

Phase II Site Assessment Report
November 30, 2021
WBS Element: 45786.1.1
State Project: B-5833
Yadkin County

At

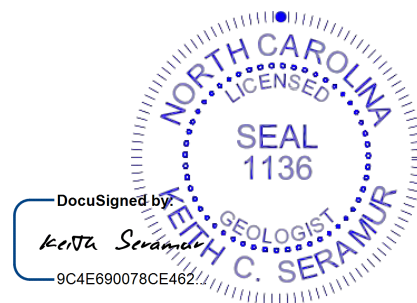
Parcel #: 007
Cheryl V. Bledsoe Property
5724 US Hwy 21; Jonesville, NC, 28642
PIN #: 486901467701
Facility ID No.: N/A
Groundwater Incident #: N/A

Prepared For:

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GeoEnvironmental Section
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1.0 Introduction

1.1 General Site Background Information

Seramur & Associates, PC was contracted to complete a Phase II Environmental Site Assessment at:

Parcel #: 007
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PIN #: 486901467701
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Parcel #007 is located along the northeastern side of US Hwy 21 between Benton Road and Interstate 77. The property is located in the Sandyberry Creek stream valley along an unnamed tributary approximately 650 feet southeast of the confluence of the two streams. Bedrock in the area is mapped as Granitic Rock of the Inner Piedmont belt, a gneissic muscovite-biotite quartz monzonite (Espenshade, G.H., Rankin, D.W., Shaw, K.W., and Neumann, R.B.. Geologic map of the east half of the Winston-Salem quadrangle, North Carolina-Virginia, U.S. Geologic Survey Misc. Inv. Series Map I-709-B, 1975).

A Notice to Proceed was obtained on September 24, 2021. Our area of investigation included the proposed Temporary Construction Easement (E) and proposed and existing Right-of-Way (R/W) along the northeastern side of US Hwy 21 (Figure 2). The Phase II Site Assessment scope of work included completing a geophysical survey, soil sample collection and laboratory analysis. Geophysical investigations evaluate the potential for underground storage tanks and remnant UST system infrastructure. The purpose of laboratory analysis is to assess soil quality across the easement (Figure 3). Background research for this project included reviewing historic aerial photographs and NCDEQ databases.

2.0 Scope of Work

2.1 Background Research

According to the Yadkin County Tax Administration records, the property is owned by Cheryl Bledsoe. Available historic aerial photographs from the USGS EarthExplorer website and Google Earth Pro were reviewed.

The following NCDEQ databases were queried for incidents at Parcel #007:

- Dry Cleaners
- Active USTs
- UST Incident Map
- UST Database
- Hazardous Waste Sites

2.2 Geophysical Surveys

Seramur & Associates used the Pythagorean Theorem to establish two grids within the proposed and existing R/W and the E along US Hwy 21 (Figure 4). Geophysical grid data was collected along transects at a two-foot spacing.

The magnetometer data was collected with a GEM Systems GSM-19W Walking Overhauser magnetometer. The data was compiled in Excel spreadsheets and a grayscale hillshade map of the magnetic data was drafted using Golden Software's Surfer® modeling program. The lighter shades are higher magnetic readings and the darker colors are lower magnetic readings (Figure 5). Ferrous objects in the subsurface have a magnetic field distinct from the surrounding soil and produce magnetic anomalies on the contour maps.

A Ground Penetrating Radar (GPR) survey was completed across the grid and transects using Geophysical Survey Systems, Inc. UtilityScan GPR System with a 350 MHz hyperstacking antenna. This GPR system is equipped with a calibrated survey wheel. The GPR data was downloaded and saved onto a computer. The GPR grid data has been processed and modeled using GPR Slice® software. The GPR data processing included adjusting time zero, completing a background removal and adjusting the time variable gain to enhance deep reflections. Three-dimensional models of the GPR grid data were produced with GPR Slice® software. Three time slices (or depth slices) were imaged in each 3D model at depths of 0.2 to 0.5 feet, 1.4 to 1.7 feet and 2.8 to 3.1 feet (Figures 6 through 8). Each depth slice is a horizontal slice or plan view of the reflections across a 0.3-foot thickness of the subsurface. For example, the deep GPR depth slices show reflections in the radar data between depths of 2.8 and 3.1 feet.

