

PRELIMINARY SITE ASSESSMENT

**GLADE VALLEY – US HIGHWAY 21 SOUTH FROM ROARING GAP TO SPARTA
PARCEL #150 JR WATSON AND MERELE WATSON PROPERTY
4580 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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January 13, 2012
123173 | CLT12R013

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 #150 – JR Watson and Merele Watson Property
4580 US Highway 21 South
Glade Valley, 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 did not detect target constituents at concentrations exceeding the laboratory detection limits or the North Carolina action levels. 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.

Travis O'Quinn
Staff Professional I

Craig D Neil, P.G.
Senior Professional

TLO/CDN:jc
Enclosure

PRELIMINARY SITE ASSESSMENT

Site Name and Location: Parcel #150 Sage Meadow, Inc. Property
4580 US Hwy 21 South
Glade Valley, Alleghany County, North Carolina

Latitude and Longitude: 36° 28' 14.26" N, 81° 03' 28.66" W

Facility ID Number: 0-037120

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

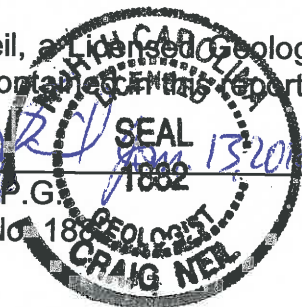


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B	Pyramid Environmental & Engineering, P.C. Geophysical Survey Report
C	Boring Logs
D	Laboratory Report

1.0 INTRODUCTION

Kleinfelder Southeast, Inc. (Kleinfelder) has prepared this Preliminary Site Assessment (PSA) report documenting assessment activities performed at the JR Watson and Merele Watson Property (Parcel 150) located at 4580 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 150 (Figure 2). Based on information provided by NCDOT, the site currently operates as a gasoline station (Facility ID 0-037120) and convenience store. According to NCDOT, the site contains three active USTs located on the property. 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, this parcel was occupied by an active gas station and convenience store (Glade Valley Country Store, Facility ID No. 0-037120). Three underground storage tanks (USTs) are registered for the facility. The current USTs are located in the northwestern corner of the convenience store. One dispenser island is located north of the convenience store. Site photographs are shown in Appendix A.

1.2 Site Location

The facility is located at 4580 US Highway 21 South in Glade Valley, North Carolina. The site is bound to the north by US 21 and storage buildings. The property is bound to the east by US Highway 21. The property is bound to the south by a residential property 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 10, 2011. Pyramid utilized ground penetration radar (GPR) and electromagnetic (EM) induction technology to identify potential geophysical anomalies and potential USTs at the site. Pyramid did not identify suspected USTs within the proposed right-of-way. 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, four 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 four soil borings (SB-1 to SB-4) 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 borings SB-1 through SB-4 were located in front of the structure along the proposed 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 did not detect metallic USTs within the survey area. Pyramid's report is included in Appendix B.

3.2 Soil Sampling

Diesel range organics (DRO) or gasoline range organics (GRO) were not detected in soil samples above the laboratory detection limits or above the North Carolina action levels. 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, no petroleum impacted soils above the North Carolina action levels were identified within the proposed right-of-way at the site.

4.0 CONCLUSIONS AND RECOMMENDATIONS

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

- ◆ The GPR and EM investigation did not detect metallic USTs within the survey area.
- ◆ Groundwater was encountered at approximately six feet bgs in the soil borings.
- ◆ DRO or GRO were not detected in the soil samples above the laboratory detection limits or above the North Carolina action levels.

- ◆ Based on the soil samples and PID readings, no petroleum impacted soils were identified within the proposed right-of-way at the site.

Based on the results of the laboratory analysis, Kleinfelder does not recommend additional assessment or remediation at the site.

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.

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TABLES

TABLE 1: SOIL SAMPLE PID RESULTS

SAMPLE LOCATION	DEPTH (feet bgs)	PID READINGS
SB-1	0.0 - 2.5	1.5
	2.5-5.0	10.8
	5.0-7.5	5.3
	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	0.0
	2.5-5.0	0.0
	5.0-7.5	0.0
	7.5-10.0	0.0
SB-4	0.0 - 2.5	0.0
	2.5-5.0	0.0
	5.0-7.5	0.0
	7.5-10.0	0.0

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	<5.7	<5.3
SB-2	2.5-5.0	12/20/2011	<6.6	<6.4
SB-3	7.5-10.0	12/20/2011	<6.0	<6.2
SB-4	7.5-10.0	12/20/2011	<6.4	<6.0
State Action Level (Petroleum UST)			10	10

Notes:

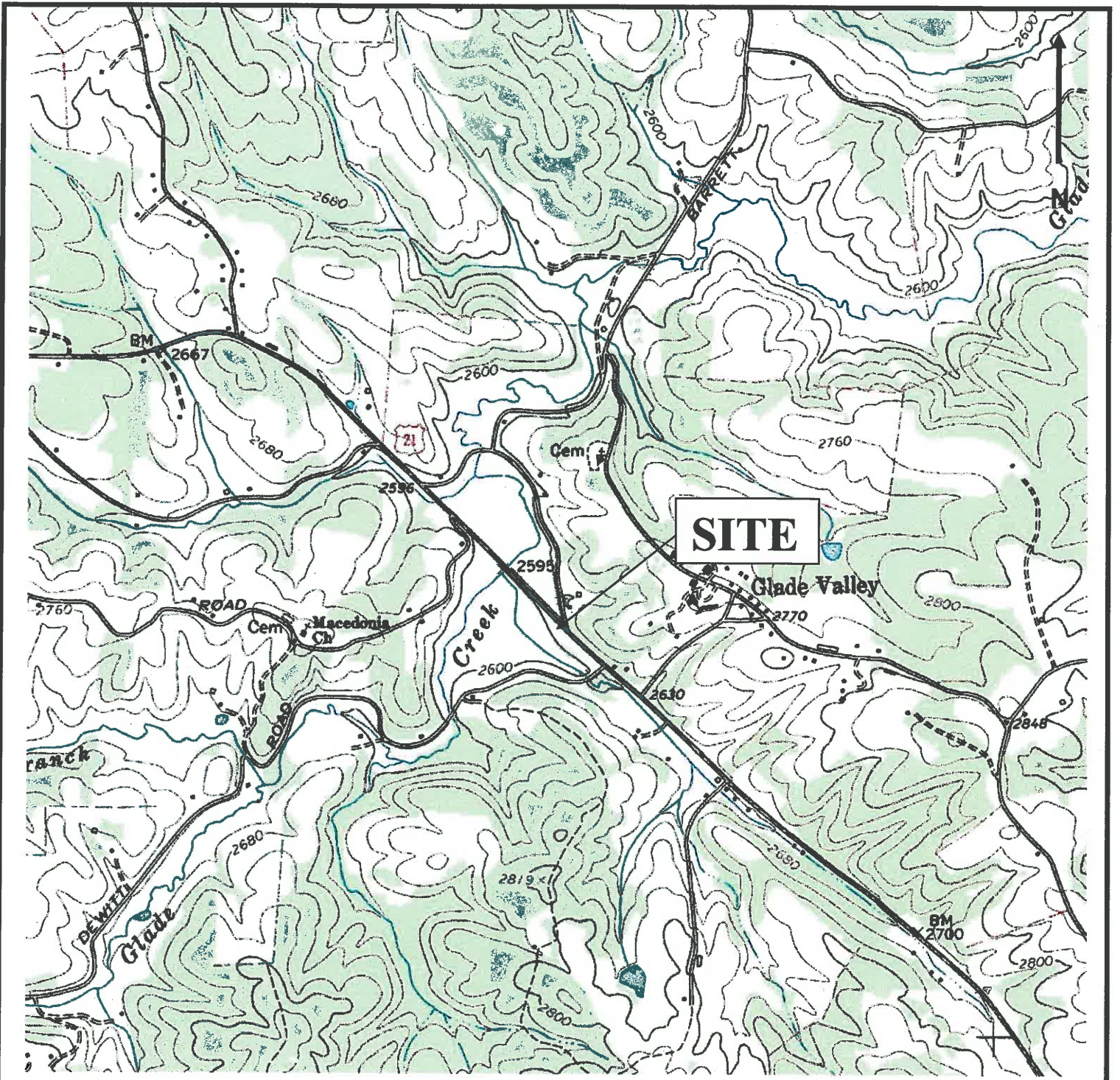
Results presented in milligrams per kilogram, analogous to parts per million

