

North Carolina Department of Transportation

**PRELIMINARY SITE ASSESSMENT
FOR PARCEL 56**

**State Project U-4020, WBS Element 35015.1.1
US 421 (King Street) from US 321 (Hardin Street)
to East of NC 194 (Jefferson Road) in Boone
Watauga County, North Carolina**



May 22, 2008
Revised June 10, 2008
Project Number 07210023.07



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**North Carolina Department of Transportation
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State Project U-4020, WBS Element 35015.1.1
US 421 (King Street) from US 321 (Hardin Street) to East of NC 194 (Jefferson Road) in
Boone, Watauga County, North Carolina**

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1.0 INTRODUCTION

The North Carolina Department of Transportation (NCDOT) is widening the existing alignment of US Highway 421 (King Street) in the town of Boone, located in Watauga County, North Carolina. Acquisition of properties within the right-of-way is necessary prior to road construction. Schnabel Engineering conducted Preliminary Site Assessments (PSAs) on six sites (seven parcels) located within the proposed right-of-way that are of concern to the NCDOT.

This report summarizes the results of field activities conducted during the PSA for the proposed property acquisition area (Study Area) identified by NCDOT on Parcel 56. The property is located at 130 New Market Boulevard and is occupied by A Cleaner World, currently owned by RWE Properties LLC (Figure 1). This property is located at the intersection of New Market Boulevard and East King Street. The property line and topography are shown on Figure 2. The approximate NCDOT project limits that delineate the property acquisition area are shown on Figure 3.

The scope of work executed at the site was performed in general accordance with our cost proposal dated March 3, 2008 and was initiated based on a Notice to Proceed issued by the NCDOT Geotechnical Engineering Unit on March 4, 2008 under contract 7000008010, dated May 31, 2007.

2.0 BACKGROUND AND SITE DESCRIPTION

No buildings were located on the right-of-way of Parcel 56. The surface of the right-of-way was covered with grass, a paved walkway, and an asphalt covered driveway to A Cleaner World. Several utilities cross the right-of-way including buried gas and water lines, stormwater pipes, traffic signal lines, as well as overhead electric lines. Photographs of the Study Area are presented in Appendix A.

3.0 FIELD METHODOLOGY

Prior to mobilizing to the site to conduct subsurface sampling, Schnabel Engineering contacted North Carolina One Call to locate underground utilities in the proposed property acquisition areas (Study Area) of the site. Schnabel Engineering mobilized a geophysical crew to the site on March 11,

2008 and performed an electromagnetic survey of the subsurface in the proposed right-of-way area within the parcel. The electromagnetic survey equipment (EM61-MK2) identified various buried metal anomalies within the Study Area. The Schnabel geophysical crew returned to the Study Area on March 19, 2008 to perform a ground penetrating radar (GPR) survey with a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna. Results of the survey suggested the presence of buried utility lines or conduits, but did not indicate the presence of potential USTs within the Study Area, along New Market Boulevard. The report on the geophysical surveys is included in Appendix B and was previously sent to the NCDOT on May 2, 2008.

After reviewing the background information and geophysical data, Schnabel returned to Parcel 56 to obtain soil samples for chemical analysis from within the Study Area. Soil samples were collected to test for total petroleum hydrocarbon gasoline and diesel range volatile organic carbons (TPH-GRO and TPH-DRO), oil and grease, and Method 8260 Organics. Four borings designated B-56-01 through B-56-04 were advanced by Subsurface Environmental Investigations of Statesville, NC along New Market Boulevard on March 31, 2008. The locations of the four soil borings are shown on Figure 3. Borings B-56-01 through B-56-04 were advanced to a total depth of eight feet below ground surface. Borings drilled within the Study Area were advanced utilizing a track-mounted Geoprobe® (Model 6610-DT) with direct push probe technology. At the completion of the sampling activities, each boring was backfilled with soil removed from the boring during sampling and/or bentonite chips.

Soil samples were obtained from each Geoprobe boring using a MacroCore® sampler fitted with a new, single-use, four foot long disposable polyvinyl chloride (PVC) liner. Upon retrieval, a portion of each 2-foot interval was placed in a separate resealable plastic bag. These bags were sealed and placed at ambient temperature for field screening with a MiniRAE Plus photo ionization detector (PID). Volatile organic compounds were allowed to accumulate in the headspace of each bag for approximately 15 minutes, and then the headspace of each sealed bag was scanned with the PID. Headspace screening of the soil samples indicated a concentration of 0 ppm at each boring location at intervals of two, four, six, and eight feet below ground surface. The PID was calibrated on March 29, 2008 in general accordance with the manufacturer's recommended calibration procedures. The

PID readings were recorded along with the soil descriptions and indications of staining or odors, if present. Logs for each boring are presented in Appendix C.

Soil samples for laboratory analysis were collected from each boring at the sample intervals identified in Table 1. These samples were obtained from the bottom of each boring unless water was encountered. All soil samples were placed in laboratory-supplied containers and stored on ice pending shipment to Prism Laboratories, Inc. (Prism) in Charlotte, NC. Sample information was recorded on the Chain-of-Custody form and the samples were submitted for chemical analysis of TPH-GRO by Modified EPA Method 5030/8015, TPH-DRO by Modified EPA Method 3545/8015, and Method 8260 Organics. An Oil and Grease soil sample was collected at B-56-03 because it is in a down-gradient direction from A Cleaner World.

Soils collected from borings within the Study Area generally consisted of silty sand (SM) or sandy silt (ML). GPS coordinates for each boring were obtained using a Trimble Pro-XRS DGPS system (Appendix D) with coordinates reported in US State Plane 1983 system, North Carolina 3200 zone, using the NAD 83 datum, with units in US survey feet.

4.0 DISCUSSION OF RESULTS

Soil samples were collected at Parcel 56 and analyzed for TPH-DRO, TPH-GRO, Oil and Grease, and Method 8260 Organics. The samples submitted for analysis showed that TPH-GRO, TPH-DRO, Oil and Grease, and Method 8260 organics were at levels below the laboratory reporting limits. Laboratory analytical results are summarized in Table 2. Laboratory reports for these samples are presented in Appendix E.

5.0 CONCLUSIONS

The geophysical survey conducted at the site did not find evidence of potential USTs within the Study Area, but did indicate the presence of buried utility lines or conduits. Laboratory analytical results showed that TPH-GRO, TPH-DRO, Oil and Grease, and Method 8260 Organics were below the laboratory analytical reporting limits on Parcel 56.

6.0 RECOMMENDATIONS

Based on the currently available information presented in this report, additional assessment is not recommended.

7.0 LIMITATIONS

This Preliminary Site Assessment was prepared for the use of the North Carolina Department of Transportation. The scope of work performed at the site is limited to the tasks described in our cost proposal dated March 3, 2008. This report is not intended to represent an exhaustive research of all potential hazards that may exist. Schnabel makes no other declarations, or any express or implied warranty, as to the professional services provided under the terms of the agreement.

TABLES

TABLE 1
SAMPLING INTERVALS AND FIELD VOLATILE MEASUREMENTS
PARCEL 56
NCDOT U-4020, WATAUGA COUNTY

Sample Depth Below Ground Surface	Soil Borings			
	B-56-01	B-56-02	B-56-03	B-56-04
	PID (ppm)			
0 - 2 feet	ND	ND	ND	ND
2 - 4 feet	ND	ND	ND	ND
4 - 6 feet	ND	ND	ND	NS
6 - 8 feet	ND	ND	ND	NS

Shaded cells were submitted for laboratory analysis

NS = Not Sampled

ND = Volatiles Not Detected by field measurements (0 ppm headspace reading with PID)

PID readings were obtained using a MiniRae Photo Ionization Detector

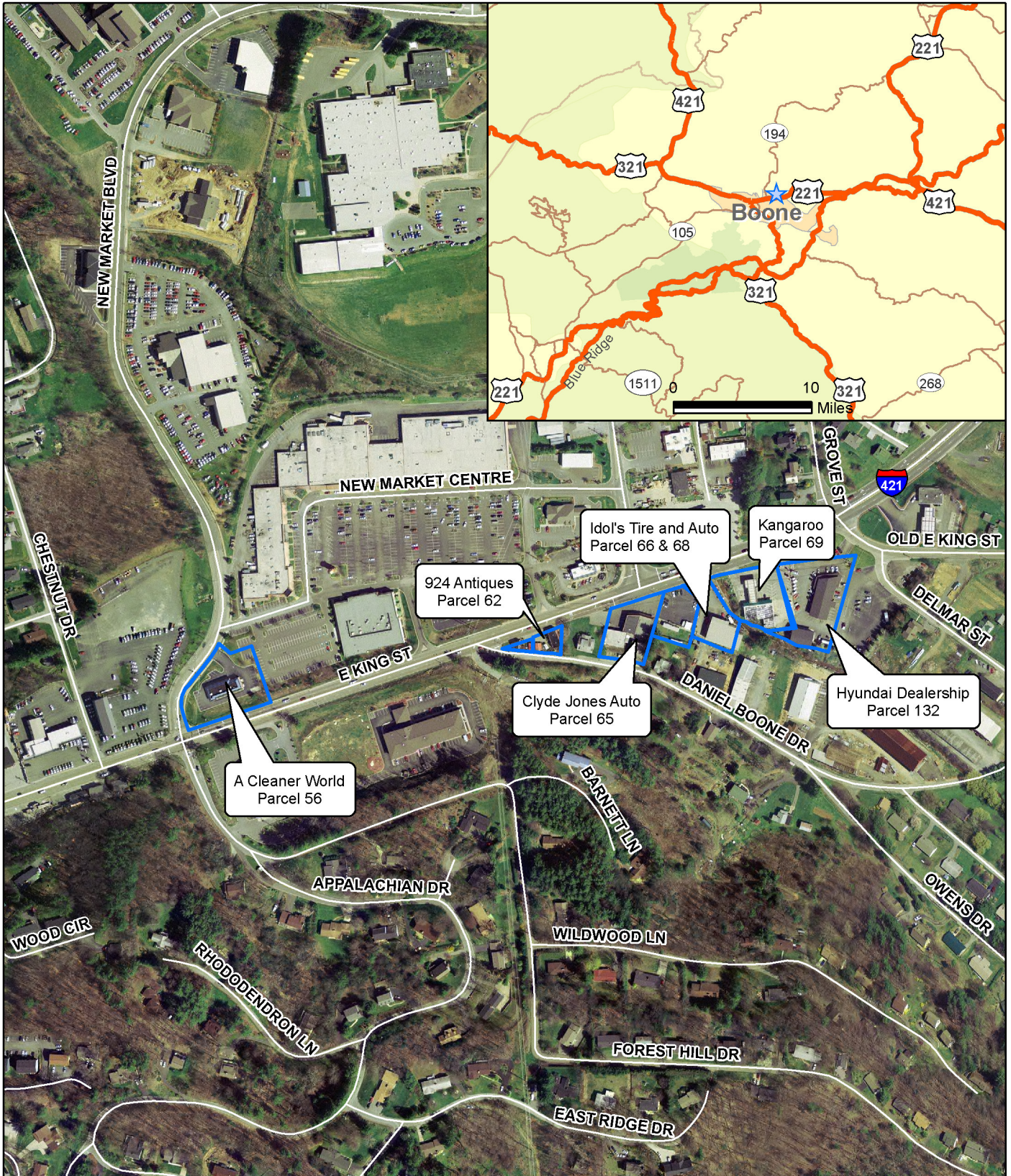
ppm = parts per million

**TABLE 2
SUMMARY OF LABORATORY RESULTS
PARCEL 56
NCDOT U-4020, WATAUGA COUNTY**

Boring No.	Depth (ft)	Matrix	TPH-GRO	TPH DRO	Oil and Grease	Method 8260 Organics
B-56-01	0 - 2	Soil	NS	NS	NS	NS
B-56-01	2 - 4	Soil	NS	NS	NS	NS
B-56-01	4 - 6	Soil	NS	NS	NS	NS
B-56-01	6 - 8	Soil	BRL	BRL	NS	BRL
B-56-02	0 - 2	Soil	NS	NS	NS	NS
B-56-02	2 - 4	Soil	NS	NS	NS	NS
B-56-02	4 - 6	Soil	NS	NS	NS	NS
B-56-02	6 - 8	Soil	BRL	BRL	NS	BRL
B-56-03	0 - 2	Soil	NS	NS	BRL	NS
B-56-03	2 - 4	Soil	NS	NS	NS	NS
B-56-03	4 - 6	Soil	NS	NS	NS	NS
B-56-03	6 - 8	Soil	BRL	BRL	NS	BRL
B-56-04	0 - 2	Soil	NS	NS	NS	NS
B-56-04	2 - 4	Soil	BRL	BRL	NS	BRL
B-56-04	4 - 6	Soil	NS	NS	NS	NS
B-56-04	6 - 8	Soil	NS	NS	NS	NS
Regulatory Concentrations						
TPH Action Level		Soil	10	40	250	Various

