

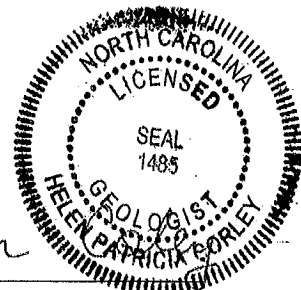


**North Carolina Department of Transportation
Preliminary Site Assessment
State Project: R-2707E
WBS Element: 34497.1.2
Cleveland County**

**Parcel 081
David Wayne Allen
4832 East Dixon Boulevard
King's Mountain, North Carolina
May 7, 2019**

**Wood Environment and Infrastructure Solutions, Inc.
Project: 1883R2707**

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Senior Scientist



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Senior Assoc. Hydrogeologist

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1.0 INTRODUCTION

In response to the North Carolina Department of Transportation (NCDOT) Request for Proposal, dated March 27, 2019, Wood Environment & Infrastructure Solutions, Inc. (Wood) has performed a Preliminary Site Assessment (PSA) for Parcel 081. The investigation was conducted in accordance with Wood's Technical and Cost proposal dated April 5, 2019 and revised April 11, 2019. NCDOT contracted Wood to perform the PSA at the parcel, within the area to be affected by future road construction activities, in order to identify potential impacts from the former use of the property.

The parcel is located at 4832 East Dixon Boulevard along the southern side of East Dixon Boulevard as shown on the Vicinity Map, **Figure 1**. At the time of this PSA, the parcel was wooded and occupied with abandoned junk vehicles and a vacant house trailer. It is identified as Parcel 081, the David Wayne Allen property, (Site) within the NCDOT R-2707E design file. The parcel is in King's Mountain of Cleveland County, North Carolina. The area of investigation within the parcel is shown on **Figure 2**.

The following report describes our subsurface field investigation at the Site and presents on-site UVF soil analyses and off-site metals analysis to evaluate soil contamination within the Site.

1.1 Site History

Based on our historical and aerial photography review, the junk vehicles have been present since at least 1961. The Site is not identified on the North Carolina Department of Environmental Quality (NCDEQ) Underground Storage Tank (UST) Facility Database registry and no known groundwater incidents are identified at the Site. No files associated with the Site were available for review on the NCDEQ Laserfiche website.

1.2 Site Description

The Site is located in a mixed-use commercial and residential area of King's Mountain in Cleveland County and covers approximately 17.7 acres. The majority of the Site is wooded and grass-covered with the wooded areas occupied by abandoned junk vehicles and a vacant house trailer. An aboveground storage tank (AST), located along the eastern exterior

of the vacant house trailer was empty at the time of the PSA. A photographic log of the property is included as **Appendix A**.

2.0 GEOLOGY

2.1 Regional Geology

The Site is located within the Inner Piedmont Belt of the Piedmont Physiographic Province of North Carolina. According to the 1985 State Geologic Map of North Carolina, the area is underlain by massive to weakly foliated Cherryville Granite.

2.2 Site Geology

Site geology was observed through the advancement of six shallow hand augered soil borings (P81-SB1 to P81-SB6). Figure 2 presents the boring locations and site layout. Boring depth targeted a total depth of two feet below ground surface (bgs). Soils encountered in the borings consisted mostly of red to tan to brown sandy silts and clays. No petroleum odors or staining were observed in the borings and groundwater was not encountered. Based on observations of topography of the Site vicinity, the groundwater flow direction is inferred to be generally to the northwest. Boring logs are presented in **Appendix B**.

3.0 FIELD ACTIVITIES

3.1 Preliminary Activities

Prior to commencing field sampling activities at the Site, several tasks were accomplished in preparation for the subsurface investigation. A Health and Safety Plan (HASP) was created including the Site-specific health and safety information necessary for the field activities. North Carolina 811 was contacted on April 9, 2019 to report the proposed sampling activities and subsequently notify all affected utilities for the parcel. RED Lab instrumentation was scheduled for the use in the on-site UVF analysis.

Wood understands that acquisition of the right-of-way is necessary for the construction of the US 74 – Shelby Bypass. Boring locations were strategically placed within the parcel to maximize the opportunity to encounter potential contaminated soil resulting from junk car storage.

3.2 Site Reconnaissance

Wood personnel performed a Site reconnaissance with property owner notification on April 9, 2019. During the Site reconnaissance, the area was visually examined for the presence of any areas/obstructions that could potentially affect the subsurface investigation. Several junk vehicles were noted scattered throughout the Site. In addition, a house trailer and AST were observed on the eastern portion of the Site.

3.3 Soil Sampling

On April 16, 2019, Wood personnel advanced six soil borings via a stainless-steel hand auger across the area of investigation to an approximate depth of two feet bgs. Borings P81-SB1, P81-SB2, P81-SB4, and P81-SB6 were advanced in locations near junk vehicles. Boring P81-SB3 was advanced in the location of a proposed drainage feature at the Site, and boring P81-SB5 was advanced beneath the AST at the Site.

The purpose of the soil sampling was to determine if a petroleum release had impacted the Site and if so, to estimate the volume of impacted soil that might require special handling during NCDOT construction activities. Soil sampling was performed utilizing a stainless-steel hand auger accompanied by field screening. The hand auger was decontaminated between boring locations using a Liquinox[®] wash and distilled water rinse. Wood conducted field screening for volatile organic compounds (VOCs) of the soil borings with a photoionization detector (PID). The soil borings were screened with the PID at approximate one-foot intervals. A portion of the interval of the soil boring exhibiting the highest PID reading was retained for analysis of total petroleum hydrocarbons (TPH), diesel range organics (DRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, and xylene (BTEX), total aromatics, and polycyclic aromatic hydrocarbons (PAH) soil via on-site ultraviolet fluorescence (UVF).

The remaining portion of the interval of the soil boring exhibiting the highest PID reading was retained for off-site laboratory analysis, placed in laboratory provided containers and immediately placed on ice. The samples were delivered under standard chain-of-custody protocol via courier to Prism Laboratories, Inc. in Charlotte, North Carolina and analyzed for eight Resource Conservation and Recovery Act (RCRA) metals via EPA methods 6010/7471 by Prism Laboratories, Inc. (Prism) in Charlotte, North Carolina. Six total samples were collected from the site from the borings for UVF on-site analysis and eight RCRA Metals off-site analysis.

4.0 SOIL SAMPLING RESULTS

Based on PID field screening and UVF hydrocarbon analysis from April 16, 2019, evidence of petroleum hydrocarbon impacts were not identified within the area of investigation.

4.1 Soil Screening and UVF Analyses

PID readings for the six borings ranged from 3.4 parts per million (ppm) in sample P81-SB4-1 collected between the ground surface and one foot bgs to 10.1 ppm in sample P81-SB5-1 collected between the ground surface and one foot bgs. The PID field screening results are summarized in **Table 1** and provided on the boring logs in Appendix B.

Results from the on-site UVF petroleum soil analyses are presented in **Table 2**, with instrument generated tables in **Appendix C**. Several categories of analyses were measured such as: DRO, GRO, TPH, PAHs, and total aromatics. **Figure 3** presents the GRO and DRO results at each boring.