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

Bold denotes concentration exceeds the State Action Level for Petroleum USTs

FIGURES



0 0.5 Mile
 0 2000 Feet



6200 HARRIS TECHNOLOGY BOULEVARD
 CHARLOTTE, NORTH CAROLINA
 PHONE: 704.598.1049

**FIGURE 1
 SITE LOCATION MAP**

**PARCEL #150 – JR WATSON AND MERELE WATSON
 PROPERTY
 4580 US HWY 21 SOUTH
 GLADE VALLEY, NORTH CAROLINA**

DATE: 1/5/2012

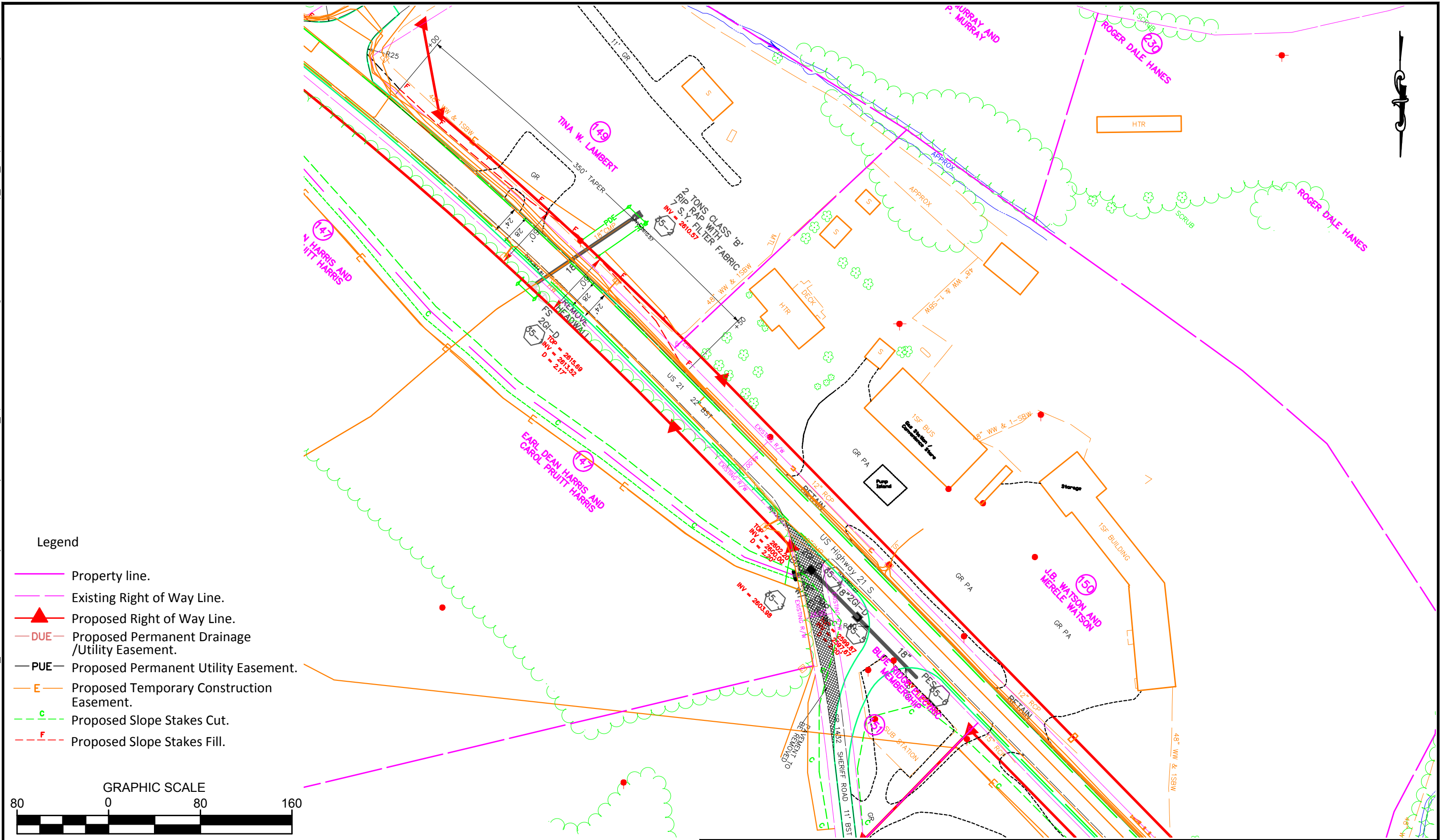
APPROVED BY:

CDN

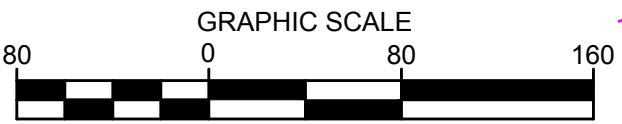
SCALE: as shown

SOURCE: USGS Topographic
 Orthophoto Map, NC Glade Valley 1968

PROJECT NO: 123173



- Legend**
- Property line.
 - Existing Right of Way Line.
 - Proposed Right of Way Line.
 - DUE Proposed Permanent Drainage /Utility Easement.
 - PUE Proposed Permanent Utility Easement.
 - E Proposed Temporary Construction Easement.
 - C Proposed Slope Stakes Cut.
 - F Proposed Slope Stakes Fill.