J: The analyte was positively identified but the value is estimated below the reporting limit.
mg/kg = parts per million
BRL - Below Reporting Limit
NS - Not Sampled
Listed Regulatory Concentrations are from UST Section Guidelines
for the Investigation and Remediation of Contamination from Non-UST Petroleum Releases

FIGURES



Source: 1. Watauga County GIS,
<http://www.wataugacounty.org/gis/index.asp>

400 200 0 400 Feet

Scale: 1:4,800

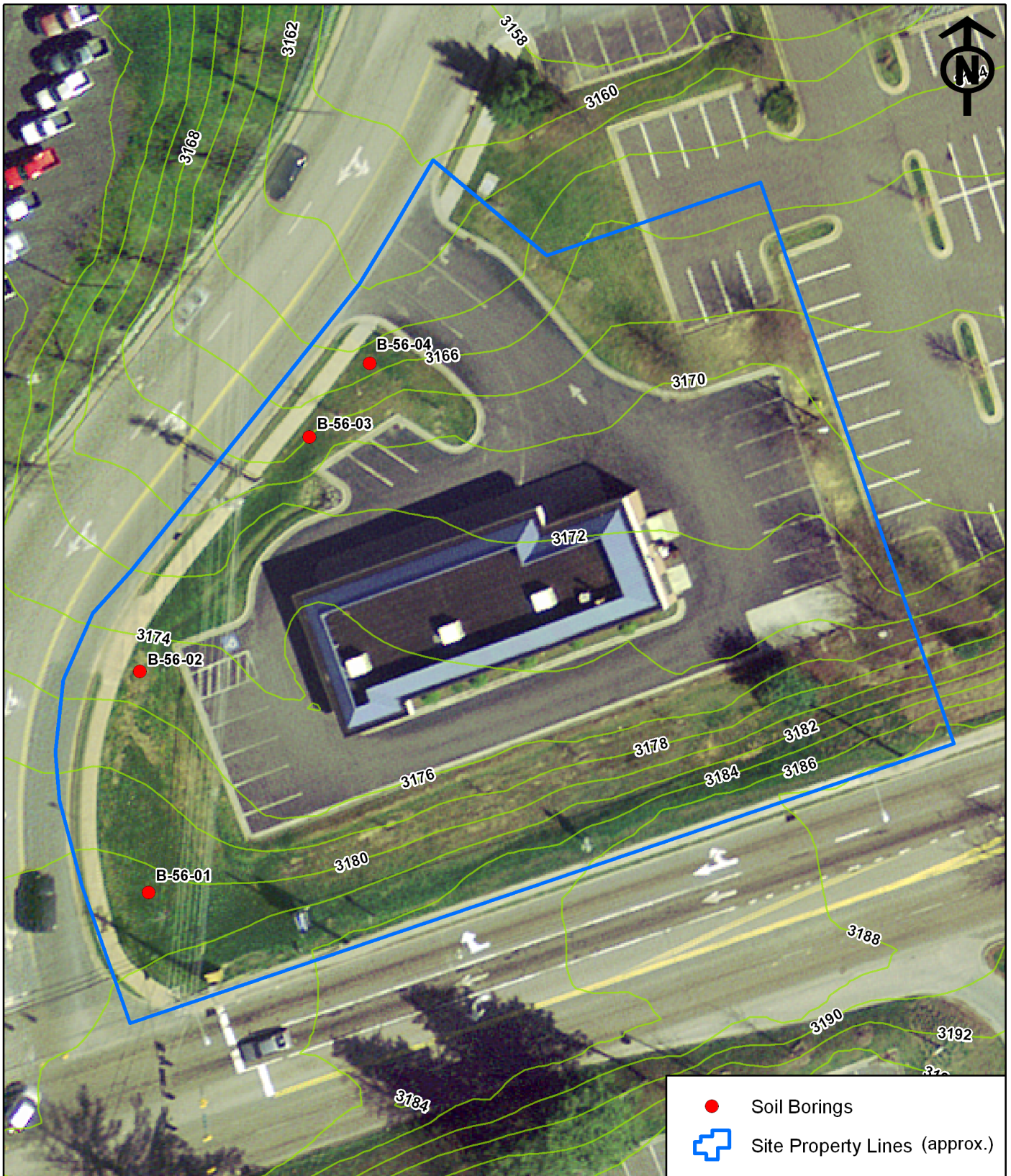


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State Project No. U-4020
 Watauga County, North Carolina

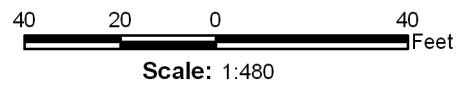
VICINITY MAP

Figure 1



- Soil Borings
- ⊕ Site Property Lines (approx.)

Source: 1. Watauga County GIS,
<http://www.wataugacounty.org/gis/index.asp>



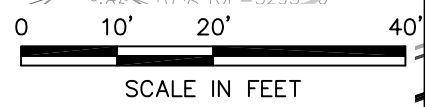
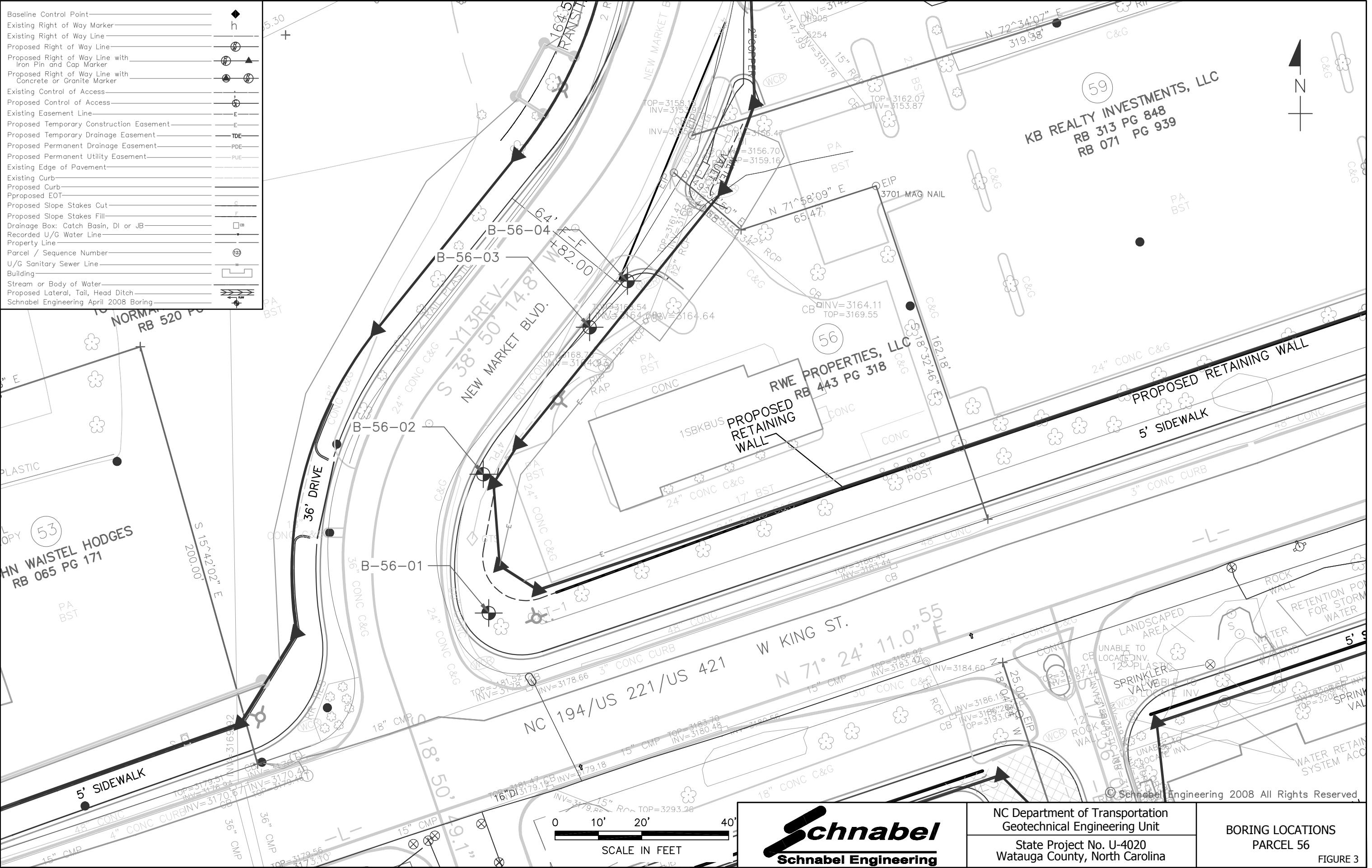
NC Department of Transportation
 Geotechnical Engineering Unit

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

SITE MAP
 PARCEL 56

Figure 2

Baseline Control Point	◆
Existing Right of Way Marker	⊕
Existing Right of Way Line	—
Proposed Right of Way Line	—
Proposed Right of Way Line with Iron Pin and Cap Marker	⊕
Proposed Right of Way Line with Concrete or Granite Marker	⊕
Existing Control of Access	—
Proposed Control of Access	—
Existing Easement Line	E
Proposed Temporary Construction Easement	—
Proposed Temporary Drainage Easement	TDE
Proposed Permanent Drainage Easement	PDE
Proposed Permanent Utility Easement	PUE
Existing Edge of Pavement	—
Existing Curb	—
Proposed Curb	—
Proposed EOT	—
Proposed Slope Stakes Cut	F
Proposed Slope Stakes Fill	F
Drainage Box: Catch Basin, DI or JB	□
Recorded U/G Water Line	—
Property Line	—
Parcel / Sequence Number	Ⓜ
U/G Sanitary Sewer Line	—
Building	—
Stream or Body of Water	—
Proposed Lateral, Tail, Head Ditch	—
Schnabel Engineering April 2008 Boring	



