

Preliminary Site Assessment
Colvard Oil Property Parcel #42
Ray Khan Property Parcel #40
Boone, Watauga County, NC

H&H Job No. ROW-148
State Project U-4020
WBS Element # 35015.1.1
May 29, 2008



2923 South Tryon Street
Suite 100
Charlotte, NC 28203
704-586-0007

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Raleigh, NC 27607
919-847-4241

**Preliminary Site Assessment
Colvard Oil Property Parcel #42
Ray Khan Property Parcel #40
Boone, Watauga County, North Carolina
H&H Project ROW-148**

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**Preliminary Site Assessment
Colvard Oil Property Parcel #42
Ray Khan Property Parcel #40
Boone, Watauga County, North Carolina
H&H Project ROW-148**

1.0 Introduction

Hart & Hickman, PC (H&H) has prepared this Preliminary Site Assessment (PSA) report documenting assessment activities performed at the Colvard Oil property (NC DOT Parcel #42) located in the southeast corner of the King Street (aka US Highway 421) and Wood Circle intersection in Boone, Watauga County, North Carolina. The address for Colvard Oil is 500 East King Street. Colvard Oil is situated on Parcel #42 but impacts extent to the west onto Parcel #40, which is owned by Mr. Ray Khan. This assessment was conducted on behalf of the North Carolina Department of Transportation (NC DOT) in accordance with H&H's February 29, 2008 proposal.

The purpose of this assessment was to determine the presence or absence of impacted soil at the subject property related to the widening of US Highway 421 (State Project U-4020). Because this is expected to be a total take by NC DOT, the entire parcel was investigated. A site location map is included as Figure 1 and a site map is presented as Figure 2. The NC DOT preliminary plan of the US Highway 421 widening area near the Colvard Oil property is included in Appendix A.

Based on information provided by NC DOT, the Colvard Oil property (NC DOT Parcel #42) has in the past and currently operates as a petroleum bulk storage facility. Three large fuel above-ground storage tanks (ASTs) are located on the property. According to an Environmental Data Resources (EDR) report for the site vicinity, the property does not appear on the North Carolina Underground Storage Tank (UST) database. However, Colvard Oil employees also stated that USTs were removed from the property in the past.

2.0 Site Assessment

Soil Assessment Field Activities

H&H mobilized to the Colvard Oil property (NC DOT Parcel #42) on April 2, 9 and 10, 2008 to advance thirty-one soil borings (42-1 through 42-31) by direct push technology (DPT). Prior to advancing the soil borings, H&H reviewed a Geophysical Investigation Report (GIR) and UST Delineation report prepared by Schnabel Engineering (Schnabel) dated April 28, 2008. Schnabel utilized ground penetrating radar (GPR) and time domain electromagnetic (TDEM) technology to identify geophysical anomalies and potential USTs at the site. The Schnabel report indicates a potential UST on the property. Follow-up with GPR also indicated the presence of a possible UST centered just east of a small shed in the northwest portion of the property. The size of the potential UST is reported to be 270 gallons. The Schnabel report is included in Appendix B.

Schnabel did not survey within the AST farm secondary containment area. H&H identified another potential UST in the western portion of the AST farm secondary containment area.

Prior to conducting soil borings, utilities were marked via NC One Call and by DOT's contractor, Vaughn and Melton. Borings were also cleared to a five foot depth by hand auger. H&H utilized Geologic Exploration of Statesville, North Carolina to advance soil borings by DPT (see Figure 2). To facilitate the selection of soil samples for laboratory analysis from these borings, soil was field screened continuously for the presence of volatile organic compounds (VOCs) with an organic vapor analyzer (OVA). Additionally, H&H observed the soil for visual and olfactory indications of petroleum impacts. In general, soil samples that exhibited the highest reading on the OVA were selected for laboratory analysis. Soil boring logs are included in Appendix C.

H&H submitted 34 samples from 31 soil borings for laboratory analysis (Table 1). Soil samples are identified by the NC DOT parcel number, soil boring number, and the depth in feet of sample collection. Due to the potential for USTs and possible petroleum releases, all samples were sent to Prism Laboratories Inc., of Charlotte, North Carolina, for analysis of total petroleum hydrocarbons (TPH) by EPA Method 8015B for gasoline-range organics (GRO) and diesel-range organics (DRO). Sample 42-12 @ 10-12 ft was submitted for laboratory analysis of VOCs and TPH Oil and

Grease (O&G) by EPA Methods 8260B and 9071 respectively, due to the boring's proximity to drums stored next to the building. Table 1 summarizes sample depths and analytical results. Laboratory analytical data sheets and chain-of-custody documentation for this site are provided in Appendix D. The chain-of-custody form includes samples from other nearby properties associated with this project. The analytical results are discussed below.

3.0 Analytical Results

Target compounds were detected in all site soil borings except for six locations or depths. TPH GRO and/or TPH DRO were detected in all samples except the following: 42-7 @ 10-12 ft; 42-15 @ 10-12 ft; 42-23 @ 2-5 ft; 42-25 @ 5-7 ft; 42-26 @ 5-7 ft; and 42-28 @ 25-5 ft. Impacts were detected near the two potential USTs, in the AST farm, near the kerosene dispensers, near the fuel loading rack, and elsewhere on Parcel #40 and #42. VOCs and O&G were not detected above NC DENR target levels in sample 42-12 @ 10-12 ft.

Based on laboratory analytical results and OVA readings, widespread TPH concentrations are situated on most of Parcel 42 and extending to the west onto Parcel 40. H&H estimates that there are a total of 8,000 cubic yards (11,200 tons) of impacted soil above 12 ft on Parcel #40 and #42. The deepest soil samples were collected at 12 ft and impacted soil likely extends even deeper. DOT plans indicate a proposed fill of approximately 7 ft in this area. Because this is a fill area, most of the impacted soil will not likely be disturbed, except during UST and below grade fuel piping removal work. Of the above impacted soil amount, H&H estimates that 350 cubic yards (490 tons) of impacted soil will be removed during installation of a catch basin in the northwest corner of the property, removal of the two USTs, below grade fuel piping, and other below grade structures on the site. Additional impacted soil will be generated by any soil grading work below the existing grade and during any future utility line installations deeper than the proposed fill depth. Impacted soil that is removed should be properly managed and disposed at a permitted facility.

Two USTs appear to be present on the property. In addition, an AST farm with associated piping, a loading rack, and a spill collection sump are located on this property. Soil impacts were detected

near the potential USTs and at the AST farm. The USTs, fuel piping, AST farm, and their contents should be removed and disposed in accordance with NCDENR regulations.

4.0 Summary and Regulatory Considerations

H&H has reviewed geophysical survey results and collected soil samples at Parcel #40 and #42. These properties are proposed total takes. Two USTs appear to be present on Parcel #42. Analytical results and OVA readings indicate widespread concentrations of TPH GRO and TPH DRO above NC DENR Action Levels. H&H estimates that there are a total of 8,000 cubic yards (11,200 tons) of impacted soil above 12 ft on Parcel #40 and #42. Soil impacts likely extend deeper than 12 ft. The impacted soil is situated on most of Parcel #42, extending to the west onto Parcel #40. DOT plans indicate a proposed fill of approximately 7 ft in this area. Because this is a fill area, most of the impacted soil will not likely be disturbed by the road work. Of the above impacted soil amount, H&H estimates that 350 cubic yards (490 tons) of impacted soil will be removed during installation of a catch basin in the northwest portion of the property, removal of the two USTs, below grade fuel piping, and other below grade structures on the site. Additional impacted soil will be generated by any soil grading work below the existing grade and during any future utility line installations deeper than the proposed fill depth. Impacted soil that is removed should be properly managed and disposed at a permitted facility. The USTs, fuel piping, AST farm components, and their contents should be removed and disposed in accordance with NCDENR regulations.

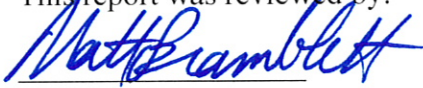
5.0 Signature Page

This report was prepared by:

A handwritten signature in blue ink that reads "Mike Falknor" with a stylized flourish at the end.

Mike Falknor
Staff Scientist for
Hart and Hickman, PC

This report was reviewed by:

A handwritten signature in blue ink that reads "Matt Bramblett" with a stylized flourish at the end.

Matt Bramblett, PE
Principal and Project Manager for
Hart and Hickman, PC

Table 1 (Page 1 of 3)
 Soil Analytical Results
 Colvard Oil, Parcel #42
 Boone, North Carolina
 H&H Job No. ROW-148

Sample ID Sample Depth (ft) Sample Date Units	42-1	42-2	42-3	42-4	42-4	42-5	42-6	42-7	42-7	42-8	42-9	42-10	NC DENR Soil-to-Groundwater MSCCs (mg/kg)
	10-12 4/1/2008 (mg/kg)	8-10 4/1/2008 (mg/kg)	2-4 4/1/2008 (mg/kg)	4-6 4/2/2008 (mg/kg)	10-12 4/2/2008 (mg/kg)	6-8 4/2/2008 (mg/kg)	2-4 4/2/2008 (mg/kg)	6-8 4/2/2008 (mg/kg)	10-12 4/2/2008 (mg/kg)	6-8 4/2/2008 (mg/kg)	8-10 4/2/2008 (mg/kg)	10-12 4/2/2008 (mg/kg)	
<u>VOCs (5035/8260B)</u>													
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.6
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7
m,p-Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5
n-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3
n-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.58
p-Isopropylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NE
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.4
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.5
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.3
													NC DENR Action Level (mg/kg)
<u>TPH O&G(9071)</u> Oil and Grease	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250
<u>TPH-DRO/GRO (8015B)</u> Diesel-Range Organics (DRO) Gasoline-Range Organics (GRO)	2,500 41	53 60	23 <6.2	4,400 120	13 <6.2	11 <6.9	1,400 1,400	500 22	<7.7 <5.6	19 <6.4	7,400 88	3,300 1,900	10 10

Notes:
 EPA Method follows parameter in parenthesis
 NA= Not analyzed; BRL=Below Reporting Limit; NE = Not Established
Bold values exceed NCDENR MSCC's or Action Levels
 MSCCs = Maximum Soil Contaminant Concentrations
 as listed in the UST Section Guidelines for
 Assessment and Corrective Action, 2007

Table 1 (Page 2 of 3)
 Soil Analytical Results
 Colvard Oil, Parcel #42
 Boone, North Carolina
 H&H Job No. ROW-148

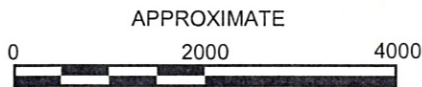
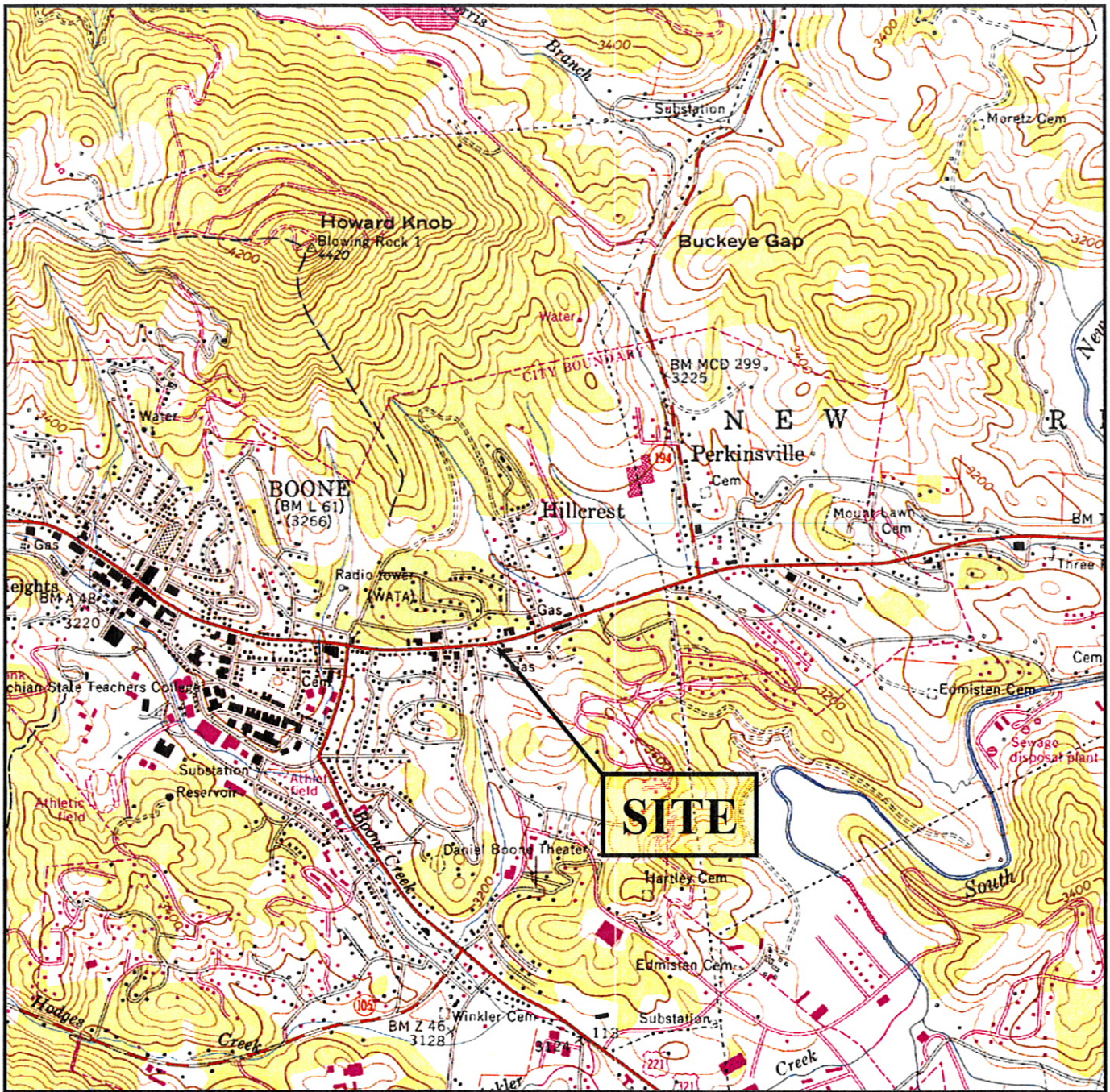
Sample ID	42-11	42-12	42-13	42-14	42-15	42-15	42-16	42-17	42-18	42-19	42-20	NC DENR
Sample Depth (ft)	8-10	10-12	8-10	2-4	6-8	10-12	2-5	2-5	7-10	0-2	6-7	Soil-to-Groundwater
Sample Date	4/2/2008	4/2/2008	4/2/2008	4/2/2008	4/2/2008	4/2/2008	4/2/2008	4/9/2008	4/9/2008	4/9/2008	4/9/2008	MSCCs
Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<u>VOCs (5035/8260B)</u>												
Ethylbenzene	NA	0.027	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.6
Isopropylbenzene	NA	0.014	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7
m,p-Xylenes	NA	0.038	NA	NA	NA	NA	NA	NA	NA	NA	NA	5
n-Butylbenzene	NA	0.037	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3
n-Propylbenzene	NA	0.031	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7
Naphthalene	NA	0.060	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.58
p-Isopropylene	NA	0.033	NA	NA	NA	NA	NA	NA	NA	NA	NA	NE
sec-Butylbenzene	NA	0.033	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3
tert-Butylbenzene	NA	0.0075	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.4
1,2,4-Trimethylbenzene	NA	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.5
1,3,5-Trimethylbenzene	NA	0.073	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.3
												NC DENR
												Action Level (mg/kg)
<u>TPH O&G(9071)</u>												
Oil and Grease	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	250
<u>TPH-DRO/GRO (8015B)</u>												
Diesel-Range Organics (DRO)	12,000	550	8,300	4,700	62	<7.8	1,300	11,000	16,000	120	5,800	10
Gasoline-Range Organics (GRO)	2,200	20	350	1,800	41	<5.6	65	180	940	10	1,000	10