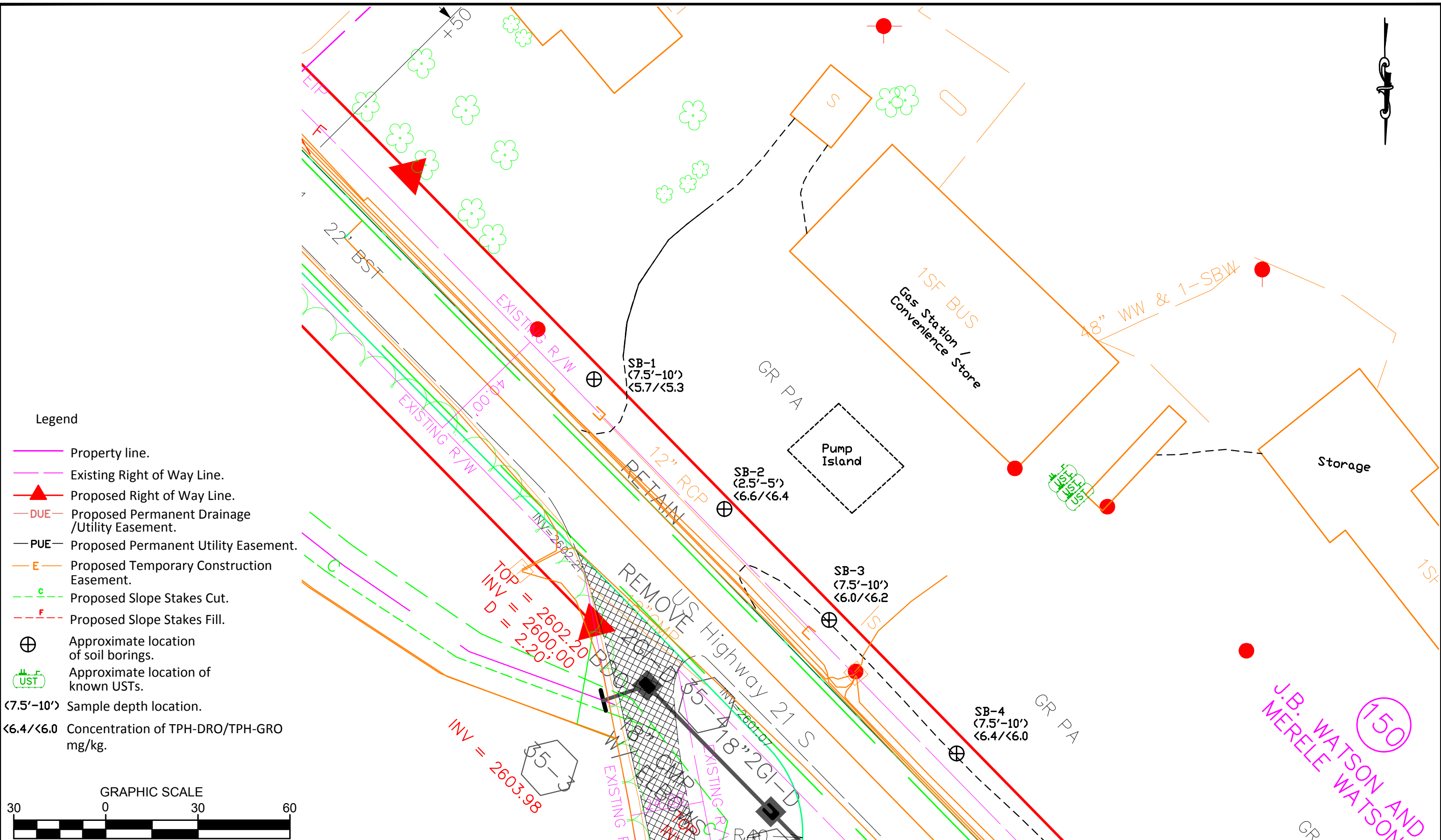
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Bright People. Right Solutions.
www.kleinfelder.com

PROJECT NO.	123173
DRAWN:	APR 2012
DRAWN BY:	AB
CHECKED BY:	TO
FILE NAME:	Parcel 150-181_042012.dwg

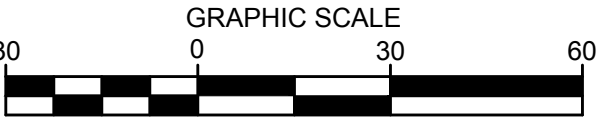
SITE LOCATION MAP
Parcel # 150 JR & Merele Watson Property
NCDOT WBS ELEMENT 37044.1.1 STATE PROJECT R-3101 4580 US Hwy 21 South GLADE VALLEY, NORTH CAROLINA

FIGURE
2



Legend

- Property line.
- Existing Right of Way Line.
- Proposed Right of Way Line.
- Proposed Permanent Drainage /Utility Easement.
- Proposed Permanent Utility Easement.
- Proposed Temporary Construction Easement.
- Proposed Slope Stakes Cut.
- Proposed Slope Stakes Fill.
- Approximate location of soil borings.
- Approximate location of known USTs.
- <7.5'-10' Sample depth location.
- <6.4/<6.0 Concentration of TPH-DRO/TPH-GRO mg/kg.



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PROJECT NO.	123173
DRAWN:	APR 2012
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CHECKED BY:	TO
FILE NAME:	Parcel 150-181_042012.dwg

BORING LOCATION MAP
Parcel # 150 JR & Merele Watson Property
NCDOT WBS ELEMENT 37044.1.1 STATE PROJECT R-3101 4580 US Hwy 21 South GLADE VALLEY, NORTH CAROLINA

FIGURE
3

J.B. WATSON AND
MERELE WATSON
150

APPENDIX A

**SITE PHOTOGRAPHS
KLEINFELDER PROJECT NO. 123173
PARCEL NO. 150**



Photograph 1 View of the Glade Valley County Store looking south.



Photograph 2 View of the proposed right-of-way looking south.

APPENDIX B

GEOPHYSICAL INVESTIGATION REPORT

EM61 SURVEY

JR & MERELE WATSON PROPERTY (PARCEL 150)

4580 US Highway 21 South

Glade Valley, North Carolina

State Project R-3101 WBS Element 37044.1.1

December 13, 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
JR & MERELE WATSON PROPERTY (PARCEL 150)
4580 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 | Division of Geophysical Survey Area |
| Figure 3 | EM61 Metal Detection Results – Bottom Coil Results |
| Figure 4 | EM61 Metal Detection Results – Differential Results |

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 JR and Merele Watson property (Parcel 150) located at 4580 US Highway 21 South near Glade Valley, North Carolina. Conducted on November 10, 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 property

The JR and Merele Watson property consists of the active Glade Valley County Store and gas station. The proposed ROW area includes the portion of property that lies between the active pump island area and US Highway 21 and consists primarily of flat-lying, grass or asphalt-covered terrain. The geophysical survey area has a maximum length and width of 390 feet and 45 feet, respectively.

NCDOT representative Mr. Ethan J. Caldwell, LG, PE provided site information and 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 Wagoner property are shown in **Figure 1**.

2.0 FIELD METHODOLOGY

Prior to conducting the geophysical investigation, a 10-foot by 20-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. The EM survey was performed on November 10, 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 easterly-westerly, 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.

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 **Figures 2 and 3**, respectively. 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.