Elevated TPH values above the NCDEQ Action Limit of 50 milligrams per kilogram (mg/kg) for GRO or 100 mg/kg for DRO were not detected in the six samples collected from the borings advanced at the Site. GRO was detected in one sample (P81-SB4-1) at a concentration of 2 mg/kg, while DRO was detected in each of the six samples ranging from 0.06 mg/kg in P81-SB2-1 to 1.0 mg/kg in P81-SB5-1. The hydrocarbon results from the QED QROS Hydrocarbon Analyzer are provided in Appendix C.

4.2 Off-site Laboratory Analyses

The laboratory analytical report and chain-of-custody form for the off-site soil sample analyses conducted by Prism is included in **Appendix D**. The results of the six soil samples analyzed for eight RCRA Metals by Prism are summarized in **Table 3**, as well as below:

- Concentrations of arsenic, barium, total chromium, and lead were identified in each of the six soil samples collected at the site. In addition, concentrations of mercury were identified in three of the six samples collected at the site; however, the mercury concentrations were J-flagged, indicating the values were identified above the method detection limit but below the reporting limit and are considered an estimate.
- The concentrations of arsenic identified in samples P81-SB4-1 (3.8 mg/kg) and P81-SB6-2 (8.8 mg/kg) exceeded the EPA Composite Worker Soil Carcinogenic Target Risk of $1e^{-06}$ (TR) Regional Screening Level (RSL) for arsenic of 3.0 mg/kg.
- The concentrations of total chromium identified in samples P81-SB1-1 (14 mg/kg), P81-SB2-1 (12 mg/kg), P81-SB3-2 (8.9 mg/kg), P81-SB4-1 (13 mg/kg), and P81-SB6-2 (36 mg/kg) exceeded the NCDEQ Soil-to-Water Maximum Soil Contaminant Concentration (MSCC) for total chromium of 5.4 mg/kg. In addition, the concentrations exceeded the EPA Composite Worker Soil TR RSL for chromium (VI) of 6.3 mg/kg. Note, separate EPA RSLs are established for chromium (III) and chromium (VI) variants. Speciated chromium samples were not analyzed as part of this assessment. The EPA Composite Worker Soil TR RSL for chromium (VI) of 6.3 mg/kg was conservatively compared to these samples.
- The barium, lead and mercury concentrations identified in the samples did not exceed their respective NCDEQ MSCCs or EPA RSLs.

5.0 CONCLUSIONS

Based on the Site observations, UVF analysis, and laboratory analysis, petroleum-impacted soil contamination was not identified and as a result the NCDEQ Action level of 100 mg/kg for DRO and 50 mg/kg for GRO were not exceeded.

Concentrations of arsenic and total chromium, identified in some of the soil samples, exceeded their respective EPA Composite Worker Soil TR RSLs. In addition, the concentrations of total chromium identified exceeded the NCDEQ Soil-to-Water MSCC in five of the six soil samples. However, the concentrations of arsenic and total chromium identified in the soil samples collected at the site are within the naturally occurring trace element content of soils as identified in the EPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW874 (dated April 1983), page 273, Table 6.46. Based on the absence of petroleum-impacted soils identified at the site and that the concentrations of arsenic and total chromium were identified within naturally occurring background levels, Wood does not consider the metal concentrations to indicate a release has occurred at the Site.

6.0 RECOMMENDATIONS

Based on these PSA results, Wood does not recommend further assessment in the area of investigation or special soil handling during construction.

TABLES

Table 1: Summary of PID Screening Results
Parcel 081 - David Wayne Allen Property
King's Mountain, North Carolina
Wood Project: 1883R2707E

Boring ID	Depth of Sample Interval	PID Reading
P81-SB1	0-1	3.5
P81-SB2	0-1	5.1
P81-SB3	1-2	7.2
P81-SB4	0-1	3.4
P81-SB5	0-1	10.1
P81-SB6	1-2	6.0

Notes:

1. Samples collected on April 16, 2019
2. Depths shown in feet below ground surface (bgs)
3. PID = Photoionization Detector
4. PID readings shown in parts per million (ppm)

Prepared By/Date: AJF 4/23/2019

Checked By/Date: DRH 5/3/2019

Table 2: Summary of UVF Petroleum Soil Results
Parcel 081 - David Wayne Allen Property
King's Mountain, North Carolina
Wood Project: 1883R2707E

Sample ID Number	Sample Depth	BTEX	GRO	DRO	PAHs
P81-SB1-1	0-1	<0.48	<0.48	0.42	0.01
P81-SB2-1	0-1	<0.49	<0.49	0.06	0.004
P81-SB3-2	1-2	<0.45	<0.45	0.08	0.007
P81-SB4-1	0-1	<0.49	2	0.73	0.08
P81-SB5-1	0-1	<0.59	<0.59	1	0.03
P81-SB6-2	1-2	<0.44	<0.44	0.90	0.02
NC State Action Level		N/A	50	100	N/A

Notes:

1. Samples collected on April 16, 2019
2. Depths shown in feet below ground surface (bgs)
3. Concentrations shown in milligrams per kilogram (mg/kg)
4. BTEX = Benzene, toluene, ethylbenzene, xylene
5. GRO = Gasoline Range Organics
6. DRO = Diesel Range Organics
7. PAHs = Polycyclic aromatic hydrocarbons
8. N/A = Not applicable
9. Bold values exceed respective NC State Action Level

Prepared By/Date: AJF 4/23/2019

Checked By/Date: DRH 5/3/2019

Table 3: Summary of Off-Site RCRA Metal Analytical Results
Parcel 081 - David Wayne Allen Property
King's Mountain, North Carolina
Wood Project: 1883R2707E

Constituent	P81-SB1-1	P81-SB2-1	P81-SB3-2	P81-SB4-1	P81-SB5-1	P81-SB6-2	Soil-to-Water MSCCs	Industrial/Commercial MSCCs	EPA Composite Worker Soil Carcinogenic TR RSLs	EPA Composite Worker Soil Non-carcinogenic HI RSLs	Trace Element Content of Soils*
Sample Depth	0-1	0-1	1-2	1-2	0-1	1-2					
Arsenic	1.9	2.1	1.8	<u>3.8</u>	2.0	<u>8.8</u>	NE	NE	3.0	48	1-50
Barium	25	30	23	34	27	67	290	81,000	NE	22,000	100-3,000
Cadmium	<0.040	<0.042	<0.042	<0.042	<0.044	<0.043	NE	NE	9,300	98	0.01-0.7
Chromium	<u>14</u>	<u>12</u>	<u>8.9</u>	<u>13</u>	4.2	<u>36</u>	5.4	1,226	(III) NE (VI) 6.3	(III) 180,000 (VI) 350	1-1,000
Lead	15	19	19	22	23	30	270	400	NE	800	2-200
Mercury	<0.021	0.028 J	<0.021	0.024 J	<0.022	0.052 J	NE	NE	NE	4.6	0.01-0.3
Selenium	<0.33	<0.34	<0.34	<0.34	<0.36	<0.35	NE	NE	NE	580	0.1-2
Silver	<0.037	<0.038	<0.038	<0.038	<0.040	<0.039	0.25	2,044	NE	580	0.01-5

Notes:

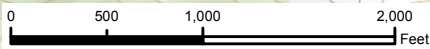
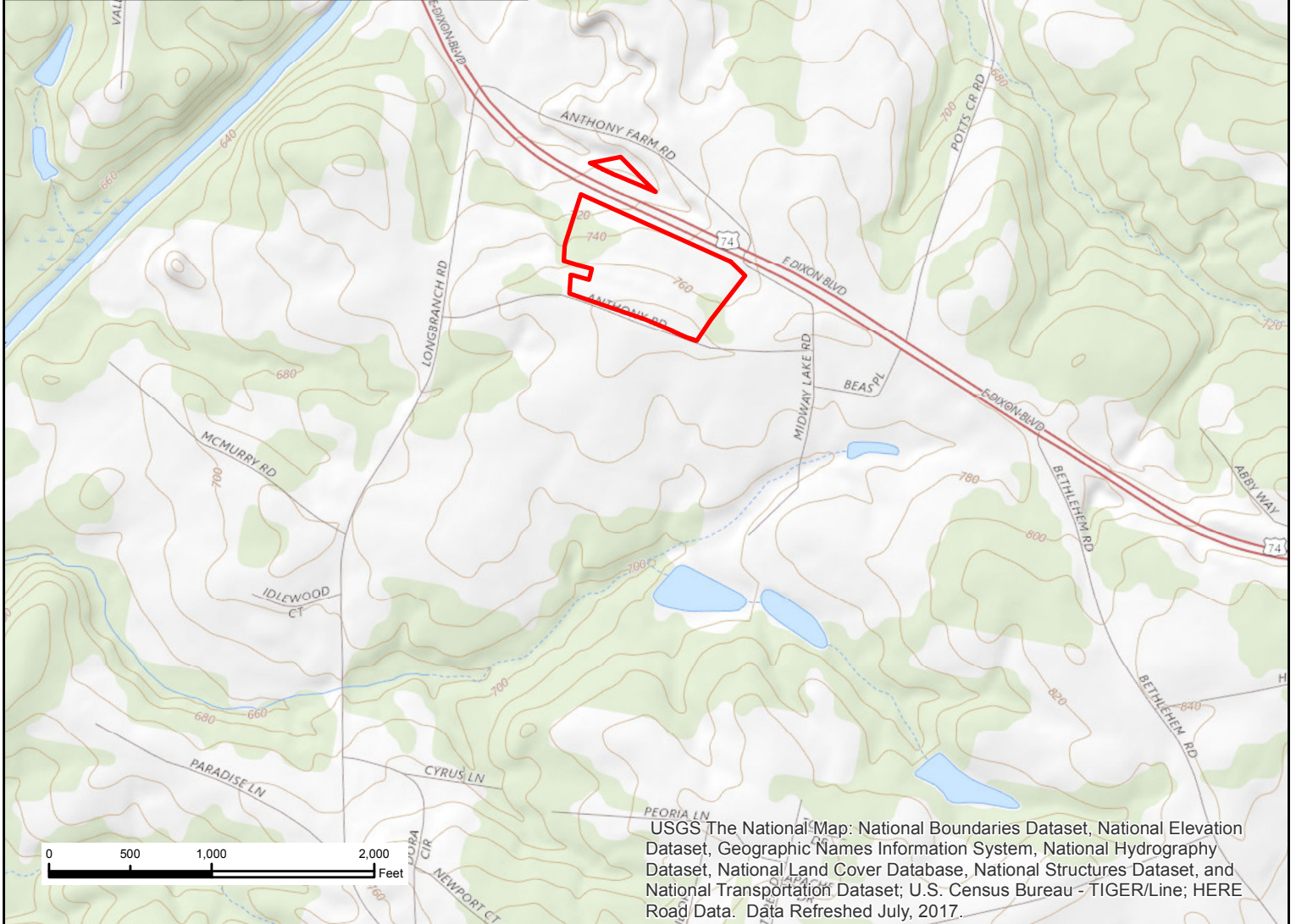
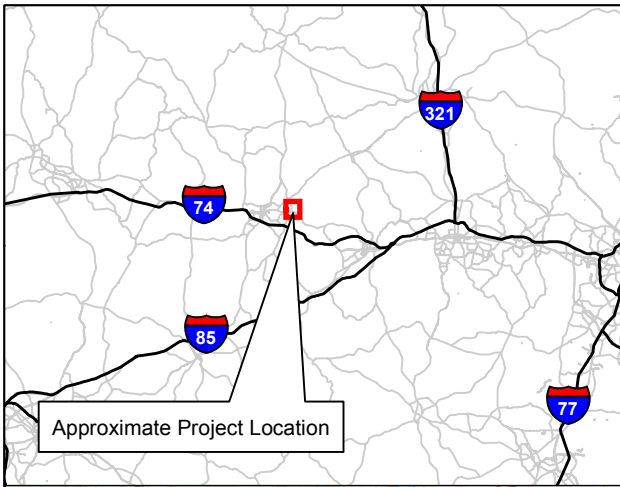
1. Samples collected on April 16, 2019
2. Concentrations reported in milligrams per kilogram (mg/kg)
3. Depths shown in feet below ground surface (bgs)
4. MSCC = NCDEQ Division of Waste Management, Maximum Soil Contaminant Concentration Levels, dated April 2012
5. EPA RSLs = EPA Regional Screening Levels (RSLs), Carcinogenic Target Risk (TR) = 1e-06, Non-carcinogenic Hazard Index (HI) 0.1, dated November 2018
6. Bold value indicates concentration exceeds Soil-to-Water MSCC
7. Shaded value indicates concentration exceeds Industrial/Commercial MSCC
8. Underlined value indicates concentration exceeds EPA RSL for either Carcinogenic TR or Non-carcinogenic HI
9. J-flag indicates value was identified above method detection limit but below laboratory reporting limit, value is considered an estimate
10. Separate RSLs are established for Chromium (III) and (VI) variants. Speciated chromium samples were not analyzed during this assessment
11. NE = Not established

*Reference: USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April 1983) page 273, Table 6.46