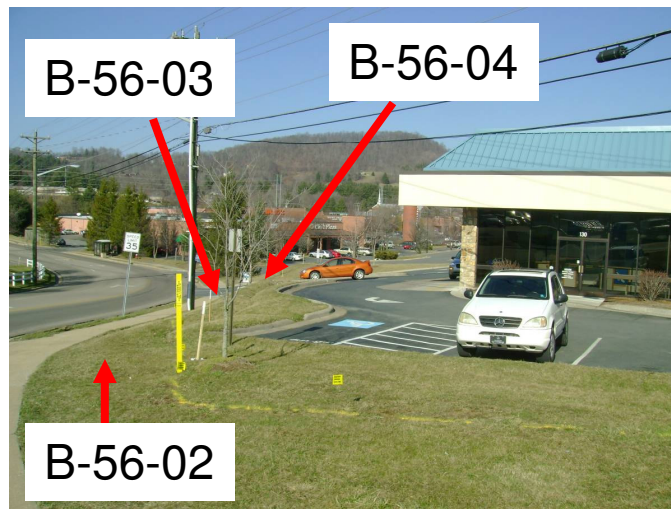
NC Department of Transportation
 Geotechnical Engineering Unit
 State Project No. U-4020
 Watauga County, North Carolina

BORING LOCATIONS
 PARCEL 56
 FIGURE 3

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APPENDIX A
Photographs

Parcel 56, A Cleaner World



APPENDIX B
Geophysics Report

May 2, 2008

Mr. Cyrus Parker
NCDOT, Geotechnical Unit
1020 Birch Ridge Drive
Raleigh, NC 27610

Via email (pdf)

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 56
Schnabel Engineering Project No. 07210023.07

Dear Mr. Parker:

This letter contains our report on the geophysical surveys we conducted on the subject property. The report includes two 11x17 color figures.

1.0 INTRODUCTION

Schnabel Engineering conducted geophysical surveys on March 11 and March 19, 2008, in the accessible areas of the proposed right-of-way (ROW) sections of Parcel 56 (RWE Properties LLC Property, A Cleaner World) under our 2007 contract with the NCDOT. Parcel 56 is located at the northeast corner of the intersection of US 421 (King Street) and New Market Boulevard, 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 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 two feet apart in orthogonal directions over anomalous EM readings not attributed to cultural features.

3.0 DISCUSSION OF RESULTS

The contoured EM61 data are shown on Figures 1 and 2. The EM61 early time gate results are plotted on Figure 1. The early time gate data provide the most sensitive detection of metal object targets, regardless of size. Figure 2 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 a linear anomaly probably caused by a buried storm sewer and several anomalies probably caused by known cultural features. One area containing an anomaly not attributed to known cultural features in the EM61 data was investigated using GPR. This anomaly is likely the result of a vehicle parked close to the survey area. The GPR data did not indicate the presence of UST's in the area surveyed on Parcel 56.

4.0 CONCLUSIONS

Our evaluation of the geophysical data collected on Parcel 56 of Project U-4020 in Boone, NC indicates the following:

- The geophysical data do not indicate the presence of UST's in the areas surveyed.

5.0 LIMITATIONS

These services have been performed and this report prepared for 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

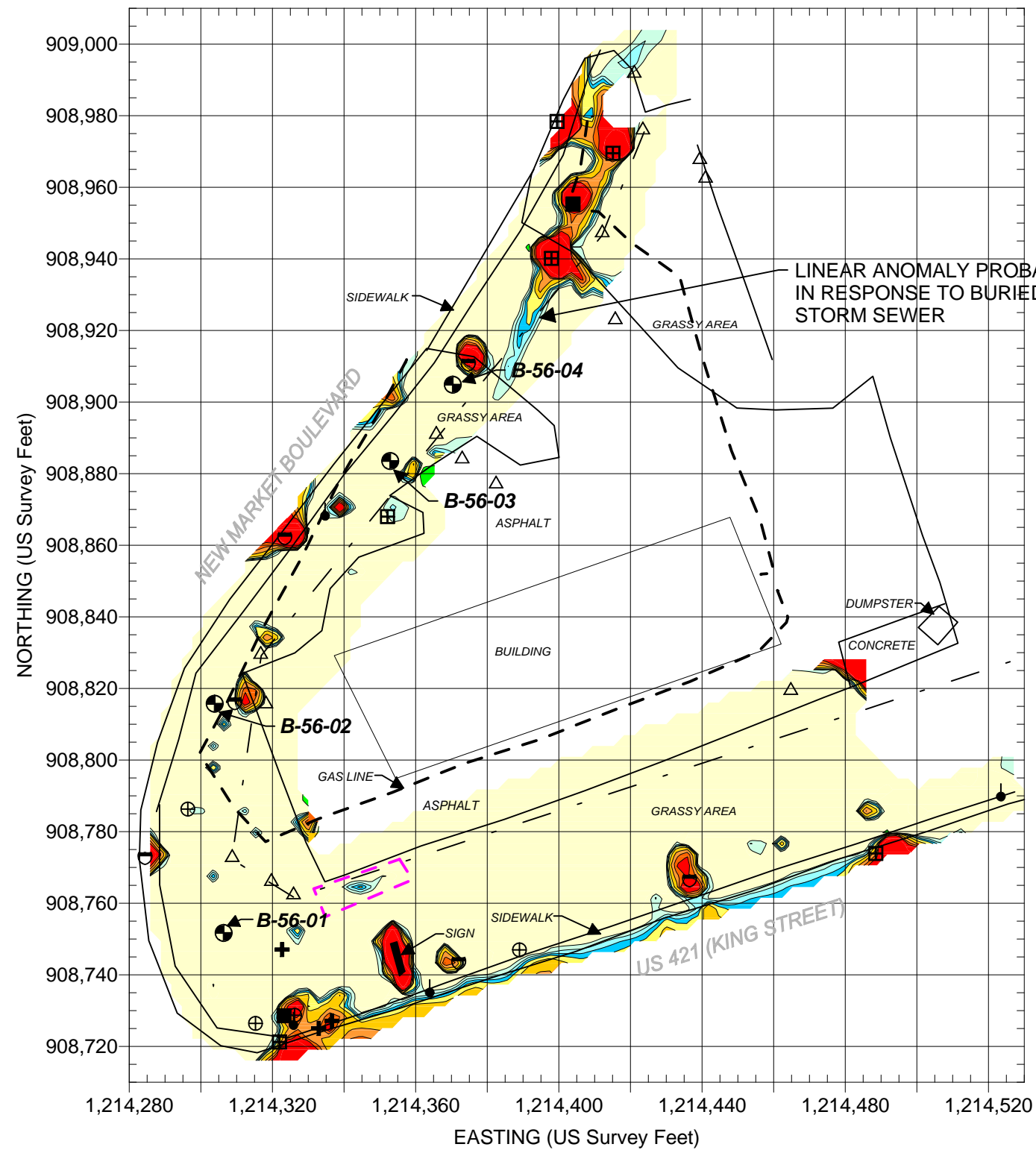


Edward D. Billington, P.G.
Senior Vice President

JW/JS/NB

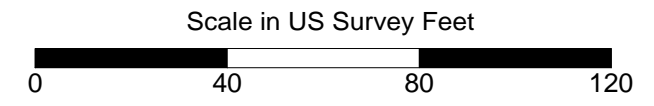
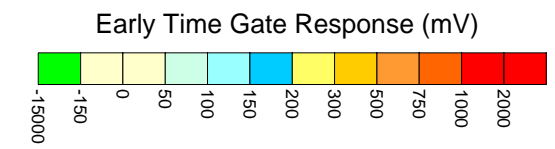
Attachment: Figures (2)

FILE: G:\2007 PROJECTS\07210023 (NCDOT 2007 GEOPHYSICAL SERVICES)\PHASE 07 (U-4020 - WATAUGA COUNTY)\REPORT\NCDOT (GOEPHYSICS & PSA)\PARCEL 56\REPORT ON PARCEL 56.DOC



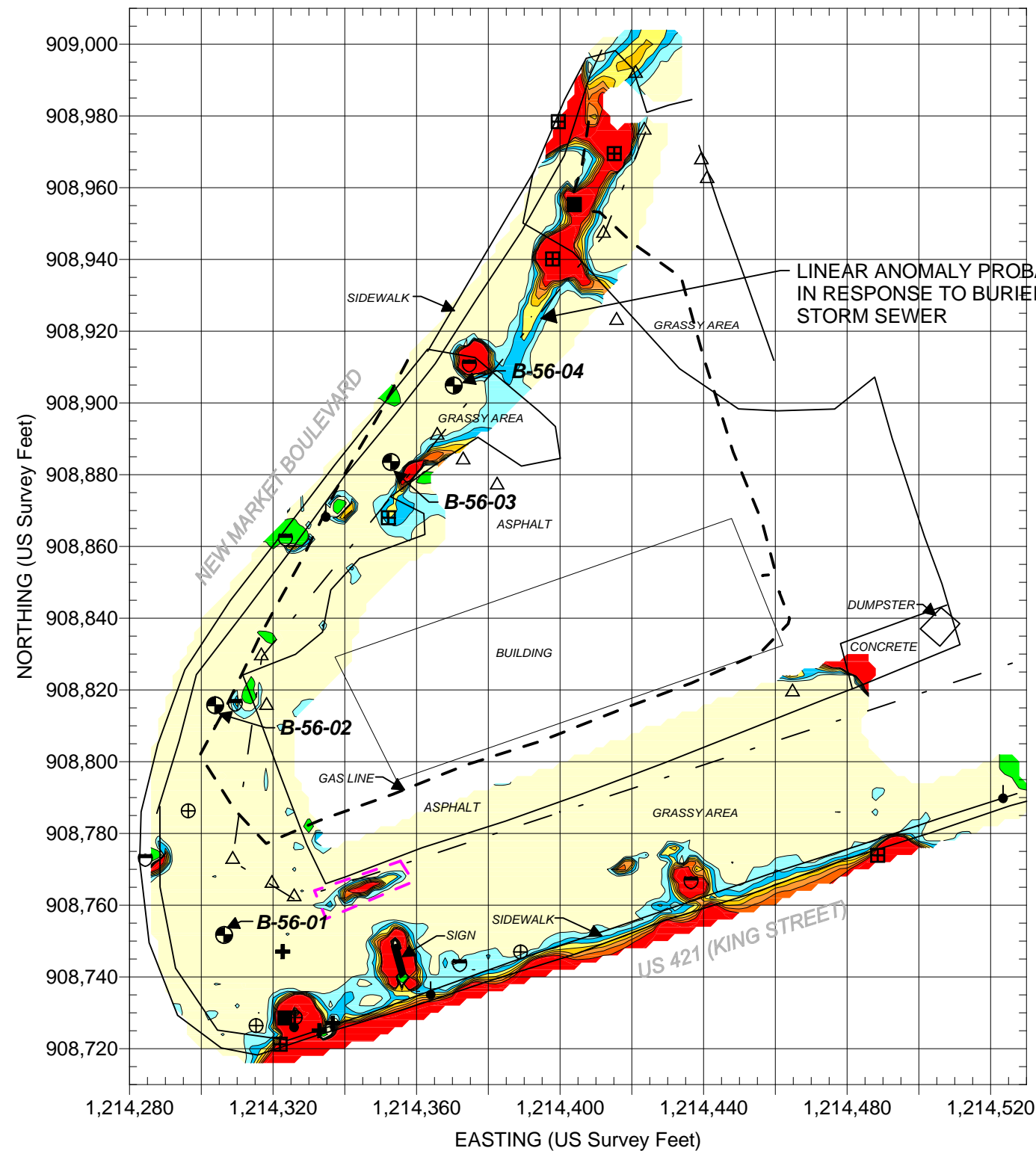
EXPLANATION

- EM61 SURVEY AREA - DATA ACQUIRED ALONG PARALLEL SURVEY LINES SPACED APPROXIMATELY 2.5 FEET APART
- BORING LOCATION
- 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