The high-amplitude, linear EM61 anomalies intersecting grid coordinates X=60 Y=50 and X=300 Y=47 are probably in response to buried culverts. The linear bottom coil anomalies intersecting grid coordinates X=147 Y=50 and X=220 Y=44 are probably in response to buried lines or conduits. The EM61 anomalies centered near grid coordinates X=22 Y=25 and X=143 Y=32 are probably in response to a business sign poles and a parked vehicle, respectively. The EM61 anomalies centered near grid coordinates X=230 Y=48 and X=393 Y=45 are probably in response to a utility pole and a business sign, respectively.

Due to the absence of unexplained EM61 differential anomalies, ground penetrating radar scans were not conducted at the JR and Merele Watson property. The EM61 metal detection results

suggest that the proposed ROW area (geophysical survey area) at this site does not contain buried, metallic USTs.

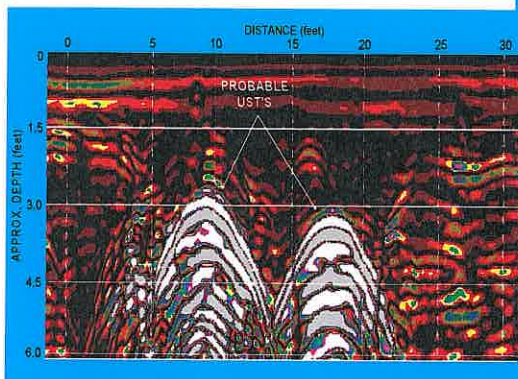
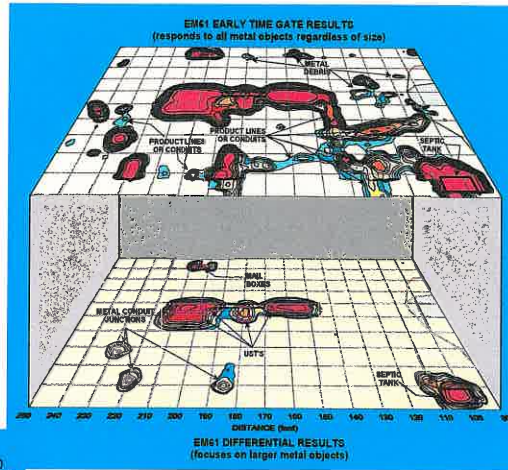
4.0 SUMMARY & CONCLUSIONS

Our evaluation of the EM61 data collected across the proposed ROW area at the JR and Merele Watson property (Parcel 150) located at 4580 US Highway 21 South near Glade Valley, North Carolina, provides the following summary and conclusions:

- The EM61 surveys provided reliable results for the detection of metallic USTs within the accessible portions of the proposed ROW area of the site.
- The high-amplitude, linear EM61 anomalies intersecting grid coordinates X=60 Y=50 and X=300 Y=47 are probably in response to buried culverts.
- The EM61 anomalies centered near grid coordinates X=22 Y=25 and X=143 Y=32 are probably in response to a business sign poles and a parked vehicle, respectively.
- The EM61 metal detection results suggest that the proposed ROW area (geophysical survey area) at this site does not contain buried, metallic USTs.

5.0 LIMITATIONS

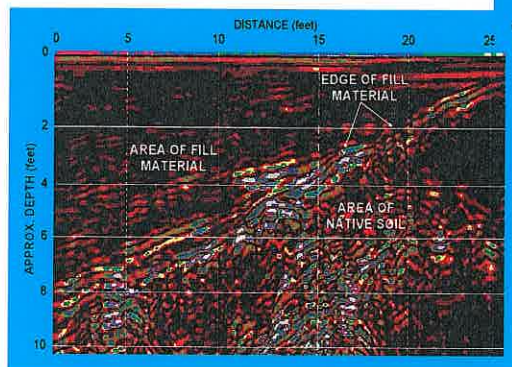
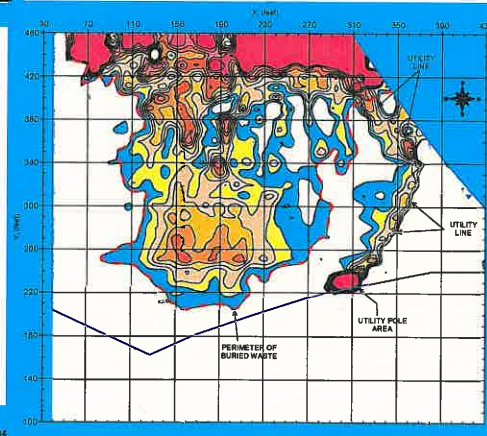
EM61 surveys have been performed and this report prepared for the NCDOT in accordance with generally accepted guidelines for EM61 surveys. It is generally recognized that the results of the EM61 survey are non-unique and may not represent actual subsurface conditions. The EM61 results obtained for this project have not conclusively determined that the surveyed portion of the site does not contain buried metallic USTs but that none 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 150 on November 10, 2011. Due to an absence of unexplained EM61 differential anomalies, ground penetrating radar scans were not performed at this site.

