

PRELIMINARY SITE ASSESSMENT

**GLADE VALLEY – US HIGHWAY 21 SOUTH FROM ROARING GAP TO SPARTA
PARCEL #111, GEORGE WOODRUFF AND MARY WOODRUFF PROPERTY
6640 US HIGHWAY 21 SOUTH
GLADE VALLEY, ALLEGHANY COUNTY, NORTH CAROLINA**

**NCDOT WBS ELEMENT 37044.1.1
STATE PROJECT R-3101**

January 13, 2012

Prepared for:

**Cyrus F. Parker, L.G., P. E.
North Carolina Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina 27699-1589**

Prepared by:

**Kleinfelder Southeast, Inc.
6200 Harris Technology Blvd.
Charlotte, North Carolina 28269**

Kleinfelder Project No. 123173

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PROJECT FOR WHICH THIS REPORT WAS PREPARED.**



January 13, 2012
123173 | CLT12R014

Cyrus F. Parker, L.G., P. E.
North Carolina Department of Transportation
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

**Subject: Preliminary Site Assessment
WBS Element No. 37044.1.1, State Project R-3101
Parcel #111, George Woodruff and Mary Woodruff Property
6640 US Highway 21 South
Alleghany County, North Carolina**

Dear Mr. Parker:

Please find the enclosed report summarizing the sampling activities for the preliminary site assessment conducted at the referenced site. Laboratory analysis of soil samples collected at the site detected contaminant concentrations exceeding the State action levels in one of five samples. This report summarizes our field activities, results, laboratory report, and conclusions.

Should questions arise or additional information be required, please contact the undersigned.

Sincerely,

KLEINFELDER SOUTHEAST, INC.

A handwritten signature in black ink, appearing to read "T. O'Quinn".

Travis O'Quinn
Staff Professional I

A handwritten signature in blue ink, appearing to read "Craig D Neil".

Craig D Neil, P.G.
Senior Professional

TLO/CDN:jc
Enclosure

PRELIMINARY SITE ASSESSMENT

Site Name and Location: Parcel #111, George Woodruff and Mary Woodruff Property
6640 US Hwy 21 South
Glade Valley, Alleghany County, North Carolina

Latitude and Longitude: 36° 27' 03.55" N, 81° 01' 50.51" W

Facility ID Number: None

NCDOT Project No.: NCDOT WBS Element 37044.1.1
State Project R-3101

Date of Report: January 13, 2012

Consultant: Kleinfelder Southeast, Inc.
6200 Harris Technology Blvd.
Charlotte, North Carolina 28269
Attn: Mr. Craig D. Neil
Phone: 704.598.1049 X457

Seal and Signature of Certifying Licensed Geologist

I, Craig D. Neil, a Licensed Geologist for Kleinfelder Southeast, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.


Craig D. Neil, P.G.
NC License No. 1882

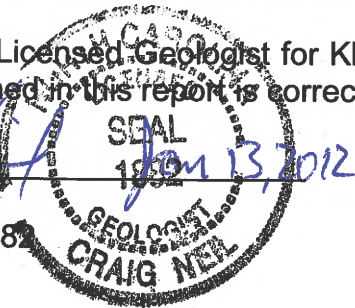


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1.0 INTRODUCTION

Kleinfelder Southeast, Inc. (Kleinfelder) has prepared this Preliminary Site Assessment (PSA) report documenting assessment activities performed at the George Woodruff and Mary Woodruff Property (Parcel 111) located at 6640 US Highway 21 South in Glade Valley, Alleghany County, North Carolina (Figure 1). This assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Kleinfelder's November 1, 2011 proposal.

NCDOT is proposing to widen US Highway 21 South (US 21) from Roaring Gap to Sparta. The proposed right-of-way includes a portion of Parcel 111 (Figure 2). Based on information provided by NCDOT, the site may have historically operated as a gasoline station. Therefore, there is concern that contaminated soils could be encountered during the construction activities at this site.

The purpose of this assessment was to determine the presence or absence of impacted soil at the subject property in proposed right-of-way construction areas related to the widening of US 21 from Roaring Gap to Sparta.

1.1 Site Description

The proposed right-of-way includes approximately 15 to 20 feet on each side of the current US 21. At the time of our site reconnaissance, the site contained a vacant wooden shingled building that was historically EJ Antiques. Although no underground storage tanks (USTs) were registered at the site the geophysical investigation identified three anomalies that are possible UST's. Site photographs are shown in Appendix A.

1.2 Site Location

The facility is located at 6640 US Highway 21 South in Glade Valley, North Carolina. The property is bound to the north and east by US 21 with wooded land located beyond. The property is bound to the south and west by wooded land.

2.0 SITE ASSESSMENT

2.1 Geophysical Investigation

Pyramid Environmental & Engineering, P.C (Pyramid) conducted a geophysical investigation of the property on November 9 and 17, 2011. Pyramid utilized ground penetration radar (GPR) and electromagnetic (EM) induction technology to identify potential geophysical anomalies and potential USTs at the site. Pyramid identified three possible USTs on the northeast side of the onsite structure. A copy of the Pyramid Geophysical Investigation Report is included in Appendix B. Prior to conducting soil borings, utilities were marked by NC One Call and Taylor Wiseman & Taylor (TWT).

2.2 Soil Sampling

To determine if contaminated soil may be encountered during the proposed construction activities, five soil samples were collected along the NCDOT proposed right-of-way. Kleinfelder met Probe Technology at the site on December 20, 2011. Probe Technology advanced five soil borings (SB-1 to SB-5) by direct push technology (DPT). The approximate location of the borings is shown on Figure 3. Copies of the boring logs are included in Appendix C.

Soil borings were advanced to a depth of ten feet below the ground surface (bgs) at each location. Soil boring SB-1 was located east of the possible USTs along the right-of-way. Soil borings SB-2 and SB-3 was located adjacent to the possible USTs along the proposed right-of-way. SB-4 and SB-5 were located upgradient to the possible UST's along the right-of-way. Soil samples were collected by driving a macrocore sampler in five foot intervals in each boring. Each five foot sample sleeve was divided in half and screened for volatile organic compounds in the field using a MiniRae 2000 photo-ionization detector (PID). In each boring, the soil interval with the highest PID reading was collected for laboratory analysis. If no organic vapors were detected, the sample collected from the bottom of the boring was submitted for analysis. The PID readings are summarized in Table 1. Copies of the boring logs are included in Appendix C.

Prior to the initial boring and after each subsequent boring, the sampling equipment was decontaminated. The soil samples collected for laboratory analysis were analyzed for total petroleum hydrocarbons (TPH) similar to diesel and gasoline (DRO/GRO) using

EPA Method 8015B following 3550 and 5035 preparation. All soil samples were placed into laboratory provided jars, labeled, and maintained on ice until delivered to Pace Analytical, a NCDOT contract laboratory, for chemical analysis.