Notes:
 EPA Method follows parameter in parenthesis
 NA= Not analyzed; BRL=Below Reporting Limit; NE = Not Est
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 Assessment and Corrective Action, 2007

Table 1 (Page 3 of 3)
 Soil Analytical Results
 Colvard Oil, Parcel #42
 Boone, North Carolina
 H&H Job No. ROW-148

Sample ID Sample Depth (ft) Sample Date Units	42-21	42-22	42-23	42-24	42-25	42-26	42-27	42-28	42-29	42-30	42-31	NC DENR Soil-to-Groundwater MSCCs (mg/kg)
	2-4 4/9/2008 (mg/kg)	10-12 4/9/2008 (mg/kg)	2-5 4/9/2008 (mg/kg)	2-5 4/9/2008 (mg/kg)	5-7 4/9/2008 (mg/kg)	5-7 4/9/2008 (mg/kg)	5-7 4/9/2008 (mg/kg)	2-5 4/10/2008 (mg/kg)	7-9 4/10/2008 (mg/kg)	7-9 4/10/2008 (mg/kg)	7-9 4/10/2008 (mg/kg)	
<u>VOCs (5035/8260B)</u>												
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.6
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7
m,p-Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5
n-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3
n-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.58
p-Isopropylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NE
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.4
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.5
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.3
												NC DENR Action Level (mg/kg)
<u>TPH O&G(9071)</u> Oil and Grease	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250
<u>TPH-DRO/GRO (8015B)</u>												
Diesel-Range Organics (DRO)	13,000	8,200	<8.9	22	<8.5	<9.1	180	<8.7	220	28	23	10
Gasoline-Range Organics (GRO)	810	1,600	<6.4	<6.3	<6.1	<6.5	<6.3	<6.2	15	<6.7	<5.7	10

Notes:
 EPA Method follows parameter in parenthesis
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Bold values exceed NCDENR MSCC's or Action Levels
 MSCCs = Maximum Soil Contaminant Concentrations
 as listed in the UST Section Guidelines for
 Assessment and Corrective Action, 2007




SCALE IN FEET

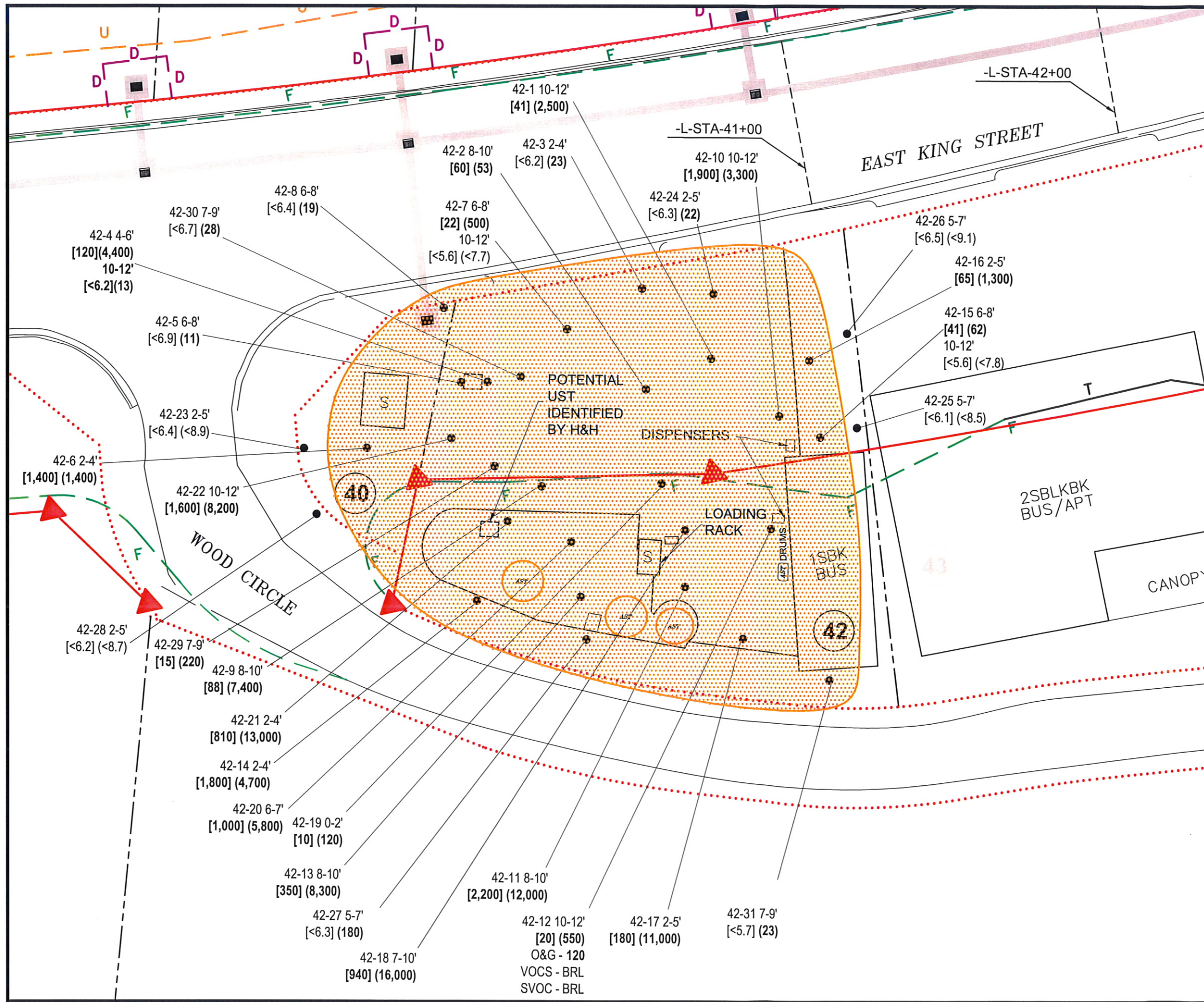
U.S.G.S. QUADRANGLE MAP

**BOONE, NC 1959
PHOTOREVISED 1978**

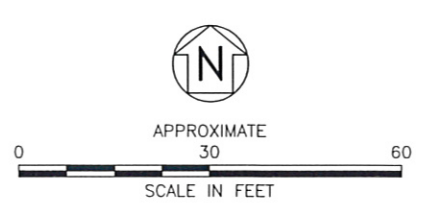
QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)


TITLE	SITE LOCATION MAP	
PROJECT	COLVARD OIL PROPERTY PARCEL #42 BOONE, NORTH CAROLINA	
	 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 A PROFESSIONAL CORPORATION 704-586-0007 (p) 704-586-0370 (f)	
DATE:	4-28-08	REVISION NO: 0
JOB NO:	ROW-148	FIGURE NO: 1

S:\AAA-Master Projects\NC DOT Right-of-Way - ROW\ROW-148 Boone PSAs\Files from DOT\Proj\FIGURES\37_38_41-43_45_47_48 A.dwg, 42, 5/28/2008 10:12:03 AM, 1:1



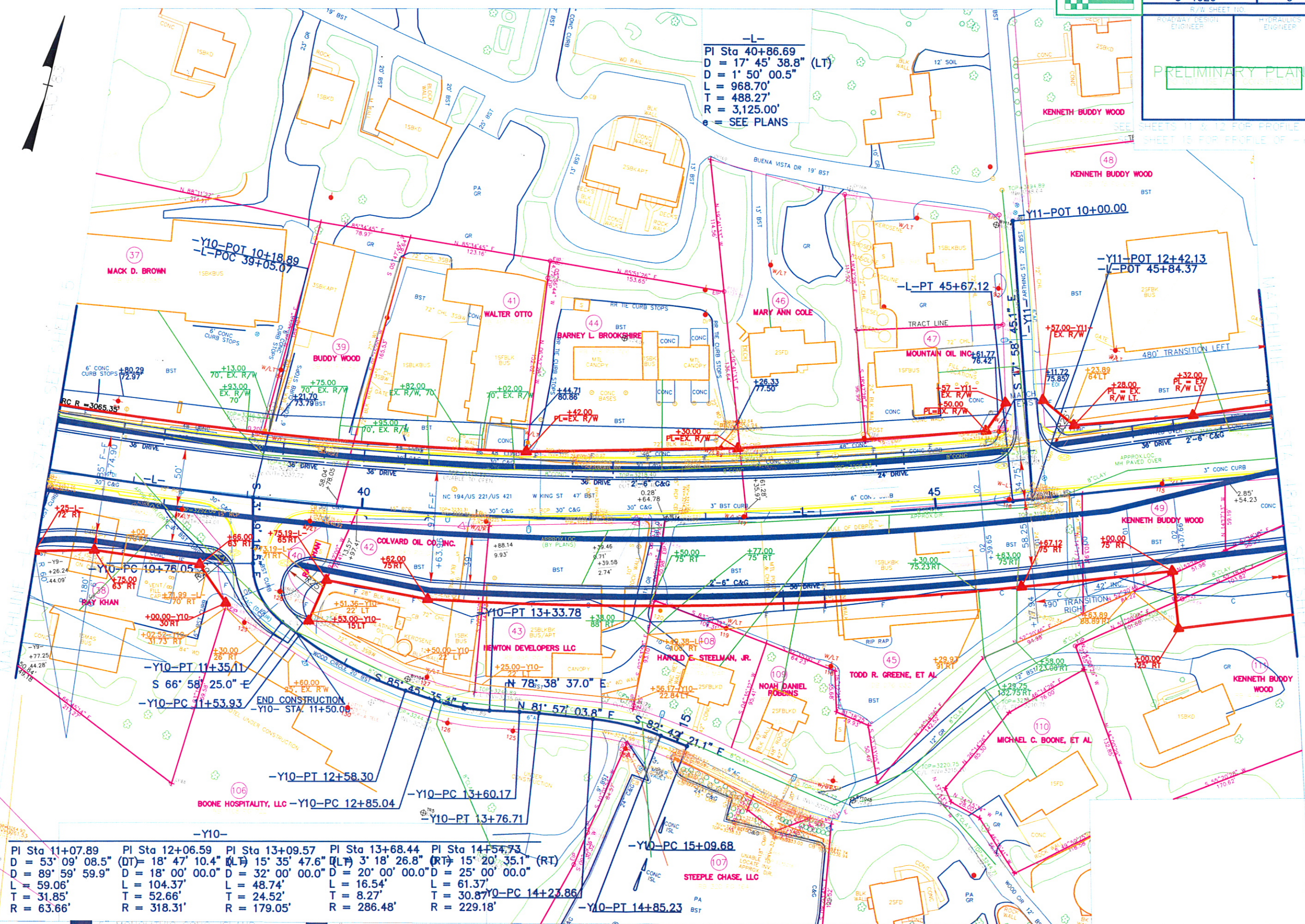
- LEGEND**
- PROPERTY LINE
 - ... EXISTING RIGHT-OF-WAY
 - ▲ PROPOSED RIGHT-OF-WAY
 - F- PROPOSED FILL LINE
 - T- PROPOSED TRANSITION LINE
 - D- PROPOSED DRAINAGE EASEMENT
 - U- PROPOSED UTILITY EASEMENT
 - ▨ IMPACTED SOIL AREA
 - PROPOSED DRAINAGE PIPE
 - PROPOSED CATCH BASIN
 - SOIL BORING
 - POSSIBLE UST IDENTIFIED BY SCHNABEL
 - 42 PARCEL NUMBER
 - AST ABOVE GROUND STORAGE TANK
 - [] = TPH GRO mg/kg
 - () = TPH DRO mg/kg
 - BOLD** DENOTES REGULATORY EXCEEDANCE
 - BRL** = BELOW REPORTING LIMIT



TITLE SITE MAP AND SOIL ANALYTICAL RESULTS	
PROJECT COLVARD OIL PROPERTY PARCEL #42 BOONE, NORTH CAROLINA	
 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f)	
DATE: 4-24-08	REVISION NO. 0
JOB NO: ROW-148	FIGURE: 2

Appendix A
NC DOT Preliminary Plan

-L-
 PI Sta 40+86.69
 D = 17' 45" 38.8" (LT)
 D = 1' 50' 00.5"
 L = 968.70'
 T = 488.27'
 R = 3,125.00'
 e = SEE PLANS



PI Sta 11+07.89 D = 53' 09" 08.5" D = 89' 59" 59.9" L = 59.06' T = 31.85' R = 63.66'	PI Sta 12+06.59 D = 18' 47" 10.4" D = 18' 00" 00.0" L = 104.37' T = 52.66' R = 318.31'	PI Sta 13+09.57 D = 32' 00" 00.0" D = 32' 00" 00.0" L = 48.74' T = 24.52' R = 179.05'	PI Sta 13+68.44 D = 15' 35" 47.6" D = 20' 00" 00.0" L = 16.54' T = 8.27' R = 286.48'	PI Sta 14+54.73 D = 3' 18" 26.8" D = 25' 00" 00.0" L = 61.37' T = 30.87' R = 229.18'
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Appendix B

Schnabel Engineering Site Plan

April 28, 2008

Mr. Matt Bramblett, PE
Hart & Hickman, PC
2923 South Tryon Street, Suite 100
Charlotte, NC 28203

RE: State Project: U-4020
WBS Element: 35015.1.1
County: Watauga
Description: US 421 (King Street) from US 321 (Hardin Street) to east
of NC 194 (Jefferson Road) in Boone

SUBJECT: Report on Geophysical Surveys of Parcel 42
Schnabel Engineering Project No. 07210023.07

Dear Mr. Bramblett:

This letter contains our report on the geophysical surveys we conducted on the subject property. We understand this letter report will be included as an appendix in your report to the NCDOT. The report includes one 8.5x11 color figure and two 11x17 color figures.