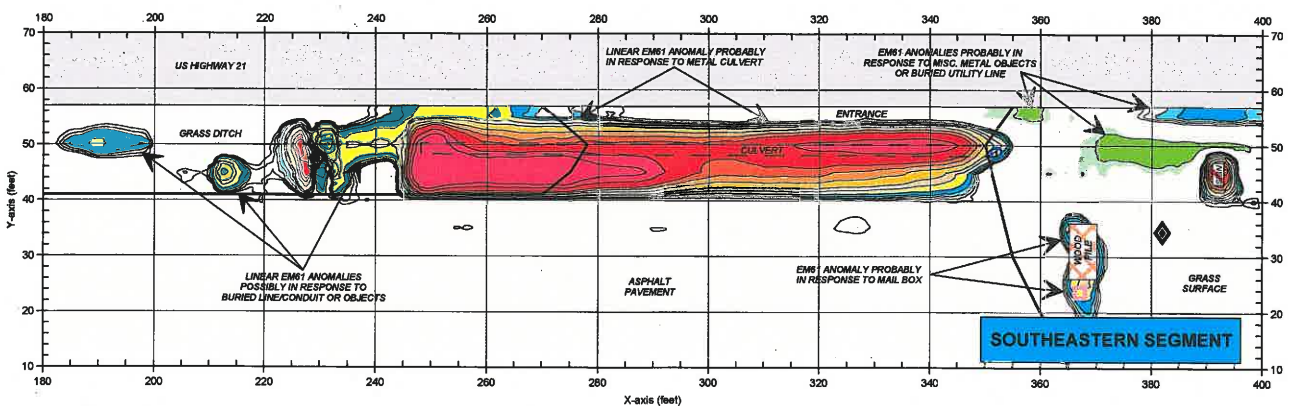
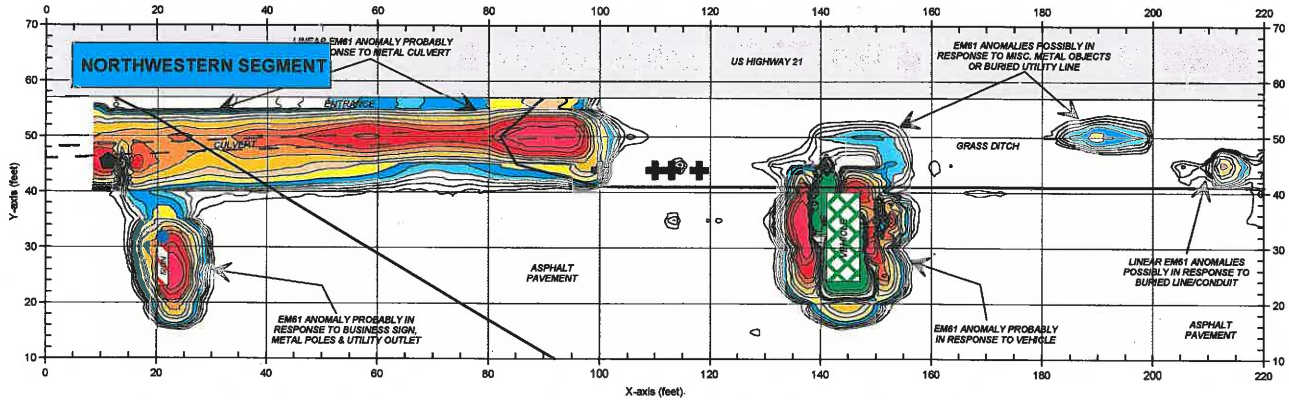
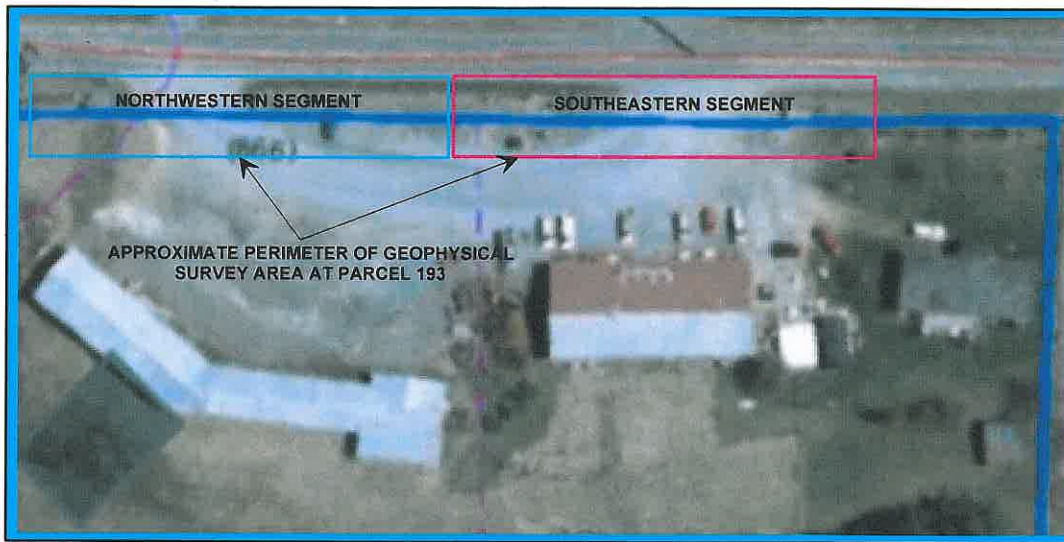


The photograph shows the front portion of the JR & Merele Watson property (Parcel 150) located at 4580 US Highway 21 South near Glade Valley, North Carolina. The geophysical investigation was performed across the front portion of the property. The photograph is viewed in a northwesterly direction.



CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		DATE	12/13/11	BY	MJD
PROJECT	JR & MERELE WATSON PROPERTY (PARCEL 150)		DATE		BY	
CITY	GLADE VALLEY	STATE	NORTH CAROLINA		DATE	
TITLE	GEOPHYSICAL RESULTS		PROJECT NO.	2011-287	DATE	

GEOPHYSICAL EQUIPMENT
& SITE PHOTOGRAPHS



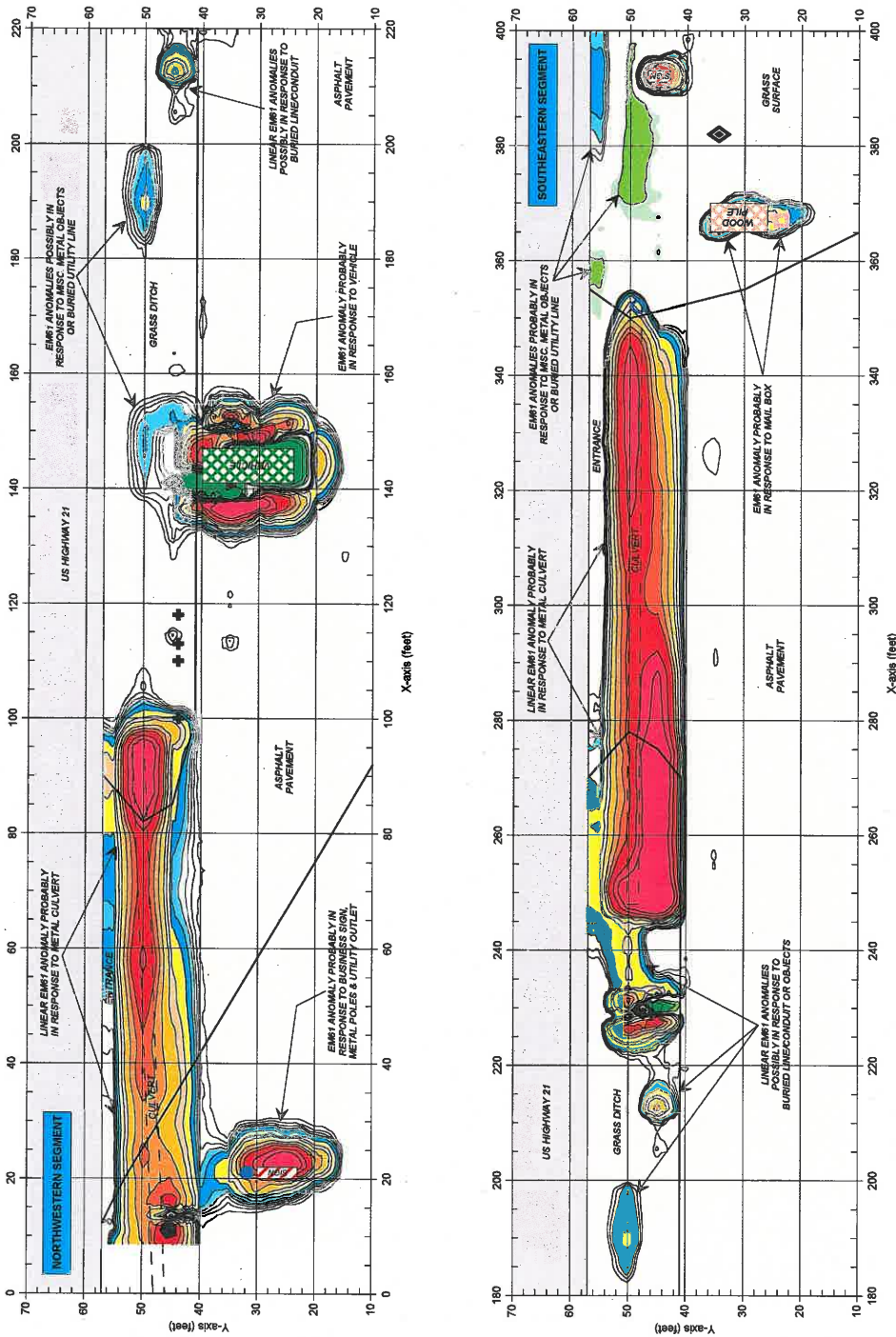
Due to the length of the geophysical survey area at Parcel 150, the survey area has been divided into a northwestern section and a southeastern section in Figures 3 and 4. The rectangles in the aerial photograph represent the division of the survey area. The contour plots (lower) show how the geophysical results are presented in Figures 3 and 4.