2.3 Soil Sampling and Analyses

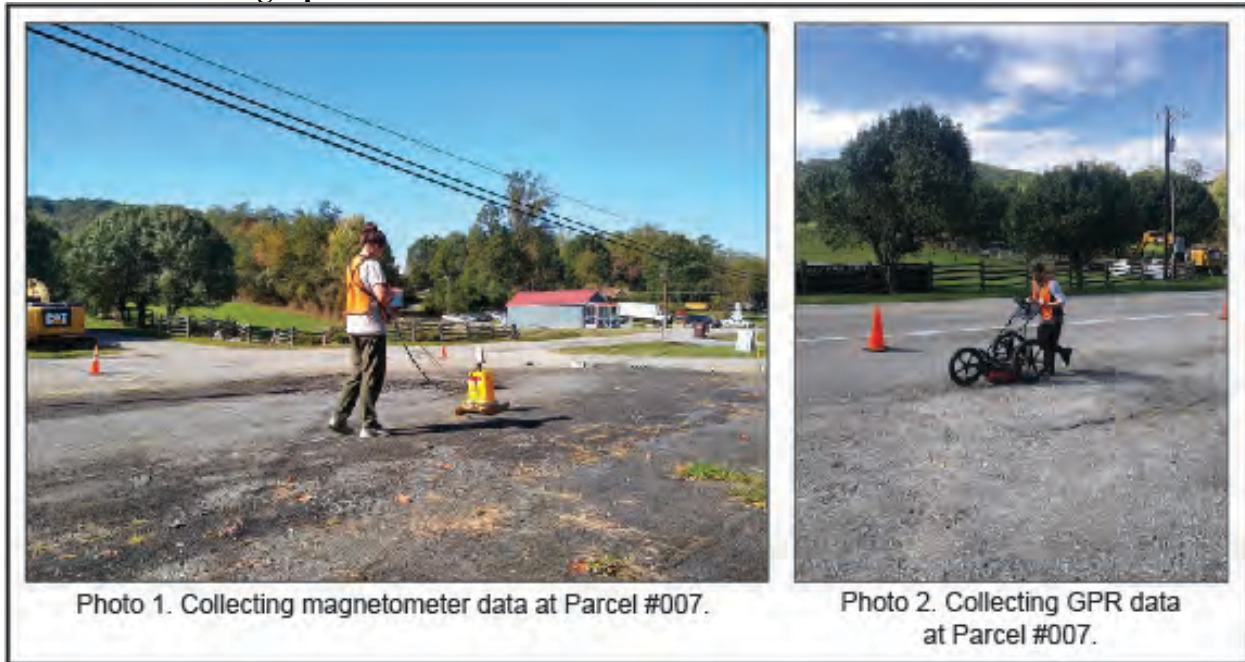
On November 9, 2021 Carolina Soil Investigations, LLC mobilized to the site to drill Geoprobe borings and collect soil samples. Our project design typically calls for collecting a shallow and deep soil sample from each boring (Figure 3). The purpose of collecting samples at a depth of ~3.0 feet is to test for petroleum releases related to surface spills and releases from product lines. The purpose of collecting samples at a depth of ~9.0 feet is to test for petroleum releases related to underground storage tanks. Soil borings were drilled within the proposed R/W and E along US Hwy 21 with a focus on areas where new drainage is to be installed.