Prepared By/Date: RPD 4/29/19

Checked By/Date: AJF 5/6/19

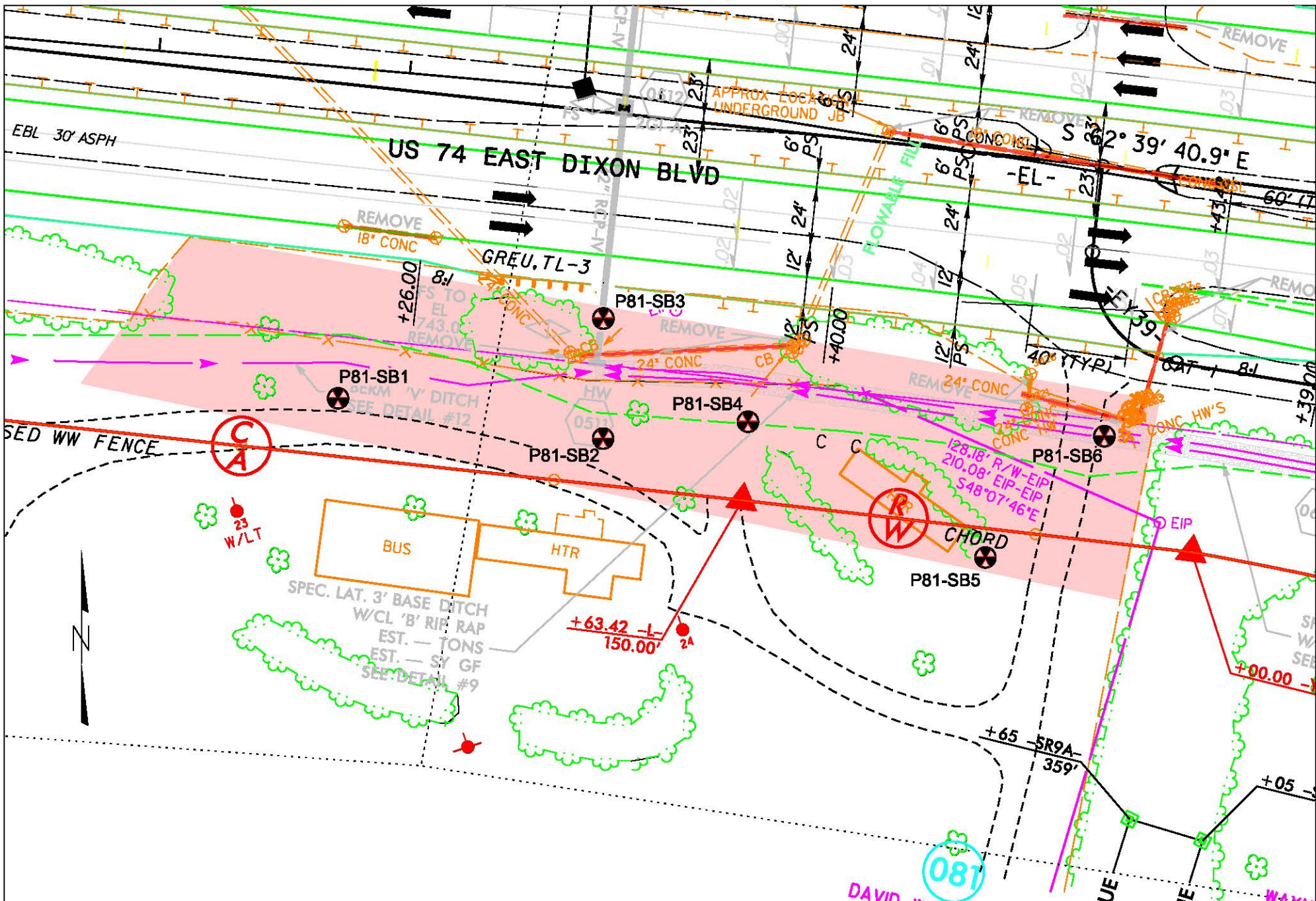
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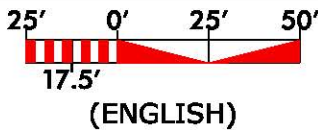
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SITE VICINITY
R2707E - Parcel 081
David Wayne Allen
4832 East Dixon Boulevard
Kings Mountain, North Carolina 28086

 Site Boundary



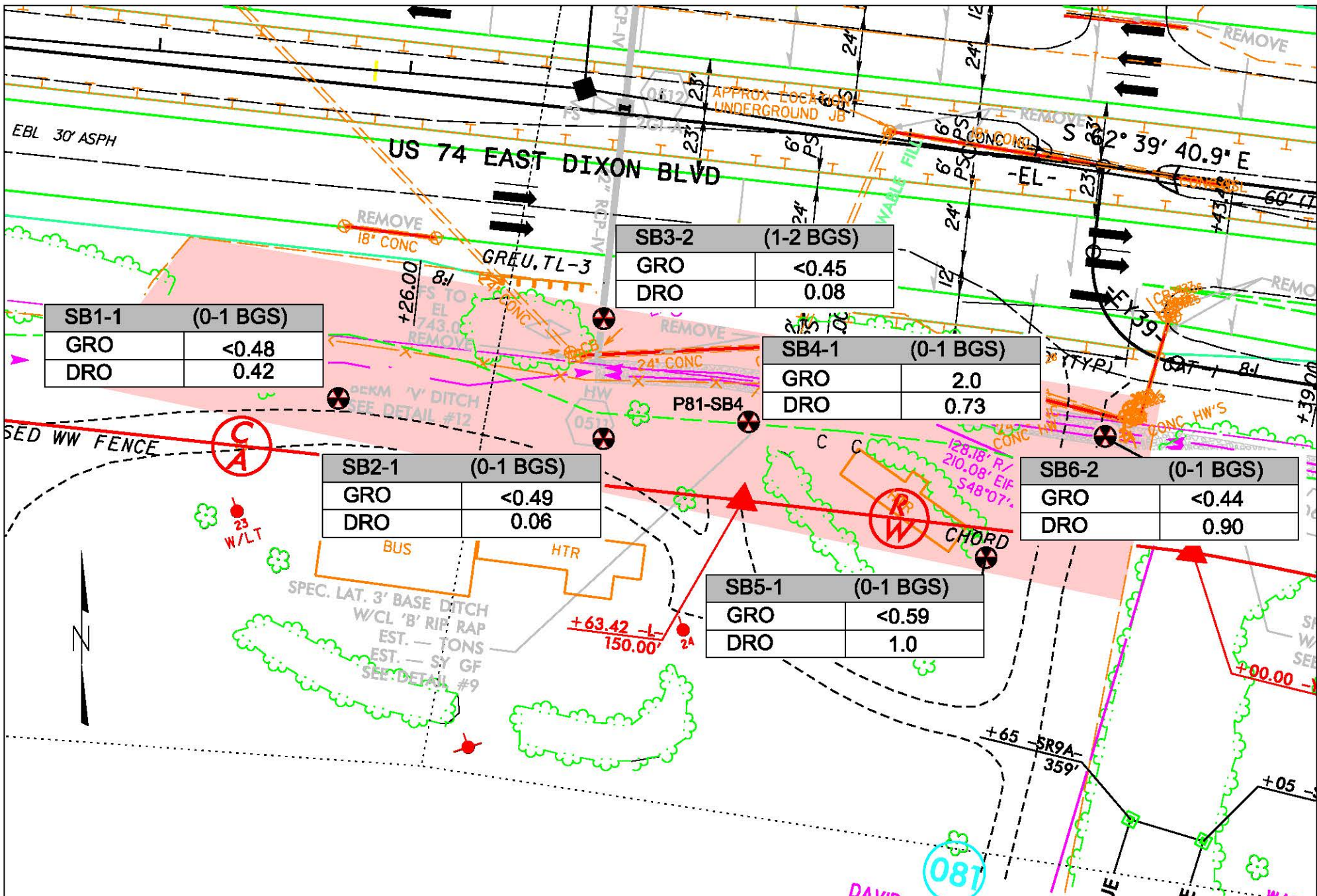
- BORING LOCATION
- AREA OF INVESTIGATION



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BORING LOCATION MAP- PARCEL 81
DAVID WAYNE ALLEN PROPERTY
 STATE PROJECT: R-2707E
 WBS ELEMENT: 34497.1.2
 CLEVELAND COUNTY, SHELBY, NORTH CAROLINA

PREPARED BY:	DATE:	CHECKED BY:	DATE:	JOB NUMBER	FIGURE
LJM	5/7/19	HPC	5/7/19	188322707	2



SB1-1 (0-1 BGS)	
GRO	<0.48
DRO	0.42

SB3-2 (1-2 BGS)	
GRO	<0.45
DRO	0.08

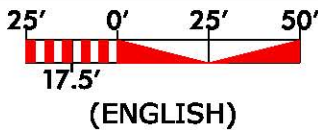
SB4-1 (0-1 BGS)	
GRO	2.0
DRO	0.73

SB2-1 (0-1 BGS)	
GRO	<0.49
DRO	0.06

SB6-2 (0-1 BGS)	
GRO	<0.44
DRO	0.90

SB5-1 (0-1 BGS)	
GRO	<0.59
DRO	1.0

● BORING LOCATION
 AREA OF INVESTIGATION
 GRO=GASOLINE RANGE ORGANICS
 DRO=DIESEL RANGE ORGANICS
 CONCENTRATIONS SHOWN IN MILLIGRAMS PER KILOGRAM (mg/kg)
 SHADED CONCENTRATIONS EXCEED NCDEQ STATE ACTION LIMITS
 BGS=FEET BELOW GROUND SURFACE



wood.