3.0 RESULTS

3.1 Geophysical Investigation

Pyramid concluded that the GPR and EM investigation detect three possible metallic USTs within the survey area. Pyramid's report is included in Appendix B.

3.2 Soil Sampling

Soil sample SB-3 collected at 5.0 to 7.5 feet below ground surface (bgs) detected gasoline range organics (GRO) at 77.6 milligrams per kilogram (mg/kg) and diesel range organics (DRO) at 40.1 mg/kg, which is above the North Carolina action levels (10 mg/kg). The laboratory results are summarized in Table 2 and on Figure 3. The laboratory report and associated chain-of-custody document are included in Appendix D.

Based on laboratory analytical results and PID readings, petroleum impacted soils were identified adjacent to the possible USTs and within the proposed right-of-way. The contaminated soil covers an area approximately 700 square feet (Figure 3). The contaminated soil extends vertically to approximately seven feet bgs. Based on these dimensions Kleinfelder estimates that there are approximately 181 cubic yards of impacted soil at the site.

4.0 CONCLUSIONS AND RECOMMENDATION

Based on results of the laboratory analysis and field observations, Kleinfelder has the following conclusions:

- ◆ The GPR and EM investigation detect three possible metallic USTs within the survey area.

- ◆ Groundwater was encountered at approximately seven feet bgs in the soil borings.
- ◆ GRO and DRO were detected in boring SB-3 at concentrations exceeding the North Carolina action levels.
- ◆ Based upon the laboratory results, petroleum impacted soils are located between the surface and a depth of seven feet bgs in the area of the possible USTs.
- ◆ Approximately 181 cubic yards of contaminated soil was identified at the site.

Based on results of the laboratory analysis and field observations, Kleinfelder has the following recommendations:

- ◆ If the USTs are encountered during the road widening project, Kleinfelder recommends that the USTs be removed in accordance with current regulations.
- ◆ If impacted soils are encountered, Kleinfelder recommends the soils be handled appropriately and disposed of at an approved disposal facility.

5.0 LIMITATIONS

Our work has been performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services were provided. Our conclusions, opinions and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

The information included on graphic representations in the report has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. These documents are not intended for use as a land survey product, nor are they designed or intended as a construction design document. The use or misuse of the information contained on these graphic representations is at the sole risk of the party using or misusing the information.

TABLES

TABLE 1: SOIL SAMPLE PID RESULTS

SAMPLE LOCATION	DEPTH (feet bgs)	PID READINGS
SB-1	0.0 - 2.5	0.0
	2.5-5.0	0.0
	5.0-7.5	0.0
	7.5-10.0	0.0
SB-2	0.0 - 2.5	0.0
	2.5-5.0	0.0
	5.0-7.5	0.0
	7.5-10.0	0.0
SB-3	0.0 - 2.5	0.1
	2.5-5.0	0.0
	5.0-7.5	1,745
	7.5-10.0	1,005
SB-4	0.0 - 2.5	0.2
	2.5-5.0	0.8
	5.0-7.5	0.5
	7.5-10.0	0.5
SB-5	0.0 - 2.5	0.2
	2.5-5.0	0.2
	5.0-7.5	0.1
	7.5-10.0	0.2

Notes:

Samples were collected on December 20, 2011.

Readings reported in parts per million

feet bgs = feet below ground surface

Bold = Selected for laboratory analysis

TABLE 2: SOIL SAMPLE ANALYTICAL SUMMARY

SAMPLE ID	DEPTH	COLLECTION DATE	DRO	GRO
SB-1	7.5-10.0	12/20/2011	<5.8	<5.0
SB-2	7.5-10.0	12/20/2011	<6.3	<6.6
SB-3	5.0-7.5	12/20/2011	40.1	77.6
SB-4	7.5-10.0	12/20/2011	<6.5	<6.1
SB-5	7.5-10.0	12/20/2011	<6.9	<6.7
State Action Level (Petroleum UST)			10	10

Notes:

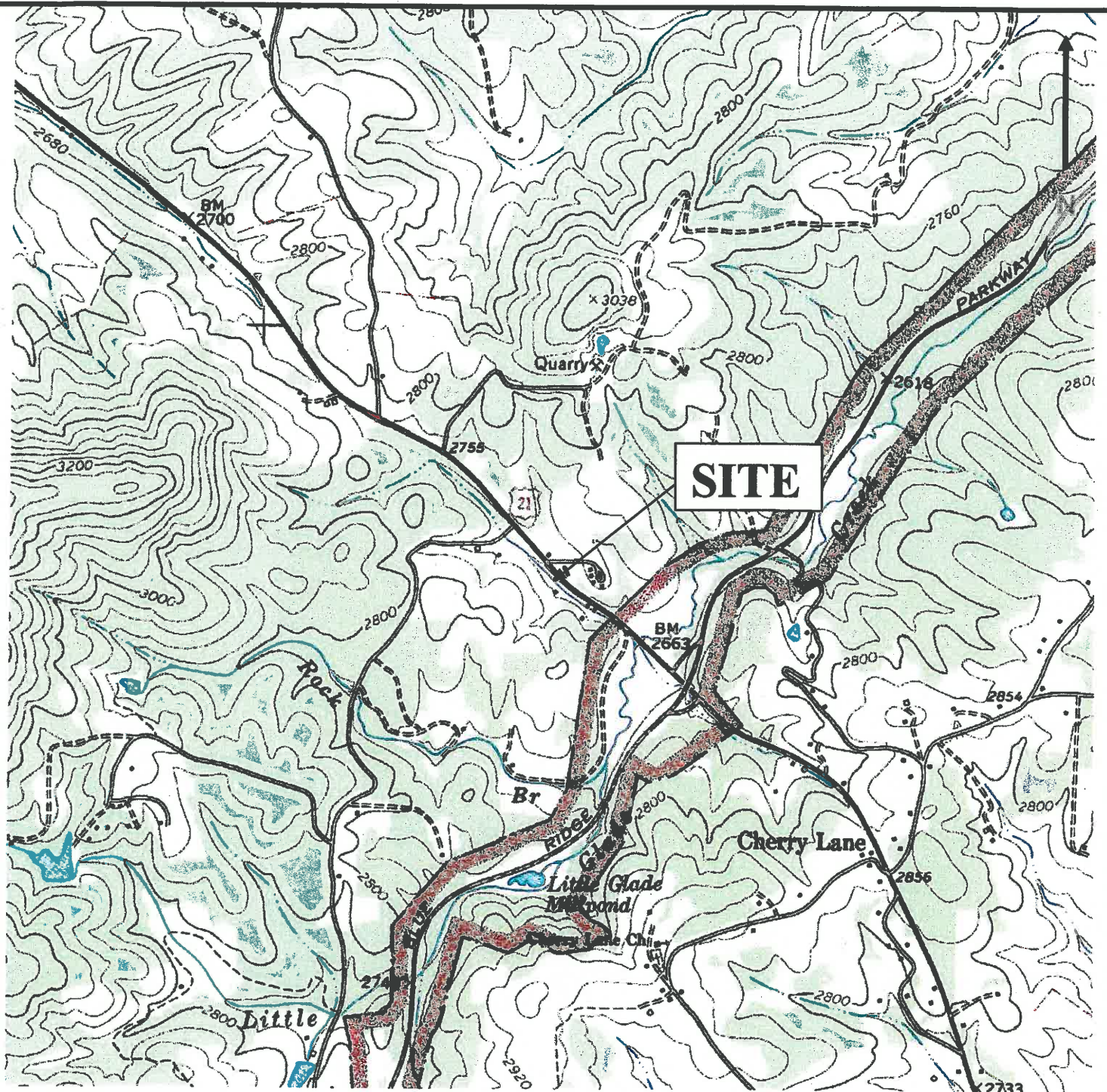
Results presented in milligrams per kilogram, analogous to parts per million