A track-mounted Geoprobe rig was used to drill nine soil borings. The texture and type of soil material in the Geoprobe cores was described and recorded. A new pair of Nitrile gloves was worn while collecting each soil sample. A representative portion of each soil sample was placed in a zip lock bag and allowed to rest for a period of time to allow volatile vapors to accumulate in the headspace of the bag. A calibrated PhoCheck Tiger Photoionization Detector (PID) was used to screen the headspace in each bag and the concentration of volatile petroleum vapors was measured and recorded (Table 1). Table 1 lists the boring data including sample number, depth, PID reading, lithology, and type of soil material.

REDLab, LLC provided laboratory analyses for twelve of the soil samples collected from the Geoprobe cores. REDLab analyzed the soil samples for petroleum constituents by Ultra-Violet

Fluorescence using a QED HC-1 analyzer. The analytical results are reported as Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) and Total Petroleum Hydrocarbons (TPH). REDLab provided a hydrocarbon spectrum with each of the sample results. This spectrum is used for a tentative identification of the type of hydrocarbon detected by the analytical method. The hydrocarbon fingerprint is interpreted by REDLab using a library search of spectra for known hydrocarbon types and concentrations. The laboratory reports and fingerprint spectra are included in Appendix B.

2.4 Plate 1 – Photographs of Parcel #007



3.0 Results of Investigation

Parcel #007 is currently not in use but appears to have last been used as an auto-repair facility. According to the Yadkin County Tax Administration, the building was built in 1945. A 1966 aerial photograph shows the building, and it does not appear that gas station infrastructure is present on the property. The NCDEQ UST Registered Tanks and Underground Storage Tank Incidents databases do not list any records of USTs or previous release incidents at this property.

SAPC personnel made a pedestrian reconnaissance of the property during the initial site visit on October 21, 2021. No evidence of an active UST system was observed on the property. A small concrete slab is in the middle of the pavement towards the south end of the building. It is partially covered with asphalt, so its use is unclear. It does not appear to be big enough to have previously supported a fuel dispenser. A depression in the pavement or patched pavement that might indicate a former tank pit was not observed on the property.

Numerous local informants provided information on the study area over the course of our work on this project. At least three of these informants stated that they have lived in the Jonesville area since at least the 1970's and have never known this property to operate as a fuel station.

3.1 Geophysical Surveys

The hillshade map of the magnetometer survey data (Figure 5) shows a few small areas of lower magnetic readings across the property. The biggest of these areas is related to the small concrete slab. This could be reinforced concrete. The other small areas of lower readings are likely related to scrap pieces of metal in different areas of the pavement.

The shallow GPR depth slice (0.2-0.5 feet) for Grid 1 shows a linear medium amplitude reflector along the northwest corner of Grid 1 (Figure 6). This is an existing drainage feature. A high amplitude reflection in Grid 2 is an area of new pavement. Inset A on Figure 6 is an additional depth slice showing where a utility line crosses Grid 2.

The intermediate GPR depth slice (1.4-1.7 feet) shows a discontinuous line of high amplitude reflections along the western edge of Grids 1 and 2 (Figure 7). This is probably the sewer line running parallel to Hwy 21 along the edge of the property. Inset A on Figure 7 shows two linear sets of medium amplitude reflections that could represent utilities crossing Grid 2.

The deep GPR depth slices (2.8 to 3.1 feet) are primarily reflection free with some very small medium to high amplitude reflections scattered across the property (Figure 8). A linear set of high amplitude reflections related to the existing sewer line is observed the west side of the two grids along Hwy 21.

3.2 Soil Borings, Sampling and Laboratory Analysis

The soil at Parcel #007 consists of fill material over alluvium (Table 1). The fill material is primarily composed of silt loam. The alluvium was composed of layers of sand, clay and gravel and was saturated. Though the soil in most of the borings was saturated, groundwater did not accumulate in the boring holes. A soil sample was collected from the shallow and deep portions of the Geoprobe cores at each boring. Refusal was encountered in four of the borings (B-1, B-2, B-4 and B-5) and recovery was limited in many of the cores (see Table 1).