1.0 INTRODUCTION

Schnabel Engineering conducted geophysical surveys on March 10 and 18, 2008, in the accessible areas of Parcel 42 (Colvard Oil Bulk Storage Property) under our 2007 contract with the NCDOT. Parcel 42 is located at the southeast corner of the intersection of US 421 (King Street) and Wood Circle in Boone, NC. The work was conducted at the location indicated by the NCDOT to support their environmental assessment of the subject parcel. The purpose of the geophysical surveys was to locate possible metal underground storage tanks (UST's) and associated metal product lines in the accessible areas of the site.

2.0 FIELD METHODOLOGY

Locations of geophysical data points were obtained using a sub-meter Trimble Pro-XRS DGPS system. References to direction and location in this report are based on the US State Plane 1983 system, North Carolina 3200 zone, using the NAD 83 datum, with units in US survey feet. The locations of existing site features (building, curbs, signs, etc.) were recorded for later correlation with the geophysical data and for location references to the NCDOT drawings. The geophysical investigation consisted of an electromagnetic (EM) induction survey using a Geonics EM61-MK2 instrument, and a ground-penetrating radar (GPR) survey using a Geophysical Survey Systems SIR-3000 system equipped with a 400 MHz antenna.

The EM61 data were collected along parallel survey lines spaced about 2.5 feet apart. The EM61 and DGPS data were recorded digitally using a field computer and later transferred to a desktop computer for data processing. The GPR data were collected along survey lines spaced one to two feet apart in orthogonal directions over anomalous EM readings not attributed to cultural features and areas of reinforced concrete.

Preliminary results were sent to David Graham and Matt Bramblett of Hart & Hickman on March 24, 2008.

3.0 DISCUSSION OF RESULTS

A possible UST was located and marked on the ground at this site. Pictures of the location of this possible UST as marked in the field are shown in Figure 1.

The contoured EM61 data are shown on Figures 2 and 3. The EM61 early time gate results are plotted on Figure 2. The early time gate data provide the most sensitive detection of metal object targets, regardless of size. Figure 3 shows the difference between the response of the top and bottom coils of the EM61 instrument (differential response). The difference is taken to remove the effect of surface and very shallowly buried metallic objects. Typically, the differential response emphasizes anomalies from deeper and larger objects such as UST's.

The early time gate and differential results indicate several anomalies probably caused by buried utilities, reinforced concrete, or known site features. Areas containing anomalies not attributed to known cultural features in the EM61 data, and an area of reinforced concrete were investigated using GPR. The GPR data indicated the presence of a possible UST centered about 25 feet east of the small building. An example GPR image showing the reflection from the possible UST is shown on Figures 2 and 3. Figures 2 and 3 also include the location of the possible UST as marked in the field. The GPR data indicate that the possible UST is buried about 2.5 to 3.5 feet below the ground surface, and it is about 3 feet in diameter and about 5 feet long, equivalent to a capacity of about 270 gallons.

4.0 CONCLUSIONS

Our evaluation of the geophysical data collected on Parcel 42 of Project U-4020 in Boone, NC indicates the following:

- The geophysical data indicate the presence of one possible UST on Parcel 42. The possible UST is about 270-gallon capacity and is buried about 2.5 to 3.5 feet below ground surface.

5.0 LIMITATIONS

These services have been performed and this report prepared for Hart & Hickman and the North Carolina Department of Transportation in accordance with generally accepted guidelines for conducting geophysical surveys. It is generally recognized that the results of geophysical surveys are non-unique and may not represent actual subsurface conditions.

Thank you for the opportunity to serve you on this project. Please call if you need additional information or have any questions.

Sincerely,



Jeremy S. Strohmeyer, P.G.
Project Manager

JW/JS/NB

Attachment: Figures (3)

FILE: G:\2007 PROJECTS\07210023 (NCDOT 2007 GEOPHYSICAL SERVICES)\PHASE 07 (U-4020 - WATAUGA COUNTY)\REPORT\HART & HICKMAN\PARCEL 42\REPORT ON PARCEL 42.DOC



Parcel 42 – Colvard Oil Bulk Storage, looking west
UST: 3' x 5'



Parcel 42 – Colvard Oil Bulk Storage, looking south
UST: 3' x 5'

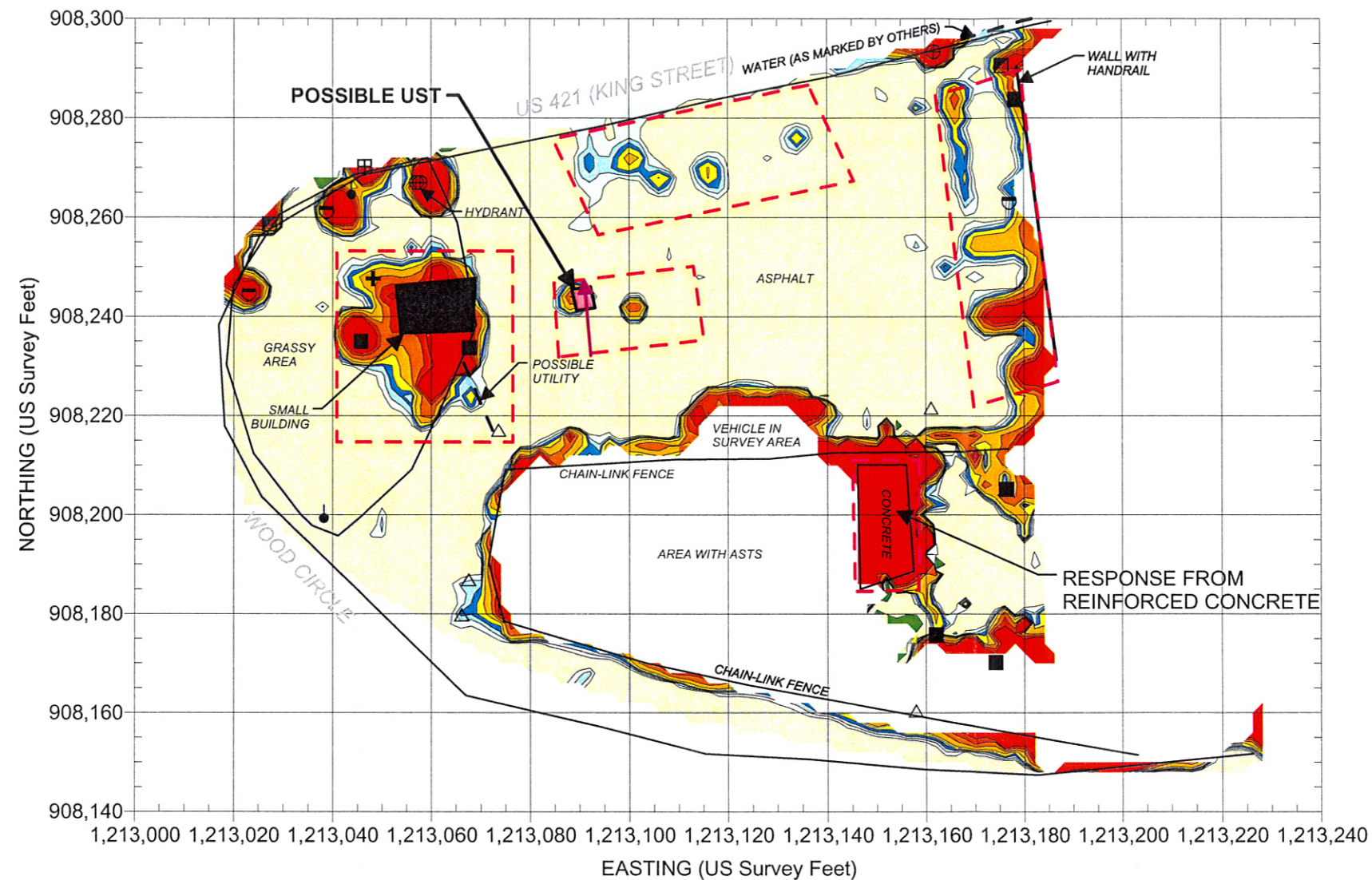


NC Department of Transportation
Geotechnical Engineering Unit

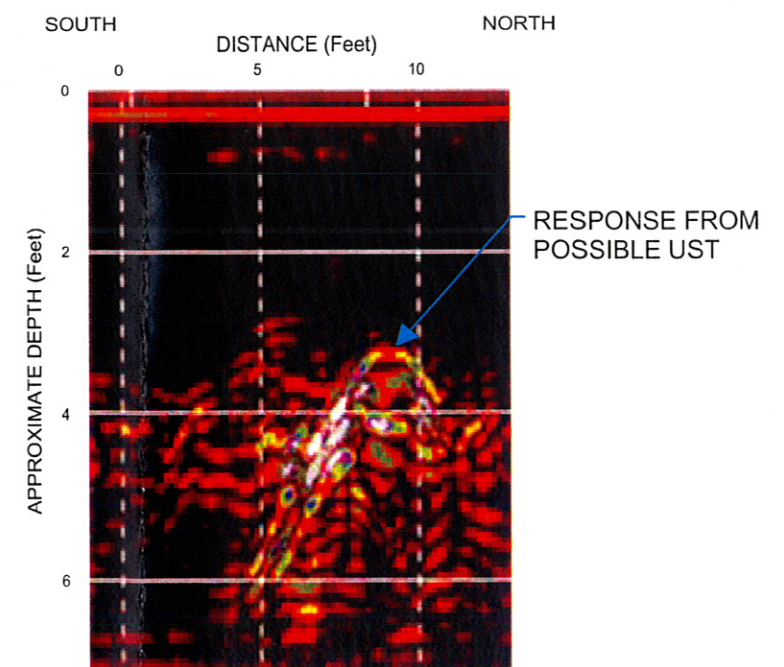
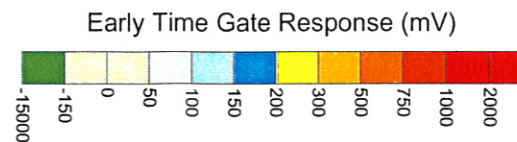
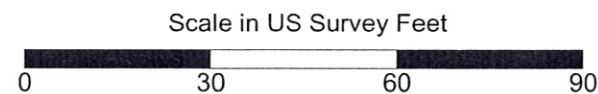
State Project No. U-4020
Watauga County, North Carolina

PARCEL 42
PHOTOS OF POSSIBLE
UST LOCATION

FIGURE 1



EXPLANATION	
	EM61 SURVEY AREA - DATA ACQUIRED ALONG PARALLEL SURVEY LINES SPACED APPROXIMATELY 2.5 FEET APART
	GUY WIRE
	SIGN
	METALLIC OBJECT
	NCDOT MARKER
	UTILITY POLE
	STORMWATER GRATE
	UTILITY MANHOLE
	MONITORING WELL
	LIGHTPOLE
	GPR SURVEY AREA
	LOCATION OF GPR SURVEY LINE SHOWN
	APPROXIMATE LOCATION OF POSSIBLE UTILITY (SOME MARKED IN FIELD)
	APPROXIMATE LOCATION OF POSSIBLE BURIED UST AS MARKED IN FIELD
	APPROXIMATE LIMITS OF NCDOT PROJECT



Note: The contour plot shows the earliest and most sensitive time gate of the EM61 bottom coil/channel in millivolts (mV). The EM data were collected on March 10, 2008, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina Zone 3200, using the NAD 1983 datum. GPR data were acquired on March 18, 2008, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

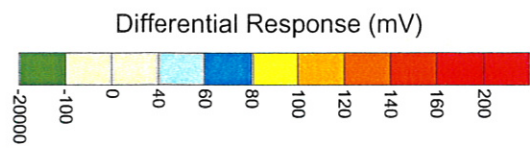
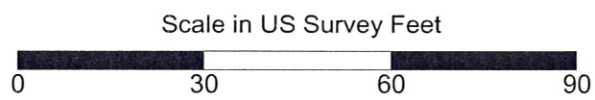
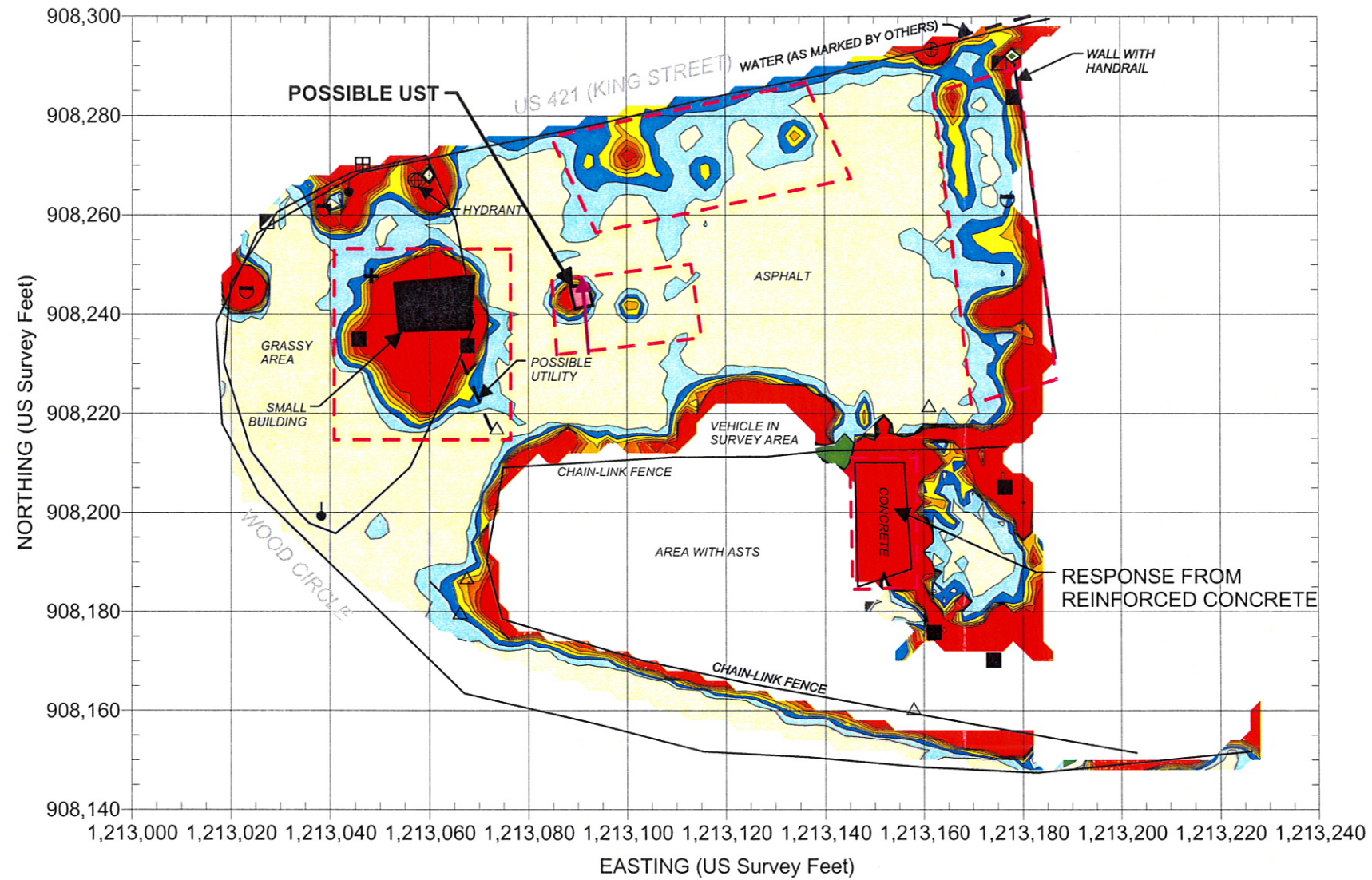