CLIENT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	DATE	12/13/11	BY	MJD
SITE	JR & MERELE WATSON PROPERTY (PARCEL 150)	LAST		REVISED	
CITY	GLADE VALLEY	STATE	NORTH CAROLINA	PROJECT	
TITLE	GEOPHYSICAL RESULTS		NO.	2011-267	

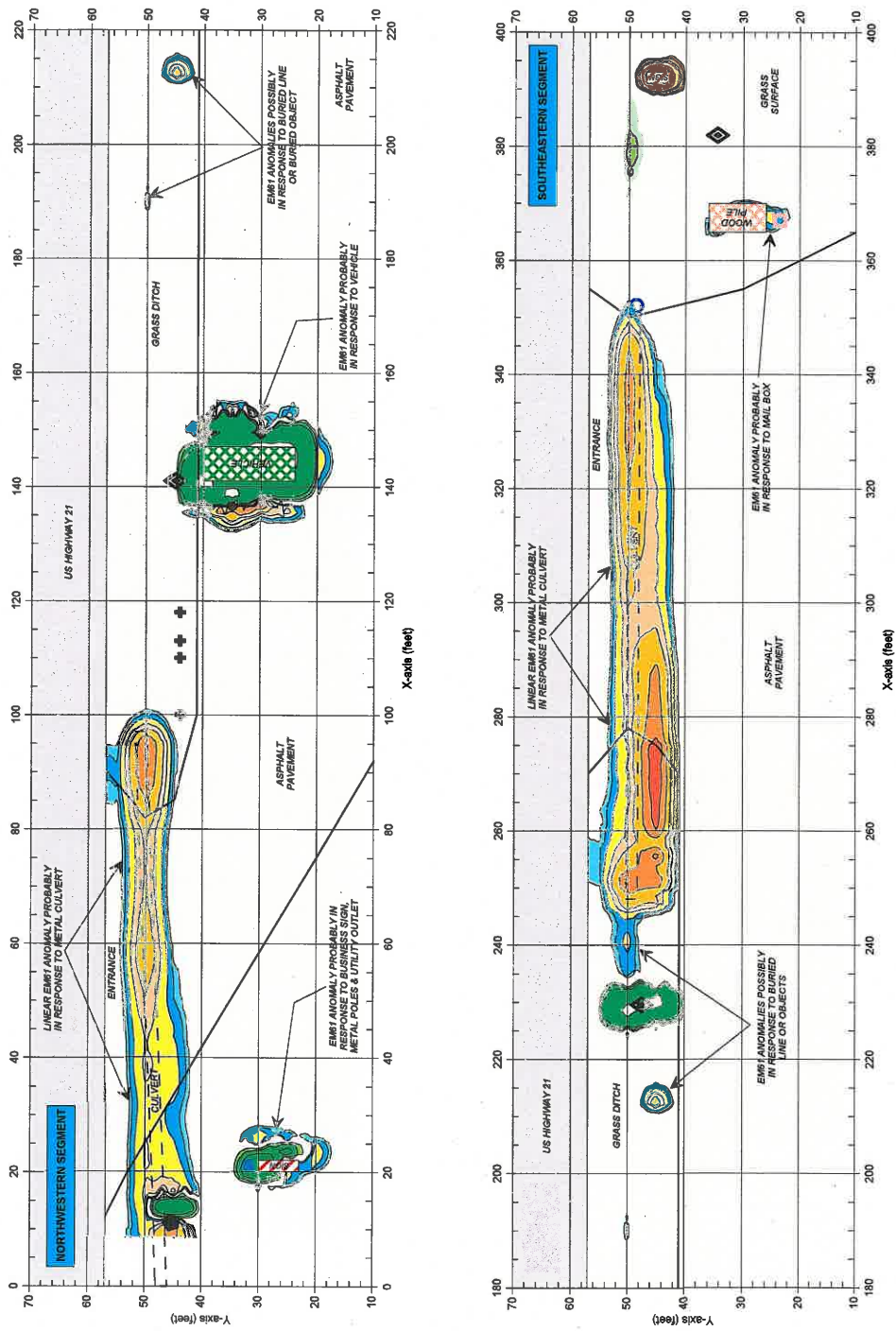
DIVISION OF GEOPHYSICAL SURVEY AREA

FIGURE 2



The contour plot shows the bottom coil (most sensitive) response of the EM61 instrument in millivolts (mV). The bottom coil response shows buried metallic objects regardless of size. The EM metal detection data were collected on November 10, 2011 using a Geonics EM61 instrument.

Due to an absence of unexplained EM61 differential anomalies, ground penetrating radar (GPR) scans were not performed at this site. The geophysical investigation suggests the proposed Right-of-Way area does not contain metallic USTs.



The contour plot shows the bottom coil (most sensitive) response of the EM61 instrument in millivolts (mV). The bottom coil response shows buried metallic objects regardless of size. The EM metal detection data were collected on November 10, 2011 using a Geonics EM61 instrument.

Due to an absence of unexplained EM61 differential anomalies, ground penetrating radar (GPR) was performed at this site. The geophysical investigation suggests the proposed Right-of-Way area does not contain metallic USTs.