Nine borings were drilled and eighteen soil samples were collected. The onsite lab could not be present during drilling at this property because they had a scheduling conflict. Soil samples were shipped to the laboratory after drilling was completed. The shallow soil samples from each boring (except for B-8) were analyzed for TPH-GRO and DRO. The deep soil samples from borings B-2, B-3, B-4 and B-9 were analyzed for TPH-GRO and DRO (Table B-3). Although we typically collect soil samples from the deep core at a depth closer to 9.0 feet, soil samples were collected from these deep cores at a depth closer to 6.0 feet. This was due to the lack of actual soil in the deeper parts of the core as that material was primarily alluvial gravels.

Soil borings B-1, B-2, B-4, B-5, B-7 and B-8 were drilled within the proposed R/W on the southwest side of the property with the borings distributed in a manner that would test the soil

quality near proposed drainage features. Borings B-3, B-6 and B-9 were drilled in the E closer to the building. Boring B-9 was drilled between borings B-3 and B-6 to delineate suspected soil contamination present in boring B-3 (Figure 3).

Petroleum constituents were elevated (>10.0 ppm) in five of the twelve samples analyzed from Parcel #007 (Table B-3 and Figure 9). However, petroleum constituents were not detected above NCDEQ UST Action Levels in any of the soil samples collected and analyzed at Parcel #007. (Table B-3 and Figure 9).

3.3 Conclusions

Parcel #007 is not currently in operation but appears to have last operated as an auto-repair facility. The geophysical surveys did not image a UST system or reflection patterns indicative of an excavation for a former UST system. At least three local informants stated that they have never known this facility to operate as a fuel station. Soil with a petroleum odor and elevated petroleum constituent concentrations is present at Parcel #007. This is likely due to the past use of the site and surficial oil/petroleum spills and/or dumping at the property.

Petroleum constituents were not detected above the UST Action Levels in any soil samples collected at Parcel #007.

4.0 Recommendations

Seramur & Associates does not recommend any further assessment work for Parcel #007.