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

Bold denotes concentration exceeds the State Action Level for Petroleum USTs

FIGURES



6200 HARRIS TECHNOLOGY BOULEVARD
 CHARLOTTE, NORTH CAROLINA
 PHONE: 704.598.1049

**FIGURE 1
 SITE LOCATION MAP**

**PARCEL #111 – GEORGE WOODRUFF AND
 MARY WOODRUFF PROPERTY
 6640 US HWY 21 SOUTH
 GLADE VALLEY, NORTH CAROLINA**

DATE: 1/6/2012	APPROVED BY: <i>CDN</i>	SCALE: as shown
SOURCE: USGS Topographic Orthophoto Map, NC Glade Valley 1968		PROJECT NO: 123173

APPENDIX A

**SITE PHOTOGRAPHS
KLEINFELDER PROJECT NO. 123173
PARCEL NO. 111**



**Photograph 1 – View of the former EJ Antiques building (currently vacant) looking south.
The suspect UST field is located in the center of the photograph.**



Photograph 2 – View of the building looking southwest.

APPENDIX B

GEOPHYSICAL INVESTIGATION REPORT

EM61 & GPR SURVEYS

GEORGE & MARY WOODRUFF PROPERTY (PARCEL 111)

6640 US Highway 21 South

Glade Valley, North Carolina

State Project R-3101 WBS Element 37044.1.1

December 6, 2011

Report prepared for: NC Department of Transportation
GeoTechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Prepared by: 
Mark J. Denil, P.G.

Reviewed by: 
Douglas Canavello, P.G.

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

**NC Department of Transportation
GEOPHYSICAL INVESTIGATION REPORT
GEORGE & MARY WOODRUFF PROPERTY (PARCEL 111)
6640 US Highway 21 South
Glade Valley, North Carolina
State Project R-2612B WBS Element 34483.1.1**

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|----------|--|
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| Figure 2 | EM61 Metal Detection Results |
| Figure 3 | GPR Image Across Possible USTs |

1.0 INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT) – Geotechnical Unit across the proposed right-of-way (ROW) area at the George and Mary Woodruff property (Parcel 111) located at 6640 US Highway 21 South near Glade Valley, North Carolina. Conducted on November 9 and 17, 2011, the geophysical investigation was performed as part of the NCDOT preliminary site assessment for the US Highway 21 from Roaring Gap to Sparta project (State Project R-3101, WBS Element – 37044.1.1), to determine if unknown, metallic, underground storage tanks (USTs) were present beneath the proposed ROW portion of the property

The Woodruff property consists of an abandoned building surrounded by wooded terrain adjacent to the sides and back of the building and an open area between the front of the building and US Highway 21. The proposed ROW area includes the portion of property that lies between the building and the road and consists primarily of flat-lying, grass or gravel-covered terrain. The geophysical survey area has a maximum length and width of 150 feet and 38 feet, respectively. Areas containing wooded terrain or tall vegetation were omitted from the survey area.

NCDOT representative Mr. Ethan J. Caldwell, LG, PE provided site information which identified the geophysical survey area to Pyramid Environmental personnel during the week of October 17, 2011. Photographs of the geophysical equipment used in this investigation and the geophysical survey area of the George and Mary Woodruff property are shown in **Figure 1**.

2.0 FIELD METHODOLOGY

Prior to conducting the geophysical investigation, a 10-foot by 10-foot survey grid was established across the geophysical survey area using measuring tapes, pin flags and water-based marking paint. These grid marks were used as X-Y coordinates for location control when collecting the geophysical data and establishing base maps for the geophysical results.

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection surveys and ground penetrating radar (GPR) surveys. The EM survey was performed on November 9, 2011 using a Geonics EM61-MK1 metal detection instrument. 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. All of the EM61 data were digitally collected at approximately 0.8 foot intervals along northwesterly-southeasterly parallel survey lines spaced five feet apart. All of the data were downloaded to a computer and reviewed in the field and office using the Geonics DAT61W and Surfer for Windows Version 7.0 software programs.

GPR surveys were conducted on November 17, 2011 across selected EM61 differential anomalies using a GSSI SIR-2000 unit equipped with a 400 MHz antenna. Data were digitally collected in a continuous mode along X-axis and/or Y-axis survey lines, spaced 2.5 to 5.0 feet apart using a vertical scan of 512 samples, at a rate of 48 scans per second. A 70 MHz high pass filter and an 800 MHz low pass filter were used during data acquisition with the 400 MHz antenna. GPR data were collected down to a maximum depth of approximately 5 feet, based on an estimated two-way travel time of 8 nanoseconds per foot. All of the GPR data were downloaded to a field computer and reviewed in the field and office using Radprint software. Preliminary geophysical results obtained from the site were emailed to Kleinfelder representative Mr. Craig Neal, PG during the week of November 21, 2011.

3.0 DISCUSSION OF RESULTS

Contour plots of the EM61 bottom coil and differential results are presented in **Figure 2**. The bottom coil results represent the most sensitive component of the EM61 instrument and detect metal objects regardless of size. The bottom coil response can be used to delineate metal conduits or utility lines, small, isolated metal objects, and areas containing insignificant metal debris. The differential results are obtained from the difference between the top and bottom coils of the EM61 instrument. The differential results focus on the larger metal objects such as drum and UST-size objects and ignore the smaller insignificant metal objects.

GPR data suggest the numerous EM61 bottom coil anomalies recorded along or adjacent to grid line X=80 are in response to buried utility lines and miscellaneous metal debris or objects. The negative EM61 differential anomalies centered near grid coordinates X=85 Y= 2 and X=85 Y=149 are probably in response to the ends of the metal guard rails.

GPR data suggest the high-amplitude EM61 anomaly centered near grid coordinates X=65 Y=48 is in response to three possible metallic USTs. Based on the GPR data, the possible UST centered near grid coordinates X=63 Y=43 is approximately 14 feet long, 3.5 feet wide and buried 2.25 feet below present grade. The possible UST centered near grid coordinates X=62 Y=50 is approximately 4 feet long, 3 feet wide and buried 2.75 feet below present grade. The possible UST centered near grid coordinates X=63 Y=54.5 is approximately 6 feet long, 3 feet wide and buried 2.5 feet below present grade.