NC Department of Transportation
Geotechnical Engineering Unit

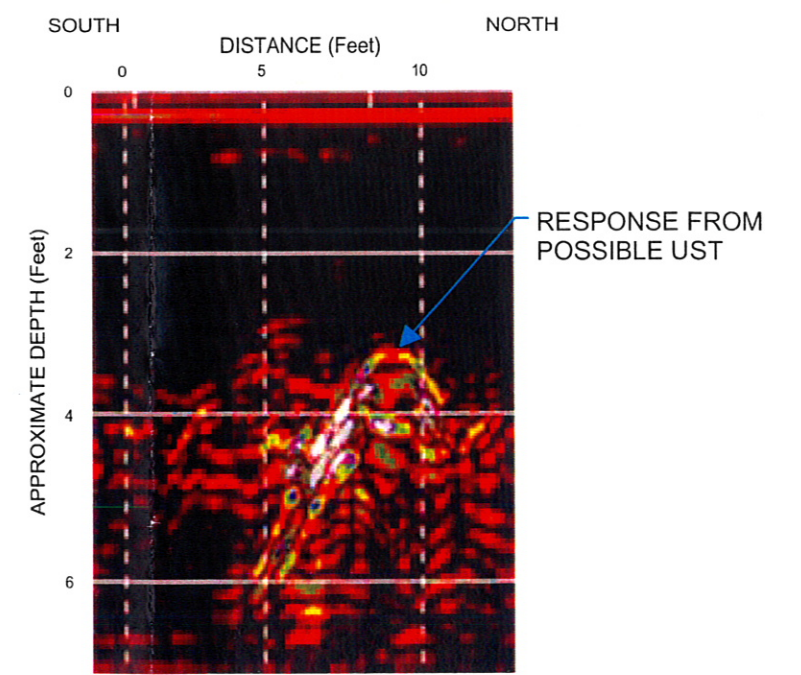
State Project No. U-4020
Watauga County, North Carolina

**PARCEL 42
EM61 EARLY TIME
GATE RESPONSE**

FIGURE 2



EXPLANATION	
	EM61 SURVEY AREA - DATA ACQUIRED ALONG PARALLEL SURVEY LINES SPACED APPROXIMATELY 2.5 FEET APART
	GUY WIRE
	SIGN
	METALLIC OBJECT
	NCDOT MARKER
	UTILITY POLE
	STORMWATER GRATE
	UTILITY MANHOLE
	MONITORING WELL
	LIGHTPOLE
	GPR SURVEY AREA
	LOCATION OF GPR SURVEY LINE SHOWN
	APPROXIMATE LOCATION OF POSSIBLE UTILITY (SOME MARKED IN FIELD)
	APPROXIMATE LOCATION OF POSSIBLE BURIED UST AS MARKED IN FIELD
	APPROXIMATE LIMITS OF NCDOT PROJECT



Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM61. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as pipes and tanks. The EM data were collected on March 10, 2008, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on March 18, 2008, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.



NC Department of Transportation
Geotechnical Engineering Unit
State Project No. U-4020
Watauga County, North Carolina

PARCEL 42
EM61 DIFFERENTIAL
RESPONSE
FIGURE 3

Appendix C
Soil Boring Logs



BORING NUMBER 42-01

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAs\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						dark brown, med. sandy SILT, slightly moist, some PWR		0.0
2.5	100		0.4	1.3				2.5
5.0			0.6	1.2				5.0
7.5	100		0.6	4.1				7.5
10.0			0.6	52.9				10.0
10.0	90		1	168				10.0
10.0			1	179				10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/1/08
BORING COMPLETED: 4/1/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 10-12'



BORING NUMBER 42-02

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY - ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						orange/brown SILT, some rock fragments		0.0
0.2			0.2	1.9				
0.3			0.3	10.9		light brown, sandy SILT, dry		
2.5	90							2.5
0.7			0.7	10.7				
5.0						light brown/orange, fine sandy SILT, dry		5.0
0.7			0.7	3.7				
7.5	75					light brown w/ some black, medium sandy SILT, some rock fragments		7.5
0.7			0.7	23.2				
10.0						dark brown/black, fine sandy SILT		10.0
0.7	50		0.7	12.9				
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/1/08
BORING COMPLETED: 4/1/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil Samples collected from 8-10'



BORING NUMBER 42-03

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						orange/brown SILT		0.0
0.7			0.7	2.3				
2.5	90		0.7	7.4		orange/brown SILT w/ fine sands		2.5
5.0			0.6	1.3		brown, sandy SILT w/ PWR		5.0
7.5	90		0.3	1.1				7.5
10.0				1		dark brown sandy SILT w/ some clay		10.0
10.0	75			1.4		dark brown, sandy CLAY, some PWR		10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/1/08
BORING COMPLETED: 4/1/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 2-4'



BORING NUMBER 42-04

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						dark brown, fine sandy SILT, some clay, slightly moist		0.0
2.5	100		0	5.7				2.5
5.0			0.1	12.7				5.0
7.5	90		0.5	179		grey sandy SILT, slightly moist, some clay		7.5
10.0			1	167				10.0
				175		grey/orange sandy SILT, some rock, moist		
				10.5				
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
 Borehole hand-augered to 5'
 Soil samples collected from 4-6' and 10-12'



BORING NUMBER 42-05

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Dark, brown, medium sandy, SILT, slightly compressed and moist, some clays		0.0
2.5	100		0.3	5.1				2.5
5.0			0.5	6.9				5.0
7.5	90					Grey, brown, medium sandy, SILT, slightly compressed and moist, some clays		7.5
10.0						Orange, grey/brown, medium sandy, SILT		10.0
12.5	90					Brown, silty, SAND, slightly moist, loose		12.5
15.0						Bottom of borehole at 12.0 feet.		15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 6-8'



BORING NUMBER 42-06

2923 South Tryon Street-Suite 100
 Charlotte, North Carolina 28203
 704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
 Raleigh, North Carolina 27615
 919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0			0.9	99.99		grey, fine-medium sandy SILT, moist, petroleum odor		0.0
2.5	100							2.5
5.0						brown/grey, medium sandy SILT, loose, moist, petroleum odor		5.0
7.5	90					brown/black fine sandy SILT, loose, slightly moist		7.5
10.0	90							10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
 Borehole hand-augered to 5'
 Soil samples collected from 2-4'



BORING NUMBER 42-07

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 -BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Dark brown, fine sandy, SILT, slightly moist, loose		0.0
2.5	100		0.5	2.3				2.5
				3.6				
5.0				6.8		Black, grey, medium sandy, SILT, slightly moist		5.0
7.5	100			19.7				7.5
				6.5				
10.0				4		Grey, medium sandy, SILT, slightly moist		10.0
	100							
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION **BORING STARTED** 4/2/08
DRILL RIG/ METHOD: Geoprobe 6620DT **BORING COMPLETED:** 4/2/08
SAMPLING METHOD: DPT Sleeves **TOTAL DEPTH:** 12
LOGGED BY: MHF **SURFACE ELEV:**
DRAWN BY: **DEPTH TO WATER:**

Remarks:
 Borehole hand-augered to 5'
 Soil samples collected from 6-8' and 10-12'



BORING NUMBER 42-08

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Brown, medium, sandy, SILT, slightly moist, loose		0.0
2.5	100		0.5	1.3				2.5
5.0				1.1		Brown, fine, sandy, SILT, with some clay, slightly moist, compressed		5.0
7.5	75			1.2				7.5
10.0				1.1		Orange, brown, medium sandy, SILT, slightly moist, compressed		10.0
12.5	90			1.1				12.5
15.0						Bottom of borehole at 12.0 feet.		15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 6-8'



BORING NUMBER 42-09

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						dark brown, medium sandy SILT, slightly moist, loose		0.0
2.5	100		0.3	0.8				2.5
5.0			0.5	4.1		brown, fine sandy SILT, moist, odor, some concrete		5.0
7.5	50			3.5		dark grey, sandy SILT, mod. moist		7.5
10.0				15.4		grey/black, medium sandy SILT, moist, some rock and brick		10.0
12.5	50			12.1		brown, medium sandy SILT w/ some clay, moist		12.5
15.0						Bottom of borehole at 12.0 feet.		15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/3/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 8-10'



BORING NUMBER 42-10

2923 South Tryon Street-Suite 100
 Charlotte, North Carolina 28203
 704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
 Raleigh, North Carolina 27615
 919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						green/ grey, fine sandy SILT, moist, petroleum odor		0.0
0.1			0.1	32.9				
2.5	100		0.3	41.2				2.5
5.0								5.0
7.5	80							7.5
10.0								10.0
10.1	100							10.1
10.2								10.2
10.3								10.3
10.4								10.4
10.5								10.5
10.6								10.6
10.7								10.7
10.8								10.8
10.9								10.9
11.0								11.0
11.1								11.1
11.2								11.2
11.3								11.3
11.4								11.4
11.5								11.5
11.6								11.6
11.7								11.7
11.8								11.8
11.9								11.9
12.0						Bottom of borehole at 12.0 feet.		12.0
12.5								12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
 Borehole hand-augered to 5'
 Soil samples collected from 10-12'



BORING NUMBER 42-11

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						grey, fine sandy SILT, moist, odor		0.0
2.5	100		0.2	1501				2.5
				1534				
5.0				1618				5.0
7.5	95			1626				7.5
10.0				1642				10.0
	90			1478				
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 8-10'



BORING NUMBER 42-12

2923 South Tryon Street-Suite 100
 Charlotte, North Carolina 28203
 704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
 Raleigh, North Carolina 27615
 919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAs\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						grey/brown, medium sandy silt, moist, loose		0.0
2.5	100		0.3	1.7		brown, fine sandy SILT, moist, loose		2.5
5.0				1.2				5.0
7.5	80			1.1		orange/grey, medium sandy SILT, moist, compacted, odor		7.5
10.0				2.5		grey, medium sandy SILT, moist, compacted, odor		10.0
12.5	80			153		Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION DRILL RIG/ METHOD: Geoprobe 6620DT SAMPLING METHOD: DPT Sleeves LOGGED BY: MHF DRAWN BY:	BORING STARTED: 4/2/08 BORING COMPLETED: 4/2/08 TOTAL DEPTH: 12 SURFACE ELEV: DEPTH TO WATER:	Remarks: Borehole hand-augered to 5' Soil samples collected from 10-12'
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BORING NUMBER 42-13

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0								0.0
2.5	100		0.3	296		dark grey w/ black staining, fine sandy SILT, moist, loose, strong odor		2.5
5.0			1.4	447				5.0
7.5	85		1.9	432				7.5
			1.7	622		dark grey medium sandy SILT, moist, compact, odor		
			0.9	786				
10.0						Bottom of borehole at 10.0 feet.		10.0
12.5								12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 10
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehold hand-augered to 5'
Soil samples collected from 8-10'



BORING NUMBER 42-14

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						gravel w/ silty SAND, odor		0.0
2.5	90			249		green/ grey, medium sandy SILT, moist, loose, odor		2.5
5.0	90			1400				5.0
				500				
Bottom of borehole at 6.0 feet.								
7.5								7.5
10.0								10.0
12.5								12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 6
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 2-4'



BORING NUMBER 42-15

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW\ROW-148 BOONE PSAs\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0			0.3	231		brown/grey w/ black staining, medium sandy SILT, moist, compact, odor		0.0
2.5	100		1	157		dark grey, medium sandy SILT, moist, compact, odor		2.5
5.0				136				5.0
7.5	80			410		brown/grey, medium sandy SILT, moist, compact, odor		7.5
10.0				86.7				10.0
				11.6		grey, medium silty SAND, PWR, moist, odor		10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 6-8' and 10-12'



BORING NUMBER 42-16

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY - ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						orange/brown w/ some black staining, sandy SILT, moist, loose, odor		0.0
2.5	95		0.3	81.6		brown/grey, sandy SILT, moist, loose, odor		2.5
5.0			1.3	113		Bottom of borehole at 5.0 feet.		5.0
7.5								7.5
10.0								10.0
12.5								12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/2/08
BORING COMPLETED: 4/2/08
TOTAL DEPTH: 5
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 2-5'



BORING NUMBER 42-17

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Tan/Brown medium to coarse sandy SILT		0.0
2.5	100		0	2.2		Tan/Brown/Grey, medium to coarse sandy SILT		2.5
5.0						Brown, medium silty SAND		5.0
7.5	100					Brown/Black, medium silty SAND		7.5
10.0								10.0
12.5	50							12.5
15.0						Bottom of borehole at 12.0 feet.		15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 2-5'



BORING NUMBER 42-18

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						dark brown/black sandy CLAY, w/ rock, dry		0.0
2.5	100		0	471		dark brown, black, sandy SILT		2.5
5.0				921				5.0
7.5	90			1008		dark brown, silty SAND, dry		7.5
10.0				1374				10.0
12.5	50			1339				12.5
15.0						Bottom of borehole at 12.0 feet.		15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hang-augered to 5'
Soil samples collected from 7-10'



BORING NUMBER 42-19

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						brown/orange, silty clay, dry		0.0
2.5	100		1	136				2.5
5.0			1.1	108				5.0
7.5	100		1.1	36.9				7.5
10.0			1.3	22.7				10.0
10.0	50		0.8	10.2		fine sand		10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 0-2'



BORING NUMBER 42-20

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						red, brown clayey SILT, dry		0.0
2.5	100		0	1.2		red, brown clayey SILT, moist		2.5
				629		black, orange SILT, saturated		
5.0				1775				5.0
7.5						Bottom of borehole at 7.0 feet.		7.5
10.0								10.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 7
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 7'
Soil samples collected from 6-7'