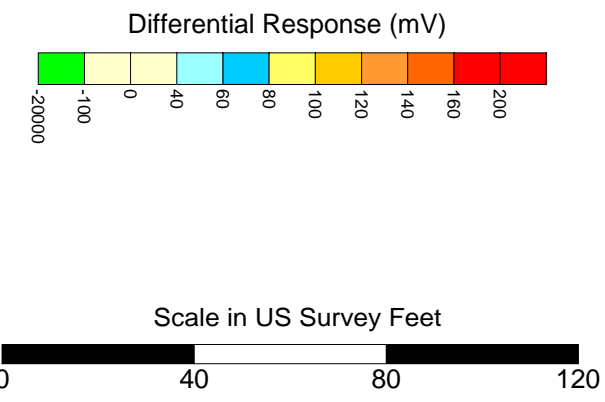
Note: The contour plot shows the earliest and most sensitive time gate of the EM61 bottom coil/channel in millivolts (mV). The EM data were collected on March 11, 2008, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina Zone 3200, using the NAD 1983 datum. GPR data were acquired on March 19, 2008, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

	NC Department of Transportation Geotechnical Engineering Unit	PARCEL 56 EM61 EARLY TIME GATE RESPONSE FIGURE 1
	State Project No. U-4020 Watauga County, North Carolina	



EXPLANATION

- EM61 SURVEY AREA - DATA ACQUIRED ALONG PARALLEL SURVEY LINES SPACED APPROXIMATELY 2.5 FEET APART
- BORING LOCATION
- 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 11, 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 19, 2008, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

	NC Department of Transportation Geotechnical Engineering Unit	PARCEL 56 EM61 DIFFERENTIAL RESPONSE FIGURE 2
	State Project No. U-4020 Watauga County, North Carolina	

APPENDIX C
Soil Boring Logs



**GEO
PROBE
LOG**

Project: NCDOT Preliminary Site Assessments
Watauga County
Boone, North Carolina

Geo Probe Number: **B-56-01**
Contract Number: 7210023.07
Sheet: 1 of 1

Contractor: Subsurface Environmental Investigations
Statesville, NC

Contractor Foreman: RJ Craner

Schnabel Representative: Ben Bradley

Equipment: Geoprobe 6610DT

Method: Geoprobe,
Macrocore

Hammer Type: NA

Dates Started: 3/31/08 **Finished:** 3/31/08

X: 1216041 ft **Y:** 909215 ft

Ground Surface Elevation: 3181± (ft) **Total Depth:** 8.0 ft

Groundwater Observations

	Date	Time	Depth	Casing	Caved
After Drilling	3/31	12:30 PM	Dry	---	---

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Topsoil		3180.3					
1.0	PROBABLE FILL, sampled as sandy silt, moist, dark brown	FILL	3179.5				PID = 0 ppm	
	PROBABLE FILL, sampled as silty sand, moist, light brown	FILL					PID = 0 ppm	
5.0	SILTY SAND, moist, reddish brown, probable RESIDUAL material	SM	3175.5		5		PID = 0 ppm	
8.0			3172.5			S-1, S-2, S-3	PID = 0 ppm	

Bottom of Geo Probe at 8.0 ft.
Boring terminated at selected depth.
Boring backfilled with bentonite upon completion.

TEST BORING LOG BORELOGS:GPJ SCHNABEL DATA TEMPLATE 2008_04_01.GDT 5/29/08



**GEO
PROBE
LOG**

Project: NCDOT Preliminary Site Assessments
Watauga County
Boone, North Carolina

Geo Probe Number: **B-56-02**
Contract Number: 7210023.07
Sheet: 1 of 1

Contractor: Subsurface Environmental Investigations
Statesville, NC

Contractor Foreman: RJ Craner

Schnabel Representative: Ben Bradley

Equipment: Geoprobe 6610DT

Method: Geoprobe,
Macrocore

Hammer Type: NA

Dates Started: 3/31/08 **Finished:** 3/31/08

X: 1216051 ft **Y:** 909220 ft

Ground Surface Elevation: 3175± (ft) **Total Depth:** 8.0 ft

Groundwater Observations

	Date	Time	Depth	Casing	Caved
After Drilling	3/31	12:44 PM	Dry	---	---

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Topsoil		3174.8					
0.8	PROBABLE FILL, sampled as sandy silt, moist, dark brown	FILL	3174.2					
	PROBABLE FILL, sampled as silty sand, moist, reddish brown	FILL					PID = 0 ppm	
4.0	SANDY SILT, moist, greenish gray, probable RESIDUAL material	ML	3171.0				PID = 0 ppm	
5.0	SILTY SAND, moist, reddish brown, probable RESIDUAL material	SM	3170.0		5		PID = 0 ppm	
8.0			3167.0			S-1, S-2, S-3	PID = 0 ppm	

Bottom of Geo Probe at 8.0 ft.
Boring terminated at selected depth.
Boring backfilled with bentonite upon completion.

TEST BORING LOG BORELOGS:GPJ SCHNABEL DATA TEMPLATE 2008_04_01.GDT 5/29/08



**GEO
PROBE
LOG**

Project: NCDOT Preliminary Site Assessments
Watauga County
Boone, North Carolina

Geo Probe Number: **B-56-03**
Contract Number: 7210023.07
Sheet: 1 of 1

Contractor: Subsurface Environmental Investigations
Statesville, NC

Contractor Foreman: RJ Craner

Schnabel Representative: Ben Bradley

Equipment: Geoprobe 6610DT

Method: Geoprobe,
Macrocore

Hammer Type: NA

Dates Started: 3/31/08 **Finished:** 3/31/08

X: 1216055 ft **Y:** 909239 ft

Ground Surface Elevation: 3168± (ft) **Total Depth:** 8.0 ft

Groundwater Observations

	Date	Time	Depth	Casing	Caved
After Drilling ▽	3/31	1:05 PM	3.0'	---	---

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Topsoil		3167.8					
	SILTY SAND, moist, light brown, probable RESIDUAL material, to orangish brown and changes to relic rock texture							
		▽				S-1	PID = 0 ppm	
		SM					PID = 0 ppm	
				5			PID = 0 ppm	
8.0			3160.0			S-2, S-3, S-4	PID = 0 ppm	

Bottom of Geo Probe at 8.0 ft.
Boring terminated at selected depth.
Boring backfilled with bentonite upon completion.

TEST BORING LOG BORELOGS:GPJ SCHNABEL DATA TEMPLATE 2008_04_01.GDT 5/29/08



**GEO
PROBE
LOG**

Project: NCDOT Preliminary Site Assessments
Watauga County
Boone, North Carolina

Geo Probe Number: **B-56-04**
Contract Number: 7210023.07
Sheet: 1 of 1

Contractor: Subsurface Environmental Investigations
Statesville, NC

Contractor Foreman: RJ Craner

Schnabel Representative: Ben Bradley

Equipment: Geoprobe 6610DT

Method: Geoprobe,
Macrocore

Hammer Type: NA

Dates Started: 3/31/08 **Finished:** 3/31/08

X: 1216037 ft **Y:** 909225 ft

Ground Surface Elevation: 3166± (ft) **Total Depth:** 8.0 ft

Groundwater Observations

	Date	Time	Depth	Casing	Caved
Encountered ▽	3/31	1:52 PM	3.0'	---	---

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Topsoil		3165.3					
	SILTY SAND, moist, light brown, probable RESIDUAL material, to reddish brown. Relic rock texture.							
		▽						
		SM				S-1, S-2, S-3	PID = 0 ppm	
					5			
							PID = 0 ppm	
8.0			3157.5				PID = 0 ppm	

Bottom of Geo Probe at 8.0 ft.
Boring terminated at selected depth.
Boring backfilled with bentonite upon completion.

TEST BORING LOG BORELOGS:GFJ SCHNABEL DATA TEMPLATE 2008_04_01.GDT 5/29/08

APPENDIX D
Soil Boring GPS Coordinates

**SOIL BORING GPS COORDINATES
NCDOT U-4020, WATAUGA COUNTY**

Soil Boring GPS Coordinates		
Boring Identification	Easting	Northing
	X	Y
B-56-01	1216041	909215
B-56-02	1216051	909220
B-56-03	1216055	909239
B-56-04	1216037	909225

* NC State Plane 1983 System, NC 3200 Zone,
NAD 83 Datum, US Survey Feet

APPENDIX E
Prism Lab Report



Case Narrative

Date: 04/18/08
Company: N. C. Department of Transportation
Contact: Ben Bradley
Address: c/o Schnabel Engineering
11 A Oak Branch Drive
Greensboro, NC 27407

Client Project ID: NCDOT Parcel 56
Prism COC Group No: G0408092
Collection Date(s): 03/31/08
Lab Submittal Date(s): 04/03/08
Client Project Name Or No: A Cleaner World, Boone, NC WBS

This data package contains the analytical results for the project identified above and includes a Case Narrative, Laboratory Report and Quality Control Data totaling 21 pages. A chain-of-custody is also attached for the samples submitted to Prism for this project.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative. Quality control statements and/or sample specific remarks are included in the sample comments section of the laboratory report for each sample affected.

Semi Volatile Analysis

No Anomalies Reported

Volatile Analysis

See laboratory report for additional comments.

Metals Analysis

N/A

Wet Lab and Micro Analysis

N/A

Please call if you have any questions relating to this analytical report.

Date Reviewed by: Robbi A. Jones
Signature: Robbi A. Jones
Review Date: 04/18/08

Project Manager: Robbi A. Jones
Signature: Robbi A. Jones
Approval Date: 04/18/08

Data Qualifiers Key Reference:

- B: Compound also detected in the method blank.
- #: Result outside of the QC limits.
- DO: Compound diluted out.
- E: Estimated concentration, calibration range exceeded.
- J: The analyte was positively identified but the value is estimated below the reporting limit.
- H: Estimated concentration with a high bias.
- L: Estimated concentration with a low bias.
- M: A matrix effect is present.