The GPR image obtained along a portion of survey line X=65, which crosses the three possible USTs, and a photograph showing the location of the possible USTs are presented in **Figure 3**. The foot prints of the three possible USTs detected by the geophysical investigation were marked in the field using orange marking paint and pin flags. The remaining EM61 anomalies shown in **Figure 2** are probably in response to known surface objects, structures or miscellaneous debris.

4.0 SUMMARY & CONCLUSIONS

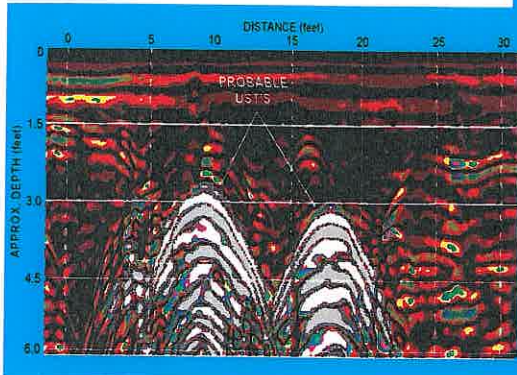
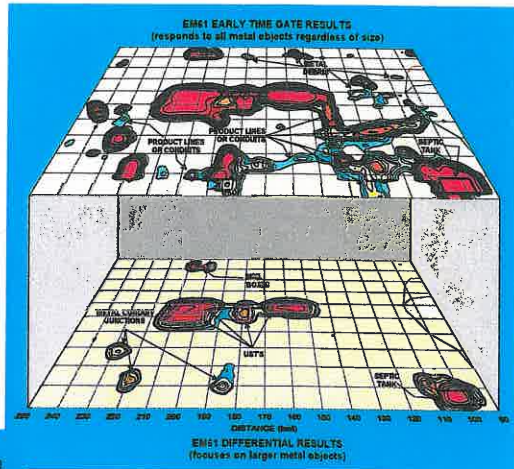
Our evaluation of the EM61 and GPR data collected across the proposed ROW area at the George and Mary Woodruff property (Parcel 111) located at 6640 US Highway 21 South near Glade Valley, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the accessible portions of the proposed ROW area of the site.

- GPR data suggest the numerous EM61 bottom coil anomalies recorded along or adjacent to grid line X=80 are in response to buried utility lines and miscellaneous metal debris or objects.
- GPR data suggest the high-amplitude EM61 anomaly centered near grid coordinates X=65 Y=48 is in response to three possible metallic USTs.
- The remaining EM61 anomalies shown in Figure 2 are probably in response to known surface objects, structures or miscellaneous debris.

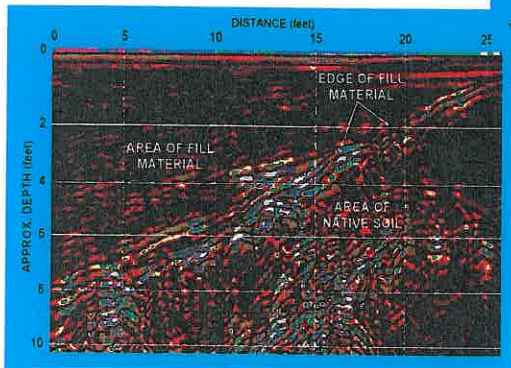
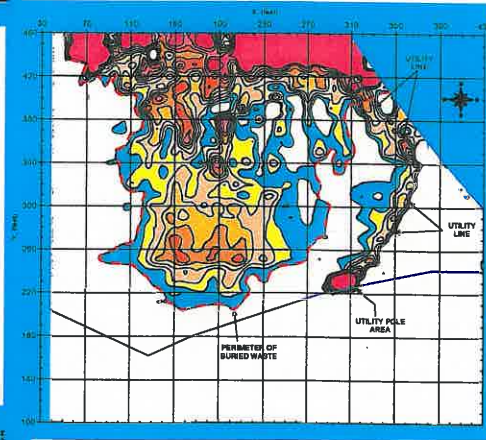
5.0 LIMITATIONS

EM61 and GPR surveys have been performed and this report prepared for the NCDOT in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR are non-unique and may not represent actual subsurface conditions. The EM61 and GPR results obtained for this project have not conclusively determined that three possible USTs are present within surveyed portion of the site but that only three possible USTs were detected.

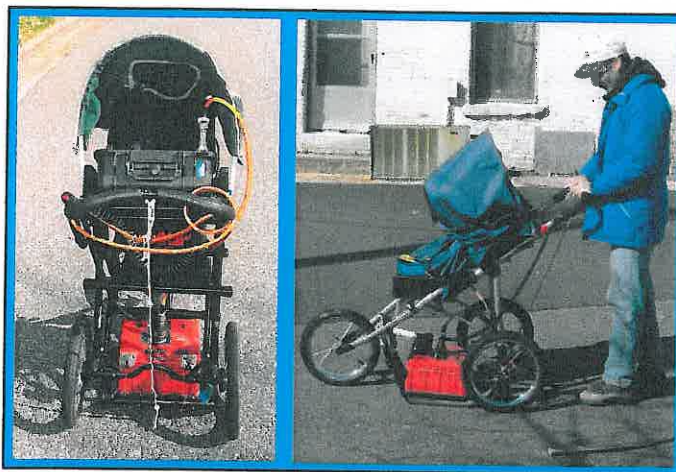


FIGURES
(on the following pages)

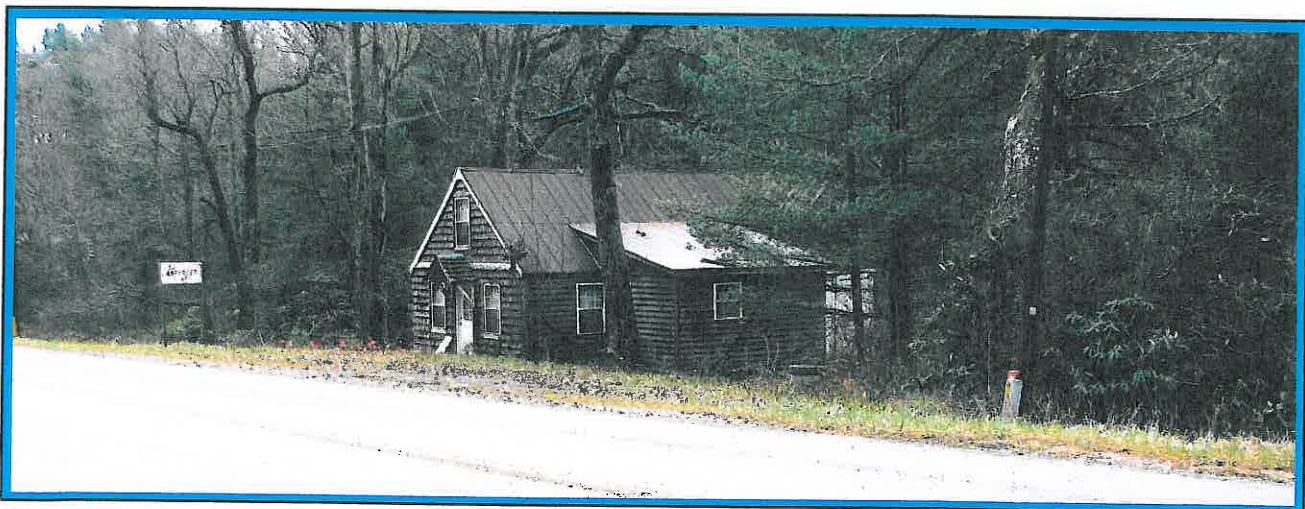
Figures shown on this page are for esthetic purposes only and are not related to the geophysical results discussed in this report.