UVF PETROLEUM RESULTS - PARCEL 81
 DAVID WAYNE ALLEN PROPERTY
 STATE PROJECT: R-2707E
 WBS ELEMENT: 34497.1.2
 CLEVELAND COUNTY, SHELBY, NORTH CAROLINA

PREPARED BY: LMM	DATE: 5/7/19	CHECKED BY: HPC	DATE: 5/7/19	JOB NUMBER: 188322707	FIGURE: 3
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APPENDIX A
PHOTOGRAPHIC LOG



PHOTO 1:

View of abandoned fire truck, SUV and RV, looking south from Midway Lake Road/ US 74.

Photo taken 4/16/19.



PHOTO 2:

View of abandoned trailer, looking east.

Photo taken 4/16/19.



PHOTO 3:

View of AST on the eastern side of the abandoned trailer, looking northwest.

Photo taken 4/16/19.



PHOTO 4:

View of abandoned building south of area of investigation. Household debris and appliances scattered around the building, looking south.

Photo taken 4/16/19.



PHOTO 5:

View of abandoned vehicles covered in high vegetation, looking northeast toward US 74.

Photo taken 4/16/19.

APPENDIX B
BORING LOGS

SOIL BORING FIELD WORKSHEET

BORING #	P81-SB1	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707E		
DATE DRILLED	4/16/2019	WEATHER CONDITIONS	75°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	3.5	Red brown fine-grained sandy SILT w/clay	
2	1.5	Tan brown fine-grained sandy SILT w/quartz and grains	
3		Boring terminated at 2ft. UVF sample taken at 0-1ft. Sample taken for off-site analysis taken at 0-1ft.	
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Page: 1

SOIL BORING FIELD WORKSHEET

BORING #	P81-SB2	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707E		
DATE DRILLED	4/16/2019	WEATHER CONDITIONS	75°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	5.1	Tan brown fine-grained sandy SILT w/quartz grains	
2	5.0	Tan brown fine-grained sandy CLAY w/fine-grained sand and quartz	
3		Boring terminated at 2ft. UVF sample taken at 0-1ft. Sample taken for off-site analysis taken at 0-1ft.	
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SOIL BORING FIELD WORKSHEET

BORING #	P81-SB3	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707E		
DATE DRILLED	4/16/2019	WEATHER CONDITIONS	75°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	7.1	Red and tan fine-grained sandy CLAY	
2	7.2		
3		Boring terminated at 2ft. UVF sample taken at 1-2ft. Sample taken for off-site analysis taken at 1-2ft.	
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SOIL BORING FIELD WORKSHEET

BORING #	P81-SB4	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707E		
DATE DRILLED	4/16/2019	WEATHER CONDITIONS	75°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	3.4	Red and tan fine-grained sandy SILT w/quartz grains	
2	3.1		
3		Boring terminated at 2ft. UVF sample taken at 0-1ft. Sample taken for off-site analysis taken at 0-1ft.	
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SOIL BORING FIELD WORKSHEET

BORING #	P81-SB5	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707E		
DATE DRILLED	4/16/2019	WEATHER CONDITIONS	75°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	10.1	Tan and dark brown fine-grained sandy SILT w/clay and quartz grains	
2	3.5	Brown fine-grained SILT w/quartz grains	
3		Boring terminated at 2ft. UVF sample taken at 0-1ft. Sample taken for off-site analysis taken at 0-1ft.	
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SOIL BORING FIELD WORKSHEET

BORING #	P81-SB6	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707E		
DATE DRILLED	4/16/2019	WEATHER CONDITIONS	75°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	1.7	Black fine-grained sandy CLAY w/organics and root matter	
2	6.0	Red brown fine-grained sandy CLAY w/ organics and root matter	
3		Boring terminated at 2ft. UVF sample taken at 1-2ft. Sample taken for off-site analysis taken at 1-2ft.	
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APPENDIX C
RESULTS FROM ON-SITE UVF SOIL ANALYSES



Hydrocarbon Analysis Results

Client: Wood
Address: 2801 Yorkmont Road
 Charlotte, NC

Samples taken Tuesday, April 16, 2019
Samples extracted Tuesday, April 16, 2019
Samples analysed Tuesday, April 16, 2019

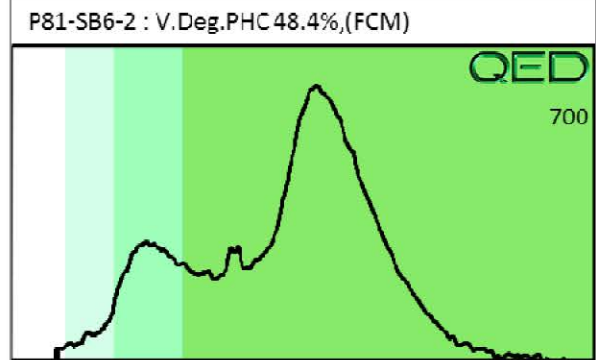
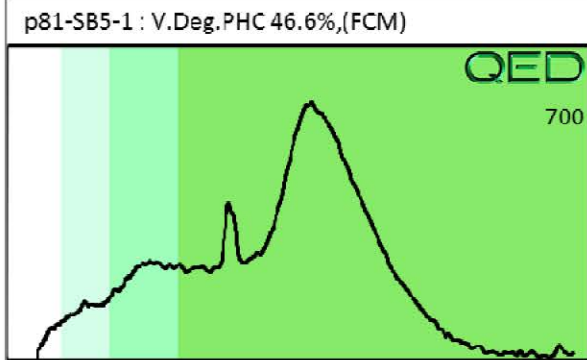
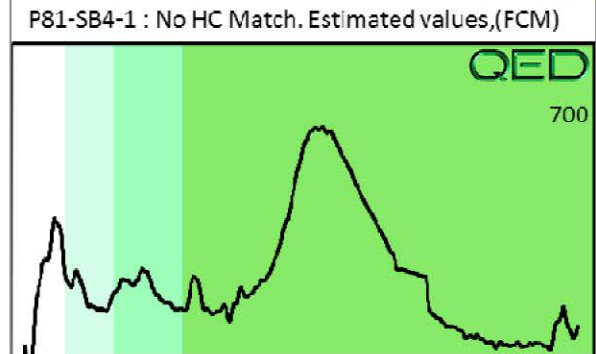
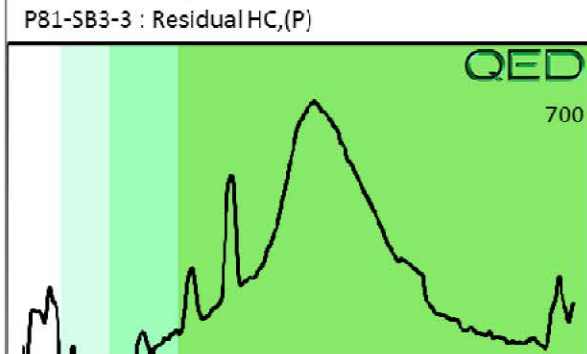
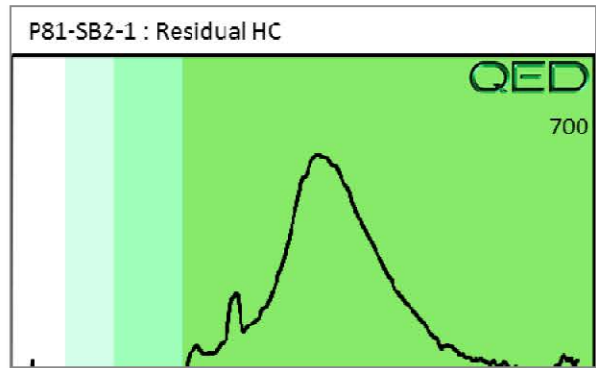
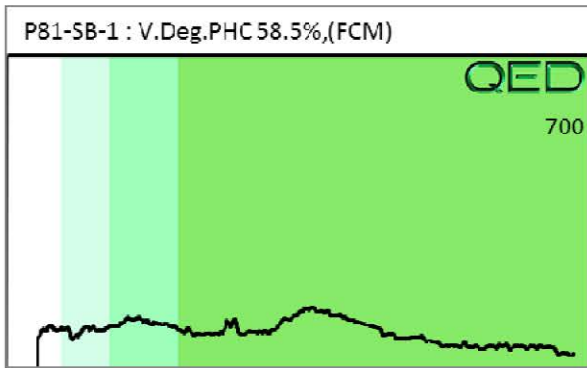
Contact: Helen Corley

