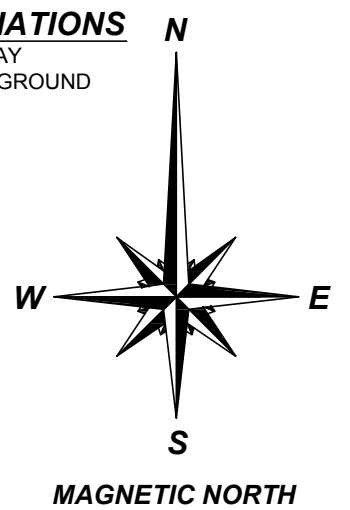
REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 60'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	1	SHEET: 1 / 1



LINE LEGEND		
---	FO	U/G FIBER OPTIC (SKETCH)
---	T	U/G TELEPHONE (SKETCH)
---	UE	U/G ELECTRIC LINE (SKETCH)

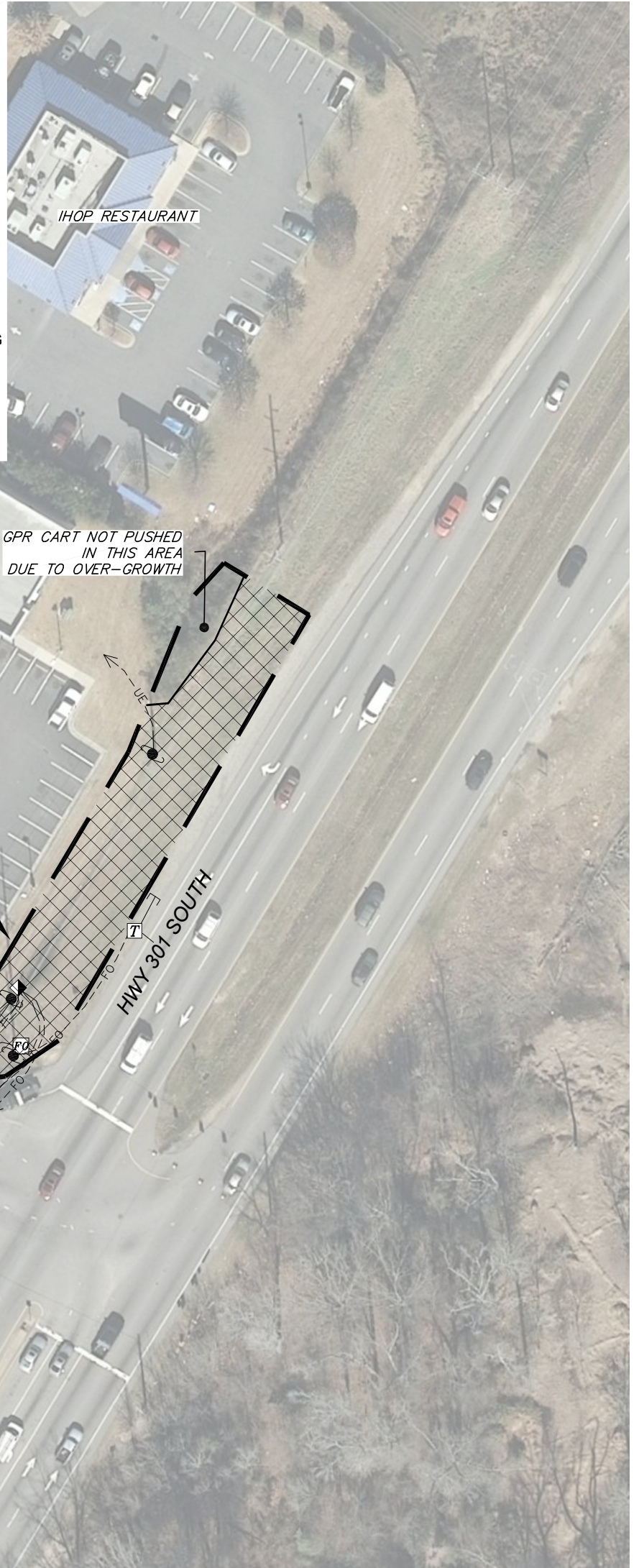
ABBREVIATIONS

HWY HIGHWAY
U/G UNDERGROUND



GENERAL NOTES

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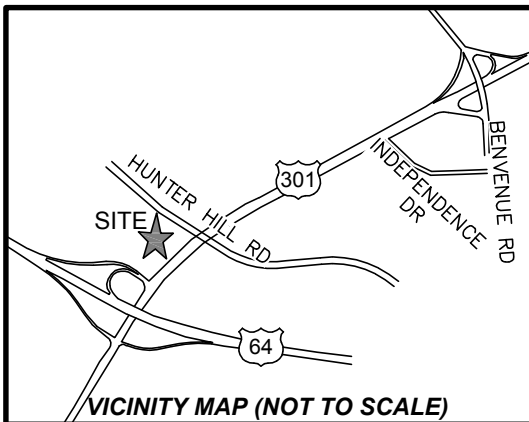
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3500 REGENCY PARKWAY
SUITE 260, CARY, NC 27518
PHONE (919) 297-0085 FAX (919) 297-0090
NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESSMENT
for APEX COMPANIES LLC.
NCDOT PROJECT U-3330, PARCEL 37
770 N. WESLEYAN BLVD
NASH COUNTY - ROCKY MOUNT, NC

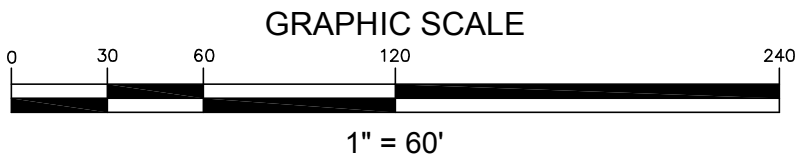
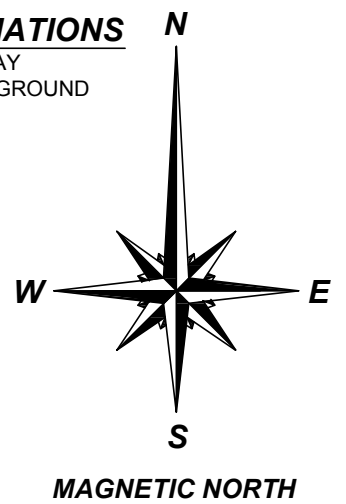
REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 60'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	2	SHEET: 1 / 1



LINE LEGEND	
---G---G---	U/G GAS (SKETCH)
---FO---FO---	U/G FIBER OPTIC (SKETCH)
---T---T---	U/G TELEPHONE (SKETCH)
---UE---UE---	U/G ELECTRIC LINE (SKETCH)

ABBREVIATIONS

HWY HIGHWAY
U/G UNDERGROUND



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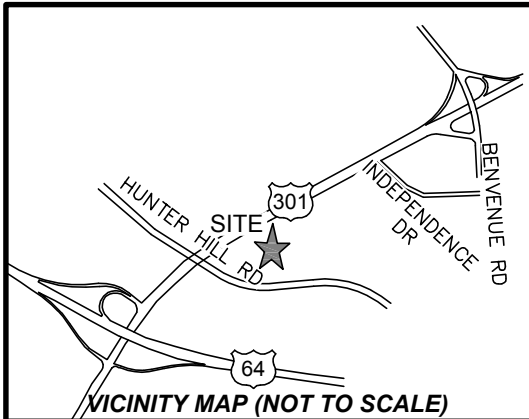
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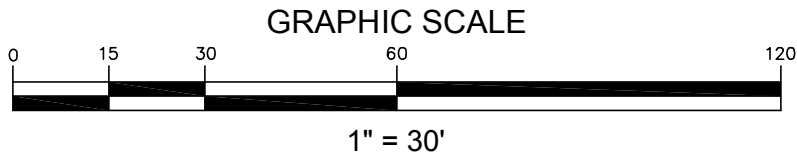
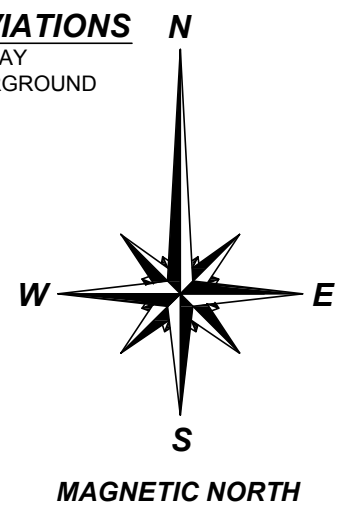
GEOPHYSICAL ASSESMENT
for APEX COMPANIES LLC.
NCDOT PROJECT U-3330, PARCEL 45
829 HUNTER HILL ROAD
NASH COUNTY - ROCKY MOUNT, NC

REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 60'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	3	SHEET: 1 / 1