The photograph shows the Geonics EM61 metal detector that was used to conduct the metal detection survey across the proposed Right-of-Way area at Parcel 111 on November 9, 2011.



The photographs show the SIR-2000 GPR system equipped with a 400 MHz antenna that were used to conduct the ground penetrating radar investigation across selected EM61 differential anomalies at Parcel 111 on November 17, 2011.



The photograph shows the front portion of the George and Mary Woodruff property (Parcel 111) located at 6640 US Highway 21 South near Glade Valley, North Carolina. The geophysical investigation was performed across the front portion of the property. The photograph is viewed in a southeasterly direction.



CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		DATE	12/06/11	BY	MJD
PROJECT	GEORGE & MARY WOODRUFF PROPERTY (PARCEL 111)		SCALE		DATE	
CITY	GLADE VALLEY	STATE	NORTH CAROLINA	NO.		
TITLE	GEOPHYSICAL RESULTS		NO.	2011-267		

GEOPHYSICAL EQUIPMENT & SITE PHOTOGRAPHS

FIGURE 1

DATE	2011-287	PROJECT	GEOPHYSICAL RESULTS
CLIENT	NORTH CAROLINA	LOCATION	GLADE VALLEY
DATE	12/08/11	CLIENT	GEORGE & MARY WOODRUFF PROPERTY (PARCEL 111)
DATE		CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION



LEGEND

SURVEY AREA - EM61 GPR DATA ACQUIRED ALONG X-AXIS TRENDS, LINES SPACED 9 FEET APART

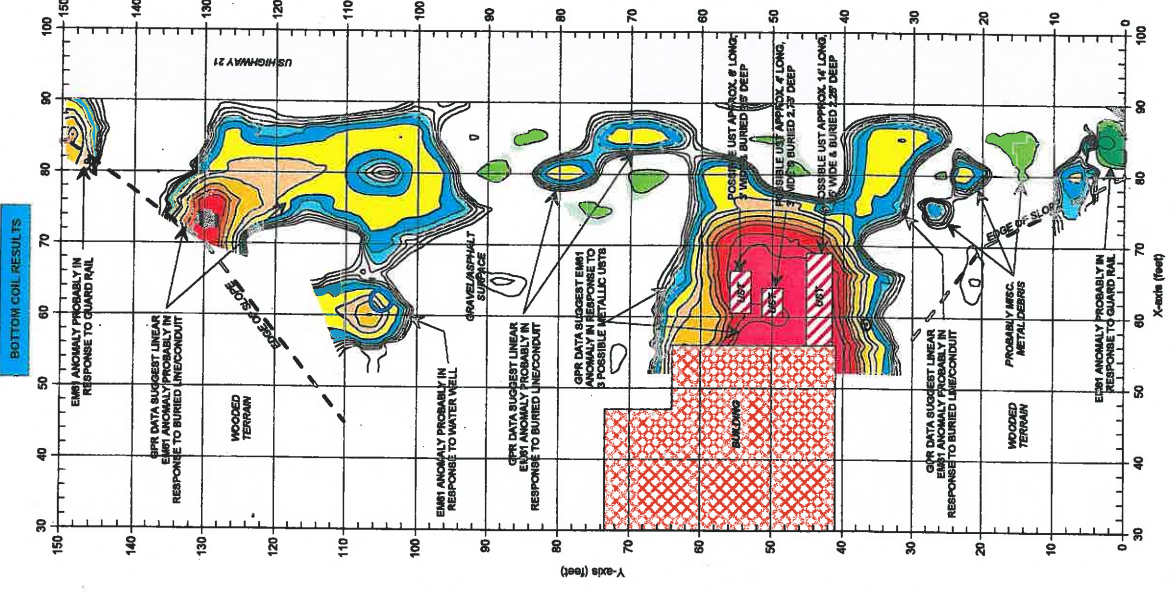
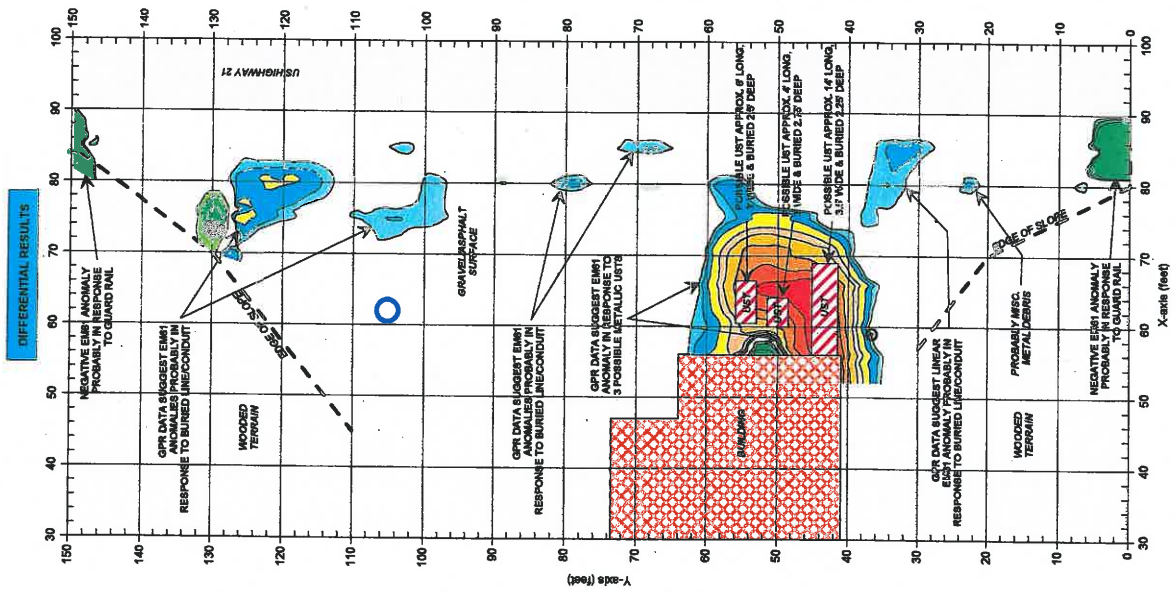
- BUILDING
- WOODED TERRAIN
- PVC CLEAN OUT PIPE
- WATER WELL COVER
- UTILITY LINE BOX
- UTILITY POLE
- EDGE OF GUARD RAIL
- POSSIBLE UST, AS SUGGESTED BY GPR RESULTS



The contour plot shows the bottom coil (most sensitive) and differential results of the EM61 instrument in both (NW). The bottom coil response shows buried metallic objects regardless of size. The differential response focuses on larger, buried metallic objects such as drums and USTs and ignores smaller miscellaneous, buried, metal debris.