LEGEND

- SURVEY AREA: EM61 OR GPR DATA LINES SPACED 5 FEET APART
- MAIL BOX
- ◆ UTILITY POLE
- ◆ GUT WIRE
- WOOD PILE
- VEHICLE
- BUSINESS SIGN
- ELECTRICAL OUTLET
- METAL POLE
- ROAD SIGN
- UTILITY LINE CABLE BOX

APPENDIX C

Client NCDOT
 Project Name Sparta PSAs
 Number 123173 Task 1
 Location Parcel 150

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

LOG OF BORING SB-1/150
 SHEET 1 OF 1

Elevation --
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
1.5				GP	GRAVEL - 2 inches	GRAVEL - 2 inches	
10.8	SS			SM	Silty SAND, Red to Orange-Yellow, Fine to Medium Sand, Non Plastic, Medium Dense, Slightly Moist	Silty SAND, Red to Orange-Yellow, Fine to Medium Sand, Non Plastic, Medium Dense, Slightly Moist	
5.3				GP	GRAVEL, White-Orange, Fine Angular, Non Plastic, Some Sand	GRAVEL, White-Orange, Fine Angular, Non Plastic, Some Sand	5
0.0					Extremely Weak and Weathered Rock, Orange, Silt and Sand	Extremely Weak and Weathered Rock, Orange, Silt and Sand	
10					Boring Terminated at 10 feet in RESIDUAL		10

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 2.5-5.0 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 150

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

LOG OF BORING SB-2/150
 SHEET 1 OF 1

Elevation -
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
0.0						Asphalt - 1 inch	0.0
0.0				SM		Silty SAND, Red to Tan-Gray to Orange, Dense, Non Plastic, Fine to Medium Sand, Slightly Moist with Subangular Gravel	0.0
5.0				SP		SAND, Gray, Fine to Medium Sand, Moist	5.0
7.5				GP		GRAVEL, Gray-White, Fine to Coarse Subangular	7.5
10.0	SS			SM		Silty SAND, Orange, Wet, Non Plastic, Fine Sand, Medium Dense	10.0
Boring Terminated at 10 feet in RESIDUAL							10.0
15.0							15.0
20.0							20.0
25.0							25.0
30.0							30.0

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 150

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

LOG OF BORING SB-3/150

SHEET 1 OF 1

Elevation
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
			0.0	SM	Asphalt - 1 inch		
			0.0	ML	Silty SAND, Orange, Dense, Non to Low Plasticity, Slightly Moist, Fine Sand		
5			0.0	SP	Sandy SILT, Gray, Fine Sand, Non to Low Plasticity, Medium Dense		5
			0.0		SAND with Silt, Orange-Tan, Fine to Medium Sand, Moist		
			0.0		Extremely Weak and Weathered Rock, Gray, Broken Down to Sand Silt and Gravel		
10	SS						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 150

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

LOG OF BORING SB-4/150
 SHEET 1 OF 1

Elevation -
 Total Depth 10.0

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
			0.0	SP		SAND with Silt, Gray, Moist, Fine Sand, Medium Dense	
			0.0	GP		GRAVEL, White, Pulverized	
5						Extremely Weak and Weathered Rock, Non Plastic, Striations	5
			0.0	SP		SAND, Gray to Red, Fine to Medium Sand, Wet	
10	SS		0.0				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
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 Telephone: 336-668-0093
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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

January 03, 2012

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

RE: Project: Parcel 150 WSB 37044.1.1
Pace Project No.: 92109107

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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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 150 WSB 37044.1.1
Pace Project No.: 92109107

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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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 150 WSB 37044.1.1
Pace Project No.: 92109107

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92109107001	SB-1 (150)	Solid	12/20/11 15:15	12/22/11 16:35
92109107002	SB-2 (150)	Solid	12/20/11 15:20	12/22/11 16:35
92109107003	SB-3 (150)	Solid	12/20/11 15:25	12/22/11 16:35
92109107004	SB-4 (150)	Solid	12/20/11 15:30	12/22/11 16:35

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 Kinsey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Parcel 150 WSB 37044.1.1
Pace Project No.: 92109107

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92109107001	SB-1 (150)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92109107002	SB-2 (150)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92109107003	SB-3 (150)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92109107004	SB-4 (150)	EPA 8015 Modified	RES	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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 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 150 WSB 37044.1.1
 Pace Project No.: 92109107

Sample: SB-1 (150) Lab ID: 92109107001 Collected: 12/20/11 15:15 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	5.7	5.1	1	12/27/11 10:09	12/28/11 22:28	68334-30-5	
Surrogates									
n-Pentacosane (S)	78 %		41-119		1	12/27/11 10:09	12/28/11 22:28	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified		Preparation Method: EPA 5035A/5030B					
Gasoline Range Organics	ND	mg/kg	5.3	5.3	1	12/29/11 12:11	12/30/11 18:05	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	89 %		70-167		1	12/29/11 12:11	12/30/11 18:05	460-00-4	
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	12.4 %		0.10	0.10	1		12/23/11 14:34		



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 205 East Meadow Road - Suite A
 Eden, NC 27288
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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

ANALYTICAL RESULTS

Project: Parcel 150 WSB 37044.1.1
 Pace Project No.: 92109107

Sample: SB-2 (150) Lab ID: 92109107002 Collected: 12/20/11 15:20 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	6.6	6.0	1	12/27/11 10:09	12/28/11 22:58	68334-30-5	
Surrogates									
n-Pentacosane (S)	78	%	41-119		1	12/27/11 10:09	12/28/11 22:58	629-99-2	
Gasoline Range Organics									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B									
Gasoline Range Organics	ND	mg/kg	6.4	6.4	1	12/29/11 12:11	12/30/11 18:29	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-167		1	12/29/11 12:11	12/30/11 18:29	460-00-4	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	25.3	%	0.10	0.10	1		12/23/11 14:35		



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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 150 WSB 37044.1.1
 Pace Project No.: 92109107

Sample: SB-3 (150) Lab ID: 92109107003 Collected: 12/20/11 15:25 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	6.0	5.4	1	12/27/11 10:09	12/28/11 22:58	68334-30-5	
Surrogates									
n-Pentacosane (S)	74 %		41-119		1	12/27/11 10:09	12/28/11 22:58	629-99-2	
Gasoline Range Organics									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B									
Gasoline Range Organics	ND	mg/kg	6.2	6.2	1	12/29/11 12:11	12/30/11 18:54	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	98 %		70-167		1	12/29/11 12:11	12/30/11 18:54	460-00-4	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	16.2 %		0.10	0.10	1		12/23/11 14:35		



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ANALYTICAL RESULTS

Project: Parcel 150 WSB 37044.1.1
 Pace Project No.: 92109107

Sample: SB-4 (150) Lab ID: 92109107004 Collected: 12/20/11 15:30 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	6.4	5.8	1	12/27/11 10:09	12/28/11 23:28	68334-30-5	
Surrogates									
n-Pentacosane (S)	69	%	41-119		1	12/27/11 10:09	12/28/11 23:28	629-99-2	
Gasoline Range Organics									
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B									
Gasoline Range Organics	ND	mg/kg	6.0	6.0	1	12/29/11 12:11	12/30/11 19:42	8006-61-9	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-167		1	12/29/11 12:11	12/30/11 19:42	460-00-4	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	22.1	%	0.10	0.10	1		12/27/11 08:14		



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Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: Parcel 150 WSB 37044.1.1
 Pace Project No.: 92109107

QC Batch: GCV/5645 Analysis Method: EPA 8015 Modified
 QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
 Associated Lab Samples: 92109107001, 92109107002, 92109107003, 92109107004