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

Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-01
 Prism Sample ID: 210411
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 12:45
 Sample Matrix: Soil
 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	78.8	%			1	SM2540 G	04/04/08 13:30	mbarber	
Volatile Organic Compounds by GC/MS									
1,1,1-Trichloroethane	BRL	mg/kg	0.0071	0.00083	1	8260B	04/04/08 13:55	erussell	Q31464
1,1,2,2-Tetrachloroethane	BRL	mg/kg	0.0071	0.00051	1	8260B	04/04/08 13:55	erussell	Q31464
1,1,2-Trichloroethane	BRL	mg/kg	0.0071	0.00075	1	8260B	04/04/08 13:55	erussell	Q31464
1,1-Dichloroethane	BRL	mg/kg	0.0071	0.0008	1	8260B	04/04/08 13:55	erussell	Q31464
1,1-Dichloroethene	BRL	mg/kg	0.0071	0.0012	1	8260B	04/04/08 13:55	erussell	Q31464
1,1-Dichloropropene	BRL	mg/kg	0.0071	0.00083	1	8260B	04/04/08 13:55	erussell	Q31464
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0071	0.0008	1	8260B	04/04/08 13:55	erussell	Q31464
1,2,3-Trichloropropane	BRL	mg/kg	0.0071	0.00094	1	8260B	04/04/08 13:55	erussell	Q31464
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0071	0.00092	1	8260B	04/04/08 13:55	erussell	Q31464
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0071	0.00035	1	8260B	04/04/08 13:55	erussell	Q31464
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0071	0.00087	1	8260B	04/04/08 13:55	erussell	Q31464
1,2-Dichlorobenzene	BRL	mg/kg	0.0071	0.00045	1	8260B	04/04/08 13:55	erussell	Q31464
1,2-Dichloroethane	BRL	mg/kg	0.0071	0.00079	1	8260B	04/04/08 13:55	erussell	Q31464
1,2-Dichloropropane	BRL	mg/kg	0.0071	0.0017	1	8260B	04/04/08 13:55	erussell	Q31464
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0071	0.00059	1	8260B	04/04/08 13:55	erussell	Q31464
1,3-Dichlorobenzene	BRL	mg/kg	0.0071	0.00047	1	8260B	04/04/08 13:55	erussell	Q31464
1,3-Dichloropropane	BRL	mg/kg	0.0071	0.0003	1	8260B	04/04/08 13:55	erussell	Q31464
1,4-Dichlorobenzene	BRL	mg/kg	0.0071	0.0009	1	8260B	04/04/08 13:55	erussell	Q31464
2,2-Dichloropropane	BRL	mg/kg	0.0071	0.0010	1	8260B	04/04/08 13:55	erussell	Q31464
2-Chlorotoluene	BRL	mg/kg	0.0071	0.00039	1	8260B	04/04/08 13:55	erussell	Q31464
2-Hexanone	BRL	mg/kg	0.071	0.0061	1	8260B	04/04/08 13:55	erussell	Q31464
4-Chlorotoluene	BRL	mg/kg	0.0071	0.00052	1	8260B	04/04/08 13:55	erussell	Q31464
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.071	0.0073	1	8260B	04/04/08 13:55	erussell	Q31464
Acetone	BRL	mg/kg	0.071	0.021	1	8260B	04/04/08 13:55	erussell	Q31464

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

Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-01
 Prism Sample ID: 210411
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 12:45
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzene	BRL	mg/kg	0.0042	0.00059	1	8260B	04/04/08 13:55	erussell	Q31464
Bromobenzene	BRL	mg/kg	0.0071	0.0009	1	8260B	04/04/08 13:55	erussell	Q31464
Bromochloromethane	BRL	mg/kg	0.0071	0.00058	1	8260B	04/04/08 13:55	erussell	Q31464
Bromodichloromethane	BRL	mg/kg	0.0071	0.00076	1	8260B	04/04/08 13:55	erussell	Q31464
Bromoform	BRL	mg/kg	0.0071	0.00063	1	8260B	04/04/08 13:55	erussell	Q31464
Bromomethane	BRL	mg/kg	0.014	0.0016	1	8260B	04/04/08 13:55	erussell	Q31464
Carbon tetrachloride	BRL	mg/kg	0.0071	0.00047	1	8260B	04/04/08 13:55	erussell	Q31464
Chlorobenzene	BRL	mg/kg	0.0071	0.00072	1	8260B	04/04/08 13:55	erussell	Q31464
Chlorodibromomethane	BRL	mg/kg	0.0071	0.00065	1	8260B	04/04/08 13:55	erussell	Q31464
Chloroethane	BRL	mg/kg	0.014	0.0024	1	8260B	04/04/08 13:55	erussell	Q31464
Chloroform	BRL	mg/kg	0.0071	0.0012	1	8260B	04/04/08 13:55	erussell	Q31464
Chloromethane	BRL	mg/kg	0.0071	0.0017	1	8260B	04/04/08 13:55	erussell	Q31464
cis-1,2-Dichloroethene	BRL	mg/kg	0.0071	0.0011	1	8260B	04/04/08 13:55	erussell	Q31464
cis-1,3-Dichloropropene	BRL	mg/kg	0.0071	0.00093	1	8260B	04/04/08 13:55	erussell	Q31464
Dichlorodifluoromethane	BRL	mg/kg	0.0071	0.0019	1	8260B	04/04/08 13:55	erussell	Q31464
Ethylbenzene	BRL	mg/kg	0.0071	0.00032	1	8260B	04/04/08 13:55	erussell	Q31464
Isopropyl ether (IPE)	BRL	mg/kg	0.0071	0.00065	1	8260B	04/04/08 13:55	erussell	Q31464
Isopropylbenzene	BRL	mg/kg	0.0071	0.00041	1	8260B	04/04/08 13:55	erussell	Q31464
m,p-Xylenes	BRL	mg/kg	0.014	0.0012	1	8260B	04/04/08 13:55	erussell	Q31464
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.14	0.021	1	8260B	04/04/08 13:55	erussell	Q31464
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.014	0.00059	1	8260B	04/04/08 13:55	erussell	Q31464
Methylene chloride	BRL	mg/kg	0.0071	0.0012	1	8260B	04/04/08 13:55	erussell	Q31464
n-Butylbenzene	BRL	mg/kg	0.0071	0.00051	1	8260B	04/04/08 13:55	erussell	Q31464
n-Propylbenzene	BRL	mg/kg	0.0071	0.00047	1	8260B	04/04/08 13:55	erussell	Q31464
Naphthalene	BRL	mg/kg	0.014	0.00085	1	8260B	04/04/08 13:55	erussell	Q31464
o-Xylene	BRL	mg/kg	0.0071	0.0003	1	8260B	04/04/08 13:55	erussell	Q31464
p-Isopropyltoluene	BRL	mg/kg	0.0071	0.00056	1	8260B	04/04/08 13:55	erussell	Q31464

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

Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC Client Sample ID: B-56-01
 Project ID: NCDOT Parcel 56 Prism Sample ID: 210411
 Project No.: WBS #7210023.07 COC Group: G0408092
 Sample Matrix: Soil Time Collected: 03/31/08 12:45
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
sec-Butylbenzene	BRL	mg/kg	0.0071	0.00048	1	8260B	04/04/08 13:55	erussell	Q31464
Styrene	BRL	mg/kg	0.0071	0.00079	1	8260B	04/04/08 13:55	erussell	Q31464
tert-Butylbenzene	BRL	mg/kg	0.0071	0.00059	1	8260B	04/04/08 13:55	erussell	Q31464
Tetrachloroethene	BRL	mg/kg	0.0071	0.00063	1	8260B	04/04/08 13:55	erussell	Q31464
Toluene	BRL	mg/kg	0.0071	0.00052	1	8260B	04/04/08 13:55	erussell	Q31464
trans-1,2-Dichloroethene	BRL	mg/kg	0.0071	0.0009	1	8260B	04/04/08 13:55	erussell	Q31464
trans-1,3-Dichloropropene	BRL	mg/kg	0.0071	0.00083	1	8260B	04/04/08 13:55	erussell	Q31464
Trichloroethene	BRL	mg/kg	0.0071	0.0010	1	8260B	04/04/08 13:55	erussell	Q31464
Trichlorofluoromethane	BRL	mg/kg	0.0071	0.0013	1	8260B	04/04/08 13:55	erussell	Q31464
Vinyl acetate	BRL	mg/kg	0.035	0.0020	1	8260B	04/04/08 13:55	erussell	Q31464
Vinyl chloride	BRL	mg/kg	0.0071	0.0012	1	8260B	04/04/08 13:55	erussell	Q31464

Surrogate	% Recovery	Control Limits
Toluene-d8	102	81 - 128
Dibromofluoromethane	104	67 - 143
Bromofluorobenzene	105	77 - 128

Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	8.7	1.4	1	8015B	04/10/08 11:49	jvogel	Q31647
Sample Preparation:			25.48 g	/	1 mL	3545	04/09/08 10:00	wconder	P21297

Surrogate	% Recovery	Control Limits
o-Terphenyl	78	49 - 124

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	1.3	0.026	1	8015B	04/04/08 19:57	wbradley	Q31508
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NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-02
 Prism Sample ID: 210412
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:04
 Sample Matrix: Soil
 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	90.0	%			1	SM2540 G	04/04/08 13:30	mbarber	
Volatile Organic Compounds by GC/MS									
1,1,1-Trichloroethane	BRL	mg/kg	0.0069	0.00081	1	8260B	04/04/08 14:26	erussell	Q31464
1,1,2,2-Tetrachloroethane	BRL	mg/kg	0.0069	0.0005	1	8260B	04/04/08 14:26	erussell	Q31464
1,1,2-Trichloroethane	BRL	mg/kg	0.0069	0.00073	1	8260B	04/04/08 14:26	erussell	Q31464
1,1-Dichloroethane	BRL	mg/kg	0.0069	0.00078	1	8260B	04/04/08 14:26	erussell	Q31464
1,1-Dichloroethene	BRL	mg/kg	0.0069	0.0012	1	8260B	04/04/08 14:26	erussell	Q31464
1,1-Dichloropropene	BRL	mg/kg	0.0069	0.00081	1	8260B	04/04/08 14:26	erussell	Q31464
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0069	0.00078	1	8260B	04/04/08 14:26	erussell	Q31464
1,2,3-Trichloropropane	BRL	mg/kg	0.0069	0.00092	1	8260B	04/04/08 14:26	erussell	Q31464
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0069	0.00089	1	8260B	04/04/08 14:26	erussell	Q31464
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0069	0.00034	1	8260B	04/04/08 14:26	erussell	Q31464
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0069	0.00085	1	8260B	04/04/08 14:26	erussell	Q31464
1,2-Dichlorobenzene	BRL	mg/kg	0.0069	0.00044	1	8260B	04/04/08 14:26	erussell	Q31464
1,2-Dichloroethane	BRL	mg/kg	0.0069	0.00077	1	8260B	04/04/08 14:26	erussell	Q31464
1,2-Dichloropropane	BRL	mg/kg	0.0069	0.0017	1	8260B	04/04/08 14:26	erussell	Q31464
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0069	0.00058	1	8260B	04/04/08 14:26	erussell	Q31464
1,3-Dichlorobenzene	BRL	mg/kg	0.0069	0.00045	1	8260B	04/04/08 14:26	erussell	Q31464
1,3-Dichloropropane	BRL	mg/kg	0.0069	0.00029	1	8260B	04/04/08 14:26	erussell	Q31464
1,4-Dichlorobenzene	BRL	mg/kg	0.0069	0.00088	1	8260B	04/04/08 14:26	erussell	Q31464
2,2-Dichloropropane	BRL	mg/kg	0.0069	0.00099	1	8260B	04/04/08 14:26	erussell	Q31464
2-Chlorotoluene	BRL	mg/kg	0.0069	0.00039	1	8260B	04/04/08 14:26	erussell	Q31464
2-Hexanone	BRL	mg/kg	0.069	0.0059	1	8260B	04/04/08 14:26	erussell	Q31464
4-Chlorotoluene	BRL	mg/kg	0.0069	0.00051	1	8260B	04/04/08 14:26	erussell	Q31464
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.069	0.0071	1	8260B	04/04/08 14:26	erussell	Q31464
Acetone	BRL	mg/kg	0.069	0.020	1	8260B	04/04/08 14:26	erussell	Q31464