Appendix A

Tables and Figures

Boring No.	Depth (ft)	Lithology	Soil type	Soil Sample	PID ppm	Comments
B-1	0.0 to 1.0	Silt loam	Fill	N/A	N/A	
B-1	1.0 to 5.0	Sand, clay, gravel	Alluvium	S-1	0.2	Sample at 2.5 feet. Saturated.
B-1	5.0 to 8.0	Sand, clay, gravel	Alluvium	S-2	0.3	Sample at 6.0 feet. Saturated. Refusal at 8.0 feet.
B-2	0.0 to 1.0	Silt loam	Fill	N/A	N/A	
B-2	1.0 to 5.0	Sand, clay, gravel	Alluvium	S-3	0.2	Sample at 2.5 feet. Saturated.
B-2	5.0 to 9.0	Sand, clay, gravel	Alluvium	S-4	0.3	Sample at 6.0 feet. Saturated. Refusal at 9.0 feet.
B-3	0.0 to 1.5	Silt loam	Fill	N/A	N/A	
B-3	1.5 to 5.0	Sand, clay, gravel	Alluvium	S-5	1.5	Sample at 2.5 feet. Saturated.
B-3	5.0 to 7.5	Sand, clay, gravel	Alluvium	S-6	37.9	Sample at 6.0 feet. Saturated. Petroleum odor.
B-3	7.5 to 10.0	N/A	N/A	N/A	N/A	No recovery.
B-4	0.0 to 1.5	N/A	N/A	N/A	N/A	No recovery.
B-4	1.5 to 5.0	Sand, clay, gravel	Alluvium	S-7	0.0	Sample at 3.5 feet. Saturated.
B-4	5.0 to 8.0	Sand, clay, gravel	Alluvium	S-8	0.0	Sample at 6.0 feet. Saturated. Refusal at 8.0 feet.
B-5	0.0 to 1.0	Silt loam	Fill	N/A	N/A	
B-5	1.0 to 2.5	Sand, clay, gravel	Alluvium	S-9	0.0	Sample at 2.5 feet. Saturated.
B-5	2.5 to 5.0	N/A	N/A	N/A	N/A	No recovery.
B-5	5.0 to 6.0	Sand, clay, gravel	Alluvium	S-10	0.0	Sample at 6.0 feet. Saturated. Refusal at 6.0 feet.
B-6	0.0 to 1.0	Silt loam	Fill	N/A	N/A	
B-6	1.0 to 3.5	Sand, clay, gravel	Alluvium	S-11	0.0	Sample at 3.5 feet. Saturated.
B-6	3.5 to 5.0	N/A	N/A	N/A	0.0	No recovery.
B-6	5.0 to 8.5	Sand, clay, gravel	Alluvium	S-12	0.0	Sample at 6.0 feet. Saturated.
B-6	8.5 to 10.0	N/A	N/A	N/A	N/A	No recovery.
B-7	0.0 to 2.0	Silt loam	Fill	N/A	N/A	
B-7	2.0 to 5.0	Sand, clay, gravel	Alluvium	S-13	0.0	Sample at 3.0 feet. Saturated.
B-7	5.0 to 10.0	Sand, clay, gravel	Alluvium	S-14	0.0	Sample at 6.0 feet. Saturated.
B-8	0.0 to 1.0	Silt loam	Fill	N/A	N/A	
B-8	1.0 to 5.0	Sand, clay, gravel	Alluvium	S-15	0.0	Sample at 3.0 feet. Saturated.
B-8	5.0 to 7.5	Sand, clay, gravel	Alluvium	S-16	0.0	Sample at 6.0 feet. Saturated.
B-8	7.5 to 10.0	N/A	N/A	N/A	N/A	No recovery.
B-9	0.0 to 1.5	Silt loam	Fill	S-17	0.9	Sample at 1.5 feet. Saturated.
B-9	1.5 to 5.0	Sand, clay, gravel	Alluvium	N/A	N/A	
B-9	5.0 to 10.0	Sand, clay, gravel	Alluvium	S-18	0.6	Sample at 6.0 feet. Saturated. Slight petroleum odor.