BORING NUMBER 42-21

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY - ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						green, black, silty CLAY		0.0
0.3			0.3	628				
2.5	100		0.3	1169		green, grey, sandy SILT		2.5
5.0			1.7	826				5.0
6.0						Bottom of borehole at 6.0 feet.		6.0
7.5								7.5
10.0								10.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 6
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 6'
Samples collected from 2-4'



BORING NUMBER 42-22

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY - ROW\ROW-148 BOONE PSAs\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0			0	18.4		brown/black SILT, dry		0.0
2.5	75			20.7		orange/brown, fine sandy SILT, dry		2.5
5.0				12.5				5.0
7.5	50			538		dark brown, fine-medium sandy SILT, dry		7.5
10.0	25			664				10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION DRILL RIG/ METHOD: Geoprobe 6620DT SAMPLING METHOD: DPT Sleeves LOGGED BY: MHF DRAWN BY:	BORING STARTED: 4/9/08 BORING COMPLETED: 4/9/08 TOTAL DEPTH: 12 SURFACE ELEV: DEPTH TO WATER:	Remarks: Borehole hand-augered to 5' Soil samples collected from 10-12'
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BORING NUMBER 42-23

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 -BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						brown/orange, silty SAND, dry		0.0
2.5	75		0.3	0.9		brown/orange, clayey SILT w/ fine sands,		2.5
5.0			0.4	2.7		brown/orange, medium sandy SILT		5.0
7.5	90		0.4	1.9				7.5
10.0			0.4	1.3				10.0
12.5	50		0.4	1.3				12.5
15.0						Bottom of borehole at 12.0 feet.		15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borhole hand-augered to 5'
Soil samples collected from 2-5'



BORING NUMBER 42-24

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						red/brown SILT, dry		0.0
2.5	100		0.7	1.1				2.5
5.0				1.7		red/brown SILT		5.0
7.5	100			0.9				7.5
10.0				1				10.0
12.5	100			1.3				12.5
15.0						Bottom of borehole at 11.0 feet.		15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 11
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 2-5'



BORING NUMBER 42-25

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY - ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						brown/red, silty CLAY, damp		0.0
2.5	90		0.5	0.6				2.5
5.0								5.0
7.5	75			0.8		red/orange, sandy CLAY, damp		7.5
10.0				1.1				10.0
10.0	75			1		PWR w/ clay and fine sands		10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 5-7'



BORING NUMBER 42-26

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0			0.3	0.6	CLAY	Brown, red, silty, CLAY, some rock fragment, dry		0.0
2.5	90			0.8	CLAY	Brown, silty, CLAY, slightly damp		2.5
5.0				1.3	SILT	Light brown, orange, SILT with some fine sands		5.0
7.5	90			0.9	SILT	Light brown, red, SILT, slightly damp		7.5
10.0	33			1	SILT			10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 5-7'



BORING NUMBER 42-27

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0								0.0
2.5	90		0.5	4.7	Brown, yellow, sandy, CLAY, slightly damp			2.5
5.0					Dark brown, red, medium sandy, SILT, slightly damp			5.0
7.5	90				Light brown, tan, fine silty, SAND			7.5
10.0	90				Bottom of borehole at 12.0 feet.			10.0
12.5								12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/9/08
BORING COMPLETED: 4/9/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 5-7'



BORING NUMBER 42-28

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Red, brown, clayey, SILT, slightly damp		0.0
2.5	100		0.5	2.7		Dark brown, clayey, SILT, with some fine sands, dry		2.5
5.0						Red, brown fine sandy, SILT		5.0
7.5	75							7.5
10.0	100							10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/10/08
BORING COMPLETED: 4/10/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 2-5'



BORING NUMBER 42-29

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\INC DOT RIGHT-OF-WAY -ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Dark brown, SILT, some fine fine sands, dry		0.0
2.5	90		0.5	7.7		Dark brown clayey, SILT, dry		2.5
5.0								5.0
7.5	75					Dark brown, black, clayey, SILT, with some fine sands		7.5
10.0						Light brown, orange, medium sandy, SILT		10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/10/08
BORING COMPLETED: 4/10/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 7-9'



BORING NUMBER 42-30

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY - ROW\ROW-148 BOONE PSAs\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Brown, silty, CLAY, slightly damp		0.0
2.5	75		0.5	4.9		Brown, tan, medium sandy, SILT, dry		2.5
5.0								5.0
7.5	50					Brown, grey, medium sandy, SILT, dry		7.5
10.0	90					Brown, green, SILT, dry		10.0
12.5						Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/10/08
BORING COMPLETED: 4/10/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 7-9'



BORING NUMBER 42-31

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street
Raleigh, North Carolina 27615
919-847-4241(p) 919-847-4261(f)

PROJECT: Boone PSAs
JOB NUMBER: ROW-148
LOCATION: Boone, NC

LOG OF BORING - HART HICKMAN.GDT - 5/28/08 09:00 - S:\AAA-MASTER PROJECTS\NC DOT RIGHT-OF-WAY - ROW\ROW-148 BOONE PSAS\BORING LOGS\ROW-148 (42).GPJ

DEPTH (ft)	RECOVERY (%)	BLOW COUNT	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	WELL DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Red, brown, fine sandy, CLAY, dry		0.0
2.5	90		0.5	2.1		Red, brown, sandy, SILT, dry		2.5
5.0				2.9				5.0
7.5	75			4.1		Red, brown, silty, medium SAND, dry		7.5
10.0				5.2		Grey, brown, silty, medium SAND, dry		10.0
12.5	50			3.6		Bottom of borehole at 12.0 feet.		12.5
15.0								15.0

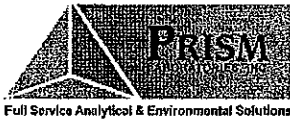
DRILLING CONTRACTOR: GEOLOGIC EXPLORATION
DRILL RIG/ METHOD: Geoprobe 6620DT
SAMPLING METHOD: DPT Sleeves
LOGGED BY: MHF
DRAWN BY:

BORING STARTED: 4/10/08
BORING COMPLETED: 4/10/08
TOTAL DEPTH: 12
SURFACE ELEV:
DEPTH TO WATER:

Remarks:
Borehole hand-augered to 5'
Soil samples collected from 7-9'

Appendix D

Laboratory Analytical Report



NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-1 (10-12')
 Prism Sample ID: 210376
 COC Group: G0408076
 Time Collected: 04/01/08 14:30
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	74.2	%			1	SM2540 G	04/07/08 13:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	2500	mg/kg	9.4	1.5	20	8015B	04/09/08 11:59	jvogel	Q31590
Sample Preparation:			25.48 g	/	1 mL	3545	04/07/08 16:00	Wconder	P21277
			Surrogate				% Recovery	Control Limits	
			o-Terphenyl				DO #	49 - 124	
Sample Weight Determination									
Weight 1	5.13	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	4.74	g			1	GRO	04/14/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	41	mg/kg	6.7	4.2	50	8015B	04/09/08 23:09	wbradley	Q31604
			Surrogate				% Recovery	Control Limits	
			aaa-TFT				85	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

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NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-2 (8-10')
 Prism Sample ID: 210377
 COC Group: G0408076
 Time Collected: 04/01/08 15:30
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	49.5	%			1	SM2540 G	04/07/08 13:45	mbarber	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	53	mg/kg	14	2.2	1	8015B	04/09/08 10:51	jvogel	Q31590
-----------------------------	----	-------	----	-----	---	-------	----------------	--------	--------

Sample Preparation: 25.54 g / 1 mL 3545 04/07/08 16:00 Wcondor P21277

Surrogate	% Recovery	Control Limits
o-Terphenyl	49	49 - 124

Sample Weight Determination

Weight 1	4.44	g			1	GRO	04/08/08 0:00	lbrown	
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Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	60	mg/kg	10	6.3	50	8015B	04/10/08 10:15	wbradley	Q31604
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One surrogate recovery was outside of the control limits. The analysis was repeated, with no improvement in recovery. Matrix interference is suspected.

Surrogate	% Recovery	Control Limits
aaa-TFT	53 #	55 - 129

Sample Comment(s):

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Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-3 (2-4)
 Prism Sample ID: 210378
 COC Group: G0408076
 Time Collected: 04/01/08 16:15
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	80.2	%			1	SM2540 G	04/07/08 13:45	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	23	mg/kg	8.6	1.4	1	8015B	04/09/08 11:23	jvogel	Q31590
Sample Preparation:			25.35 g	/	1 mL	3545	04/07/08 16:00	Wconder	P21277
					Surrogate	% Recovery	Control Limits		
					o-Terphenyl	96	49 - 124		
Sample Weight Determination									
Weight 1	5.03	g			1	GRO	04/14/08 0:00	tbrown	
Weight 2	5.37	g			1	GRO	04/14/08 0:00	tbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.2	3.9	50	8015B	04/10/08 9:43	wbradley	Q31604
					Surrogate	% Recovery	Control Limits		
					aaa-TFT	88	55 - 129		

Sample Comment(s):

BRL = Below Reporting Limit
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Angela D. Overcash, V.P. Laboratory Services



NC Certification No. 402
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 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-4 (4-6')
 Prism Sample ID: 210591
 COC Group: G0408148
 Time Collected: 04/02/08 9:30
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	82.8	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	4400	mg/kg	850	140	100	8016B	04/14/08 18:51	jvogel	Q31720
Sample Preparation:			25.15 g	/	1 mL	3545	04/10/08 17:15	wconder	P21301
					Surrogate	% Recovery		Control Limits	
					o-Terphenyl	DO #		49 - 124	
<u>Sample Weight Determination</u>									
Weight 1	5.96	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	5.89	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	120	mg/kg	60	38	500	8016B	04/10/08 4:25	wbradley	Q31604
					Surrogate	% Recovery		Control Limits	
					aaa-TFT	DO #		55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

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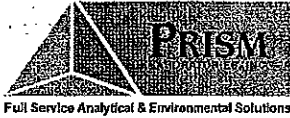
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Angela D. Overcash, V.P. Laboratory Services

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NC Certification No. 402
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Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-4 (10-12)
 Prism Sample ID: 210592
 COC Group: G0408148
 Time Collected: 04/02/08 9:30
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	80.9	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	13	mg/kg	8.6	1.4	1	8015B	04/14/08 14:40	jvogel	Q31720
Sample Preparation:			26.13 g		1 mL	3545	04/10/08 17:15	wconder	P21301
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	68	49 - 124	
<u>Sample Weight Determination</u>									
Weight 1	6.46	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	5.07	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.2	3.9	50	8015B	04/10/08 0:44	wbradley	Q31604
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	91	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

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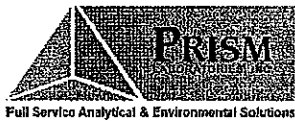
All results are reported on a dry-weight basis

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Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-5 (6-8')
 Prism Sample ID: 210593
 COC Group: G0408148
 Time Collected: 04/02/08 9:50
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	72.1	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	11	mg/kg	9.7	1.6	1	8015B	04/12/08 0:58	jvogel	Q31720
Sample Preparation:			25.13 g	/	1 mL	3545	04/10/08 17:15	wconder	P21301
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	50	49 - 124	
<u>Sample Weight Determination</u>									
Weight 1	4.12	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	6.25	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.9	4.3	50	8015B	04/10/08 1:16	wbradley	Q31604
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	67	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

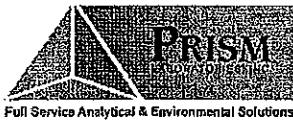
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NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-6 (2-4')
 Prism Sample ID: 210594
 COC Group: G0408148
 Time Collected: 04/02/08 10:05
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	75.8	%			1	SM2540 G	04/08/08 12:35	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	1400	mg/kg	92	15	10	8015B	04/14/08 19:26	jvogel	Q31720
Sample Preparation:			25.36 g	/	1 mL	3545	04/10/08 17:15	wconder	P21301
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	DO #	49 - 124	
Sample Weight Determination									
Weight 1	5.77	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	6.38	g			1	GRO	04/14/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	1400	mg/kg	66	41	500	8015B	04/10/08 5:28	wbradley	Q31604
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	DO #	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

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NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-7 (6-8')
 Prism Sample ID: 210595
 COC Group: G0408148
 Time Collected: 04/02/08 10:40
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	64.3	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	500	mg/kg	54	8.8	5	8015B	04/14/08 20:02	jvoget	Q31720
Sample Preparation:			25.63 g	/	1 mL	3545	04/10/08 17:15	wconder	P21301
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	M #	49 - 124	
<u>Sample Weight Determination</u>									
Weight 1	5.33	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	4.36	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	22	mg/kg	7.8	4.9	50	8015B	04/10/08 1:47	wbradley	Q31604
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	80	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

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All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

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NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-7 (10-12')
 Prism Sample ID: 210596
 COC Group: G0408148
 Time Collected: 04/02/08 10:40
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	89.6	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	BRL	mg/kg	7.7	1.3	1	8015B	04/14/08 14:04	jvoegel	Q31720
Sample Preparation:			25.21 g	/	1 mL	3545	04/10/08 17:15	wconder	P21301
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	57	49 - 124	
<u>Sample Weight Determination</u>									
Weight 1	5.24	g			1	GRO	04/14/08 0:00	ibrown	
Weight 2	4.73	g			1	GRO	04/14/08 0:00	ibrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	BRL	mg/kg	5.6	3.5	50	8015B	04/10/08 2:19	wbradley	Q31604
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	86	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

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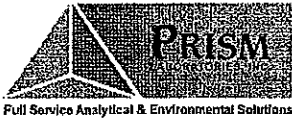
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Laboratory Report

04/18/08

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 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-8 (6-8')
 Prism Sample ID: 210597
 COC Group: G0408148
 Time Collected: 04/02/08 11:15
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	78.2	%			1	SM2540 G	04/08/08 12:35	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	19	mg/kg	8.8	1.4	1	8015B	04/12/08 3:22	jvogel	Q31720
Sample Preparation:			25.3 g	/	1 mL	3545	04/10/08 17:15	wconder	P21301
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	72	49 - 124	
Sample Weight Determination									
Weight 1	2.86	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	7.72	g			1	GRO	04/14/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.4	4.0	50	8015B	04/10/08 18:44	wbradley	Q31634

One surrogate recovery was outside the control limits. No target compounds were detected in this sample. No further action was taken.