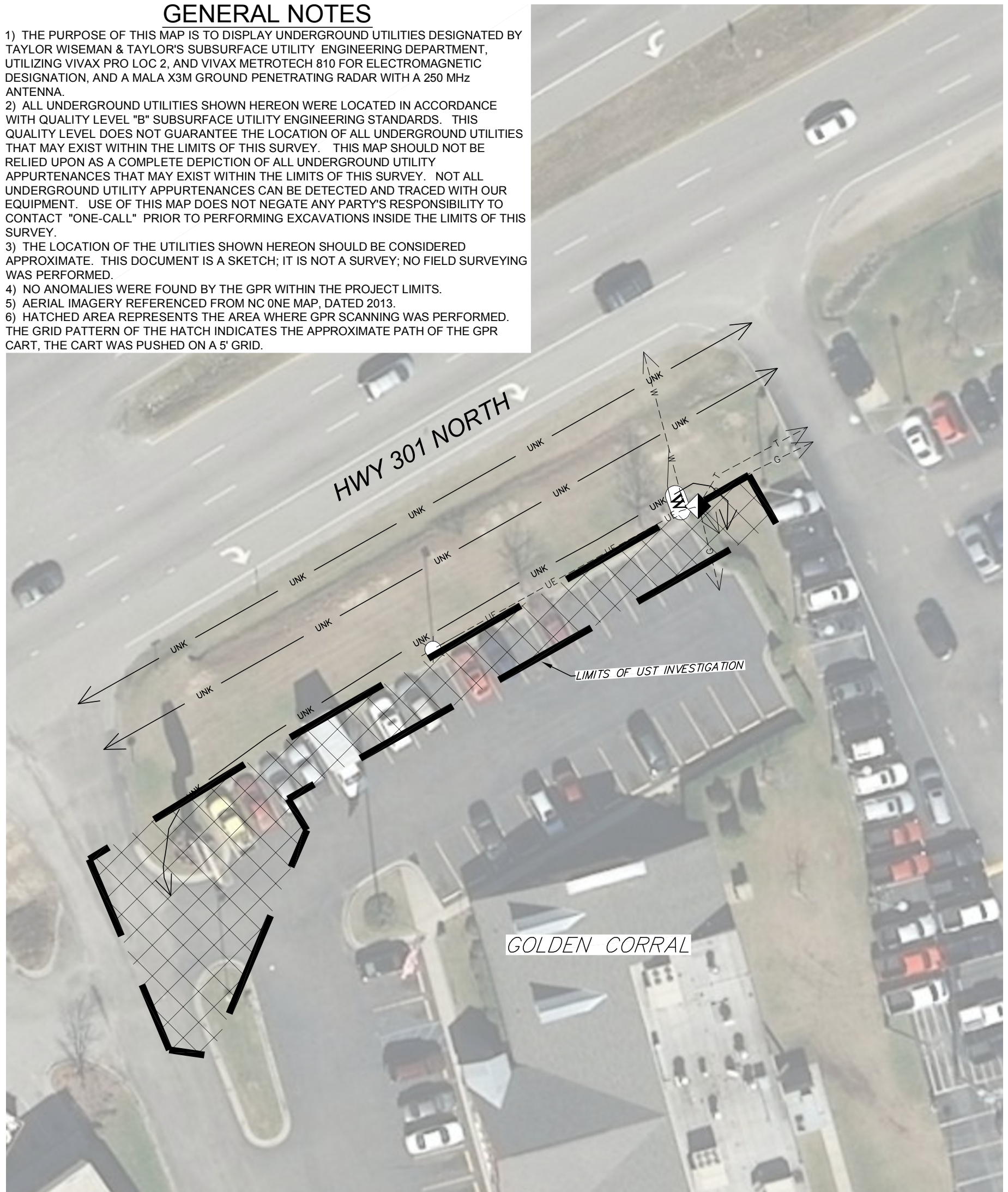
LINE LEGEND	
-----T-----T-----	U/G TELEPHONE (SKETCH)
-----W-----W-----	U/G WATER LINE (SKETCH)
-----UE-----UE-----	U/G ELECTRIC LINE (SKETCH)
-----G-----G-----	U/G GAS (SKETCH)
-----UNK-----UNK-----	UNKNOWN U/G UTILITY

ABBREVIATIONS
 HWY HIGHWAY
 U/G UNDERGROUND



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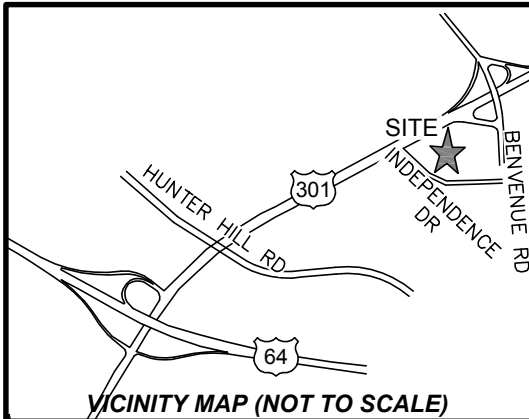
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 SUITE 260, CARY, NC 27518
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 NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESMENT
 for APEX COMPANIES LLC.
 NCDOT PROJECT U-3330, PARCEL 49
 921 N. WESLEYAN BLVD
 NASH COUNTY - ROCKY MOUNT, NC

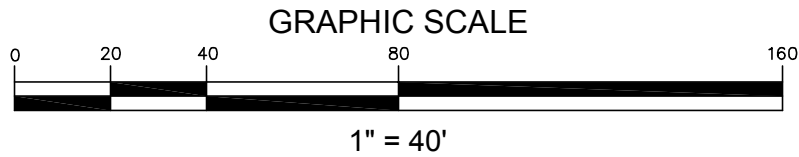
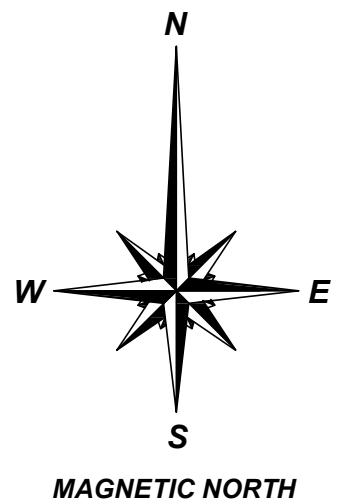
REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 30'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	4	SHEET: 1 / 1



LINE LEGEND	
---T---T---	U/G TELEPHONE (SKETCH)
---W---W---	U/G WATER LINE (SKETCH)

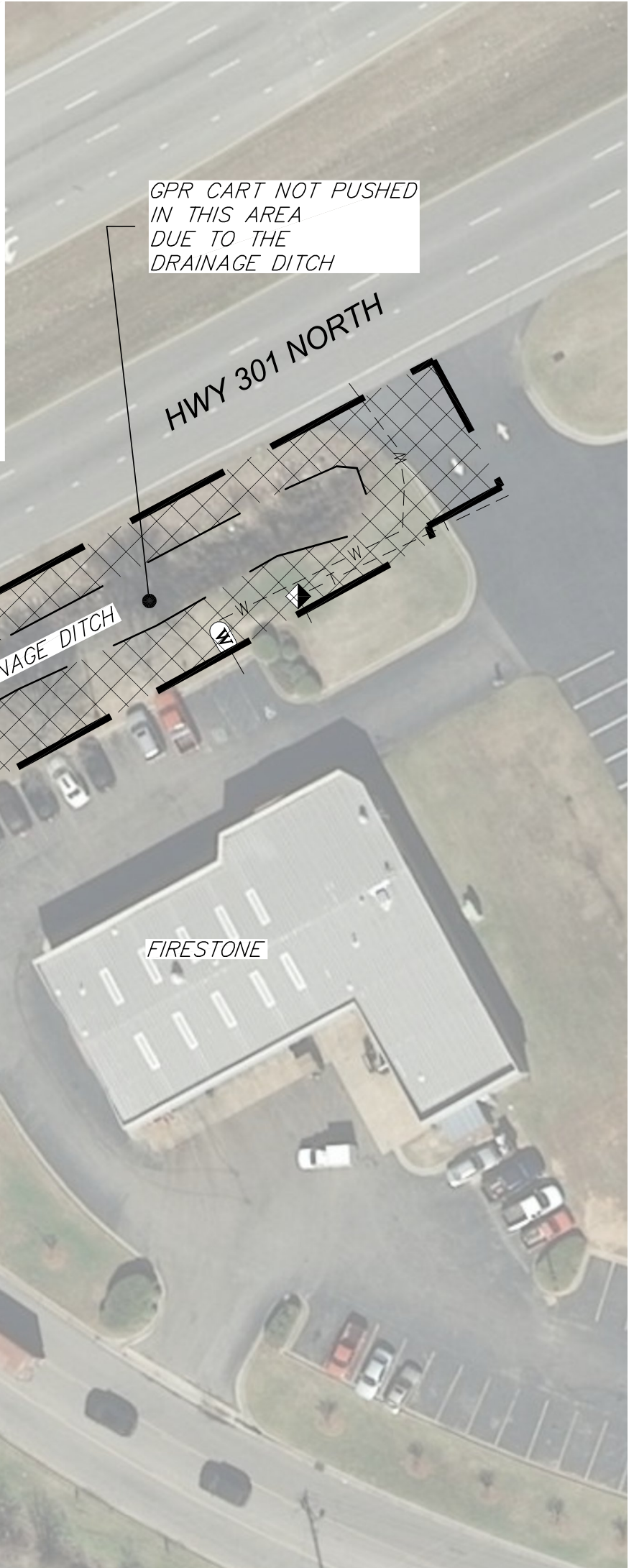
ABBREVIATIONS

HWY HIGHWAY
U/G UNDERGROUND



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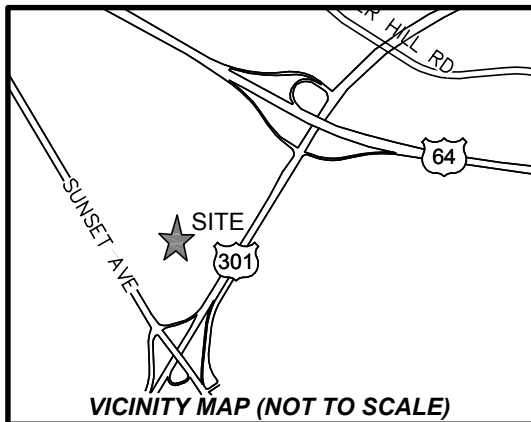
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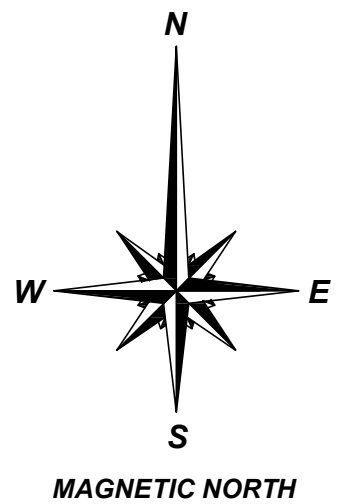
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SUBSURFACE UTILITY ENGINEERS
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SUITE 260, CARY, NC 27518
PHONE (919) 297-0085 FAX (919) 297-0090
NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESMENT
for APEX COMPANIES LLC.
NCDOT PROJECT U-3330, PARCEL 69
1001 N. WESLEYAN BLVD
NASH COUNTY - ROCKY MOUNT, NC

REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 40'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	5	SHEET: 1 / 1

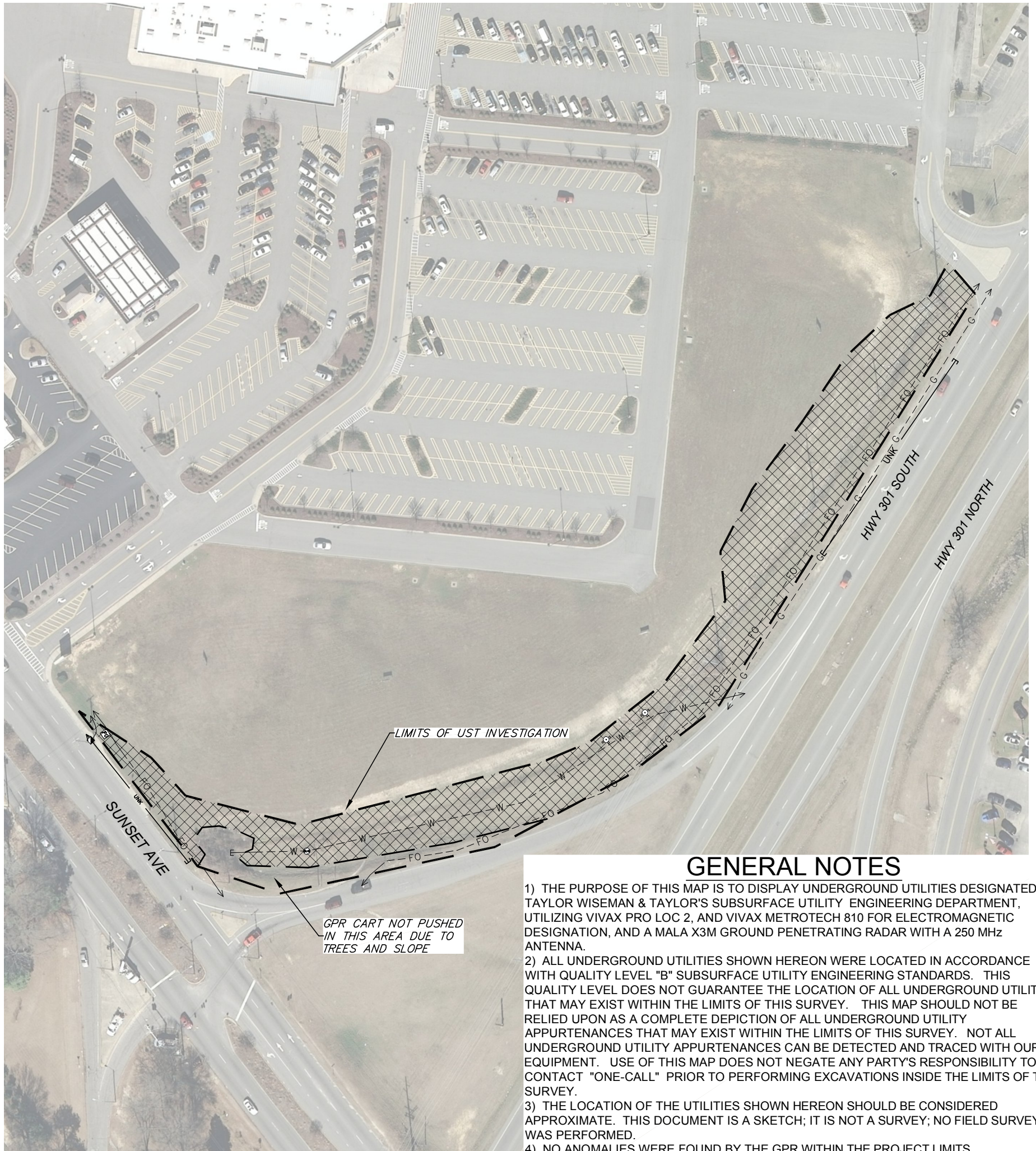
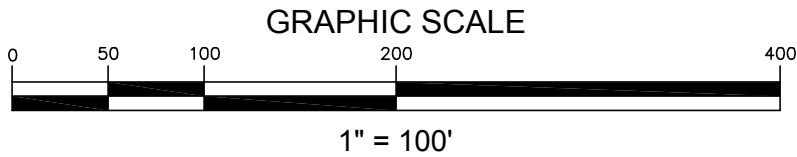


LINE LEGEND	
---	U/G TELEPHONE
---	U/G WATER LINE
---	U/G FIBER OPTIC LINE)
---	U/G GAS
---	UNKNOWN U/G UTILITY



ABBREVIATIONS

HWY HIGHWAY
U/G UNDERGROUND



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SUITE 260, CARY, NC 27518
PHONE (919) 297-0085 FAX (919) 297-0090
NORTH CAROLINA LICENSE NUMBER: F-0362

GEOPHYSICAL ASSESMENT
for APEX COMPANIES LLC.
NCDOT PROJECT U-3330, PARCELS 22-25
2320 SUNSET AVENUE
NASH COUNTY - ROCKY MOUNT, NC

REVISIONS:	DATE OF SURVEY:	07/13/2015
	SCALE:	1" = 100'
	DRAWN BY:	J.REYNOLDS
	CHECKED BY:	C. HOWARD PLS
	PROJECT:	70668.5002.00
FIGURE #:	6	SHEET: 1 / 1

APPENDIX D
HYDROCARBON ANALYSIS RESULTS



Hydrocarbon Analysis Results

Client: NCDOT
Address: 1921 (1983) Stone Rose Ave.

Samples taken Saturday, July 25, 2015
Samples extracted Saturday, July 25, 2015
Samples analysed Saturday, July 25, 2015