Operator Derick Haydin

Project: NCDOT Shelby

											H09382		
Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	% Ratios			HC Fingerprint Match
										C5 - C10	C10 - C18	C18	
Soil	P81-SB1-1	19.1	<0.48	<0.48	0.42	0.42	0.31	0.01	<0.006	0	100	0	V.Deg.PHC 58.5%,(FCM)
Soil	P81-SB2-1	19.4	<0.49	<0.49	0.06	0.06	0.06	0.004	<0.006	0	34	66	Residual HC
Soil	P81-SB3-2	17.8	<0.45	<0.45	0.08	0.08	0.08	0.007	<0.005	0	34	66	Residual HC,(P)
Soil	P81-SB4-1	19.7	<0.49	2	0.73	2.73	0.69	0.08	<0.006	78	20.5	1.5	No HC Match. Estimated values,(FCM)
Soil	P81-SB5-1	23.6	<0.59	<0.59	1	1	0.48	0.03	<0.007	0	84.7	15.3	V.Deg.PHC 46.6%,(FCM)
Soil	P81-SB6-2	17.7	<0.44	<0.44	0.9	0.9	0.4	0.02	<0.005	0	87.2	12.8	V.Deg.PHC 48.4%,(FCM)
Initial Calibrator QC check			OK			Final FCM QC Check			OK			98.2%	

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.
 Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected
 B = Blank Drift : (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : (OCR) = Outside cal range : (M) = Modified Result.
 % Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only. **Data generated by HC-1 Analyser**



APPENDIX D
LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY
FORM

Wood Environ. & Infrastructure Solutions (Charl)
Andrew Frantz
2801 Yorkmont Rd. #100
Charlotte, NC 28208

Project: NCDOT Shelby R-2707 D&E
Project No.: 1883R2707 Parcel 81
Lab Submittal Date: 04/17/2019
Prism Work Order: 9040277

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

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

Respectfully,

PRISM LABORATORIES, INC.



Robbi A. Jones
President/Project Manager



Reviewed By Robbi A. Jones
President/Project Manager

Data Qualifiers Key Reference:

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- U Not Detected at the MDL
- MDL Method Detection Limit
- RPD Relative Percent Difference
- * Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P81-SB1-1	9040277-01	Solid	04/16/19 15:00	04/17/19 8:25
P81-SB2-1	9040277-02	Solid	04/16/19 15:05	04/17/19 8:25
P81-SB3-2	9040277-03	Solid	04/16/19 15:15	04/17/19 8:25
P81-SB4-1	9040277-04	Solid	04/16/19 15:25	04/17/19 8:25
P81-SB5-1	9040277-05	Solid	04/16/19 15:35	04/17/19 8:25
P81-SB6-2	9040277-06	Solid	04/16/19 15:45	04/17/19 8:25

Samples were received in good condition at 1.6 degrees C unless otherwise noted.

Prism ID	Client ID	Parameter	Method	Result	Units
9040277-01	P81-SB1-1	Arsenic	6010D	1.9	mg/kg dry
9040277-01	P81-SB1-1	Barium	6010D	25	mg/kg dry
9040277-01	P81-SB1-1	Chromium	6010D	14	mg/kg dry
9040277-01	P81-SB1-1	Lead	6010D	15	mg/kg dry
9040277-02	P81-SB2-1	Mercury	7471B	0.028 J	mg/kg dry
9040277-02	P81-SB2-1	Arsenic	6010D	2.1	mg/kg dry
9040277-02	P81-SB2-1	Barium	6010D	30	mg/kg dry
9040277-02	P81-SB2-1	Chromium	6010D	12	mg/kg dry
9040277-02	P81-SB2-1	Lead	6010D	19	mg/kg dry
9040277-03	P81-SB3-2	Arsenic	6010D	1.8	mg/kg dry
9040277-03	P81-SB3-2	Barium	6010D	23	mg/kg dry
9040277-03	P81-SB3-2	Chromium	6010D	8.9	mg/kg dry
9040277-03	P81-SB3-2	Lead	6010D	19	mg/kg dry
9040277-04	P81-SB4-1	Mercury	7471B	0.024 J	mg/kg dry
9040277-04	P81-SB4-1	Arsenic	6010D	3.8	mg/kg dry
9040277-04	P81-SB4-1	Barium	6010D	34	mg/kg dry
9040277-04	P81-SB4-1	Chromium	6010D	13	mg/kg dry
9040277-04	P81-SB4-1	Lead	6010D	22	mg/kg dry
9040277-05	P81-SB5-1	Arsenic	6010D	2.0	mg/kg dry
9040277-05	P81-SB5-1	Barium	6010D	27	mg/kg dry
9040277-05	P81-SB5-1	Chromium	6010D	4.2	mg/kg dry
9040277-05	P81-SB5-1	Lead	6010D	23	mg/kg dry
9040277-06	P81-SB6-2	Mercury	7471B	0.052 J	mg/kg dry
9040277-06	P81-SB6-2	Arsenic	6010D	8.8	mg/kg dry
9040277-06	P81-SB6-2	Barium	6010D	67	mg/kg dry
9040277-06	P81-SB6-2	Chromium	6010D	36	mg/kg dry
9040277-06	P81-SB6-2	Lead	6010D	30	mg/kg dry



Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E
Attn: Andrew Frantz
2801 Yorkmont Rd. #100
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 81
Sample Matrix: Solid