Surrogate	% Recovery	Control Limits
aaa-TFT	133 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

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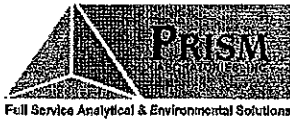
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 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-9 (8-10')
 Prism Sample ID: 210598
 COC Group: G0408148
 Time Collected: 04/02/08 11:40
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	72.8	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	7400	mg/kg	480	120	50	8015B	04/14/08 23:02	jvogel	Q31718
Sample Preparation:			49.89 g	/	2 mL	3550B	04/11/08 9:30	jvogel	P21328
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	DC #	48 - 130	
<u>Sample Weight Determination</u>									
Weight 1	5.79	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	5.55	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	88	mg/kg	6.9	4.3	50	8015B	04/10/08 19:16	wbradley	Q31634
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	79	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

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04/18/08

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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-10 (10-12')
 Prism Sample ID: 210599
 COC Group: G0408148
 Time Collected: 04/02/08 13:10
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	80.9	%			1	SM2540 G	04/08/08 12:35	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	3300	mg/kg	430	110	50	8015B	04/14/08 20:38	jvogel	Q31718
Sample Preparation:			50.35 g	/	2 mL	3550B	04/11/08 9:30	jvogel	P21328
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	DO #	48 - 130	
Sample Weight Determination									
Weight 1	5.65	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	6.02	g			1	GRO	04/14/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	1900	mg/kg	62	39	500	8015B	04/11/08 0:31	wbradley	Q31634
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	DO #	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

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04/18/08

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 2923 South Tryon St. Ste 100
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Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-11 (8-10')
 Prism Sample ID: 210600
 COC Group: G0408148
 Time Collected: 04/02/08 13:25
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	82.8	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	12000	mg/kg	850	210	100	8015B	04/14/08 23:38	jvogel	Q31718
Sample Preparation:			50.55 g	/	2 mL	3550B	04/11/08 9:30	jvogel	P21328
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	DO #	48 - 130	
<u>Sample Weight Determination</u>									
Weight 1	5.39	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	4.97	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	2200	mg/kg	60	38	500	8015B	04/11/08 1:34	wbradley	Q31634
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	DO #	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

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Laboratory Report

04/18/08

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 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-12 (10-12')
 Prism Sample ID: 210601
 COC Group: G0408148
 Time Collected: 04/02/08 13:50
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	83.5	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Sample Weight Determination</u>									
Weight Bisulfate 1	4.89	g			1	5035	04/07/08 0:00	lbrown	
Weight Bisulfate 2	6.04	g			1	5035	04/07/08 0:00	lbrown	
Weight Methanol	4.76	g			1	5035	04/07/08 0:00	lbrown	
<u>Volatile Organic Compounds by GC/MS</u>									
1,1,1-Trichloroethane	BRL	mg/kg	0.0061	0.00072	1	8260B	04/08/08 17:07	lwitry	Q31548
1,1,2,2-Tetrachloroethane	BRL	mg/kg	0.0061	0.00044	1	8260B	04/08/08 17:07	lwitry	Q31548
1,1,2-Trichloroethane	BRL	mg/kg	0.0061	0.00065	1	8260B	04/08/08 17:07	lwitry	Q31548
1,1-Dichloroethane	BRL	mg/kg	0.0061	0.0007	1	8260B	04/08/08 17:07	lwitry	Q31548
1,1-Dichloroethene	BRL	mg/kg	0.0061	0.0011	1	8260B	04/08/08 17:07	lwitry	Q31548
1,1-Dichloropropene	BRL	mg/kg	0.0061	0.00072	1	8260B	04/08/08 17:07	lwitry	Q31548
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0061	0.0007	1	8260B	04/08/08 17:07	lwitry	Q31548
1,2,3-Trichloropropane	BRL	mg/kg	0.0061	0.00082	1	8260B	04/08/08 17:07	lwitry	Q31548
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0061	0.0008	1	8260B	04/08/08 17:07	lwitry	Q31548
1,2,4-Trimethylbenzene	0.15	mg/kg	0.0061	0.00031	1	8260B	04/08/08 17:07	lwitry	Q31548
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0061	0.00076	1	8260B	04/08/08 17:07	lwitry	Q31548
1,2-Dichlorobenzene	BRL	mg/kg	0.0061	0.00039	1	8260B	04/08/08 17:07	lwitry	Q31548
1,2-Dichloroethane	BRL	mg/kg	0.0061	0.00069	1	8260B	04/08/08 17:07	lwitry	Q31548
1,2-Dichloropropane	BRL	mg/kg	0.0061	0.0015	1	8260B	04/08/08 17:07	lwitry	Q31548
1,3,5-Trimethylbenzene	0.073	mg/kg	0.0061	0.00051	1	8260B	04/08/08 17:07	lwitry	Q31548
1,3-Dichlorobenzene	BRL	mg/kg	0.0061	0.0004	1	8260B	04/08/08 17:07	lwitry	Q31548
1,3-Dichloropropane	BRL	mg/kg	0.0061	0.00026	1	8260B	04/08/08 17:07	lwitry	Q31548
1,4-Dichlorobenzene	BRL	mg/kg	0.0061	0.00078	1	8260B	04/08/08 17:07	lwitry	Q31548
2,2-Dichloropropane	BRL	mg/kg	0.0061	0.00088	1	8260B	04/08/08 17:07	lwitry	Q31548
2-Chlorotoluene	BRL	mg/kg	0.0061	0.00034	1	8260B	04/08/08 17:07	lwitry	Q31548

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Laboratory Report

04/18/08

North Carolina Department of
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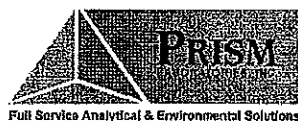
Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-12 (10-12')
 Prism Sample ID: 210601
 COC Group: G0408148
 Time Collected: 04/02/08 13:50
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Hexanone	BRL	mg/kg	0.061	0.0053	1	8260B	04/08/08 17:07	lwitry	Q31548
4-Chlorotoluene	BRL	mg/kg	0.0061	0.00045	1	8260B	04/08/08 17:07	lwitry	Q31548
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.061	0.0064	1	8260B	04/08/08 17:07	lwitry	Q31548
Acetone	BRL	mg/kg	0.061	0.018	1	8260B	04/08/08 17:07	lwitry	Q31548
Benzene	BRL	mg/kg	0.0037	0.00051	1	8260B	04/08/08 17:07	lwitry	Q31548
Bromobenzene	BRL	mg/kg	0.0061	0.00078	1	8260B	04/08/08 17:07	lwitry	Q31548
Bromochloromethane	BRL	mg/kg	0.0061	0.0005	1	8260B	04/08/08 17:07	lwitry	Q31548
Bromodichloromethane	BRL	mg/kg	0.0061	0.00066	1	8260B	04/08/08 17:07	lwitry	Q31548
Bromoform	BRL	mg/kg	0.0061	0.00055	1	8260B	04/08/08 17:07	lwitry	Q31548
Bromomethane	BRL	mg/kg	0.012	0.0014	1	8260B	04/08/08 17:07	lwitry	Q31548
Carbon tetrachloride	BRL	mg/kg	0.0061	0.0004	1	8260B	04/08/08 17:07	lwitry	Q31548
Chlorobenzene	BRL	mg/kg	0.0061	0.00062	1	8260B	04/08/08 17:07	lwitry	Q31548
Chlorodibromomethane	BRL	mg/kg	0.0061	0.00056	1	8260B	04/08/08 17:07	lwitry	Q31548
Chloroethane	BRL	mg/kg	0.012	0.0021	1	8260B	04/08/08 17:07	lwitry	Q31548
Chloroform	BRL	mg/kg	0.0061	0.0010	1	8260B	04/08/08 17:07	lwitry	Q31548
Chloromethane	BRL	mg/kg	0.0061	0.0015	1	8260B	04/08/08 17:07	lwitry	Q31548
cis-1,2-Dichloroethene	BRL	mg/kg	0.0061	0.00098	1	8260B	04/08/08 17:07	lwitry	Q31548
cis-1,3-Dichloropropene	BRL	mg/kg	0.0061	0.00081	1	8260B	04/08/08 17:07	lwitry	Q31548
Dichlorodifluoromethane	BRL	mg/kg	0.0061	0.0017	1	8260B	04/08/08 17:07	lwitry	Q31548
Ethylbenzene	0.027	mg/kg	0.0061	0.00028	1	8260B	04/08/08 17:07	lwitry	Q31548
Isopropyl ether (IPE)	BRL	mg/kg	0.0061	0.00056	1	8260B	04/08/08 17:07	lwitry	Q31548
Isopropylbenzene	0.014	mg/kg	0.0061	0.00036	1	8260B	04/08/08 17:07	lwitry	Q31548
m,p-Xylenes	0.038	mg/kg	0.012	0.0010	1	8260B	04/08/08 17:07	lwitry	Q31548
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.12	0.018	1	8260B	04/08/08 17:07	lwitry	Q31548
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.012	0.00051	1	8260B	04/08/08 17:07	lwitry	Q31548
Methylene chloride	BRL	mg/kg	0.0061	0.0010	1	8260B	04/08/08 17:07	lwitry	Q31548
n-Butylbenzene	0.037	mg/kg	0.0061	0.00044	1	8260B	04/08/08 17:07	lwitry	Q31548

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Laboratory Report

04/18/08

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Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-12 (10-12')
 Prism Sample ID: 210601
 COC Group: G0408148
 Time Collected: 04/02/08 13:50
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	0.031	mg/kg	0.0061	0.0004	1	8260B	04/08/08 17:07	lwitry	Q31548
Naphthalene	0.060	mg/kg	0.012	0.00073	1	8260B	04/08/08 17:07	lwitry	Q31548
o-Xylene	BRL	mg/kg	0.0061	0.00026	1	8260B	04/08/08 17:07	lwitry	Q31548
p-Isopropyltoluene	0.033	mg/kg	0.0061	0.00049	1	8260B	04/08/08 17:07	lwitry	Q31548
sec-Butylbenzene	0.033	mg/kg	0.0061	0.00042	1	8260B	04/08/08 17:07	lwitry	Q31548
Styrene	BRL	mg/kg	0.0061	0.00069	1	8260B	04/08/08 17:07	lwitry	Q31548
tert-Butylbenzene	0.0075	mg/kg	0.0061	0.00051	1	8260B	04/08/08 17:07	lwitry	Q31548
Tetrachloroethene	BRL	mg/kg	0.0061	0.00055	1	8260B	04/08/08 17:07	lwitry	Q31548
Toluene	BRL	mg/kg	0.0061	0.00045	1	8260B	04/08/08 17:07	lwitry	Q31548
trans-1,2-Dichloroethene	BRL	mg/kg	0.0061	0.00078	1	8260B	04/08/08 17:07	lwitry	Q31548
trans-1,3-Dichloropropene	BRL	mg/kg	0.0061	0.00072	1	8260B	04/08/08 17:07	lwitry	Q31548
Trichloroethene	BRL	mg/kg	0.0061	0.00089	1	8260B	04/08/08 17:07	lwitry	Q31548
Trichlorofluoromethane	BRL	mg/kg	0.0061	0.0011	1	8260B	04/08/08 17:07	lwitry	Q31548
Vinyl acetate	BRL	mg/kg	0.031	0.0017	1	8260B	04/08/08 17:07	lwitry	Q31548
Vinyl chloride	BRL	mg/kg	0.0061	0.0011	1	8260B	04/08/08 17:07	lwitry	Q31548

One surrogate recovery was outside of the control limits. Matrix interference is suspected.

Surrogate	% Recovery	Control Limits
Toluene-d8	106	81 - 128
Dibromofluoromethane	92	67 - 143
Bromofluorobenzene	162 #	77 - 128

Oil and Grease by Soxhlet Extraction

Oil and Grease	120	mg/kg	42	42	1	9071A	04/17/08 10:00	smanivanh	Q31844
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	550	mg/kg	84	20	10	8015B	04/14/08 21:14	jvogel	Q31718
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NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-12 (10-12')
 Prism Sample ID: 210601
 COC Group: G0408148
 Time Collected: 04/02/08 13:50
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Sample Preparation:				50 g	/ 2 mL	3550B	04/11/08 9:30	jvogel	P21328

Surrogate	% Recovery	Control Limits
o-Terphenyl	DO #	48 - 130

Sample Weight Determination

Weight 1	4.85	g			1	GRO	04/14/08 0:00	lbrown
Weight 2	4.67	g			1	GRO	04/14/08 0:00	lbrown

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	20	mg/kg	6.0	3.7	.50	8015B	04/11/08 10:35	wbradley	Q31634
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Surrogate	% Recovery	Control Limits
aaa-TFT	82	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

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Angela D. Overcash, V.P. Laboratory Services



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Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-13 (8-10')
 Prism Sample ID: 210602
 COC Group: G0408148
 Time Collected: 04/02/08 14:10
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	88.4	%			1	SM2540 G	04/08/08 12:35	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	8300	mg/kg	790	190	100	8015B	04/14/08 21:50	jvogel	Q31718
Sample Preparation:			49.9 g	/	2 mL	3550B	04/11/08 9:30	jvogel	P21328
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	DO #	48 - 130	
Sample Weight Determination									
Weight 1	4.67	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	4.53	g			1	GRO	04/14/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	350	mg/kg	57	35	500	8015B	04/11/08 2:37	wbradley	Q31634
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	DO #	55 - 129	

Sample Comment(s):

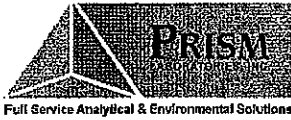
BRL = Below Reporting Limit

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Laboratory Report

04/18/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-14 (2-4')
 Prism Sample ID: 210603
 COC Group: G0408148
 Time Collected: 04/02/08 14:20
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	82.6	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	4700	mg/kg	170	41	20	8015B	04/12/08 18:53	jvogel	Q31718
Sample Preparation:			49.94 g	/	2 mL	3550B	04/11/08 9:30	jvogel	P21328
			Surrogate		% Recovery		Control Limits		
			o-Terphenyl		DO #		48 - 130		
<u>Sample Weight Determination</u>									
Weight 1	5.61	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	5.46	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	1800	mg/kg	61	38	500	8015B	04/11/08 3:40	wbradley	Q31634
			Surrogate		% Recovery		Control Limits		
			aaa-TFT		DO #		55 - 129		

Sample Comment(s):

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Laboratory Report

04/18/08

North Carolina Department of
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 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-15 (6-8)
 Prism Sample ID: 210604
 COC Group: G0408148
 Time Collected: 04/02/08 14:55
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	82.5	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	62	mg/kg	8.5	2.1	1	8015B	04/12/08 9:19	jvogel	Q31718
Sample Preparation:			49.74 g	/	2 mL	3550B	04/11/08 9:30	jvogel	P21328
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	84	48 - 130	
<u>Sample Weight Determination</u>									
Weight 1	5.61	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	5.77	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	41	mg/kg	6.1	3.8	50	8015B	04/11/08 11:41	wbradley	Q31634
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	87	55 - 129	

Sample Comment(s):