Contact: Gordon Box

Operator Troy L. Holzschuh

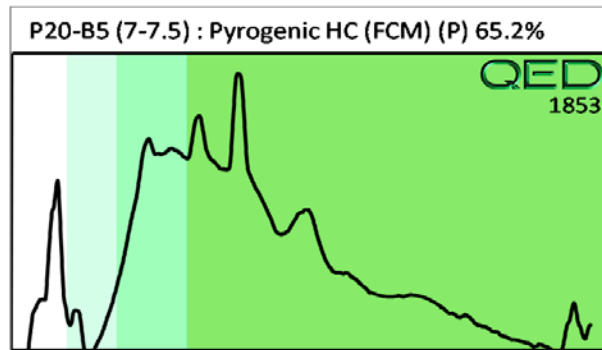
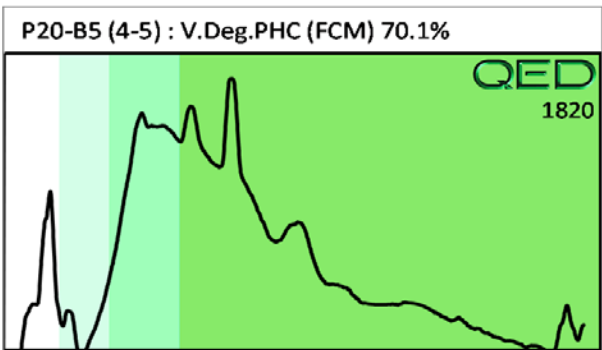
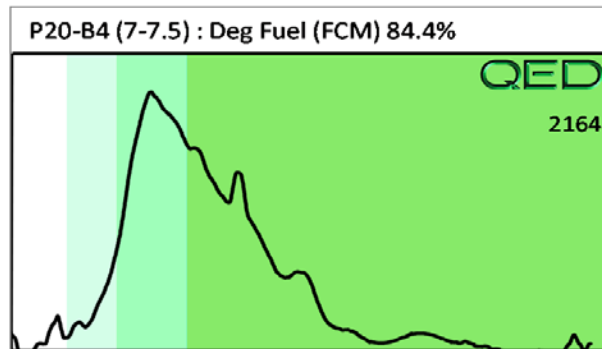
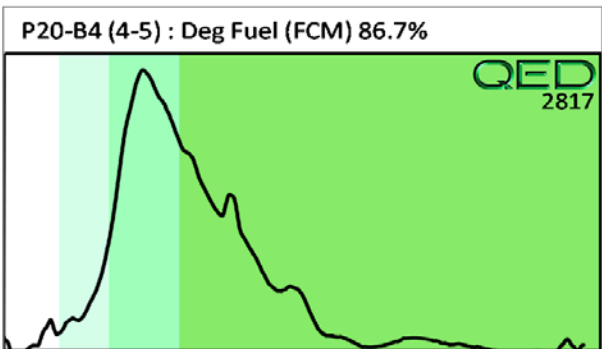
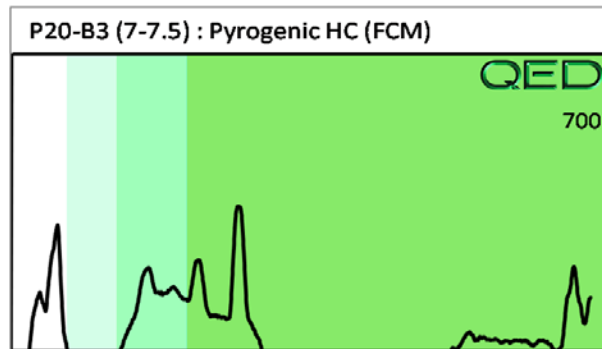
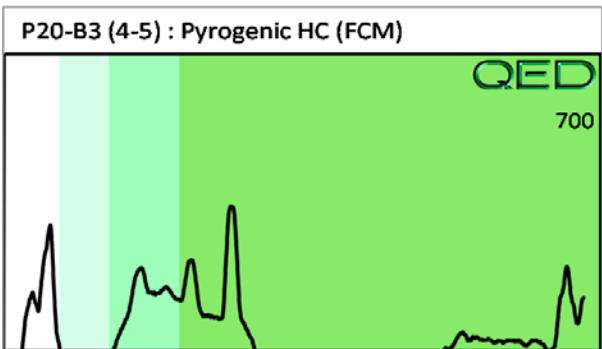
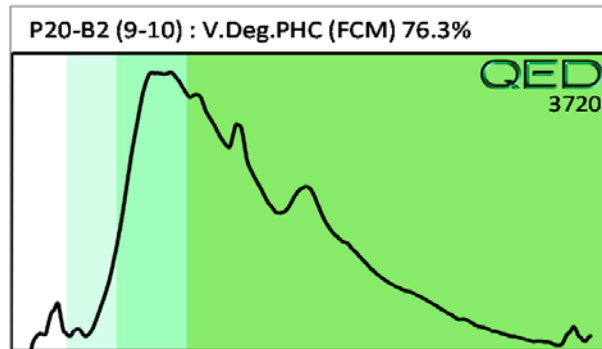
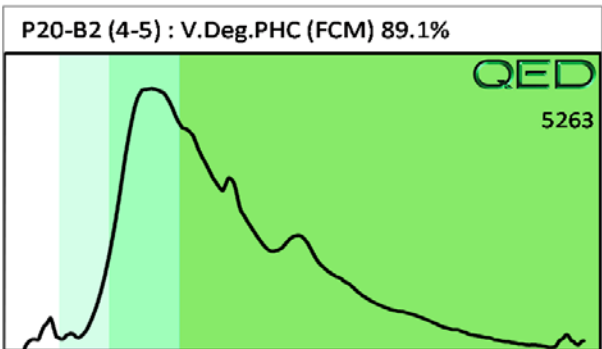
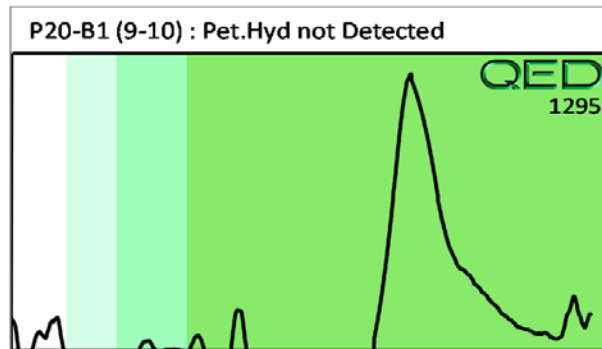
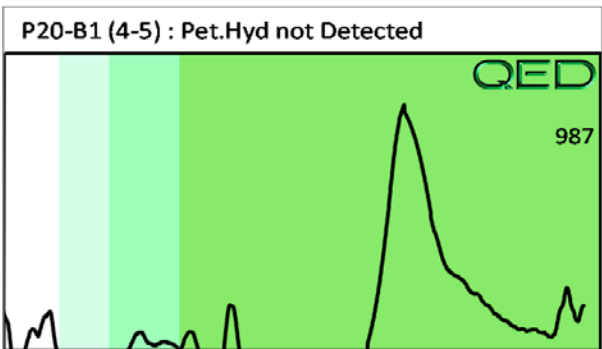
Project: U-3330

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	P20-B1 (4-5)	20.6	<1	<0.52	<0.21	<0.52	<0.1	<0.02	<0.01	0	0	0	Pet.Hyd not Detected
s	P20-B1 (9-10)	21.8	<1.1	<0.55	<0.22	<0.55	<0.11	<0.02	<0.011	0	0	0	Pet.Hyd not Detected
s	P20-B2 (4-5)	24.1	<1.2	<0.6	3.4	3.4	3.2	0.16	0.004	0	78.8	21.2	V.Deg.PHC (FCM) 89.1%
s	P20-B2 (9-10)	23.2	<1.2	<0.58	2.4	2.4	2.2	0.27	0.025	0	73.6	26.4	V.Deg.PHC (FCM) 76.3%
s	P20-B3 (4-5)	26.5	<1.3	<0.66	<0.27	<0.66	<0.13	<0.03	<0.013	0	61.4	38.6	Pyrogenic HC (FCM)
s	P20-B3 (7-7.5)	20.8	<1	<0.52	<0.21	<0.52	<0.1	<0.02	<0.01	0	61.4	38.6	Pyrogenic HC (FCM)
s	P20-B4 (4-5)	19.3	<0.96	<0.48	5.1	5.1	2.1	0.08	0.01	0	92.7	7.3	Deg Fuel (FCM) 86.7%
s	P20-B4 (7-7.5)	20.6	<1	<0.52	4.7	4.7	1.7	0.06	0.01	0	90.5	9.5	Deg Fuel (FCM) 84.4%
s	P20-B5 (4-5)	17.0	<0.85	<0.42	0.75	0.75	0.63	0.08	0.012	0	71.3	28.7	V.Deg.PHC (FCM) 70.1%
s	P20-B5 (7-7.5)	22.2	<1.1	<0.56	0.9	0.9	0.78	0.11	0.017	0	67	33	Pyrogenic HC (FCM) (P) 65.2%
Initial Calibrator QC check			OK			Final FCM QC Check			OK			98.2%	

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

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

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





Hydrocarbon Analysis Results

Client: NCDOT
Address: 1921 (1983) Stone Rose Ave.

Samples taken Saturday, July 25, 2015
Samples extracted Saturday, July 25, 2015
Samples analysed Saturday, July 25, 2015