Client Sample ID: P81-SB1-1
Prism Sample ID: 9040277-01
Prism Work Order: 9040277
Time Collected: 04/16/19 15:00
Time Submitted: 04/17/19 08:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	84.1	% by Weight	0.100	0.100	1	SM2540 G	4/25/19 10:15	KBS	P9D0447
Total Metals									
Mercury	0.021 U	mg/kg dry	0.059	0.021	1	7471B	4/22/19 12:54	MMR	P9D0347
Arsenic	1.9	mg/kg dry	1.2	0.16	1	6010D	4/23/19 16:09	JAB	P9D0350
Barium	25	mg/kg dry	12	3.6	1	6010D	4/23/19 16:09	JAB	P9D0350
Cadmium	0.040 U	mg/kg dry	0.59	0.040	1	6010D	4/23/19 16:09	JAB	P9D0350
Chromium	14	mg/kg dry	1.2	0.090	1	6010D	4/23/19 16:09	JAB	P9D0350
Lead	15	mg/kg dry	1.2	0.20	1	6010D	4/23/19 16:09	JAB	P9D0350
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/23/19 16:09	JAB	P9D0350
Silver	0.037 U	mg/kg dry	0.59	0.037	1	6010D	4/23/19 16:09	JAB	P9D0350

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E
 Attn: Andrew Frantz
 2801 Yorkmont Rd. #100
 Charlotte, NC 28208

Project No.: 1883R2707 Parcel 81
 Sample Matrix: Solid

Client Sample ID: P81-SB2-1
 Prism Sample ID: 9040277-02
 Prism Work Order: 9040277
 Time Collected: 04/16/19 15:05
 Time Submitted: 04/17/19 08:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	81.4	% by Weight	0.100	0.100	1	SM2540 G	4/25/19 10:15	KBS	P9D0447
Total Metals									
Mercury	0.028 J	mg/kg dry	0.061	0.021	1	7471B	4/22/19 12:58	MMR	P9D0347
Arsenic	2.1	mg/kg dry	1.2	0.16	1	6010D	4/23/19 16:17	JAB	P9D0350
Barium	30	mg/kg dry	12	3.7	1	6010D	4/23/19 16:17	JAB	P9D0350
Cadmium	0.042 U	mg/kg dry	0.61	0.042	1	6010D	4/23/19 16:17	JAB	P9D0350
Chromium	12	mg/kg dry	1.2	0.093	1	6010D	4/23/19 16:17	JAB	P9D0350
Lead	19	mg/kg dry	1.2	0.21	1	6010D	4/23/19 16:17	JAB	P9D0350
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/23/19 16:17	JAB	P9D0350
Silver	0.038 U	mg/kg dry	0.61	0.038	1	6010D	4/23/19 16:17	JAB	P9D0350

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E
 Attn: Andrew Frantz
 2801 Yorkmont Rd. #100
 Charlotte, NC 28208

Project No.: 1883R2707 Parcel 81
 Sample Matrix: Solid

Client Sample ID: P81-SB3-2
 Prism Sample ID: 9040277-03
 Prism Work Order: 9040277
 Time Collected: 04/16/19 15:15
 Time Submitted: 04/17/19 08:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	80.6	% by Weight	0.100	0.100	1	SM2540 G	4/25/19 10:15	KBS	P9D0447
Total Metals									
Mercury	0.021 U	mg/kg dry	0.062	0.021	1	7471B	4/22/19 13:03	MMR	P9D0347
Arsenic	1.8	mg/kg dry	1.2	0.16	1	6010D	4/23/19 16:26	JAB	P9D0350
Barium	23	mg/kg dry	12	3.7	1	6010D	4/23/19 16:26	JAB	P9D0350
Cadmium	0.042 U	mg/kg dry	0.62	0.042	1	6010D	4/23/19 16:26	JAB	P9D0350
Chromium	8.9	mg/kg dry	1.2	0.094	1	6010D	4/23/19 16:26	JAB	P9D0350
Lead	19	mg/kg dry	1.2	0.21	1	6010D	4/23/19 16:26	JAB	P9D0350
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/23/19 16:26	JAB	P9D0350
Silver	0.038 U	mg/kg dry	0.62	0.038	1	6010D	4/23/19 16:26	JAB	P9D0350

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E
Attn: Andrew Frantz
2801 Yorkmont Rd. #100
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 81
Sample Matrix: Solid

Client Sample ID: P81-SB4-1
Prism Sample ID: 9040277-04
Prism Work Order: 9040277
Time Collected: 04/16/19 15:25
Time Submitted: 04/17/19 08:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	80.3	% by Weight	0.100	0.100	1	SM2540 G	4/25/19 10:15	KBS	P9D0447
Total Metals									
Mercury	0.024 J	mg/kg dry	0.062	0.022	1	7471B	4/22/19 13:08	MMR	P9D0347
Arsenic	3.8	mg/kg dry	1.2	0.16	1	6010D	4/23/19 16:50	JAB	P9D0350
Barium	34	mg/kg dry	12	3.7	1	6010D	4/23/19 16:50	JAB	P9D0350
Cadmium	0.042 U	mg/kg dry	0.62	0.042	1	6010D	4/23/19 16:50	JAB	P9D0350
Chromium	13	mg/kg dry	1.2	0.094	1	6010D	4/23/19 16:50	JAB	P9D0350
Lead	22	mg/kg dry	1.2	0.21	1	6010D	4/23/19 16:50	JAB	P9D0350
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/23/19 16:50	JAB	P9D0350
Silver	0.038 U	mg/kg dry	0.62	0.038	1	6010D	4/23/19 16:50	JAB	P9D0350

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E
 Attn: Andrew Frantz
 2801 Yorkmont Rd. #100
 Charlotte, NC 28208

Project No.: 1883R2707 Parcel 81
 Sample Matrix: Solid

Client Sample ID: P81-SB5-1
 Prism Sample ID: 9040277-05
 Prism Work Order: 9040277
 Time Collected: 04/16/19 15:35
 Time Submitted: 04/17/19 08:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	77.5	% by Weight	0.100	0.100	1	SM2540 G	4/25/19 10:15	KBS	P9D0447
Total Metals									
Mercury	0.022 U	mg/kg dry	0.065	0.022	1	7471B	4/22/19 13:17	MMR	P9D0347
Arsenic	2.0	mg/kg dry	1.3	0.17	1	6010D	4/23/19 16:59	JAB	P9D0350
Barium	27	mg/kg dry	13	3.9	1	6010D	4/23/19 16:59	JAB	P9D0350
Cadmium	0.044 U	mg/kg dry	0.65	0.044	1	6010D	4/23/19 16:59	JAB	P9D0350
Chromium	4.2	mg/kg dry	1.3	0.098	1	6010D	4/23/19 16:59	JAB	P9D0350
Lead	23	mg/kg dry	1.3	0.22	1	6010D	4/23/19 16:59	JAB	P9D0350
Selenium	0.36 U	mg/kg dry	1.3	0.36	1	6010D	4/23/19 16:59	JAB	P9D0350
Silver	0.040 U	mg/kg dry	0.65	0.040	1	6010D	4/23/19 16:59	JAB	P9D0350

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E
 Attn: Andrew Frantz
 2801 Yorkmont Rd. #100
 Charlotte, NC 28208