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Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-02
 Prism Sample ID: 210412
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:04
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzene	BRL	mg/kg	0.0041	0.00058	1	8260B	04/04/08 14:26	erussell	Q31464
Bromobenzene	BRL	mg/kg	0.0069	0.00088	1	8260B	04/04/08 14:26	erussell	Q31464
Bromochloromethane	BRL	mg/kg	0.0069	0.00056	1	8260B	04/04/08 14:26	erussell	Q31464
Bromodichloromethane	BRL	mg/kg	0.0069	0.00074	1	8260B	04/04/08 14:26	erussell	Q31464
Bromoform	BRL	mg/kg	0.0069	0.00062	1	8260B	04/04/08 14:26	erussell	Q31464
Bromomethane	BRL	mg/kg	0.014	0.0015	1	8260B	04/04/08 14:26	erussell	Q31464
Carbon tetrachloride	BRL	mg/kg	0.0069	0.00045	1	8260B	04/04/08 14:26	erussell	Q31464
Chlorobenzene	BRL	mg/kg	0.0069	0.0007	1	8260B	04/04/08 14:26	erussell	Q31464
Chlorodibromomethane	BRL	mg/kg	0.0069	0.00063	1	8260B	04/04/08 14:26	erussell	Q31464
Chloroethane	BRL	mg/kg	0.014	0.0023	1	8260B	04/04/08 14:26	erussell	Q31464
Chloroform	BRL	mg/kg	0.0069	0.0011	1	8260B	04/04/08 14:26	erussell	Q31464
Chloromethane	BRL	mg/kg	0.0069	0.0017	1	8260B	04/04/08 14:26	erussell	Q31464
cis-1,2-Dichloroethene	BRL	mg/kg	0.0069	0.0011	1	8260B	04/04/08 14:26	erussell	Q31464
cis-1,3-Dichloropropene	BRL	mg/kg	0.0069	0.00091	1	8260B	04/04/08 14:26	erussell	Q31464
Dichlorodifluoromethane	BRL	mg/kg	0.0069	0.0019	1	8260B	04/04/08 14:26	erussell	Q31464
Ethylbenzene	BRL	mg/kg	0.0069	0.00032	1	8260B	04/04/08 14:26	erussell	Q31464
Isopropyl ether (IPE)	BRL	mg/kg	0.0069	0.00063	1	8260B	04/04/08 14:26	erussell	Q31464
Isopropylbenzene	BRL	mg/kg	0.0069	0.0004	1	8260B	04/04/08 14:26	erussell	Q31464
m,p-Xylenes	BRL	mg/kg	0.014	0.0011	1	8260B	04/04/08 14:26	erussell	Q31464
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.14	0.020	1	8260B	04/04/08 14:26	erussell	Q31464
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.014	0.00058	1	8260B	04/04/08 14:26	erussell	Q31464
Methylene chloride	BRL	mg/kg	0.0069	0.0011	1	8260B	04/04/08 14:26	erussell	Q31464
n-Butylbenzene	BRL	mg/kg	0.0069	0.0005	1	8260B	04/04/08 14:26	erussell	Q31464
n-Propylbenzene	BRL	mg/kg	0.0069	0.00045	1	8260B	04/04/08 14:26	erussell	Q31464
Naphthalene	BRL	mg/kg	0.014	0.00083	1	8260B	04/04/08 14:26	erussell	Q31464
o-Xylene	BRL	mg/kg	0.0069	0.00029	1	8260B	04/04/08 14:26	erussell	Q31464
p-Isopropyltoluene	BRL	mg/kg	0.0069	0.00055	1	8260B	04/04/08 14:26	erussell	Q31464

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Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-02
 Prism Sample ID: 210412
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:04
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
sec-Butylbenzene	BRL	mg/kg	0.0069	0.00047	1	8260B	04/04/08 14:26	erussell	Q31464
Styrene	BRL	mg/kg	0.0069	0.00077	1	8260B	04/04/08 14:26	erussell	Q31464
tert-Butylbenzene	BRL	mg/kg	0.0069	0.00058	1	8260B	04/04/08 14:26	erussell	Q31464
Tetrachloroethene	BRL	mg/kg	0.0069	0.00062	1	8260B	04/04/08 14:26	erussell	Q31464
Toluene	BRL	mg/kg	0.0069	0.00051	1	8260B	04/04/08 14:26	erussell	Q31464
trans-1,2-Dichloroethene	BRL	mg/kg	0.0069	0.00088	1	8260B	04/04/08 14:26	erussell	Q31464
trans-1,3-Dichloropropene	BRL	mg/kg	0.0069	0.00081	1	8260B	04/04/08 14:26	erussell	Q31464
Trichloroethene	BRL	mg/kg	0.0069	0.0010	1	8260B	04/04/08 14:26	erussell	Q31464
Trichlorofluoromethane	BRL	mg/kg	0.0069	0.0012	1	8260B	04/04/08 14:26	erussell	Q31464
Vinyl acetate	BRL	mg/kg	0.034	0.0019	1	8260B	04/04/08 14:26	erussell	Q31464
Vinyl chloride	BRL	mg/kg	0.0069	0.0012	1	8260B	04/04/08 14:26	erussell	Q31464

Surrogate	% Recovery	Control Limits
Toluene-d8	102	81 - 128
Dibromofluoromethane	104	67 - 143
Bromofluorobenzene	105	77 - 128

Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	7.8	1.3	1	8015B	04/10/08 12:25	jvogel	Q31647
Sample Preparation:			25.01 g	/	1 mL	3545	04/09/08 10:00	wconder	P21297

Surrogate	% Recovery	Control Limits
o-Terphenyl	70	49 - 124

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	1.1	0.023	1	8015B	04/08/08 16:09	wbradley	Q31508
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NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-03
 Prism Sample ID: 210413
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:59
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	85.5	%			1	SM2540 G	04/04/08 13:30	mbarber	
<u>Volatile Organic Compounds by GC/MS</u>									
1,1,1-Trichloroethane	BRL	mg/kg	0.0056	0.00066	1	8260B	04/04/08 14:58	erussell	Q31464
1,1,2,2-Tetrachloroethane	BRL	mg/kg	0.0056	0.0004	1	8260B	04/04/08 14:58	erussell	Q31464
1,1,2-Trichloroethane	BRL	mg/kg	0.0056	0.00059	1	8260B	04/04/08 14:58	erussell	Q31464
1,1-Dichloroethane	BRL	mg/kg	0.0056	0.00064	1	8260B	04/04/08 14:58	erussell	Q31464
1,1-Dichloroethene	BRL	mg/kg	0.0056	0.00096	1	8260B	04/04/08 14:58	erussell	Q31464
1,1-Dichloropropene	BRL	mg/kg	0.0056	0.00066	1	8260B	04/04/08 14:58	erussell	Q31464
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0056	0.00064	1	8260B	04/04/08 14:58	erussell	Q31464
1,2,3-Trichloropropane	BRL	mg/kg	0.0056	0.00075	1	8260B	04/04/08 14:58	erussell	Q31464
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0056	0.00073	1	8260B	04/04/08 14:58	erussell	Q31464
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0056	0.00028	1	8260B	04/04/08 14:58	erussell	Q31464
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0056	0.00069	1	8260B	04/04/08 14:58	erussell	Q31464
1,2-Dichlorobenzene	BRL	mg/kg	0.0056	0.00036	1	8260B	04/04/08 14:58	erussell	Q31464
1,2-Dichloroethane	BRL	mg/kg	0.0056	0.00063	1	8260B	04/04/08 14:58	erussell	Q31464
1,2-Dichloropropane	BRL	mg/kg	0.0056	0.0014	1	8260B	04/04/08 14:58	erussell	Q31464
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0056	0.00047	1	8260B	04/04/08 14:58	erussell	Q31464
1,3-Dichlorobenzene	BRL	mg/kg	0.0056	0.00037	1	8260B	04/04/08 14:58	erussell	Q31464
1,3-Dichloropropane	BRL	mg/kg	0.0056	0.00024	1	8260B	04/04/08 14:58	erussell	Q31464
1,4-Dichlorobenzene	BRL	mg/kg	0.0056	0.00072	1	8260B	04/04/08 14:58	erussell	Q31464
2,2-Dichloropropane	BRL	mg/kg	0.0056	0.00081	1	8260B	04/04/08 14:58	erussell	Q31464
2-Chlorotoluene	BRL	mg/kg	0.0056	0.00031	1	8260B	04/04/08 14:58	erussell	Q31464
2-Hexanone	BRL	mg/kg	0.056	0.0048	1	8260B	04/04/08 14:58	erussell	Q31464
4-Chlorotoluene	BRL	mg/kg	0.0056	0.00041	1	8260B	04/04/08 14:58	erussell	Q31464
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.056	0.0058	1	8260B	04/04/08 14:58	erussell	Q31464
Acetone	BRL	mg/kg	0.056	0.017	1	8260B	04/04/08 14:58	erussell	Q31464

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

Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-03
 Prism Sample ID: 210413
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:59
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzene	BRL	mg/kg	0.0034	0.00047	1	8260B	04/04/08 14:58	erussell	Q31464
Bromobenzene	BRL	mg/kg	0.0056	0.00072	1	8260B	04/04/08 14:58	erussell	Q31464
Bromochloromethane	BRL	mg/kg	0.0056	0.00046	1	8260B	04/04/08 14:58	erussell	Q31464
Bromodichloromethane	BRL	mg/kg	0.0056	0.0006	1	8260B	04/04/08 14:58	erussell	Q31464
Bromoform	BRL	mg/kg	0.0056	0.0005	1	8260B	04/04/08 14:58	erussell	Q31464
Bromomethane	BRL	mg/kg	0.011	0.0013	1	8260B	04/04/08 14:58	erussell	Q31464
Carbon tetrachloride	BRL	mg/kg	0.0056	0.00037	1	8260B	04/04/08 14:58	erussell	Q31464
Chlorobenzene	BRL	mg/kg	0.0056	0.00057	1	8260B	04/04/08 14:58	erussell	Q31464
Chlorodibromomethane	BRL	mg/kg	0.0056	0.00052	1	8260B	04/04/08 14:58	erussell	Q31464
Chloroethane	BRL	mg/kg	0.011	0.0019	1	8260B	04/04/08 14:58	erussell	Q31464
Chloroform	BRL	mg/kg	0.0056	0.00093	1	8260B	04/04/08 14:58	erussell	Q31464
Chloromethane	BRL	mg/kg	0.0056	0.0013	1	8260B	04/04/08 14:58	erussell	Q31464
cis-1,2-Dichloroethene	BRL	mg/kg	0.0056	0.0009	1	8260B	04/04/08 14:58	erussell	Q31464
cis-1,3-Dichloropropene	BRL	mg/kg	0.0056	0.00074	1	8260B	04/04/08 14:58	erussell	Q31464
Dichlorodifluoromethane	BRL	mg/kg	0.0056	0.0015	1	8260B	04/04/08 14:58	erussell	Q31464
Ethylbenzene	BRL	mg/kg	0.0056	0.00026	1	8260B	04/04/08 14:58	erussell	Q31464
Isopropyl ether (IPE)	BRL	mg/kg	0.0056	0.00052	1	8260B	04/04/08 14:58	erussell	Q31464
Isopropylbenzene	BRL	mg/kg	0.0056	0.00032	1	8260B	04/04/08 14:58	erussell	Q31464
m,p-Xylenes	BRL	mg/kg	0.011	0.00092	1	8260B	04/04/08 14:58	erussell	Q31464
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.11	0.017	1	8260B	04/04/08 14:58	erussell	Q31464
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.011	0.00047	1	8260B	04/04/08 14:58	erussell	Q31464
Methylene chloride	BRL	mg/kg	0.0056	0.00092	1	8260B	04/04/08 14:58	erussell	Q31464
n-Butylbenzene	BRL	mg/kg	0.0056	0.0004	1	8260B	04/04/08 14:58	erussell	Q31464
n-Propylbenzene	BRL	mg/kg	0.0056	0.00037	1	8260B	04/04/08 14:58	erussell	Q31464
Naphthalene	BRL	mg/kg	0.011	0.00067	1	8260B	04/04/08 14:58	erussell	Q31464
o-Xylene	BRL	mg/kg	0.0056	0.00024	1	8260B	04/04/08 14:58	erussell	Q31464
p-Isopropyltoluene	BRL	mg/kg	0.0056	0.00045	1	8260B	04/04/08 14:58	erussell	Q31464