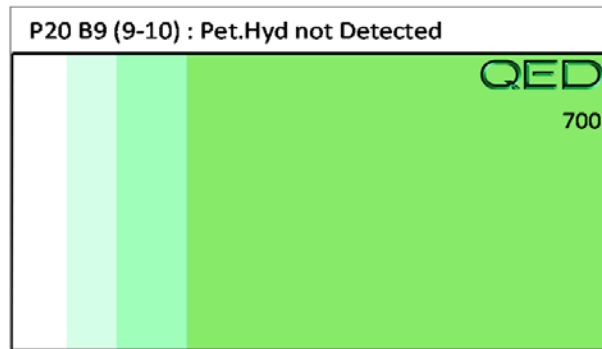
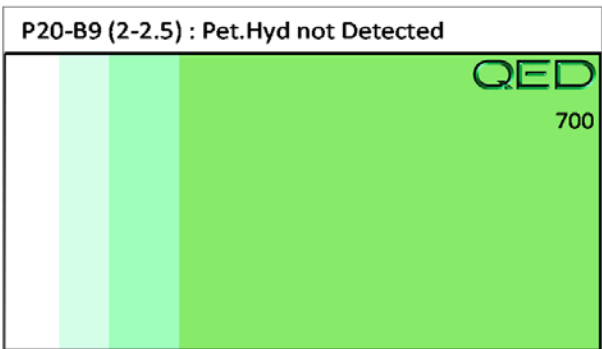
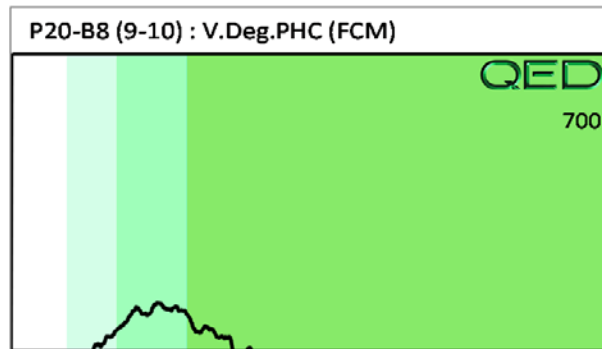
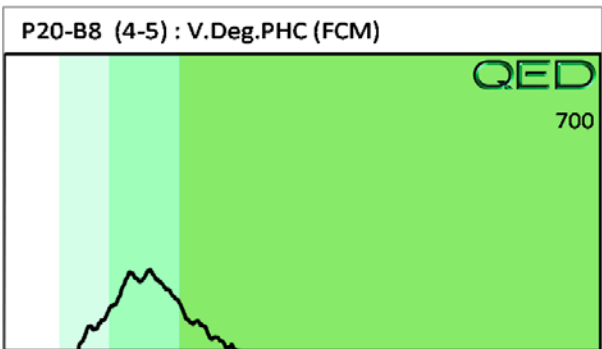
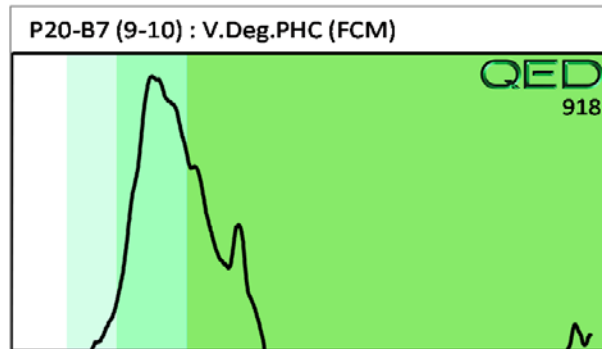
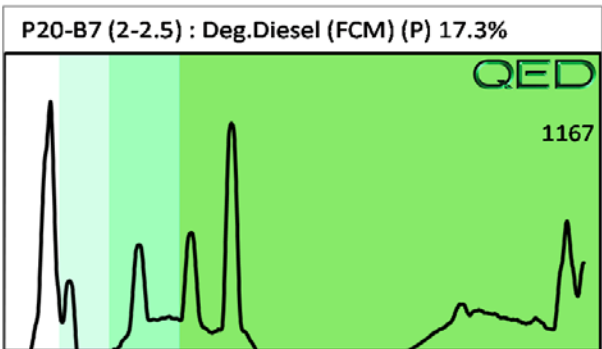
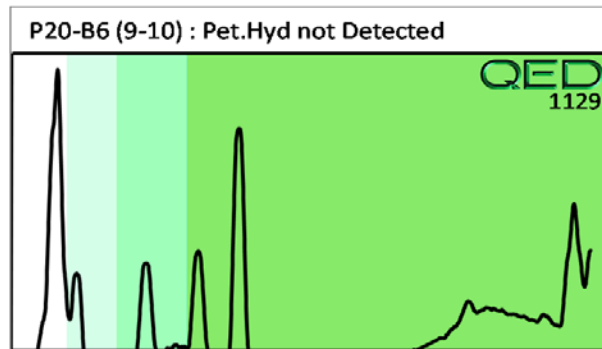
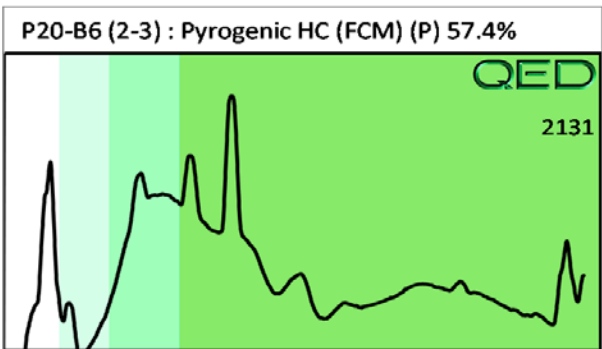
Contact: Gordon Box

Operator Troy L. Holzschuh

Project: U-3330

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	P20-B6 (2-3)	16.7	<0.83	<0.42	0.67	0.67	0.56	0.07	0.006	0	67.2	32.8	Pyrogenic HC (FCM) (P) 57.4%
s	P20-B6 (9-10)	18.6	<0.93	<0.46	<0.19	<0.46	<0.09	<0.02	<0.009	0	0	0	Pet.Hyd not Detected
s	P20-B7 (2-2.5)	17.7	<0.88	<0.44	2	2	<0.09	<0.02	<0.009	0	82.8	17.2	Deg.Diesel (FCM) (P) 17.3%
s	P20-B7 (9-10)	20.3	<0.51	<0.51	0.33	0.33	0.33	0.04	<0.01	0	90.6	9.4	V.Deg.PHC (FCM)
s	P20-B8 (4-5)	23.2	<0.58	<0.58	<0.23	<0.58	<0.12	<0.02	<0.012	0	100	0	V.Deg.PHC (FCM)
s	P20-B8 (9-10)	16.8	<0.42	<0.42	<0.17	<0.42	<0.08	<0.02	<0.008	0	100	0	V.Deg.PHC (FCM)
s	P20-B9 (2-2.5)	25.5	<0.64	<0.64	<0.25	<0.64	<0.13	<0.03	<0.013	0	0	0	Pet.Hyd not Detected
s	P20 B9 (9-10)	25.5	<0.64	<0.64	<0.25	<0.64	<0.13	<0.03	<0.013	0	0	0	Pet.Hyd not Detected
Initial Calibrator QC check			OK			Final FCM QC Check			OK			99.9%	

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content
 Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library
 (SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present





Hydrocarbon Analysis Results

Client: NCDOT
Address: 1921 (1983) Stone Rose Ave.

Samples taken Saturday, July 25, 2015
Samples extracted Saturday, July 25, 2015
Samples analysed Saturday, July 25, 2015

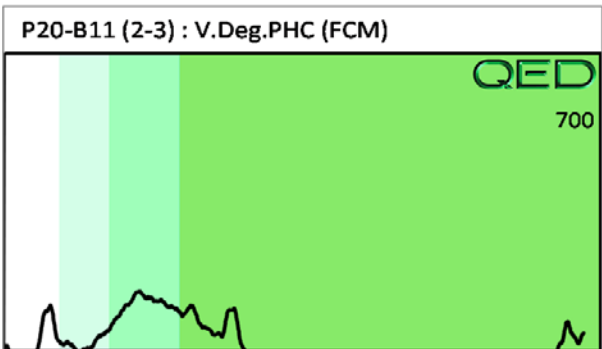
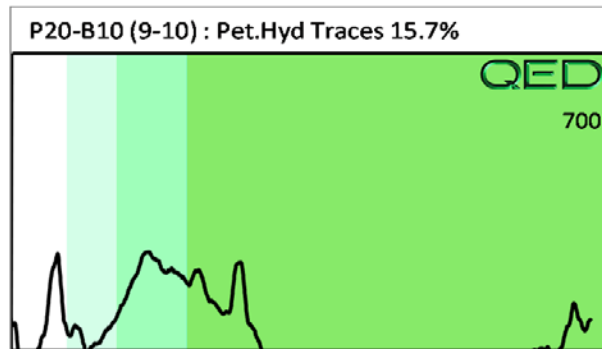
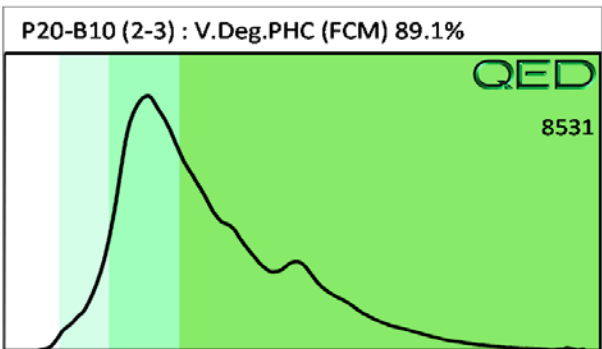
Contact: Gordon Box

Operator Troy L. Holzschuh

Project: U-3330

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	P20-B10 (2-3)	19.7	<0.98	<0.49	9.7	9.7	8.2	1.5	0.043	0	92.3	7.7	V.Deg.PHC (FCM) 89.1%
s	P20-B10 (9-10)	26.5	<1.3	<0.66	0.27	0.27	<0.13	<0.03	<0.013	0	90.4	9.6	Pet.Hyd Traces 15.7%
s	P20-B11 (2-3)	24.3	<1.2	<0.61	<0.24	<0.61	<0.12	<0.02	<0.012	0	100	0	V.Deg.PHC (FCM)
Initial Calibrator QC check										OK			
Final FCM QC Check										OK			99.6%

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content
Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library
(SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present



August 10, 2015

Andrew Street
Apex Companies

RE: Project: U-3330 Parcel 20
Pace Project No.: 92261317

Dear Andrew Street:

Enclosed are the analytical results for sample(s) received by the laboratory on July 31, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Taylor Ezell
taylor.ezell@pacelabs.com
Project Manager