Project No.: 1883R2707 Parcel 81
 Sample Matrix: Solid

Client Sample ID: P81-SB6-2
 Prism Sample ID: 9040277-06
 Prism Work Order: 9040277
 Time Collected: 04/16/19 15:45
 Time Submitted: 04/17/19 08:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	78.7	% by Weight	0.100	0.100	1	SM2540 G	4/25/19 10:15	KBS	P9D0447
Total Metals									
Mercury	0.052 J	mg/kg dry	0.064	0.022	1	7471B	4/22/19 13:21	MMR	P9D0347
Arsenic	8.8	mg/kg dry	1.3	0.17	1	6010D	4/23/19 17:07	JAB	P9D0350
Barium	67	mg/kg dry	13	3.8	1	6010D	4/23/19 17:07	JAB	P9D0350
Cadmium	0.043 U	mg/kg dry	0.64	0.043	1	6010D	4/23/19 17:07	JAB	P9D0350
Chromium	36	mg/kg dry	1.3	0.096	1	6010D	4/23/19 17:07	JAB	P9D0350
Lead	30	mg/kg dry	1.3	0.21	1	6010D	4/23/19 17:07	JAB	P9D0350
Selenium	0.35 U	mg/kg dry	1.3	0.35	1	6010D	4/23/19 17:07	JAB	P9D0350
Silver	0.039 U	mg/kg dry	0.64	0.039	1	6010D	4/23/19 17:07	JAB	P9D0350

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E
 Attn: Andrew Frantz
 2801 Yorkmont Rd. #100
 Charlotte, NC 28208

Prism Work Order: 9040277
 Time Submitted: 4/17/2019 8:25:00AM

Project No: 1883R2707 Parcel 81

Total Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P9D0347 - 7471B

Blank (P9D0347-BLK1) Prepared & Analyzed: 04/22/19

Mercury	BRL	0.050	mg/kg wet							
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LCS (P9D0347-BS1) Prepared & Analyzed: 04/22/19

Mercury	0.446	0.050	mg/kg wet	0.4167		107	80-120			
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Batch P9D0350 - 3050B

Blank (P9D0350-BLK1) Prepared: 04/22/19 Analyzed: 04/23/19

Arsenic	BRL	1.0	mg/kg wet							
Barium	BRL	10	mg/kg wet							
Cadmium	BRL	0.50	mg/kg wet							
Chromium	BRL	1.0	mg/kg wet							
Lead	BRL	1.0	mg/kg wet							
Selenium	BRL	1.0	mg/kg wet							
Silver	BRL	0.50	mg/kg wet							

LCS (P9D0350-BS1) Prepared: 04/22/19 Analyzed: 04/23/19

Arsenic	11.7	1.0	mg/kg wet	12.50		94	80-120			
Barium	12.1	10	mg/kg wet	12.50		96	80-120			
Cadmium	11.9	0.50	mg/kg wet	12.50		95	80-120			
Chromium	12.0	1.0	mg/kg wet	12.50		96	80-120			
Lead	11.8	1.0	mg/kg wet	12.50		94	80-120			
Selenium	11.6	1.0	mg/kg wet	12.50		93	80-120			
Silver	4.65	0.50	mg/kg wet	5.000		93	80-120			

Sample Extraction Data

Prep Method: Solids, Dry Weight

Lab Number	Batch	Initial	Final	Date/Time
9040277-01	P9D0447	30 g	30 g	04/25/19 8:48
9040277-02	P9D0447	30 g	30 g	04/25/19 8:48
9040277-03	P9D0447	30 g	30 g	04/25/19 8:48
9040277-04	P9D0447	30 g	30 g	04/25/19 8:48
9040277-05	P9D0447	30 g	30 g	04/25/19 8:48
9040277-06	P9D0447	30 g	30 g	04/25/19 8:48

Prep Method: 3050B

Lab Number	Batch	Initial	Final	Date/Time
9040277-01	P9D0350	2 g	50 mL	04/22/19 8:05
9040277-02	P9D0350	2 g	50 mL	04/22/19 8:05
9040277-03	P9D0350	2 g	50 mL	04/22/19 8:05
9040277-04	P9D0350	2 g	50 mL	04/22/19 8:05
9040277-05	P9D0350	2 g	50 mL	04/22/19 8:05
9040277-06	P9D0350	2 g	50 mL	04/22/19 8:05

Prep Method: 7471B

Lab Number	Batch	Initial	Final	Date/Time
9040277-01	P9D0347	0.6 g	50 mL	04/22/19 10:45
9040277-02	P9D0347	0.6 g	50 mL	04/22/19 10:45
9040277-03	P9D0347	0.6 g	50 mL	04/22/19 10:45
9040277-04	P9D0347	0.6 g	50 mL	04/22/19 10:45
9040277-05	P9D0347	0.6 g	50 mL	04/22/19 10:45
9040277-06	P9D0347	0.6 g	50 mL	04/22/19 10:45



Full-Service Analytical & Environmental Solutions

449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

Client Company Name: Wood
Report To/Contact Name: Andrew Frantz
Reporting Address: 2801 Yorkmont Rd
Charlotte, NC
Phone: 704-351-5542 Fax (Yes) (No):
Email Address: Andrew.Frantz@woodplc.com
EDD Type: PDF Excel Other
Site Location Name: Parcel 81
Site Location Physical Address: Shelby, NC

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING: _____

Project Name: NC DOT Shelby
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: Andrew Frantz
Address: Jackie.Williams@woodplc.com

Purchase Order No./Billing Reference 1883 R2707
Requested Due Date 1 Day 2 Days 3 Days 4 Days 5 Days
"Working Days" 6-9 Days Standard 10 days Rush Work Must Be Pre-Approved
Samples received after 14:00 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			
	YES	NO	N/A
Samples INTACT upon arrival?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received ON WET ICE?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROPER PRESERVATIVES indicated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received WITHIN HOLDING TIMES?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CUSTODY SEALS INTACT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOLATILES rec'd W/OUT HEADSPACE?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROPER CONTAINERS used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEMP: Therm ID: <u>127-15</u> Observed: <u>1.5</u> °C / Corr: <u>1.6</u> °C			

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NELAC ___ DoD ___ 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	ANALYSIS REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
P81-SB1-1	4/16/19	1500	Soil	CG	1	4oz	None	<input checked="" type="checkbox"/>		01
P81-SB2-1		1505						<input checked="" type="checkbox"/>		02
P81-SB3-2		1515						<input checked="" type="checkbox"/>		03
P81-SB4-1		1525						<input checked="" type="checkbox"/>		04
P81-SB5-1		1535						<input checked="" type="checkbox"/>		05
P81-SB6-2		1545						<input checked="" type="checkbox"/>		06

Sampler's Signature [Signature] Sampled By (Print Name) Devick Hagdin Affiliation Wood

PRESS DOWN FIRMLY - 3 COPIES

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) <u>[Signature]</u>	Received By: (Signature) <u>[Signature]</u>	Date <u>4/17/19</u>	Military/Hours <u>0525</u>
Relinquished By: (Signature) <u>[Signature]</u>	Received By: (Signature) <u>[Signature]</u>	Date <u>4.17.19</u>	Military/Hours <u>0525</u>
Relinquished By: (Signature) <u>[Signature]</u>	Received For Prism Laboratories By: <u>[Signature]</u>	Date <u>4.17.19</u>	Military/Hours <u>0525</u>
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.			COC Group No. <u>9040277</u>

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

NPDES: NC SC UST: NC SC GROUNDWATER: NC SC DRINKING WATER: NC SC SOLID WASTE: NC SC RCRA: NC SC CERCLA: NC SC LANDFILL: NC SC OTHER: NC SC

SEE REVERSE FOR TERMS & CONDITIONS

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

ORIGINAL