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

Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-03
 Prism Sample ID: 210413
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:59
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
sec-Butylbenzene	BRL	mg/kg	0.0056	0.00038	1	8260B	04/04/08 14:58	erussell	Q31464
Styrene	BRL	mg/kg	0.0056	0.00063	1	8260B	04/04/08 14:58	erussell	Q31464
tert-Butylbenzene	BRL	mg/kg	0.0056	0.00047	1	8260B	04/04/08 14:58	erussell	Q31464
Tetrachloroethene	BRL	mg/kg	0.0056	0.0005	1	8260B	04/04/08 14:58	erussell	Q31464
Toluene	BRL	mg/kg	0.0056	0.00041	1	8260B	04/04/08 14:58	erussell	Q31464
trans-1,2-Dichloroethene	BRL	mg/kg	0.0056	0.00072	1	8260B	04/04/08 14:58	erussell	Q31464
trans-1,3-Dichloropropene	BRL	mg/kg	0.0056	0.00066	1	8260B	04/04/08 14:58	erussell	Q31464
Trichloroethene	BRL	mg/kg	0.0056	0.00082	1	8260B	04/04/08 14:58	erussell	Q31464
Trichlorofluoromethane	BRL	mg/kg	0.0056	0.0010	1	8260B	04/04/08 14:58	erussell	Q31464
Vinyl acetate	BRL	mg/kg	0.028	0.0016	1	8260B	04/04/08 14:58	erussell	Q31464
Vinyl chloride	BRL	mg/kg	0.0056	0.00097	1	8260B	04/04/08 14:58	erussell	Q31464

Surrogate	% Recovery	Control Limits
Toluene-d8	105	81 - 128
Dibromofluoromethane	104	67 - 143
Bromofluorobenzene	104	77 - 128

Oil and Grease by Soxhlet Extraction

Oil and Grease	BRL	mg/kg	41	41	1	9071A	04/17/08 10:00	smanivanh	Q31844
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	8.1	1.3	1	8015B	04/10/08 13:01	jvogel	Q31647
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Sample Preparation: 25.16 g / 1 mL 3545 04/09/08 10:00 wconder P21297

Surrogate	% Recovery	Control Limits
o-Terphenyl	75	49 - 124

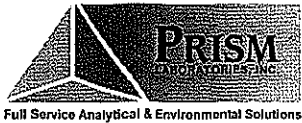
Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	1.2	0.024	1	8015B	04/04/08 20:59	wbradley	Q31508
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Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-04
 Prism Sample ID: 210414
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:45
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<u>Percent Solids Determination</u>									
Percent Solids	87.3	%			1	SM2540 G	04/04/08 13:30	mbarber	
<u>Volatile Organic Compounds by GC/MS</u>									
1,1,1-Trichloroethane	BRL	mg/kg	0.0062	0.00073	1	8260B	04/04/08 15:29	erussell	Q31464
1,1,1,2,2-Tetrachloroethane	BRL	mg/kg	0.0062	0.00044	1	8260B	04/04/08 15:29	erussell	Q31464
1,1,2-Trichloroethane	BRL	mg/kg	0.0062	0.00065	1	8260B	04/04/08 15:29	erussell	Q31464
1,1-Dichloroethane	BRL	mg/kg	0.0062	0.0007	1	8260B	04/04/08 15:29	erussell	Q31464
1,1-Dichloroethene	BRL	mg/kg	0.0062	0.0011	1	8260B	04/04/08 15:29	erussell	Q31464
1,1-Dichloropropene	BRL	mg/kg	0.0062	0.00073	1	8260B	04/04/08 15:29	erussell	Q31464
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0062	0.0007	1	8260B	04/04/08 15:29	erussell	Q31464
1,2,3-Trichloropropane	BRL	mg/kg	0.0062	0.00083	1	8260B	04/04/08 15:29	erussell	Q31464
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0062	0.0008	1	8260B	04/04/08 15:29	erussell	Q31464
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0062	0.00031	1	8260B	04/04/08 15:29	erussell	Q31464
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0062	0.00077	1	8260B	04/04/08 15:29	erussell	Q31464
1,2-Dichlorobenzene	BRL	mg/kg	0.0062	0.00039	1	8260B	04/04/08 15:29	erussell	Q31464
1,2-Dichloroethane	BRL	mg/kg	0.0062	0.00069	1	8260B	04/04/08 15:29	erussell	Q31464
1,2-Dichloropropane	BRL	mg/kg	0.0062	0.0015	1	8260B	04/04/08 15:29	erussell	Q31464
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0062	0.00052	1	8260B	04/04/08 15:29	erussell	Q31464
1,3-Dichlorobenzene	BRL	mg/kg	0.0062	0.00041	1	8260B	04/04/08 15:29	erussell	Q31464
1,3-Dichloropropane	BRL	mg/kg	0.0062	0.00026	1	8260B	04/04/08 15:29	erussell	Q31464
1,4-Dichlorobenzene	BRL	mg/kg	0.0062	0.00079	1	8260B	04/04/08 15:29	erussell	Q31464
2,2-Dichloropropane	BRL	mg/kg	0.0062	0.00089	1	8260B	04/04/08 15:29	erussell	Q31464
2-Chlorotoluene	BRL	mg/kg	0.0062	0.00035	1	8260B	04/04/08 15:29	erussell	Q31464
2-Hexanone	BRL	mg/kg	0.062	0.0053	1	8260B	04/04/08 15:29	erussell	Q31464
4-Chlorotoluene	BRL	mg/kg	0.0062	0.00046	1	8260B	04/04/08 15:29	erussell	Q31464
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.062	0.0064	1	8260B	04/04/08 15:29	erussell	Q31464
Acetone	BRL	mg/kg	0.062	0.018	1	8260B	04/04/08 15:29	erussell	Q31464

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Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-04
 Prism Sample ID: 210414
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:45
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzene	BRL	mg/kg	0.0037	0.00052	1	8260B	04/04/08 15:29	erussell	Q31464
Bromobenzene	BRL	mg/kg	0.0062	0.00079	1	8260B	04/04/08 15:29	erussell	Q31464
Bromochloromethane	BRL	mg/kg	0.0062	0.00051	1	8260B	04/04/08 15:29	erussell	Q31464
Bromodichloromethane	BRL	mg/kg	0.0062	0.00067	1	8260B	04/04/08 15:29	erussell	Q31464
Bromoform	BRL	mg/kg	0.0062	0.00056	1	8260B	04/04/08 15:29	erussell	Q31464
Bromomethane	BRL	mg/kg	0.012	0.0014	1	8260B	04/04/08 15:29	erussell	Q31464
Carbon tetrachloride	BRL	mg/kg	0.0062	0.00041	1	8260B	04/04/08 15:29	erussell	Q31464
Chlorobenzene	BRL	mg/kg	0.0062	0.00063	1	8260B	04/04/08 15:29	erussell	Q31464
Chlorodibromomethane	BRL	mg/kg	0.0062	0.00057	1	8260B	04/04/08 15:29	erussell	Q31464
Chloroethane	BRL	mg/kg	0.012	0.0021	1	8260B	04/04/08 15:29	erussell	Q31464
Chloroform	BRL	mg/kg	0.0062	0.0010	1	8260B	04/04/08 15:29	erussell	Q31464
Chloromethane	BRL	mg/kg	0.0062	0.0015	1	8260B	04/04/08 15:29	erussell	Q31464
cis-1,2-Dichloroethene	BRL	mg/kg	0.0062	0.00099	1	8260B	04/04/08 15:29	erussell	Q31464
cis-1,3-Dichloropropene	BRL	mg/kg	0.0062	0.00081	1	8260B	04/04/08 15:29	erussell	Q31464
Dichlorodifluoromethane	BRL	mg/kg	0.0062	0.0017	1	8260B	04/04/08 15:29	erussell	Q31464
Ethylbenzene	BRL	mg/kg	0.0062	0.00028	1	8260B	04/04/08 15:29	erussell	Q31464
Isopropyl ether (IPE)	BRL	mg/kg	0.0062	0.00057	1	8260B	04/04/08 15:29	erussell	Q31464
Isopropylbenzene	BRL	mg/kg	0.0062	0.00036	1	8260B	04/04/08 15:29	erussell	Q31464
m,p-Xylenes	BRL	mg/kg	0.012	0.0010	1	8260B	04/04/08 15:29	erussell	Q31464
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.12	0.018	1	8260B	04/04/08 15:29	erussell	Q31464
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.012	0.00052	1	8260B	04/04/08 15:29	erussell	Q31464
Methylene chloride	BRL	mg/kg	0.0062	0.0010	1	8260B	04/04/08 15:29	erussell	Q31464
n-Butylbenzene	BRL	mg/kg	0.0062	0.00044	1	8260B	04/04/08 15:29	erussell	Q31464
n-Propylbenzene	BRL	mg/kg	0.0062	0.00041	1	8260B	04/04/08 15:29	erussell	Q31464
Naphthalene	BRL	mg/kg	0.012	0.00074	1	8260B	04/04/08 15:29	erussell	Q31464
o-Xylene	BRL	mg/kg	0.0062	0.00026	1	8260B	04/04/08 15:29	erussell	Q31464
p-Isopropyltoluene	BRL	mg/kg	0.0062	0.00049	1	8260B	04/04/08 15:29	erussell	Q31464

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

Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Client Sample ID: B-56-04
 Prism Sample ID: 210414
 Project ID: NCDOT Parcel 56
 COC Group: G0408092
 Project No.: WBS #7210023.07
 Time Collected: 03/31/08 13:45
 Sample Matrix: Soil
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
sec-Butylbenzene	BRL	mg/kg	0.0062	0.00042	1	8260B	04/04/08 15:29	erussell	Q31464
Styrene	BRL	mg/kg	0.0062	0.00069	1	8260B	04/04/08 15:29	erussell	Q31464
tert-Butylbenzene	BRL	mg/kg	0.0062	0.00052	1	8260B	04/04/08 15:29	erussell	Q31464
Tetrachloroethene	BRL	mg/kg	0.0062	0.00056	1	8260B	04/04/08 15:29	erussell	Q31464
Toluene	BRL	mg/kg	0.0062	0.00046	1	8260B	04/04/08 15:29	erussell	Q31464
trans-1,2-Dichloroethene	BRL	mg/kg	0.0062	0.00079	1	8260B	04/04/08 15:29	erussell	Q31464
trans-1,3-Dichloropropene	BRL	mg/kg	0.0062	0.00073	1	8260B	04/04/08 15:29	erussell	Q31464
Trichloroethene	BRL	mg/kg	0.0062	0.0009	1	8260B	04/04/08 15:29	erussell	Q31464
Trichlorofluoromethane	BRL	mg/kg	0.0062	0.0011	1	8260B	04/04/08 15:29	erussell	Q31464
Vinyl acetate	BRL	mg/kg	0.031	0.0017	1	8260B	04/04/08 15:29	erussell	Q31464
Vinyl chloride	BRL	mg/kg	0.0062	0.0011	1	8260B	04/04/08 15:29	erussell	Q31464