Enclosures

cc: Timothy Besier, Apex Companies
Troy Holzschuh, Apex



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: U-3330 Parcel 20

Pace Project No.: 92261317

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: U-3330 Parcel 20

Pace Project No.: 92261317

Sample: P20-B7		Lab ID: 92261317001	Collected: 07/28/15 14:00	Received: 07/31/15 09:31	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
MADEP EPH NC Water		Analytical Method: MADEP EPH Preparation Method: MADEP EPH						
Aliphatic (C09-C18)	ND	ug/L	104	1	08/06/15 09:50	08/07/15 09:04		N2
Aliphatic (C19-C36)	ND	ug/L	104	1	08/06/15 09:50	08/07/15 09:04		N2
Aromatic (C11-C22)	ND	ug/L	104	1	08/06/15 09:50	08/07/15 19:32		N2
Surrogates								
Nonatriacontane (S)	79	%	40-140	1	08/06/15 09:50	08/07/15 09:04	7194-86-7	
o-Terphenyl (S)	96	%	40-140	1	08/06/15 09:50	08/07/15 19:32	84-15-1	
2-Fluorobiphenyl (S)	109	%	40-140	1	08/06/15 09:50	08/07/15 19:32	321-60-8	
2-Bromonaphthalene (S)	115	%	40-140	1	08/06/15 09:50	08/07/15 19:32	580-13-2	
VPH NC Water		Analytical Method: MADEP VPH						
Aliphatic (C05-C08)	ND	ug/L	50.0	1		08/04/15 18:21		N2
Aliphatic (C09-C12)	ND	ug/L	50.0	1		08/04/15 18:21		N2
Aromatic (C09-C10)	ND	ug/L	50.0	1		08/04/15 18:21		N2
Surrogates								
4-Bromofluorobenzene (FID) (S)	102	%	70-130	1		08/04/15 18:21	460-00-4	
4-Bromofluorobenzene (PID) (S)	101	%	70-130	1		08/04/15 18:21	460-00-4	
8270 MSSV HVI Semivol Organic		Analytical Method: EPA 8270 Preparation Method: EPA 3510						
Acenaphthene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	83-32-9	
Acenaphthylene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	208-96-8	
Aniline	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	62-53-3	L2
Anthracene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	207-08-9	
Benzoic Acid	ND	ug/L	50.0	1	08/04/15 16:10	08/05/15 18:51	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	1	08/04/15 16:10	08/05/15 18:51	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	20.0	1	08/04/15 16:10	08/05/15 18:51	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	1	08/04/15 16:10	08/05/15 18:51	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	108-60-1	
2-Chloronaphthalene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	7005-72-3	
Chrysene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	53-70-3	
Dibenzofuran	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	1	08/04/15 16:10	08/05/15 18:51	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	120-83-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: U-3330 Parcel 20

Pace Project No.: 92261317

Sample: P20-B7	Lab ID: 92261317001	Collected: 07/28/15 14:00	Received: 07/31/15 09:31	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV HVI Semivol Organic								
Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Diethylphthalate	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	1	08/04/15 16:10	08/05/15 18:51	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	1	08/04/15 16:10	08/05/15 18:51	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	1	08/04/15 16:10	08/05/15 18:51	117-81-7	
Fluoranthene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	206-44-0	
Fluorene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	193-39-5	
Isophorone	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	78-59-1	
1-Methylnaphthalene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51		
Naphthalene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	91-20-3	
2-Nitroaniline	ND	ug/L	50.0	1	08/04/15 16:10	08/05/15 18:51	88-74-4	
3-Nitroaniline	ND	ug/L	50.0	1	08/04/15 16:10	08/05/15 18:51	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	1	08/04/15 16:10	08/05/15 18:51	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	1	08/04/15 16:10	08/05/15 18:51	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	86-30-6	
Pentachlorophenol	ND	ug/L	25.0	1	08/04/15 16:10	08/05/15 18:51	87-86-5	
Phenanthrene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	85-01-8	
Phenol	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	108-95-2	
Pyrene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1	08/04/15 16:10	08/05/15 18:51	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	44	%	21-110	1	08/04/15 16:10	08/05/15 18:51	4165-60-0	1g
2-Fluorobiphenyl (S)	49	%	27-110	1	08/04/15 16:10	08/05/15 18:51	321-60-8	
Terphenyl-d14 (S)	30	%	31-107	1	08/04/15 16:10	08/05/15 18:51	1718-51-0	S0
Phenol-d6 (S)	4	%	10-110	1	08/04/15 16:10	08/05/15 18:51	13127-88-3	S0
2-Fluorophenol (S)	1	%	12-110	1	08/04/15 16:10	08/05/15 18:51	367-12-4	S0
2,4,6-Tribromophenol (S)	9	%	27-110	1	08/04/15 16:10	08/05/15 18:51	118-79-6	S0

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: U-3330 Parcel 20
Pace Project No.: 92261317

Sample: P20-B7		Lab ID: 92261317001	Collected: 07/28/15 14:00	Received: 07/31/15 09:31	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level		Analytical Method: EPA 8260						
Acetone	ND	ug/L	25.0	1		08/04/15 20:26	67-64-1	
Benzene	ND	ug/L	1.0	1		08/04/15 20:26	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		08/04/15 20:26	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		08/04/15 20:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/04/15 20:26	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/04/15 20:26	75-25-2	
Bromomethane	ND	ug/L	2.0	1		08/04/15 20:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/04/15 20:26	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		08/04/15 20:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/04/15 20:26	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/04/15 20:26	75-00-3	
Chloroform	1.6	ug/L	1.0	1		08/04/15 20:26	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/04/15 20:26	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		08/04/15 20:26	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		08/04/15 20:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		08/04/15 20:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/04/15 20:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/04/15 20:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/04/15 20:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/04/15 20:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		08/04/15 20:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/04/15 20:26	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		08/04/15 20:26	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/04/15 20:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/04/15 20:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/04/15 20:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/04/15 20:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/04/15 20:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/04/15 20:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		08/04/15 20:26	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		08/04/15 20:26	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		08/04/15 20:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/04/15 20:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/04/15 20:26	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		08/04/15 20:26	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		08/04/15 20:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		08/04/15 20:26	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		08/04/15 20:26	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		08/04/15 20:26	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		08/04/15 20:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/04/15 20:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/04/15 20:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		08/04/15 20:26	91-20-3	
Styrene	ND	ug/L	1.0	1		08/04/15 20:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/04/15 20:26	630-20-6	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/04/15 20:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/04/15 20:26	127-18-4	

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ANALYTICAL RESULTS

Project: U-3330 Parcel 20

Pace Project No.: 92261317

Sample: P20-B7		Lab ID: 92261317001	Collected: 07/28/15 14:00	Received: 07/31/15 09:31	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level		Analytical Method: EPA 8260						
Toluene	ND	ug/L	1.0	1		08/04/15 20:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		08/04/15 20:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		08/04/15 20:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/04/15 20:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/04/15 20:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/04/15 20:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/04/15 20:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/04/15 20:26	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/04/15 20:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/04/15 20:26	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/04/15 20:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/04/15 20:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		08/04/15 20:26	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		08/04/15 20:26	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		08/04/15 20:26	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		08/04/15 20:26	2037-26-5	

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20

Pace Project No.: 92261317

QC Batch: GCV/9701

Analysis Method: MADEP VPH

QC Batch Method: MADEP VPH

Analysis Description: VPH NC Water

Associated Lab Samples: 92261317001

METHOD BLANK: 1525407

Matrix: Water

Associated Lab Samples: 92261317001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C05-C08)	ug/L	ND	50.0	08/04/15 17:29	N2
Aliphatic (C09-C12)	ug/L	ND	50.0	08/04/15 17:29	N2
Aromatic (C09-C10)	ug/L	ND	50.0	08/04/15 17:29	N2
4-Bromofluorobenzene (FID) (S)	%	103	70-130	08/04/15 17:29	
4-Bromofluorobenzene (PID) (S)	%	99	70-130	08/04/15 17:29	

LABORATORY CONTROL SAMPLE & LCSD: 1525408

1525409

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C05-C08)	ug/L	300	313	306	104	102	70-130	2	25	N2
Aliphatic (C09-C12)	ug/L	300	276	290	92	97	30-130	5	25	N2
Aromatic (C09-C10)	ug/L	100	94.4	96.9	94	97	70-130	3	25	N2
4-Bromofluorobenzene (FID) (S)	%				106	108	70-130			
4-Bromofluorobenzene (PID) (S)	%				110	111	70-130			

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20

Pace Project No.: 92261317

QC Batch: MSV/32827

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV Low Level

Associated Lab Samples: 92261317001

METHOD BLANK: 1525076

Matrix: Water

Associated Lab Samples: 92261317001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	08/04/15 16:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/04/15 16:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	08/04/15 16:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/04/15 16:11	
1,1-Dichloroethane	ug/L	ND	1.0	08/04/15 16:11	
1,1-Dichloroethene	ug/L	ND	1.0	08/04/15 16:11	
1,1-Dichloropropene	ug/L	ND	1.0	08/04/15 16:11	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	08/04/15 16:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/04/15 16:11	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	08/04/15 16:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	08/04/15 16:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/04/15 16:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	08/04/15 16:11	
1,2-Dichloroethane	ug/L	ND	1.0	08/04/15 16:11	
1,2-Dichloropropane	ug/L	ND	1.0	08/04/15 16:11	
1,3-Dichlorobenzene	ug/L	ND	1.0	08/04/15 16:11	
1,3-Dichloropropane	ug/L	ND	1.0	08/04/15 16:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/04/15 16:11	
2,2-Dichloropropane	ug/L	ND	1.0	08/04/15 16:11	
2-Butanone (MEK)	ug/L	ND	5.0	08/04/15 16:11	
2-Chlorotoluene	ug/L	ND	1.0	08/04/15 16:11	
2-Hexanone	ug/L	ND	5.0	08/04/15 16:11	
4-Chlorotoluene	ug/L	ND	1.0	08/04/15 16:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	08/04/15 16:11	
Acetone	ug/L	ND	25.0	08/04/15 16:11	
Benzene	ug/L	ND	1.0	08/04/15 16:11	
Bromobenzene	ug/L	ND	1.0	08/04/15 16:11	
Bromochloromethane	ug/L	ND	1.0	08/04/15 16:11	
Bromodichloromethane	ug/L	ND	1.0	08/04/15 16:11	
Bromoform	ug/L	ND	1.0	08/04/15 16:11	
Bromomethane	ug/L	ND	2.0	08/04/15 16:11	
Carbon tetrachloride	ug/L	ND	1.0	08/04/15 16:11	
Chlorobenzene	ug/L	ND	1.0	08/04/15 16:11	
Chloroethane	ug/L	ND	1.0	08/04/15 16:11	
Chloroform	ug/L	ND	1.0	08/04/15 16:11	
Chloromethane	ug/L	ND	1.0	08/04/15 16:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	08/04/15 16:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/04/15 16:11	
Dibromochloromethane	ug/L	ND	1.0	08/04/15 16:11	
Dibromomethane	ug/L	ND	1.0	08/04/15 16:11	
Dichlorodifluoromethane	ug/L	ND	1.0	08/04/15 16:11	