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04/18/08

North Carolina Department of
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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-15 (10-12")
 Prism Sample ID: 210605
 COC Group: G0408148
 Time Collected: 04/02/08 14:55
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	89.9	%			1	SM2540 G	04/08/08 12:35	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	BRL	mg/kg	7.8	1.9	1	8015B	04/12/08 9:55	jvoegel	Q31718
Sample Preparation:			50.08 g	/	2 mL	3550B	04/11/08 9:30	jvoegel	P21328
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	88	48 - 130	
<u>Sample Weight Determination</u>									
Weight 1	5.70	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	5.06	g			1	GRO	04/14/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	BRL	mg/kg	5.6	3.5	50	8015B	04/10/08 20:50	wbradley	Q31634
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	88	55 - 129	

Sample Comment(s):

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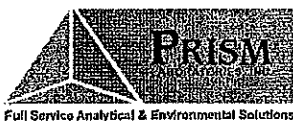
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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-16 (2-5')
 Prism Sample ID: 210606
 COC Group: G0408148
 Time Collected: 04/02/08 15:05
 Time Submitted: 04/03/08 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	77.9	%			1	SM2540 G	04/08/08 12:35	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	1300	mg/kg	90	22	10	8015B	04/14/08 22:26	lvogel	Q31718
Sample Preparation:			50.09 g	/	2 mL	3550B	04/11/08 9:30	lvogel	P21328
					Surrogate	% Recovery	Control Limits		
					o-Terphenyl	DO #	48 - 130		
Sample Weight Determination									
Weight 1	6.24	g			1	GRO	04/14/08 0:00	lbrown	
Weight 2	6.52	g			1	GRO	04/14/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	65	mg/kg	6.4	4.0	50	8015B	04/10/08 21:22	wbradley	Q31634
					Surrogate	% Recovery	Control Limits		
					aaa-TFT	80	55 - 129		

Sample Comment(s):

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Angela D. Overcash, V.P. Laboratory Services



NC Certification No. 402
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Laboratory Report

04/28/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-17 (2-5)
 Prism Sample ID: 211266
 COC Group: G0408351
 Time Collected: 04/09/08 11:10
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	85.3	%			1	SM2540 G	04/15/08 11:15	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	11000	mg/kg	820	130	100	8015B	04/23/08 16:33	jvogel	Q31936
Sample Preparation:			25.03 g	/	1 mL	3545	04/21/08 15:15	wconder	P21394
					Surrogate	% Recovery	Control Limits		
					o-Terphenyl	DO #	49 - 124		
<u>Sample Weight Determination</u>									
Weight 1	6.95	g			1	GRO	04/15/08 0:00	Lbrown	
Weight 2	6.92	g			1	GRO	04/15/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	180	mg/kg	59	37	500	8015B	04/18/08 0:47	wbradley	Q31818
					Surrogate	% Recovery	Control Limits		
					aaa-TFT	DO #	55 - 129		

Sample Comment(s):

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04/28/08

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 Transportation
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 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-18 (7-10)
 Prism Sample ID: 211267
 COC Group: G0408351
 Time Collected: 04/09/08 11:20
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	83.1	%			1	SM2540 G	04/15/08 11:15	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	16000	mg/kg	1700	270	200	8015B	04/23/08 17:11	lvogel	Q31936
Sample Preparation:			25.27 g	/	1 mL	3545	04/21/08 15:15	wconder	P21394
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	DO #	49 - 124	
<u>Sample Weight Determination</u>									
Weight 1	5.91	g			1	GRO	04/15/08 0:00	Lbrown	
Weight 2	6.35	g			1	GRO	04/15/08 0:00	lbrown	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	940	mg/kg	60	38	500	8015B	04/18/08 4:59	wbradley	Q31818
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	DO #	55 - 129	

Sample Comment(s):

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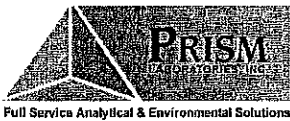
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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-19 (0-2)
 Prism Sample ID: 211268
 COC Group: G0408351
 Time Collected: 04/09/08 11:30
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	82.9	%			1	SM2540 G	04/15/08 11:15	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	120	mg/kg	8.4	1.4	1	8015B	04/23/08 15:55	jvogel	Q31936
Sample Preparation:			25.22 g	/	1 mL	3545	04/21/08 15:15	wconder	P21394
		Surrogate		% Recovery		Control Limits			
		o-Terphenyl		120		49 - 124			
Sample Weight Determination									
Weight 1	6.47	g			1	GRO	04/17/08 0:00	athao	
Weight 2	6.67	g			1	GRO	04/17/08 0:00	athao	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	10	mg/kg	6.0	3.8	50	8015B	04/18/08 0:16	wbradley	Q31818
		Surrogate		% Recovery		Control Limits			
		aaa-TFT		55		55 - 129			

Sample Comment(s):

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Laboratory Report

04/28/08

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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-20 (6-7)
 Prism Sample ID: 211269
 COC Group: G0408351
 Time Collected: 04/09/08 11:40
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	69.0	%			1	SM2540 G	04/15/08 11:15	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	5800	mg/kg	510	82	50	8015B	04/22/08 14:31	jvogel	Q31936
Sample Preparation:			25.37 g	/	1 mL	3545	04/21/08 15:15	wconder	P21394
			Surrogate				% Recovery	Control Limits	
			o-Terphenyl				DO #	49 - 124	
<u>Sample Weight Determination</u>									
Weight 1	3.34	g			1	GRO	04/17/08 0:00	athao	
Weight 2	2.88	g			1	GRO	04/17/08 0:00	athao	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	1000	mg/kg	72	45	500	8015B	04/18/08 1:18	wbradley	Q31818
			Surrogate				% Recovery	Control Limits	
			aaa-TFT				DO #	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

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Laboratory Report

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 Attn: David Graham
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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-21 (2-4)
 Prism Sample ID: 211272
 COC Group: G0408351
 Time Collected: 04/09/08 12:00
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	79.7	%			1	SM2540 G	04/15/08 11:15	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	13000	mg/kg	880	140	100	8015B	04/23/08 15:18	jvoegel	Q31936
Sample Preparation:			25.14 g	/	1 mL	3545	04/21/08 15:15	wconder	P21394
					Surrogate	% Recovery		Control Limits	
					o-Terphenyl	DO #		49 - 124	
Sample Weight Determination									
Weight 1	7.91	g			1	GRO	04/17/08 0:00	athao	
Weight 2	6.57	g			1	GRO	04/17/08 0:00	athao	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	810	mg/kg	63	39	500	8015B	04/18/08 2:22	wbradley	Q31818
					Surrogate	% Recovery		Control Limits	
					aaa-TFT	DO #		55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

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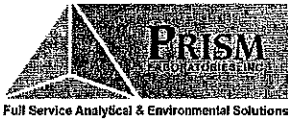
All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

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NC Certification No. 402
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 NC Drinking Water Cert. No. 37735

Laboratory Report

04/28/08

North Carolina Department of
 Transportation
 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-23 (2-5)
 Prism Sample ID: 211273
 COC Group: G0408351
 Time Collected: 04/09/08 12:10
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	78.1	%			1	SM2540 G	04/15/08 11:15	mbarber	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	8.9	1.4	1	8015B	04/22/08 17:01	jvogel	Q31936
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Sample Preparation: 25.27 g / 1 mL 3545 04/21/08 15:15 wconder P21394

Surrogate	% Recovery	Control Limits
o-Terphenyl	93	49 - 124

Sample Weight Determination

Weight 1	6.52	g			1	GRO	04/17/08 0:00	athao	
Weight 2	6.48	g			1	GRO	04/17/08 0:00	athao	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.4	4.0	50	8015B	04/18/08 14:03	grappaccioli	Q31819
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One surrogate recovery was outside the control limits. No target compounds were detected in this sample. No further action was taken.

Surrogate	% Recovery	Control Limits
aaa-TFT	132 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

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Laboratory Report

04/28/08

North Carolina Department of
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 Attn: David Graham
 c/o Hart and Hickman
 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-22 (10-12)
 Prism Sample ID: 211270
 COC Group: G0408351
 Time Collected: 04/09/08 11:50
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	82.5	%			1	SM2540 G	04/15/08 11:15	mbarber	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	8200	mg/kg	420	68	50	8015B	04/21/08 10:36	jvogel	Q31936
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Sample Preparation: 25.01 g / 1 mL 3545 04/21/08 15:15 wconder P21394

Surrogate	% Recovery	Control Limits
o-Terphenyl	DO #	49 - 124

Sample Weight Determination

Weight 1	7.02	g			1	GRO	04/17/08 0:00	athao	
Weight 2	6.02	g			1	GRO	04/17/08 0:00	athao	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	1600	mg/kg	61	38	500	8015B	04/18/08 1:49	wbradley	Q31818
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Surrogate	% Recovery	Control Limits
aaa-TFT	DO #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

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 2923 South Tryon St. Ste 100
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Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-24 (2-5)
 Prism Sample ID: 211274
 COC Group: G0408351
 Time Collected: 04/09/08 12:20
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	79.0	%			1	SM2540 G	04/15/08 11:15	mbarber	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	22	mg/kg	8.8	1.4	1	8015B	04/23/08 12:47	jvogel	Q31936
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Sample Preparation: 25.28 g / 1 mL 3545 04/21/08 15:15 wconder P21394

Surrogate	% Recovery	Control Limits
o-Terphenyl	123	49 - 124

Sample Weight Determination

Weight 1	5.85	g			1	GRO	04/17/08 0:00	athao	
Weight 2	6.02	g			1	GRO	04/17/08 0:00	athao	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.3	4.0	50	8015B	04/18/08 14:35	grappaccioli	Q31819
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One surrogate recovery was outside the control limits. No target compounds were detected in this sample. No further action was taken.

Surrogate	% Recovery	Control Limits
aaa-TFT	140 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

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North Carolina Department of
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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-25 (5-7)
 Prism Sample ID: 211275
 COC Group: G0408351
 Time Collected: 04/09/08 12:30
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	81.9	%			1	SM2540 G	04/15/08 11:15	mbarber	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	8.5	1.4	1	8015B	04/22/08 18:54	jvogel	Q31936
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Sample Preparation: 25 g / 1 mL 3545 04/21/08 15:15 wconder P21394

Surrogate	% Recovery	Control Limits
o-Terphenyl	97	49 - 124

Sample Weight Determination

Weight 1	6.51	g			1	GRO	04/15/08 0:00	Lbrown	
Weight 2	6.22	g			1	GRO	04/15/08 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.1	3.8	50	8015B	04/18/08 15:06	grappaccioli	Q31819
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One surrogate recovery was outside the control limits. No target compounds were detected in this sample. No further action was taken.

Surrogate	% Recovery	Control Limits
aaa-TFT	131 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-26 (5-7)
 Prism Sample ID: 211276
 COC Group: G0408351
 Time Collected: 04/09/08 12:40
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	76.7	%			1	SM2540 G	04/15/08 11:15	mbarber	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	9.1	1.5	1	8015B	04/23/08 17:48	jvogel	Q31936
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Sample Preparation: 25.27 g / 1 mL 3545 04/21/08 15:15 wconder P21394

Surrogate	% Recovery	Control Limits
o-Terphenyl	122	49 - 124

Sample Weight Determination

Weight 1	6.47	g			1	GRO	04/17/08 0:00	athao	
Weight 2	5.91	g			1	GRO	04/17/08 0:00	athao	

Gasoline Range Organics (GRO) by GC-FID


Gasoline Range Organics (GRO)	BRL	mg/kg	6.5	4.1	50	8015B	04/18/08 15:37	grappaccioli	Q31819
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One surrogate recovery was outside the control limits. No target compounds were detected in this sample. No further action was taken.

Surrogate	% Recovery	Control Limits
aaa-TFT	135 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit
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 2923 South Tryon St. Ste 100
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Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-27 (5-7)
 Prism Sample ID: 211277
 COC Group: G0408351
 Time Collected: 04/09/08 13:00
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
-----------	--------	-------	--------------	-----	-----------------	--------	--------------------	---------	----------

Percent Solids Determination

Percent Solids	79.5	%			1	SM2540 G	04/15/08 11:15	mbarber	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	180	mg/kg	8.7	1.4	1	8015B	04/23/08 9:40	jvogel	Q31936
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Sample Preparation: 25.33 g / 1 mL 3545 04/21/08 15:15 wconder P21394

Surrogate	% Recovery	Control Limits
o-Terphenyl	114	49 - 124

Sample Weight Determination

Weight 1	6.26	g			1	GRO	04/17/08 0:00	athao	
Weight 2	6.40	g			1	GRO	04/17/08 0:00	athao	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.3	3.9	50	8015B	04/18/08 16:10	grappaccioli	Q31819
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One surrogate recovery was outside the control limits. No target compounds were detected in this sample. No further action was taken.

Surrogate	% Recovery	Control Limits
aaa-TFT	171 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

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Laboratory Report

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North Carolina Department of
 Transportation
 Attn: David Graham
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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-28 (2-5)
 Prism Sample ID: 211300
 COC Group: G0408351
 Time Collected: 04/10/08 10:00
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	80.1	%			1	SM2540 G	04/16/08 15:15	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.7	1.4	1	8015B	04/24/08 10:25	jvogel	Q31961
Sample Preparation:			25.16 g	/	1 mL	3545	04/22/08 16:30	wconder	P21413
					Surrogate		% Recovery	Control Limits	
					o-Terphenyl		59	49 - 124	
Sample Weight Determination									
Weight 1	6.18	g			1	GRO	04/15/08 0:00	Lbrown	
Weight 2	6.30	g			1	GRO	04/15/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.2	3.9	50	8015B	04/19/08 18:10	grappaccioli	Q31853
					Surrogate		% Recovery	Control Limits	
					aaa-TFT		109	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

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 Attn: David Graham
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 2923 South Tryon St. Ste 100
 Charlotte, NC 28203

Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-29 (7-9)
 Prism Sample ID: 211301
 COC Group: G0408351
 Time Collected: 04/10/08 10:10
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	72.6	%			1	SM2540 G	04/16/08 15:15	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	220	mg/kg	48	7.8	5	8015B	04/25/08 13:35	jvogel	Q31993
Sample Preparation:				25.4 g /	1 mL	3545	04/23/08 17:10	wconder	P21424
				Surrogate			% Recovery	Control Limits	
				o-Terphenyl			DO #	49 - 124	
Sample Weight Determination									
Weight 1	6.57	g			1	GRO	04/15/08 0:00	Lbrown	
Weight 2	6.27	g			1	GRO	04/15/08 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	15	mg/kg	6.9	4.3	50	8015B	04/19/08 18:42	grappaccloli	Q31853
						Surrogate		% Recovery	Control Limits
						aaa-TFT		102	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

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Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-30 (7-9)
 Prism Sample ID: 211302
 COC Group: G0408351
 Time Collected: 04/10/08 10:20
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	74.5	%			1	SM2540 G	04/16/08 15:15	mbarber	
<u>Diesel Range Organics (DRO) by GC-FID</u>									
Diesel Range Organics (DRO)	28	mg/kg	9.3	1.5	1	8015B	04/25/08 2:49	jvogel	Q31993
Sample Preparation:			25.29 g /		1 mL	3545	04/23/08 17:10	wconder	P21424
						Surrogate	% Recovery	Control Limits	
						o-Terphenyl	58	49 - 124	
<u>Sample Weight Determination</u>									
Weight 1	5.93	g			1	GRO	04/17/08 0:00	athao	
Weight 2	6.44	g			1	GRO	04/17/08 0:00	athao	
<u>Gasoline Range Organics (GRO) by GC-FID</u>									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.7	4.2	50	8015B	04/19/08 19:13	grappaccioli	Q31853
						Surrogate	% Recovery	Control Limits	
						aaa-TFT	91	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

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 2923 South Tryon St. Ste 100
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Project Name: Boone PSAs
 Project ID: ROW-148
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: 42-31 (7-9)
 Prism Sample ID: 211303
 COC Group: G0408351
 Time Collected: 04/10/08 10:30
 Time Submitted: 04/11/08 9:20

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	88.1	%			1	SM2540 G	04/16/08 15:15	mbarber	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	23	mg/kg	7.9	1.3	1	8015B	04/25/08 3:25	jvogel	Q31993
Sample Preparation:			25.18 g	/	1 mL	3545	04/23/08 17:10	wconder	P21424
					Surrogate	% Recovery	Control Limits		
					o-Terphenyl	63	49 - 124		
Sample Weight Determination									
Weight 1	5.14	g			1	GRO	04/17/08 0:00	athao	
Weight 2	4.32	g			1	GRO	04/17/08 0:00	athao	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	5.7	3.6	50	8015B	04/19/08 19:45	grappaccioli	Q31853
					Surrogate	% Recovery	Control Limits		
					aaa-TFT	91	55 - 129		

Sample Comment(s):

BRL = Below Reporting Limit

Values are reported down to the reporting limit only. No J-Flags applied.