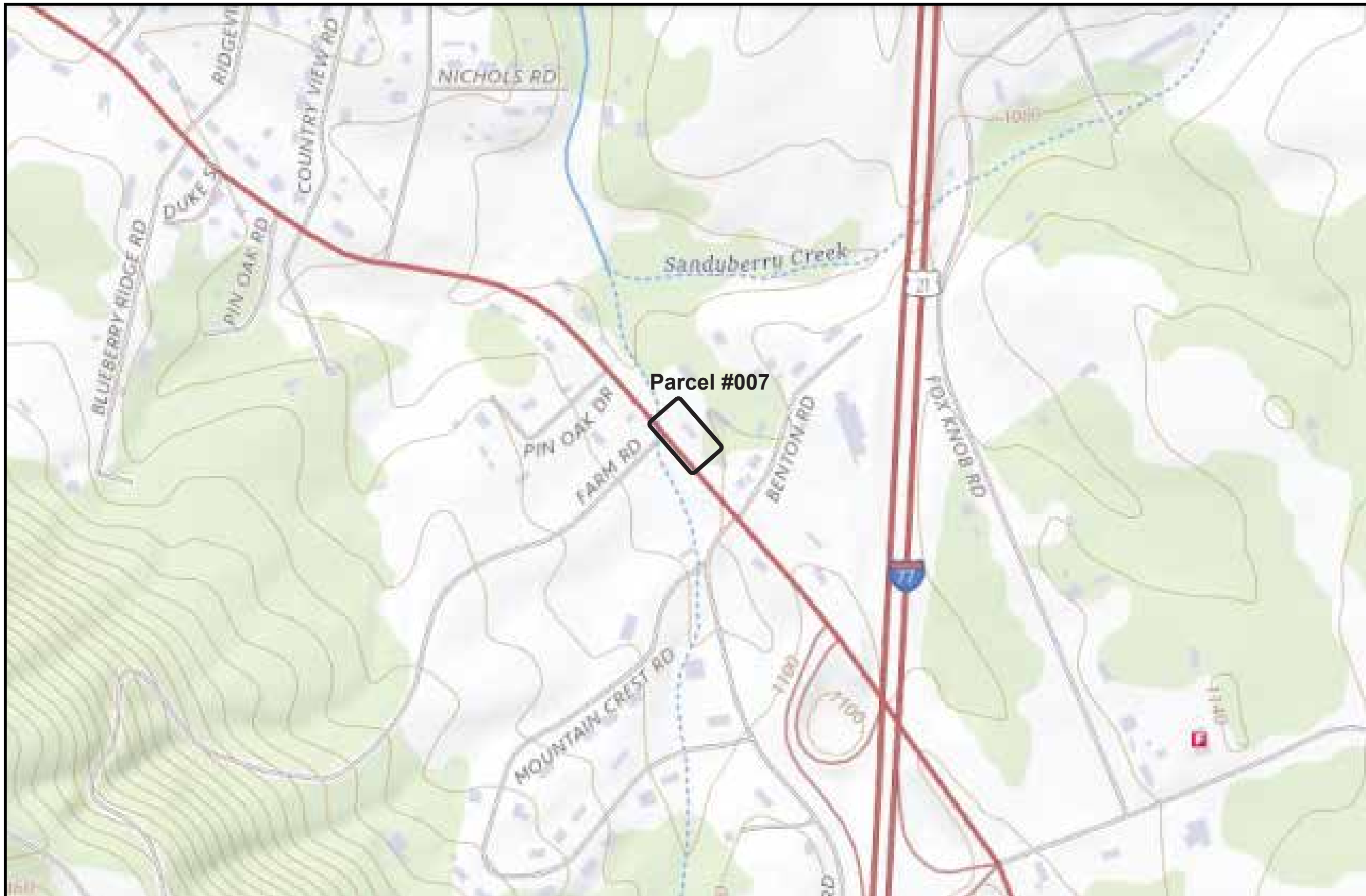
Table B-3: Summary of Soil Sampling Results