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20
Pace Project No.: 92261317

METHOD BLANK: 1525076
Associated Lab Samples: 92261317001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	08/04/15 16:11	
Ethylbenzene	ug/L	ND	1.0	08/04/15 16:11	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	08/04/15 16:11	
m&p-Xylene	ug/L	ND	2.0	08/04/15 16:11	
Methyl-tert-butyl ether	ug/L	ND	1.0	08/04/15 16:11	
Methylene Chloride	ug/L	3.3	2.0	08/04/15 16:11	
Naphthalene	ug/L	ND	1.0	08/04/15 16:11	
o-Xylene	ug/L	ND	1.0	08/04/15 16:11	
p-Isopropyltoluene	ug/L	ND	1.0	08/04/15 16:11	
Styrene	ug/L	ND	1.0	08/04/15 16:11	
Tetrachloroethene	ug/L	ND	1.0	08/04/15 16:11	
Toluene	ug/L	ND	1.0	08/04/15 16:11	
trans-1,2-Dichloroethene	ug/L	ND	1.0	08/04/15 16:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/04/15 16:11	
Trichloroethene	ug/L	ND	1.0	08/04/15 16:11	
Trichlorofluoromethane	ug/L	ND	1.0	08/04/15 16:11	
Vinyl acetate	ug/L	ND	2.0	08/04/15 16:11	
Vinyl chloride	ug/L	ND	1.0	08/04/15 16:11	
Xylene (Total)	ug/L	ND	2.0	08/04/15 16:11	
1,2-Dichloroethane-d4 (S)	%	93	70-130	08/04/15 16:11	
4-Bromofluorobenzene (S)	%	103	70-130	08/04/15 16:11	
Toluene-d8 (S)	%	99	70-130	08/04/15 16:11	

LABORATORY CONTROL SAMPLE: 1525077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.3	95	70-130	
1,1,1-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	48.8	98	70-130	
1,1,2-Trichloroethane	ug/L	50	48.2	96	70-130	
1,1-Dichloroethane	ug/L	50	48.6	97	70-130	
1,1-Dichloroethene	ug/L	50	53.1	106	70-132	
1,1-Dichloropropene	ug/L	50	55.4	111	70-130	
1,2,3-Trichlorobenzene	ug/L	50	50.0	100	70-135	
1,2,3-Trichloropropane	ug/L	50	45.6	91	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.8	100	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	50.4	101	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	51.2	102	70-130	
1,2-Dichlorobenzene	ug/L	50	51.3	103	70-130	
1,2-Dichloroethane	ug/L	50	42.3	85	70-130	
1,2-Dichloropropane	ug/L	50	49.0	98	70-130	
1,3-Dichlorobenzene	ug/L	50	51.4	103	70-130	
1,3-Dichloropropane	ug/L	50	48.3	97	70-130	
1,4-Dichlorobenzene	ug/L	50	49.3	99	70-130	

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20

Pace Project No.: 92261317

LABORATORY CONTROL SAMPLE: 1525077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	48.4	97	58-145	
2-Butanone (MEK)	ug/L	100	98.4	98	70-145	
2-Chlorotoluene	ug/L	50	46.3	93	70-130	
2-Hexanone	ug/L	100	96.0	96	70-144	
4-Chlorotoluene	ug/L	50	49.1	98	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	96.3	96	70-140	
Acetone	ug/L	100	98.8	99	50-175	
Benzene	ug/L	50	52.0	104	70-130	
Bromobenzene	ug/L	50	48.4	97	70-130	
Bromochloromethane	ug/L	50	54.4	109	70-130	
Bromodichloromethane	ug/L	50	48.0	96	70-130	
Bromoform	ug/L	50	40.4	81	70-130	
Bromomethane	ug/L	50	47.1	94	54-130	
Carbon tetrachloride	ug/L	50	50.2	100	70-132	
Chlorobenzene	ug/L	50	48.1	96	70-130	
Chloroethane	ug/L	50	46.4	93	64-134	
Chloroform	ug/L	50	48.1	96	70-130	
Chloromethane	ug/L	50	46.5	93	64-130	
cis-1,2-Dichloroethene	ug/L	50	50.1	100	70-131	
cis-1,3-Dichloropropene	ug/L	50	49.6	99	70-130	
Dibromochloromethane	ug/L	50	50.2	100	70-130	
Dibromomethane	ug/L	50	49.3	99	70-131	
Dichlorodifluoromethane	ug/L	50	42.6	85	56-130	
Diisopropyl ether	ug/L	50	49.2	98	70-130	
Ethylbenzene	ug/L	50	47.2	94	70-130	
Hexachloro-1,3-butadiene	ug/L	50	47.5	95	70-130	
m&p-Xylene	ug/L	100	92.7	93	70-130	
Methyl-tert-butyl ether	ug/L	50	51.3	103	70-130	
Methylene Chloride	ug/L	50	48.9	98	63-130	
Naphthalene	ug/L	50	53.8	108	70-138	
o-Xylene	ug/L	50	48.0	96	70-130	
p-Isopropyltoluene	ug/L	50	50.6	101	70-130	
Styrene	ug/L	50	50.4	101	70-130	
Tetrachloroethene	ug/L	50	49.1	98	70-130	
Toluene	ug/L	50	50.0	100	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.7	101	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.7	97	70-132	
Trichloroethene	ug/L	50	46.8	94	70-130	
Trichlorofluoromethane	ug/L	50	40.8	82	62-133	
Vinyl acetate	ug/L	100	101	101	66-157	
Vinyl chloride	ug/L	50	48.5	97	50-150	
Xylene (Total)	ug/L	150	141	94	70-130	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			102	70-130	

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20

Pace Project No.: 92261317

MATRIX SPIKE SAMPLE: 1525173		92261424001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.5	97	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	23.7	118	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.4	97	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	19.4	97	70-130	
1,1-Dichloroethane	ug/L	ND	20	21.5	107	70-130	
1,1-Dichloroethene	ug/L	ND	20	25.9	129	70-166	
1,1-Dichloropropene	ug/L	ND	20	25.0	125	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	22.7	113	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	18.9	95	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	21.6	108	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20.6	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.4	102	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	21.2	106	70-130	
1,2-Dichloroethane	ug/L	ND	20	19.4	96	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.3	102	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.5	107	70-130	
1,3-Dichloropropane	ug/L	ND	20	19.8	99	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	20.0	100	70-130	
2,2-Dichloropropane	ug/L	ND	20	19.6	98	70-130	
2-Butanone (MEK)	ug/L	ND	40	41.4	103	70-130	
2-Chlorotoluene	ug/L	ND	20	18.8	94	70-130	
2-Hexanone	ug/L	ND	40	39.2	98	70-130	
4-Chlorotoluene	ug/L	ND	20	20.8	104	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	38.2	95	70-130	
Acetone	ug/L	ND	40	47.0	105	70-130	
Benzene	ug/L	ND	20	22.1	110	70-148	
Bromobenzene	ug/L	ND	20	20.8	104	70-130	
Bromochloromethane	ug/L	ND	20	22.7	113	70-130	
Bromodichloromethane	ug/L	ND	20	20.1	101	70-130	
Bromoform	ug/L	ND	20	16.9	84	70-130	
Bromomethane	ug/L	ND	20	21.7	108	70-130	
Carbon tetrachloride	ug/L	ND	20	24.0	120	70-130	
Chlorobenzene	ug/L	ND	20	20.3	102	70-146	
Chloroethane	ug/L	ND	20	21.2	106	70-130	
Chloroform	ug/L	ND	20	21.6	108	70-130	
Chloromethane	ug/L	ND	20	21.2	105	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	22.1	110	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	19.6	98	70-130	
Dibromochloromethane	ug/L	ND	20	19.4	97	70-130	
Dibromomethane	ug/L	ND	20	20.3	101	70-130	
Dichlorodifluoromethane	ug/L	ND	20	22.5	112	70-130	
Diisopropyl ether	ug/L	ND	20	20.9	104	70-130	
Ethylbenzene	ug/L	ND	20	21.5	103	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	27.6	135	70-130 M1	
m&p-Xylene	ug/L	ND	40	43.2	103	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	20.8	104	70-130	
Methylene Chloride	ug/L	ND	20	20.7	103	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20

Pace Project No.: 92261317

MATRIX SPIKE SAMPLE: 1525173		92261424001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Naphthalene	ug/L	1.8	20	24.2	112	70-130	
o-Xylene	ug/L	2.5	20	23.4	105	70-130	
p-Isopropyltoluene	ug/L	2.2	20	24.7	112	70-130	
Styrene	ug/L	ND	20	20.5	102	70-130	
Tetrachloroethene	ug/L	ND	20	21.8	109	70-130	
Toluene	ug/L	ND	20	20.4	102	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.1	116	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	19.6	98	70-130	
Trichloroethene	ug/L	ND	20	20.8	104	69-151	
Trichlorofluoromethane	ug/L	ND	20	22.0	110	70-130	
Vinyl acetate	ug/L	ND	40	35.1	88	70-130	
Vinyl chloride	ug/L	ND	20	22.9	114	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				106	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1525174