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

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449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



Full Service Analytical & Environmental Solutions

449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543
Phone: 704/525-6364 • Fax: 704/525-0409

Client Company Name: HART & HILBMAN

Report To/Contact Name: D. G. ...

Reporting Address: 2903 S. Tapan St

Phone: 704-586-4200 Fax (Yes) (No):

Email (Yes) (No) Email Address: ...

EDD Type: PDF / Excel / Other

Site Location Name: Boone - DOT

Site Location Physical Address: Boone, NC

CHAIN OF CUSTODY RECORD

PAGE 7 OF 10 QUOTE # TO ENSURE PROPER BILLING:

Project Name: ROW-148

Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)

*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements

Invoice To:

Address:

Purchase Order No./Billing Reference

Requested Due Date 1 Day 2 Days 3 Days 4 Days 5 Days 6 Days

"Working Days" 6-9 Days Standard 10 days Pre-Approved

Samples received after 15:00 will be processed next business day.

Turnaround time is based on business days, excluding weekends and holidays.

(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER		PRESERVATIVES	ANALYSES REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO. SIZE				
42-21(2-4)	4/19/08	1200	soil	VOL 1	3	40ml none hold			211272
42-23(2-5)		1210	soil						211273
42-24(2-5)		1220	soil						211274
42-25(5-7)		1230	soil						211275
42-26(5-7)		1240	soil						211276
42-27(5-7)		1300	soil						211277
38-4(0-2)		1415	soil						211273
38-6(2-5)		1430	soil						211274
38-1(2-4)		1500	soil						211280
38-3(5-7)		1515	soil						211281

Samplers Signature: [Signature] Sampled By (Print Name): M. Falvoe Affiliation: H&H

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature] Date: 4/19/08 Military/Hours: 920

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature] Date: 4/19/08 Military/Hours: 920

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature] Date: 4/19/08 Military/Hours: 920

Method of Shipment: Fed Ex UPS Hand-delivered Prism Field Service Other

NPDES: NC SC NC SC NC SC NC SC NC SC

DRINKING WATER: NC SC NC SC NC SC NC SC

SOLID WASTE: NC SC NC SC NC SC NC SC

RCRA: NC SC NC SC NC SC NC SC

CERCLA: NC SC NC SC NC SC NC SC

LANDFILL: NC SC NC SC NC SC NC SC

OTHER: NC SC NC SC NC SC NC SC

*CONTAINED TYPE CONES: A - Amber C - Clear G - Glass P - Plastic T1 - Teflon-lined Can VOA - Volatile Organics Analysis (7 Air Head Space)

LAB USE ONLY

Samples INTACT upon arrival? YES NO N/A

Received ON WET ICE? Temp. 13 ✓

PROPER PRESERVATIVES indicated? ✓

Received WITHIN HOLDING TIMES? ✓

CUSTODY SEALS INTACT? ✓

VOLATILES rec'd W/OUT HEADSPACE? ✓

PROPER CONTAINERS used? ✓

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC USACE FL NC

SC OTHER N/A

Water Chlorinated: YES NO

Sample Iced Upon Collection: YES NO

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PRISM USE ONLY

Site Arrival Time

Site Departure Time

Field Tech Fee

Mileage

Additional Comments:

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL



Full Service Analytical & Environmental Solutions

448 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543

Phone: 704/529-6364 • Fax: 704/528-0409

Client Company Name: HART & HILSON

Report To/Contact Name: D. Lechner

Reporting Address: 2973 S. Tryon St.

Phone: 704-536-0001 Fax (Yes) (No):

Email (Yes) (No) Email Address: d.lechner@hartandhilson.com

EDD Type: PDF Excel Other

Site Location Name: Green - DOT

Site Location Physical Address: Greene, NC

CHAIN OF CUSTODY RECORD

PAGE 1 OF 10 QUOTE # TO ENSURE PROPER BILLING:

Project Name: Row-148

Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)

*Please ATTACH any project specific reporting (QC LEVEL I III III IV) provisions and/or QC Requirements

Invoice To:

Address:

Purchase Order No./Billing Reference

Requested Due Date 1 Day 2 Days 3 Days 4 Days 5 Days Rush Work Must Be

"Working Days" 6-9 Days Standard 10 days Pre-Approved

Samples received after 15:00 will be processed next business day.

Turnaround time is based on business days, excluding weekends and holidays.

(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

Samples INTACT upon arrival? YES NO N/A

Received ON WET ICE? Temp. 13

PROPER PRESERVATIVES indicated?

Received WITHIN HOLDING TIMES?

CUSTODY SEALS INTACT?

VOLATILES rec'd W/OUT HEADSPACE?

PROPER CONTAINERS used?

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC USACE FL NC

Water Chlorinated: YES NO

Sample Iced Upon Collection: YES NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER			PRESERVATIVES	ANALYSES REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
38-15(10-12)	4/10/08	0845	soil	VOA COI	3	100ml	none held	✓		211293
38-16(5-7)	4/10/08	0855	soil					✓		211294
38-17(2-5)		0915	soil					✓		211295
38-18(10-12)		0920	soil					✓		211296
38-21(7-9)		0930	soil					✓		211297
38-20(7-9)		0940	soil					✓		211298
38-19(7-9)		0945	soil					✓		211299
42-28(2-5)		1000	soil					✓		211300
42-29(7-9)		1010	soil					✓		211301
42-30(7-9)		1020	soil					✓		211302

PRISM USE ONLY

Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

Additional Comments:

Date	Military/Hours
Date	
Date	720
COC Group No. 60408351	

Received By: (Signature) [Signature]

Received By: (Signature) [Signature]

Received For Prism Laboratories By: [Signature]

Method of Shipment: Fed Ex UPS Hand-delivered Prism Field Service Other

NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

NPDES: NC SC US DRINKING WATER: NC SC SOLID WASTE: NC SC CERCLA: NC SC LANDFILL: NC SC OTHER: NC SC

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic: TI = Teflon-lined Can VOA = Volatile Organics Analysis (7cm Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

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Full Service Analytical & Environmental Solutions

449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543
 Phone: 704/529-6364 • Fax: 704/525-0409

Client Company Name: AA&S & Frickman

Report To/Contact Name: D. Graham

Reporting Address: 2403 S. JAPAN ST.

Phone: 704-586-0007 Fax (Yes) (No):

Email (Yes) (No) Email Address: dgraham@aa&s.com

EDD Type: PDF Excel Other

Site Location Name: VA-001-DOT

Site Location Physical Address: VA-001, VA

CHAIN OF CUSTODY RECORD

PAGE 10 OF 10 QUOTE # TO ENSURE PROPER BILLING:

Project Name: Row-148

Short Hold Analysis: (Yes) (No) (Yes) (No) UST Project: (Yes) (No) (Yes) (No) I III III IV

*Please ATTACH any project specific reporting (QC LEVEL I III III IV) provisions and/or QC Requirements

Invoice To:

Address:

Purchase Order No./Billing Reference

Requested Due Date 1 Day 2 Days 3 Days 4 Days 5 Days Rush Work Must Be Pre-Approved

Working Days 6-9 Days Standard 10 days Pre-Approved

Samples received after 15:00 will be processed next business day, excluding weekends and holidays.

Turnaround time is based on business days, excluding weekends and holidays.

(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

Samples INTACT upon arrival? YES NO N/A

Received ON WET IDE? Temp. 15.3

PROPER PRESERVATIVES indicated? YES NO

Received WITHIN HOLDING TIMES? YES NO

CUSTODY SEALS INTACT? YES NO

VOLATILES rec'd w/OUT HEADSPACE? YES NO

PROPER CONTAINERS used? YES NO

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC USACE FL NC

Water Chlorinated: YES NO OTHER N/A

Sample Iced Upon Collection: YES NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER		PRESERVATIVES	ANALYSES REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO. SIZE				
42-31(7-9)	4/10/08	1030	soil	VOA-166	3 40ml non/melt		TPH-681 TK-680 TK-680 TK-680		211303
43-B		1100	H ₂ O					HOLD H ₂ O samples	211304
43-A(2-4)		1120	soil						211305
45-A		1140	soil H ₂ O					HOLD H ₂ O samples	211306
45-B		1230	H ₂ O					HOLD H ₂ O samples 4/18/08 H ₂ O per David Graham	211307

Samplers Signature: [Signature] Sampled By (Print Name): M. Falkner Affiliation: H&H

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature]

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature]

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature]

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature]

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature]

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

Fed Ex UPS Hand-delivered Prism Field Service Other

NPDES: USE NC SC DRINKING WATER: NC SC SOLID WASTE: NC SC CERCLA: NC SC LANDFILL: NC SC OTHER: NC SC

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic: TI = Teflon-lined Can VOA = Volatile Organics Analysis (7-arm Head Space)

PRISM USE ONLY

Site Arrival Time

Site Departure Time

Field Tech Fee

Mileage

Additional Comments:

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL



Full Service Analytical & Environmental Solutions

449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543
Phone: 704/629-6364 • Fax: 704/629-0409

Client Company Name: HART & HICKMAN
Report To/Contact Name: DAVID GERHART
Reporting Address: 2023 S. TRYON ST. SUITE 100
CHARLOTTE, NC 28203

Phone: 2048824430 Fax (Yes) (No):
Email (Yes) (No) Email Address:
EDD Type: PDF Excel Other
Site Location Name: BOONE P&S
Site Location Physical Address: US 421-BOONE NC

CHAIN OF CUSTODY RECORD

PAGE 1 OF 3 QUOTE # TO ENSURE PROPER BILLING:

Project Name: Boone-148 - Boone P&S
Short Hold Analysis: (Yes) (No) UST Project (Yes) (No)

*Please ATTACH any project specific reporting (QC LEVEL I III IV) provisions and/or QC Requirements

Invoice To: ALDOT (STATE PROJECT: U-4020)
Address:

Purchase Order No./Billing Reference: NBS 35015-1-1
Requested Due Date 1 Day 2 Days 3 Days 4 Days 5 Days
"Working Days" 6-9 Days Standard 10 days Pre-Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER			PRESERVATIVES	ANALYSES REQUESTED	REMARKS	PRISM LAB ID NO.
				TYPE SEE BELOW	NO.	SIZE				
42-4 (4-6')	040208	0930	Soil	LOG VOA	2/1	40ml	None	DRY WT. BASIS	HIGH IMPACTS SUSPECT THEM #12 (#12) SERIES	210591
42-4 (10-12')				2/1	2/1					210592
42-5 (6-8')		0950		2/1	2/1					210593
42-6 (2-4')		1005		2/1	2/1					210594
42-7 (6-8')		1040		2/1	2/1					210595
42-7 (10-12')				2/1	2/1					210596
42-8 (6-8')		1115		2/1	2/1					210597
42-9 (8-10')		1140		2/1	2/1					210598
42-10 (10-12')		1310		2/1	2/1					210599
42-11 (8-10')		1325		2/1	2/1					210600

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NELAC _____ USACE _____ FL _____ NC _____
SC _____ OTHER _____ N/A _____
Water Chlorinated: YES _____ NO _____
Sample Iced Upon Collection: YES _____ NO _____

Sampled By (Print Name): Carol Matthews Mike Fowler Affiliation: Hart & Hickman

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By (Signature): [Signature] Date: 4/3/08 Military/Hours: 1610

Received By (Signature): [Signature] Date: 4/3/08

Relinquished By (Signature): [Signature] Date: 4/3/08 Military/Hours: 1610

Received For Prism Laboratories By: [Signature] Date: 4/3/08 Military/Hours: 1610

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST CQC UNTIL RECEIVED AT THE LABORATORY.

Fed Ex UPS Hand-delivered Prism Field Service Other

NPDES: NC SC NC SC NC SC NC SC NC SC

UST: NC SC NC SC NC SC NC SC

GROUNDWATER: NC SC NC SC NC SC NC SC

DRINKING WATER: NC SC NC SC NC SC NC SC

SOLID WASTE: NC SC NC SC NC SC NC SC

RCRA: NC SC NC SC NC SC NC SC

CERCLA: NC SC NC SC NC SC NC SC

LANDFILL: NC SC NC SC NC SC NC SC

OTHER: NC SC NC SC NC SC NC SC

*CONTAINER TYPE CODES: A = Amber G = Glass P = Plastic T = Teflon-lined Can VOA = Volatile Organics Analyte (VOCs, SVOCs, PCBs)

LAB USE ONLY

Strip/Seal Intact Upon Arrival NO N/A

Procedural Deviation Used NO N/A

Proper Preservation/Times Indicated YES NO

Received Within Holding Times YES NO

Customer Seal Intact YES NO

Outlets Sealed w/our Headspace YES NO

Proper Containers Used YES NO

PRISM USE ONLY

Site Arrival Time: _____

Site Departure Time: _____

Field Technician: _____

mileage: _____

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70

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