Surrogate	% Recovery	Control Limits
Toluene-d8	104	81 - 128
Dibromofluoromethane	109	67 - 143
Bromofluorobenzene	102	77 - 128

Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	7.9	1.3	1	8015B	04/10/08 11:13	jvogel	Q31647
Sample Preparation:			25.51 g	/	1 mL	3545	04/09/08 10:00	wconder	P21297

Surrogate	% Recovery	Control Limits
o-Terphenyl	87	49 - 124

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	1.1	0.024	1	8015B	04/04/08 21:31	wbradley	Q31508
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Laboratory Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Project ID: NCDOT Parcel 56
 Project No.: WBS #7210023.07
 Sample Matrix: Soil

Client Sample ID: B-56-04
 Prism Sample ID: 210414
 COC Group: G0408092
 Time Collected: 03/31/08 13:45
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
							Surrogate	% Recovery	Control Limits
							aaa-TFT	64	55 - 129

Sample Comment(s):

GRO/5035 and 8260/5035 vials contained too much soil so laboratory used DRO sample to perform GRO/5030.

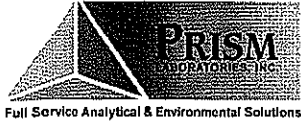
BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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



NC Certification No. 402
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Level II QC Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Project ID: NCDOT Parcel 56
 Project No.: WBS #7210023.07

COC Group Number: G0408092
 Date/Time Submitted: 4/3/2008 8:30

Volatile Organic Compounds by GC/MS, method 8260B

Method Blank	Result	RL	Control Limit	Units	QC Batch ID
1,1,1-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,1,2,2-Tetrachloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,1,2-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,1-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,1-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31464
1,1-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31464
1,2,3-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,2,3-Trichloropropane	ND	0.005	<0.0025	mg/kg	Q31464
1,2,4-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,2,4-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,2-Dibromoethane (EDB)	ND	0.005	<0.0025	mg/kg	Q31464
1,2-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,2-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31464
1,3,5-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,3-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,3-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31464
1,4-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
2,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31464
2-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31464
2-Hexanone	ND	0.05	<0.025	mg/kg	Q31464
4-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31464
4-Methyl-2-pentanone (MIBK)	ND	0.05	<0.025	mg/kg	Q31464
Acetone	ND	0.05	<0.025	mg/kg	Q31464
Benzene	ND	0.003	<0.0015	mg/kg	Q31464
Bromobenzene	ND	0.005	<0.0025	mg/kg	Q31464
Bromochloromethane	ND	0.005	<0.0025	mg/kg	Q31464
Bromodichloromethane	ND	0.005	<0.0025	mg/kg	Q31464
Bromoform	ND	0.005	<0.0025	mg/kg	Q31464
Bromomethane	ND	0.01	<0.005	mg/kg	Q31464
Carbon tetrachloride	ND	0.005	<0.0025	mg/kg	Q31464
Chlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
Chlorodibromomethane	ND	0.005	<0.0025	mg/kg	Q31464
Chloroethane	ND	0.01	<0.005	mg/kg	Q31464

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Level II QC Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Project ID: NCDOT Parcel 56
 Project No.: WBS #7210023.07

COC Group Number: G0408092
 Date/Time Submitted: 4/3/2008 8:30

Method Blank

	Result	RL	Control Limit	Units	QC Batch ID
Chloroform	ND	0.005	<0.0025	mg/kg	Q31464
Chloromethane	ND	0.005	<0.0025	mg/kg	Q31464
cis-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31464
cis-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31464
Dichlorodifluoromethane	ND	0.005	<0.0025	mg/kg	Q31464
Ethylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
Isopropyl ether (IPE)	ND	0.005	<0.0025	mg/kg	Q31464
Isopropylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
m,p-Xylenes	ND	0.01	<0.005	mg/kg	Q31464
Methyl ethyl ketone (MEK)	ND	0.1	<0.05	mg/kg	Q31464
Methyl t-butyl ether (MTBE)	ND	0.01	<0.005	mg/kg	Q31464
Methylene chloride	ND	0.005	<0.0025	mg/kg	Q31464
n-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
n-Propylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
Naphthalene	ND	0.01	<0.005	mg/kg	Q31464
o-Xylene	ND	0.005	<0.0025	mg/kg	Q31464
p-Isopropyltoluene	ND	0.005	<0.0025	mg/kg	Q31464
sec-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
Styrene	ND	0.005	<0.0025	mg/kg	Q31464
tert-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
Tetrachloroethene	ND	0.005	<0.0025	mg/kg	Q31464
Toluene	ND	0.005	<0.0025	mg/kg	Q31464
trans-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31464
trans-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31464
Trichloroethene	ND	0.005	<0.0025	mg/kg	Q31464
Trichlorofluoromethane	ND	0.005	<0.0025	mg/kg	Q31464
Vinyl acetate	ND	0.025	<0.0125	mg/kg	Q31464
Vinyl chloride	ND	0.005	<0.0025	mg/kg	Q31464

Laboratory Control Sample

	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
1,1-Dichloroethene	37.15	50	mg/kg	74	57-122	Q31464
Benzene	40.53	50	mg/kg	81	62-119	Q31464
Chlorobenzene	39.03	50	mg/kg	78	61-124	Q31464
Toluene	43.39	50	mg/kg	87	57-122	Q31464
Trichloroethene	40.53	50	mg/kg	81	59-129	Q31464

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 Project ID: NCDOT Parcel 56
 Project No.: WBS #7210023.07

COC Group Number: G0408092
 Date/Time Submitted: 4/3/2008 8:30

Matrix Spike							
Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %		QC Batch ID
210021 1,1-Dichloroethene	31.11	50	mg/kg	62	44-140		Q31464
Benzene	32.39	50	mg/kg	65	46-136		Q31464
Chlorobenzene	28.91	50	mg/kg	58	47-135		Q31464
Toluene	32	50	mg/kg	64	47-136		Q31464
Trichloroethene	31.95	50	mg/kg	64	45-141		Q31464

Matrix Spike Duplicate								
Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210021 1,1-Dichloroethene	31.68	50	mg/kg	63	44-140	2	0 - 23	Q31464
Benzene	32.63	50	mg/kg	65	46-136	1	0 - 22	Q31464
Chlorobenzene	28.93	50	mg/kg	58	47-135	0	0 - 22	Q31464
Toluene	31.31	50	mg/kg	63	47-136	2	0 - 22	Q31464
Trichloroethene	31.68	50	mg/kg	63	45-141	1	0 - 23	Q31464

Gasoline Range Organics (GRO) by GC-FID, method 8015B

Method Blank						QC Batch ID
	Result	RL	Control Limit	Units		
Gasoline Range Organics (GRO)	ND	1	<0.5	mg/kg		Q31508

Laboratory Control Sample							
	Result	Spike Amount	Units	Recovery %	Recovery Ranges %		QC Batch ID
Gasoline Range Organics (GRO)	1.945	2	mg/kg	97	64-124		Q31508

Matrix Spike							
Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %		QC Batch ID
210407 Gasoline Range Organics (GRO)	1.868	2	mg/kg	93	37-126		Q31508

Matrix Spike Duplicate								
Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210407 Gasoline Range Organics (GRO)	1.862	2	mg/kg	93	37-126	0	0 - 34	Q31508

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Level II QC Report

04/18/08

N. C. Department of Transportation
 Attn: Ben Bradley
 c/o Schnabel Engineering
 11 A Oak Branch Drive
 Greensboro, NC 27407

Project Name: A Cleaner World, Boone, NC
 Project ID: NCDOT Parcel 56
 Project No.: WBS #7210023.07

COC Group Number: G0408092
 Date/Time Submitted: 4/3/2008 8:30

Diesel Range Organics (DRO) by GC-FID, method 8015B

Method Blank									
	Result	RL	Control Limit	Units			QC Batch ID		
Diesel Range Organics (DRO)	ND	7	<3.5	mg/kg			Q31647		
Laboratory Control Sample									
	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	QC Batch ID		
Diesel Range Organics (DRO)	84.2	80		mg/kg	105	55-109	Q31647		
Matrix Spike									
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	QC Batch ID		
210414 Diesel Range Organics (DRO)	69.4	80		mg/kg	87	50-117	Q31647		
Matrix Spike Duplicate									
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210414 Diesel Range Organics (DRO)	77.5	80		mg/kg	97	50-117	11	0 - 24	Q31647

Oil and Grease by Soxhlet Extraction, method 9071A

Method Blank									
	Result	RL	Control Limit	Units			QC Batch ID		
Oil and Grease	ND	35	<17.5	mg/kg			Q31844		
Laboratory Control Sample									
	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	QC Batch ID		
Oil and Grease	5259	5249		mg/kg	100	80-120	Q31844		
Matrix Spike									
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	QC Batch ID		
210408 Oil and Grease	24951	24793		mg/kg	101	80-120	Q31844		
Matrix Spike Duplicate									
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210408 Oil and Grease	25235	24504		mg/kg	103	80-120	1	0 - 20	Q31844

#-See Case Narrative



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: Schnabel
Report To/Contact Name: Ben Bradley
Reporting Address: 1-A Oak Branch Dr. Greensboro NC 27407

Phone: 336-274-9556 Fax (Yes) (No):
Email (Yes) (No) Email Address: bradley@schnabel-world.com
EDD Type: PDF Excel Other
Site Location Name: A Cleaner World
Site Location Physical Address:

CHAIN OF CUSTODY RECORD

PAGE OF QUOTE # TO ENSURE PROPER BILLING: 720023.07
Project Name:
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
"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 2.9
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

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				
B-56-01	3-31-08	1245	Soil	G	3			X		210411
B-56-02	3-31-08	1304	Soil	G	3			X		210412
B-56-03	3-31-08	1359	Soil	G	4			X		210413
B-56-04	3-31-08	1345	Soil	G	3			X		210414
B-56-04	3-31-08	1340	Water	AG	4			X	- Cancel water analyses per Ben Bradley 4/3/08 rjg	210415

PRESS DOWN FIRMLY - 3 COPIES

Sampler's Signature: Benjamin J. Bradley Sampled By (Print Name): Ben Bradley Affiliation

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) Benjamin J. Bradley Date 4/2/08 Military/Hours 1335
 Relinquished By: (Signature) David Mann Date 4/3/08 Date 8:30
 Relinquished By: (Signature) David Mann Date 4/3/08 Date 8:30

Additional Comments:

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: NC SC NC SC NC SC NC SC NC SC NC SC

OTHER: LANDFILL NC SC NC SC NC SC

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

PRISM USE ONLY
 Site Arrival Time:
 Site Departure Time:
 Field Tech Fee:
 Mileage:

SEE REVERSE FOR TERMS & CONDITIONS ORIGINAL