Parameter	Units	92261424002	Dup	RPD	Qualifiers
		Result	Result		
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,1-Dichloropropene	ug/L	ND	ND		
1,2,3-Trichlorobenzene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2,4-Trichlorobenzene	ug/L	ND	ND		
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,3-Dichlorobenzene	ug/L	ND	ND		
1,3-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2,2-Dichloropropane	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Chlorotoluene	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Chlorotoluene	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Benzene	ug/L	ND	ND		

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20
Pace Project No.: 92261317

SAMPLE DUPLICATE: 1525174

Parameter	Units	92261424002 Result	Dup Result	RPD	Qualifiers
Bromobenzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Dichlorodifluoromethane	ug/L	ND	ND		
Diisopropyl ether	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Hexachloro-1,3-butadiene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
p-Isopropyltoluene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	102	102	1	
4-Bromofluorobenzene (S)	%	104	107	2	
Toluene-d8 (S)	%	99	99	0	

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20

Pace Project No.: 92261317

QC Batch: OEXT/36857

Analysis Method: EPA 8270

QC Batch Method: EPA 3510

Analysis Description: 8270 Water MSSV HVI

Associated Lab Samples: 92261317001

METHOD BLANK: 1525592

Matrix: Water

Associated Lab Samples: 92261317001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,6-Tribromophenol (S)	%	65	27-110	08/05/15 13:48	
2-Fluorobiphenyl (S)	%	80	27-110	08/05/15 13:48	
2-Fluorophenol (S)	%	39	12-110	08/05/15 13:48	
Nitrobenzene-d5 (S)	%	63	21-110	08/05/15 13:48	
Phenol-d6 (S)	%	34	10-110	08/05/15 13:48	
Terphenyl-d14 (S)	%	86	31-107	08/05/15 13:48	

LABORATORY CONTROL SAMPLE: 1525593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,6-Tribromophenol (S)	%			100	27-110	
2-Fluorobiphenyl (S)	%			85	27-110	
2-Fluorophenol (S)	%			45	12-110	
Nitrobenzene-d5 (S)	%			74	21-110	
Phenol-d6 (S)	%			33	10-110	
Terphenyl-d14 (S)	%			115	31-107	S0

MATRIX SPIKE SAMPLE: 1525594

Parameter	Units	92261211001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,6-Tribromophenol (S)	%				6	27-110	S0
2-Fluorobiphenyl (S)	%				75	27-110	
2-Fluorophenol (S)	%				2	12-110	S0
Nitrobenzene-d5 (S)	%				66	21-110	
Phenol-d6 (S)	%				12	10-110	
Terphenyl-d14 (S)	%				86	31-107	

SAMPLE DUPLICATE: 1525595

Parameter	Units	92261211002 Result	Dup Result	RPD	Qualifiers
2,4,6-Tribromophenol (S)	%	40	50	23	
2-Fluorobiphenyl (S)	%	70	70	0	
2-Fluorophenol (S)	%	27	30	11	
Nitrobenzene-d5 (S)	%	62	62	0	
Phenol-d6 (S)	%	28	25	11	
Terphenyl-d14 (S)	%	69	65	7	

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QUALITY CONTROL DATA

Project: U-3330 Parcel 20

Pace Project No.: 92261317

QC Batch: OEXT/36901

Analysis Method: MADEP EPH

QC Batch Method: MADEP EPH

Analysis Description: MADEP EPH NC Water

Associated Lab Samples: 92261317001

METHOD BLANK: 1527249

Matrix: Water

Associated Lab Samples: 92261317001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C09-C18)	ug/L	ND	100	08/07/15 06:55	N2
Aliphatic (C19-C36)	ug/L	ND	100	08/07/15 06:55	N2
Aromatic (C11-C22)	ug/L	ND	100	08/07/15 17:23	N2
2-Bromonaphthalene (S)	%	107	40-140	08/07/15 17:23	
2-Fluorobiphenyl (S)	%	105	40-140	08/07/15 17:23	
Nonatriacontane (S)	%	79	40-140	08/07/15 06:55	
o-Terphenyl (S)	%	105	40-140	08/07/15 17:23	

LABORATORY CONTROL SAMPLE & LCSD: 1527250

1527251

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C09-C18)	ug/L	300	179	210	60	70	40-140	16	50	N2
Aliphatic (C19-C36)	ug/L	400	287	350	72	87	40-140	20	50	N2
Aromatic (C11-C22)	ug/L	850	834	914	98	108	40-140	9	50	N2
2-Bromonaphthalene (S)	%				83	98	40-140			
2-Fluorobiphenyl (S)	%				96	109	40-140			
Nonatriacontane (S)	%				70	82	40-140			
o-Terphenyl (S)	%				100	112	40-140			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: U-3330 Parcel 20

Pace Project No.: 92261317

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1g	Sample re-extracted outside method hold time. Results of re-analysis confirm original analysis performed in hold.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold TNI accreditation for this parameter.
S0	Surrogate recovery outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: U-3330 Parcel 20

Pace Project No.: 92261317

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92261317001	P20-B7	MADEP EPH	OEXT/36901	MADEP EPH	GCSV/22192
92261317001	P20-B7	MADEP VPH	GCV/9701		
92261317001	P20-B7	EPA 3510	OEXT/36857	EPA 8270	MSSV/11033
92261317001	P20-B7	EPA 8260	MSV/32827		

REPORT OF LABORATORY ANALYSIS

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Document Name:
Sample Condition Upon Receipt (SCUR)

Document Revised: May 18, 2015

Page 1 of 2*

Document Number:
F-CHR-CS-003-rev.16

Issuing Authority:
Pace Huntersville Quality Office

Client Name: Apex

* Page 2 of 2 is for Internal Use Only

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble V [unclear] Bubble Bags None Other _____

Thermometer Used: IR Gun T1401 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Temp Correction Factor T1401 No Correction

Corrected Cooler Temp.: 4.8 °C
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No N/A

Date and Initials of person examining contents: AP 7-31-15

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W X</u>	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review:	<u>Ⓡ</u>	Date:	<u>7/31</u>
SRF Review:	<u>Ⓡ</u>	Date:	<u>8/3</u>

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92261317



92261317



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: **Section B** Required Project Information: **Section C** Invoice Information:

Company: Apex Companies
 Address: 10610 Metromont Parkway
 Copy To: Troy L. Holzschuh
 Report To: Troy L. Holzschuh
 Purchase Order No.: WBS: 36596.1.1
 Project Name: U-3330 Parcel 20
 Project Number: 510424-001
 Company Name: Apex
 Attention: Carlie Watson
 Address: Same
 Pace Quote Reference: Taylor Ezell
 Pace Project Manager: Taylor Ezell
 Pace Profile #: 7513-3
 Regulatory Agency: NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER
 Site Location STATE: NC

ITEM #	Section D Required Client Information	Valid Matrix Codes MATERIALS DRINKING WATER WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR NUMBER TISSUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.	
					DATE	TIME								DATE
1	P20-B7		WT	G			07/28/15	1400	9					
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														

ADDITIONAL COMMENTS

RELINQUISHED BY/AFFILIATION: *Troy L. Holzschuh* DATE: 7/31/15 TIME: 1007

ACCEPTED BY/AFFILIATION: *Troy L. Holzschuh* DATE: 7/31/15 TIME: 1007

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Troy L. Holzschuh
 SIGNATURE of SAMPLER: *Troy L. Holzschuh* DATE Signed (MM/DD/YY): 7/31/15

Temp in °C: 4.8
 Received on Ice (Y/N): V
 Custody Sealed Cooler (Y/N): N
 Samples Intact (Y/N): V

APPENDIX E
Correspondence with NCDENR

Troy Holzschuh

To: Hafshejani, Brenda
Subject: RE: Incidents 5088, 5890 and 11742

From: Hafshejani, Brenda [mailto:brenda.hafshejani@nc.gov]
Sent: Tuesday, August 11, 2015 2:49 PM
To: Troy Holzschuh <THolzschuh@apexcos.com>
Subject: RE: Incidents 5088, 5890 and 11742

Hi Troy,

I checked and there does not seem to be a file for the first two, 5088 and 5890. They appear old and were probably given incident numbers because of a complaint at the time. The 11742 is archived on CD 83 under RA-1915. The CD is available also at the Mooresville Office. If you have purchased the CD previously you can check it. I have downloaded the RP and DENR files from the archived CD and will attach both. DENR files attached here.

Brenda

Brenda Hafshejani
UST Division of Waste Management
Raleigh Regional Office
Voice: (919)791-4200
Fax: (919) 571-4718

E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: McIntosh, Craig
Sent: Monday, August 10, 2015 1:02 PM
To: Troy Holzschuh
Cc: Hafshejani, Brenda
Subject: RE: Incidents 5088, 5890 and 11742

Troy, good afternoon.

I handle Durham and Warren counties in the RRO. The incident manager that handles Nash County is Brenda Hafshejani. She will be out of the office until mid week.

Craig McIntosh
Hydrogeologist
Division of Waste Management
Underground Storage Tank Section

Phone:(919) 791-4225
Fax: (919) 571-4718

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