The EM61 data were collected on November 9, 2011 using a Geonics EM61 instrument. Ground penetrating radar (GPR) data was acquired on November 17, 2011 across selected EM61 differential anomalies using a Geophysical Survey Systems SIR 2000 instrument with a 400 MHz antenna.

The geophysical investigation detected three possible metallic USTs located between the building and US Highway 21 and centered near grid coordinates X=62 Y=50



APPENDIX C

Client NCDOT
 Project Name Sparta PSAs
 Number 123173 Task 1
 Location Parcel 111

Drill Contractor Geoprobe Technology
 Drill Method Geoprobe
 Drilling Started 12/20/11 Ended 12/20/11
 Logged By A. Bauser

LOG OF BORING SB-1/111
 SHEET 1 OF 1

Elevation -
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
			0.0	GW	○	Topsoil - 2 inches	
						Well Graded GRAVEL, Gray Fine to Coarse Angular, Fine to Coarse Sand, Moist Silty SAND, Brown, Non Plastic, Moist to Wet with Brown Gravel Layer from 3.9-4.2 feet	
5			0.0	SM	●		5
10	SS		0.0	SP	○	Poorly Graded SAND, Tan, Fine to Coarse Subangular Sand, Non Plastic with Gravel at 10 feet	10
						Boring Terminated at 10 feet in RESIDUAL	

LOG A EWINN05 SPARTA.GPJ LOG A EWINN05.GDT 1/12/12



Kleinfelder
 313 Gallimore Dairy Road
 Greensboro, NC 27409
 Telephone: 336-668-0093
 Fax: 336-668-3868

Remarks Sample collected from 7.5-10.0 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

Client NCDOT
 Project Name Sparta PSAs
 Number 123173 Task 1
 Location Parcel 111


Drill Contractor Geoprobe Technology
 Drill Method Geoprobe
 Drilling Started 12/20/11 Ended 12/20/11
 Logged By A. Bauser

LOG OF BORING SB-2/111
 SHEET 1 OF 1

Elevation
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
			0.0	GP	Topsoil - 2 inches		
						Poorly Graded GRAVEL with Sand, Gray, Non Plastic, Slightly Moist	
						Silty SAND, Tan with Brown Blotches, Non Plastic, Slightly Moist	
			0.0	SM			
5						Poorly Graded SAND, Tan, Fine to Medium Sand, Some Silt, Non Plastic, Moist	5
			0.0	SP			
			0.0	GP		Poorly Graded GRAVEL, White-Tan, Fine to Coarse Angular, Non Plastic, Medium Dense, Slightly Moist	
10	SS			SP		Poorly Graded SAND, Tan, Oxidized Spots, Fine to Medium, Non Plastic, Moist	10
						Boring Terminated at 10 feet in RESIDUAL	
15							15
20							20
25							25
30							30

LOG A EWINN05 SPARTA.GPJ LOG A EWINN05.GDT 1/12/12



Kleinfelder
 313 Gallimore Dairy Road
 Greensboro, NC 27409
 Telephone: 336-668-0093
 Fax: 336-668-3868

Remarks Sample collected from 7.5-10.0 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

Client NCDOT
 Project Name Sparta PSAs
 Number 123173 Task 1
 Location Parcel 111

Drill Contractor Geoprobe Technology
 Drill Method Geoprobe
 Drilling Started 12/20/11 Ended 12/20/11
 Logged By A. Bauser

LOG OF BORING SB-3/111
 SHEET 1 OF 1

Elevation
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
			0.1	GP		Topsoil - 5 inches	
			0.0	SP		Poorly Graded SAND with Gravel, Tan, Slightly Moist, Fine to Coarse Sand with Fine Subangular Gravel	5
5	SS		1,745				
			1,005	GP		Poorly Graded GRAVEL with Sand, Olive, Fine to Coarse Subrounded, Wet, Non Plastic	
10						Boring Terminated at 10 feet in RESIDUAL	10
15							15
20							20
25							25
30							30

LOG A.EWNN05 SPARTA.GPJ LOG A.EWNN05.GDT 1/12/12



Kleinfelder
 313 Gallimore Dairy Road
 Greensboro, NC 27409
 Telephone: 336-668-0093
 Fax: 336-668-3868

Remarks Sample collected from 5.0-7.5 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

Client NCDOT
 Project Name Sparta PSAs
 Number 123173 Task 1
 Location Parcel 111

Drill Contractor Geoprobe Technology
 Drill Method Geoprobe
 Drilling Started 12/20/11 Ended 12/20/11
 Logged By A. Bauser

LOG OF BORING SB-4/111
 SHEET 1 OF 1

Elevation --
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
5			0.2	GP	●●●●●	Poorly Graded GRAVEL, Gray, Subrounded, Non Plastic, Slightly Moist	5
				SP		●●●●●	
				GP	●●●●●	Poorly Graded GRAVEL, Tan-Gray, Fine to Coarse Subrounded, Non Plastic, Slightly Moist	
				SP	●●●●●	Poorly Graded SAND with Silt, Fine to Medium Sand, Gran to Tan-White, Wet at 8 feet	
10	SS		0.5	SP			10
Boring Terminated at 10 feet in RESIDUAL							

LOG A EWNN05 SPARTA.GPJ LOG A EWNN05.GDT 1/12/12



Kleinfelder
 313 Gallimore Dairy Road
 Greensboro, NC 27409
 Telephone: 336-668-0093
 Fax: 336-668-3868

Remarks Sample collected from 7.5-10.0 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

Client NCDOT
 Project Name Sparta PSAs
 Number 123173 Task 1
 Location Parcel 111


Drill Contractor Geoprobe Technology
 Drill Method Geoprobe
 Drilling Started 12/20/11 Ended 12/20/11
 Logged By A. Bauser

LOG OF BORING SB-5/111
 SHEET 1 OF 1

Elevation -
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
5			0.2	GP		Poorly Graded GRAVEL, Black-Brown, Non Plastic, Slightly Moist, Fine to Coarse Angular	5
						SAND, Tan-Red, Slightly Moist, Medium Dense to Loose, Fine to Coarse Sand	
				SP			
10	SS		0.1	GP		Poorly Graded GRAVEL with Sand, Fine to Coarse, Tan, Non Plastic, Slightly Moist, Medium Dense	10
				SP			
Boring Terminated at 10 feet in RESIDUAL							10
15							15
20							20
25							25
30							30

LOG A EWNN05 SPARTA.GPJ LOG A EWNN05.GDT 1/12/12



Kleinfelder
 313 Gallimore Dairy Road
 Greensboro, NC 27409
 Telephone: 336-668-0093
 Fax: 336-668-3868

Remarks Sample collected from 7.5-10.0 ft. submitted for laboratory analysis.