METHOD BLANK: 704846 Matrix: Solid
 Associated Lab Samples: 92109107001, 92109107002, 92109107003, 92109107004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.9	12/30/11 12:01	
4-Bromofluorobenzene (S)	%	91	70-167	12/30/11 12:01	

LABORATORY CONTROL SAMPLE: 704847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	24.5	24.3	99	70-165	
4-Bromofluorobenzene (S)	%			89	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704848 704849

Parameter	Units	92108995001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Gasoline Range Organics	mg/kg	ND	27.4	27.4	29.2	29.3	103	103	47-187	0	30	
4-Bromofluorobenzene (S)	%						93	88	70-167			



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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 150 WSB 37044.1.1
 Pace Project No.: 92109107

QC Batch: OEXT/16011 Analysis Method: EPA 8015 Modified
 QC Batch Method: EPA 3546 Analysis Description: 8015 Solid GCSV
 Associated Lab Samples: 92109107001, 92109107002, 92109107003, 92109107004

METHOD BLANK: 704485 Matrix: Solid
 Associated Lab Samples: 92109107001, 92109107002, 92109107003, 92109107004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	12/28/11 17:28	
n-Pentacosane (S)	%	79	41-119	12/28/11 17:28	

LABORATORY CONTROL SAMPLE: 704486

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Components	mg/kg	66.7	54.2	81	49-113	
n-Pentacosane (S)	%			82	41-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704487 704488

Parameter	Units	92109101003		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
Diesel Components	mg/kg	12.0	86	85.6	68.3	74.3	66	73	10-146	8	30	
n-Pentacosane (S)	%						80	83	41-119			



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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

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

QUALITY CONTROL DATA

Project: Parcel 150 WSB 37044.1.1
 Pace Project No.: 92109107

QC Batch: PMST/4411 Analysis Method: ASTM D2974-87
 QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
 Associated Lab Samples: 92109107001, 92109107002, 92109107003

SAMPLE DUPLICATE: 703868

Parameter	Units	92109101002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.1	11.9	17	25	

SAMPLE DUPLICATE: 703869

Parameter	Units	92109110004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.4	12.0	3	25	



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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

QUALITY CONTROL DATA

Project: Parcel 150 WSB 37044.1.1
Pace Project No.: 92109107

QC Batch: PMST/4413 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92109107004

SAMPLE DUPLICATE: 704316

Parameter	Units	92109108001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.2	19.3	0	25	

SAMPLE DUPLICATE: 704317

Parameter	Units	92109145004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.0	17.0	12	25	



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(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

QUALIFIERS

Project: Parcel 150 WSB 37044.1.1
Pace Project No.: 92109107

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



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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Parcel 150 WSB 37044.1.1
 Pace Project No.: 92109107

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92109107001	SB-1 (150)	EPA 3546	OEXT/16011	EPA 8015 Modified	GCSV/11124
92109107002	SB-2 (150)	EPA 3546	OEXT/16011	EPA 8015 Modified	GCSV/11124
92109107003	SB-3 (150)	EPA 3546	OEXT/16011	EPA 8015 Modified	GCSV/11124
92109107004	SB-4 (150)	EPA 3546	OEXT/16011	EPA 8015 Modified	GCSV/11124
92109107001	SB-1 (150)	EPA 5035A/5030B	GCV/5645	EPA 8015 Modified	GCV/5650
92109107002	SB-2 (150)	EPA 5035A/5030B	GCV/5645	EPA 8015 Modified	GCV/5650
92109107003	SB-3 (150)	EPA 5035A/5030B	GCV/5645	EPA 8015 Modified	GCV/5650
92109107004	SB-4 (150)	EPA 5035A/5030B	GCV/5645	EPA 8015 Modified	GCV/5650
92109107001	SB-1 (150)	ASTM D2974-87	PMST/4411		
92109107002	SB-2 (150)	ASTM D2974-87	PMST/4411		
92109107003	SB-3 (150)	ASTM D2974-87	PMST/4411		
92109107004	SB-4 (150)	ASTM D2974-87	PMST/4413		



Document Name:
Sample Condition Upon Receipt (SCUR)
 Document Number:
F-CHR-CS-03-rev.05

Document Revised: July 29, 2011
 Page 1 of 2
 Issuing Authority:
 Pace Huntersville Quality Office

Client Name: Kleinfelder Project # 92109107

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

Optional
 Prof. Due Date
 Prof. Name

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.: 4.5 °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 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 type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input 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:		
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: [Signature] 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)



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: Company: <u>Kleinfelder</u> Address: <u>Charlotte, NC</u> Email To: <u>reguinn@kleinfelder.com</u> Phone: _____ Requested Due Date/TAT: <u>STD</u>		Section B Required Project Information: Report To: <u>Travis O'Quinn</u> Copy To: <u>Craig Neil</u> Purchase Order No.: _____ Project Name: <u>NCDOT Parcel 150</u> Project Number: <u>123173</u>		Section C Invoice Information: Attention: _____ Company Name: <u>NC DOT</u> Address: <u>WSB 37044.1.1</u> Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: _____		Page: <u>1</u> of <u>1</u> 148129 REGULATORY AGENCY <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER _____ Site Location: _____ STATE: <u>NC</u>	
Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		Matrix Codes MATRIX / CODE DW Drinking Water WT Waste Water WW Waste Water Product P Soil/Solid SL Oil WP Wipe AR Air TS Tissue OT Other		MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP) COLLECTED COMPOSITE START DATE TIME COMPOSITE END/GRAB DATE TIME SAMPLE TEMP AT COLLECTION		Requested Analysis Filtered (Y/N) Y/N Analysis Test ↓ Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	
# ITEM # 1 <u>SB-1 (150)</u> 2 <u>SB-2 (150)</u> 3 <u>SB-3 (150)</u> 4 <u>SB-4 (150)</u> 5 6 7 8 9 10 11 12		DATE TIME <u>12/20/11 1515</u> <u>1520</u> <u>1525</u> <u>1530</u>		DATE TIME <u>12/20/11 1515</u> <u>1520</u> <u>1525</u> <u>1530</u>		Residual Chlorine (Y/N) <u>92109107</u> Pace Project No./ Lab I.D. <u>001</u> <u>002</u> <u>003</u> <u>004</u>	
ADDITIONAL COMMENTS <u>SB-1 (150)</u> <u>SB-2 (150)</u> <u>SB-3 (150)</u> <u>SB-4 (150)</u>		RELINQUISHED BY / AFFILIATION <u>Travis O'Quinn / Kleinfelder</u> <u>12/20/11 16:35</u> <u>Travis O'Quinn - MPA</u>		ACCEPTED BY / AFFILIATION <u>Justin MPA</u> <u>12/20/11 16:35</u> <u>Justin MPA</u>		SAMPLE CONDITIONS Received on _____ Ice (Y/N) _____ Custody _____ Sealed Cooler (Y/N) _____ Samples Intact (Y/N) _____	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <u>Travis O'Quinn</u> SIGNATURE of SAMPLER: <u>[Signature]</u>		DATE Signed (MM/DD/YYYY): <u>12/20/11</u>		Temp in °C _____		Temp in °C _____	

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.