See key sheet for symbols and abbreviations used above.

APPENDIX D



Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinsey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 29, 2011

Chemical Testing Engineer
NCDOT
Materials & Tests Unit
1801 Blue Ridge Road
Raleigh, NC 27607

RE: Project: Parcel 111 WSB 37044.1.1
Pace Project No.: 92109096

Dear Chemical Engineer:

Enclosed are the analytical results for sample(s) received by the laboratory on December 22, 2011. 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,

Charles Hardin

charles.hardin@pacelabs.com
Project Manager

Enclosures

cc: Mr. Peter Pozzo, Kleinfelder, Inc.



REPORT OF LABORATORY ANALYSIS

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Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Parcel 111 WSB 37044.1.1
Pace Project No.: 92109096

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
South Carolina Drinking Water Cert. #: 99006003
Virginia Drinking Water Certification #: 00213

Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460144

REPORT OF LABORATORY ANALYSIS

Page 2 of 14

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinsey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Parcel 111 WSB 37044.1.1
Pace Project No.: 92109096

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92109096001	SB-1 (111)	Solid	12/20/11 10:23	12/22/11 16:35
92109096002	SB-2 (111)	Solid	12/20/11 10:30	12/22/11 16:35
92109096003	SB-3 (111)	Solid	12/20/11 10:35	12/22/11 16:35
92109096004	SB-4 (111)	Solid	12/20/11 10:40	12/22/11 16:35
92109096005	SB-5 (111)	Solid	12/20/11 10:45	12/22/11 16:35

REPORT OF LABORATORY ANALYSIS



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 205 East Meadow Road - Suite A
 Eden, NC 27288
 (336)623-8921

Pace Analytical Services, Inc.
 2225 Riverside Dr.
 Asheville, NC 28804
 (828)254-7176

Pace Analytical Services, Inc.
 9800 Kinsey Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

SAMPLE ANALYTE COUNT

Project: Parcel 111 WSB 37044.1.1
 Pace Project No.: 92109096

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92109096001	SB-1 (111)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92109096002	SB-2 (111)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92109096003	SB-3 (111)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92109096004	SB-4 (111)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92109096005	SB-5 (111)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	JEA	1	PASI-C

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 (336)623-8921

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 2225 Riverside Dr.
 Asheville, NC 28804
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 9800 Kinsey Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

ANALYTICAL RESULTS

Project: Parcel 111 WSB 37044.1.1
 Pace Project No.: 92109096

Sample: SB-1 (111) Lab ID: 92109096001 Collected: 12/20/11 10:23 Received: 12/22/11 16:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546									
Diesel Components	ND	mg/kg	5.8	5.2	1	12/23/11 06:30	12/28/11 15:28	68334-30-5	
Surrogates									
n-Pentacosane (S)	69	%	41-119		1	12/23/11 06:30	12/28/11 15:28	629-99-2	
Gasoline Range Organics									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B									
Gasoline Range Organics	ND	mg/kg	5.0	5.0	1	12/28/11 10:29	12/28/11 19:15	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-167		1	12/28/11 10:29	12/28/11 19:15	460-00-4	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.5	%	0.10	0.10	1		12/23/11 14:41		



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 205 East Meadow Road - Suite A
 Eden, NC 27288
 (336)623-8921

Pace Analytical Services, Inc.
 2225 Riverside Dr.
 Asheville, NC 28804
 (828)254-7176

Pace Analytical Services, Inc.
 9800 Kincey Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

ANALYTICAL RESULTS

Project: Parcel 111 WSB 37044.1.1
 Pace Project No.: 92109096

Sample: SB-2 (111) Lab ID: 92109096002 Collected: 12/20/11 10:30 Received: 12/22/11 16:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546									
Diesel Components	ND	mg/kg	6.3	5.7	1	12/23/11 06:30	12/28/11 15:28	68334-30-5	
Surrogates									
n-Pentacosane (S)	62	%	41-119		1	12/23/11 06:30	12/28/11 15:28	629-99-2	
Gasoline Range Organics									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B									
Gasoline Range Organics	ND	mg/kg	6.6	6.6	1	12/28/11 10:29	12/28/11 19:39	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-167		1	12/28/11 10:29	12/28/11 19:39	460-00-4	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	20.9	%	0.10	0.10	1		12/23/11 14:42		



Pace Analytical Services, Inc.
 205 East Meadow Road - Suite A
 Eden, NC 27288
 (336)623-8921

Pace Analytical Services, Inc.
 2225 Riverside Dr.
 Asheville, NC 28804
 (828)254-7176

Pace Analytical Services, Inc.
 9800 Kincey Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

ANALYTICAL RESULTS

Project: Parcel 111 WSB 37044.1.1
 Pace Project No.: 92109096

Sample: SB-3 (111) Lab ID: 92109096003 Collected: 12/20/11 10:35 Received: 12/22/11 16:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546									
Diesel Components	40.1	mg/kg	5.8	5.2	1	12/23/11 06:30	12/28/11 15:58	68334-30-5	
Surrogates									
n-Pentacosane (S)	68	%	41-119		1	12/23/11 06:30	12/28/11 15:58	629-99-2	
Gasoline Range Organics									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B									
Gasoline Range Organics	77.6	mg/kg	5.0	5.0	1	12/28/11 10:29	12/28/11 20:04	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	155	%	70-167		1	12/28/11 10:29	12/28/11 20:04	460-00-4	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.0	%	0.10	0.10	1		12/23/11 14:42		



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 205 East Meadow Road - Suite A
 Eden, NC 27288
 (336)623-8921

Pace Analytical Services, Inc.
 2225 Riverside Dr.
 Asheville, NC 28804
 (828)254-7176

Pace Analytical Services, Inc.
 9800 Kinsey Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

ANALYTICAL RESULTS

Project: Parcel 111 WSB 37044.1.1
 Pace Project No.: 92109096

Sample: SB-4 (111) Lab ID: 92109096004 Collected: 12/20/11 10:40 Received: 12/22/11 16:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	6.5	5.9	1	12/23/11 06:30	12/28/11 15:58	68334-30-5	
Surrogates									
n-Pentacosane (S)	77 %		41-119		1	12/23/11 06:30	12/28/11 15:58	629-99-2	
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	6.1	6.1	1	12/28/11 10:29	12/28/11 20:28	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	93 %		70-167		1	12/28/11 10:29	12/28/11 20:28	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	23.3 %		0.10	0.10	1		12/23/11 14:42		



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 Eden, NC 27288
 (336)623-8921

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 2225 Riverside Dr.
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 (828)254-7176

Pace Analytical Services, Inc.
 9800 Kincey Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

ANALYTICAL RESULTS

Project: Parcel 111 WSB 37044.1.1

Pace Project No.: 92109096

Sample: SB-5 (111) Lab ID: 92109096005 Collected: 12/20/11 10:45 Received: 12/22/11 16:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546									
Diesel Components	ND	mg/kg	6.9	6.2	1	12/23/11 06:30	12/28/11 16:28	68334-30-5	
Surrogates									
n-Pentacosane (S)	69	%	41-119		1	12/23/11 06:30	12/28/11 16:28	629-99-2	
Gasoline Range Organics									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B									
Gasoline Range Organics	ND	mg/kg	6.7	6.7	1	12/28/11 10:29	12/28/11 20:52	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-167		1	12/28/11 10:29	12/28/11 20:52	460-00-4	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	27.6	%	0.10	0.10	1		12/23/11 14:42		



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 205 East Meadow Road - Suite A
 Eden, NC 27288
 (336)623-8921

Pace Analytical Services, Inc.
 2225 Riverside Dr.
 Asheville, NC 28804
 (828)254-7176

Pace Analytical Services, Inc.
 9800 Kincey Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

QUALITY CONTROL DATA

Project: Parcel 111 WSB 37044.1.1

Pace Project No.: 92109096

QC Batch: GCV/5643 Analysis Method: EPA 8015 Modified
 QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
 Associated Lab Samples: 92109096001, 92109096002, 92109096003, 92109096004, 92109096005

METHOD BLANK: 704788 Matrix: Solid
 Associated Lab Samples: 92109096001, 92109096002, 92109096003, 92109096004, 92109096005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.9	12/28/11 12:43	
4-Bromofluorobenzene (S)	%	104	70-167	12/28/11 12:43	

LABORATORY CONTROL SAMPLE: 704789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	24.4	25.8	106	70-165	
4-Bromofluorobenzene (S)	%			94	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704790 704791

Parameter	Units	92109103001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Gasoline Range Organics	mg/kg	ND	26.2	26.2	29.6	34.1	111	128	47-187	14	30	
4-Bromofluorobenzene (S)	%						97	109	70-167			



Pace Analytical Services, Inc.
 205 East Meadow Road - Suite A
 Eden, NC 27288
 (336)623-8921

Pace Analytical Services, Inc.
 2225 Riverside Dr.
 Asheville, NC 28804
 (828)254-7176

Pace Analytical Services, Inc.
 9800 Kinney Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

QUALITY CONTROL DATA

Project: Parcel 111 WSB 37044.1.1
 Pace Project No.: 92109096

QC Batch: OEXT/15996 Analysis Method: EPA 8015 Modified
 QC Batch Method: EPA 3546 Analysis Description: 8015 Solid GCSV
 Associated Lab Samples: 92109096001, 92109096002, 92109096003, 92109096004, 92109096005

METHOD BLANK: 703972 Matrix: Solid
 Associated Lab Samples: 92109096001, 92109096002, 92109096003, 92109096004, 92109096005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	12/27/11 11:41	
n-Pentacosane (S)	%	67	41-119	12/27/11 11:41	

LABORATORY CONTROL SAMPLE: 703973

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Components	mg/kg	66.7	51.8	78	49-113	
n-Pentacosane (S)	%			68	41-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 703974 703975

Parameter	Units	92109089001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Diesel Components	mg/kg	ND	71.9	71.9	32.2	34.0	45	47	10-146	6	30	
n-Pentacosane (S)	%						39	46	41-119			S2



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 Eden, NC 27288
 (336)623-8921

Pace Analytical Services, Inc.
 2225 Riverside Dr.
 Asheville, NC 28804
 (828)254-7176

Pace Analytical Services, Inc.
 9800 Kinsey Ave. Suite 100
 Huntersville, NC 28078
 (704)875-9092

QUALITY CONTROL DATA

Project: Parcel 111 WSB 37044.1.1
 Pace Project No.: 92109096

QC Batch: PMST/4410 Analysis Method: ASTM D2974-87
 QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
 Associated Lab Samples: 92109096001, 92109096002, 92109096003, 92109096004, 92109096005

SAMPLE DUPLICATE: 703865

Parameter	Units	92109089001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.2	8.5	16	25	

SAMPLE DUPLICATE: 703866

Parameter	Units	92109101001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.9	18.7	1	25	



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205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kinsey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Parcel 111 WSB 37044.1.1
Pace Project No.: 92109096

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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

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

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

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

S2 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).



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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Parcel 111 WSB 37044.1.1
Pace Project No.: 92109096

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92109096001	SB-1 (111)	EPA 3546	OEXT/15996	EPA 8015 Modified	GCSV/11119
92109096002	SB-2 (111)	EPA 3546	OEXT/15996	EPA 8015 Modified	GCSV/11119
92109096003	SB-3 (111)	EPA 3546	OEXT/15996	EPA 8015 Modified	GCSV/11119
92109096004	SB-4 (111)	EPA 3546	OEXT/15996	EPA 8015 Modified	GCSV/11119
92109096005	SB-5 (111)	EPA 3546	OEXT/15996	EPA 8015 Modified	GCSV/11119
92109096001	SB-1 (111)	EPA 5035A/5030B	GCV/5643	EPA 8015 Modified	GCV/5644
92109096002	SB-2 (111)	EPA 5035A/5030B	GCV/5643	EPA 8015 Modified	GCV/5644
92109096003	SB-3 (111)	EPA 5035A/5030B	GCV/5643	EPA 8015 Modified	GCV/5644
92109096004	SB-4 (111)	EPA 5035A/5030B	GCV/5643	EPA 8015 Modified	GCV/5644
92109096005	SB-5 (111)	EPA 5035A/5030B	GCV/5643	EPA 8015 Modified	GCV/5644
92109096001	SB-1 (111)	ASTM D2974-87	PMST/4410		
92109096002	SB-2 (111)	ASTM D2974-87	PMST/4410		
92109096003	SB-3 (111)	ASTM D2974-87	PMST/4410		
92109096004	SB-4 (111)	ASTM D2974-87	PMST/4410		
92109096005	SB-5 (111)	ASTM D2974-87	PMST/4410		



Document Name: Sample Condition Upon Receipt (SCUR)

Document Revised: July 29, 2011 Page 1 of 2

Document Number: F-CHR-CS-03-rev.05

Issuing Authority: Pace Huntersville Quality Office

Client Name: Kleinfelder

Project # 92109096

Where Received: Huntersville Asheville Eden

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

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

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used: IR Gun T1102

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Temp Correction Factor Add / Subtract 0 °C

Corrected Cooler Temp.: 6.0 °C

Biological Tissue is Frozen: Yes No N/A

Date and Initials of person examining contents: JMM 12-22-11

Temp should be above freezing to 6°C

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 checked="" 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 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 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 checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>time on SB-3 (111) has time of 1050 on sample label.</u>
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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 checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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: CAH Date: 12/22/11 SRF Review: BKM Date: 12/23/11

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)