Revision Date: 11/16/21

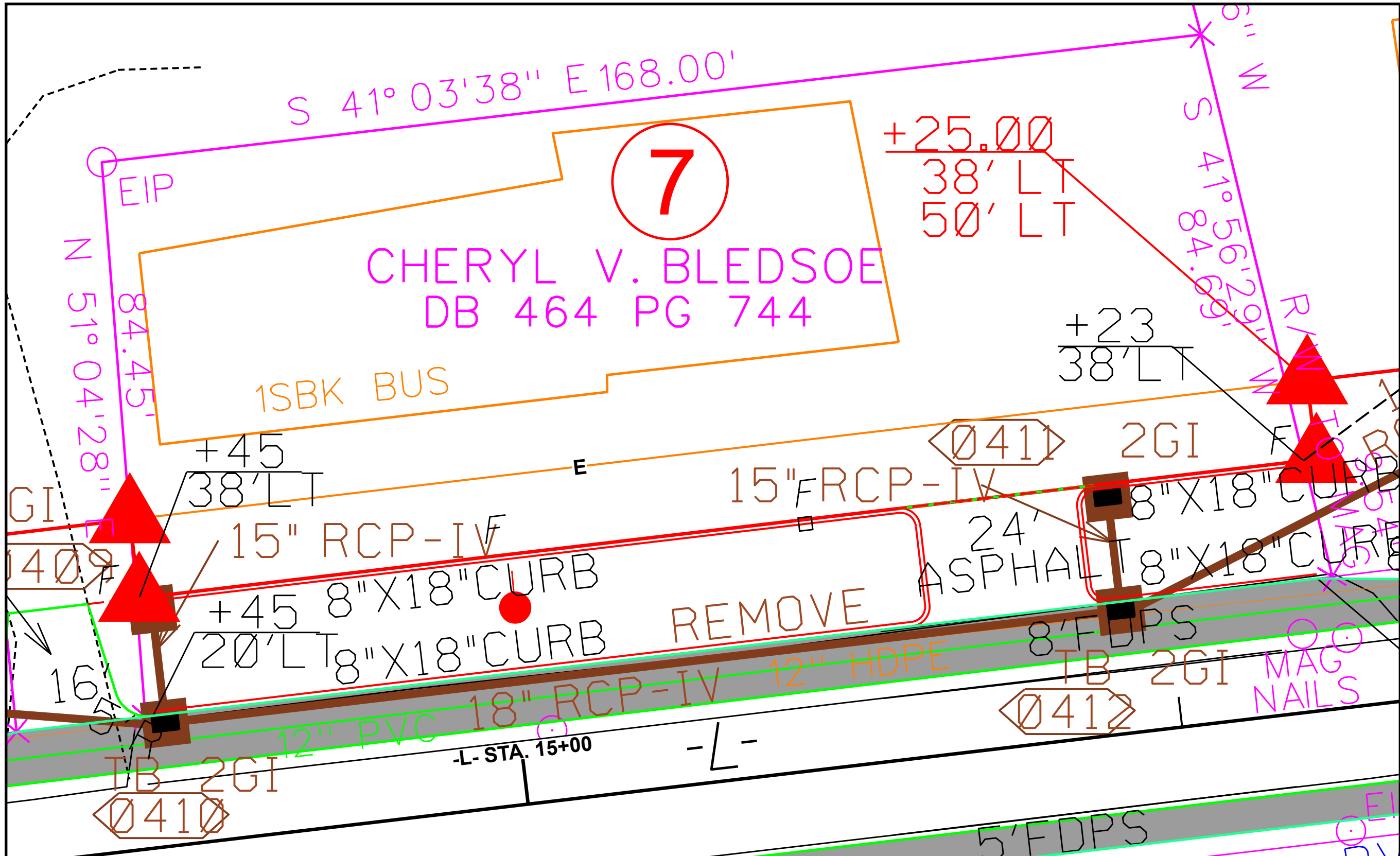
Incident Name: Parcel #007

Analytical Method (e.g., VOC by EPA 8260) →					UVF	UVF
Contaminant of Concern →					TPH GRO (mg/kg)	TPH DRO (mg/kg)
Sample ID	Date Collected (mm/dd/yy)	Source Area	Sample Depth (ft BGS)	Incident Phase		
S-1	11/09/21	B-1	2.5	Phase II	<0.5	3.9
S-3	11/09/21	B-2	2.5	Phase II	<0.55	7.5
S-4	11/09/21	B-2	6.0	Phase II	<0.47	6.6
S-5	11/09/21	B-3	2.5	Phase II	<0.47	2.7
S-6	11/09/21	B-3	6.0	Phase II	10.9	12.9
S-7	11/09/21	B-4	3.5	Phase II	<0.47	2.4
S-8	11/09/21	B-4	6.0	Phase II	<0.52	16.0
S-9	11/09/21	B-5	2.5	Phase II	<0.45	29.0
S-11	11/09/21	B-6	3.5	Phase II	<0.45	2.8
S-13	11/09/21	B-7	3.0	Phase II	<0.45	5.6
S-17	11/09/21	B-9	1.5	Phase II	<0.52	14.6
S-18	11/09/21	B-9	6.0	Phase II	<0.5	24.8
NC DEQ Action Level (mg/kg)					50	100

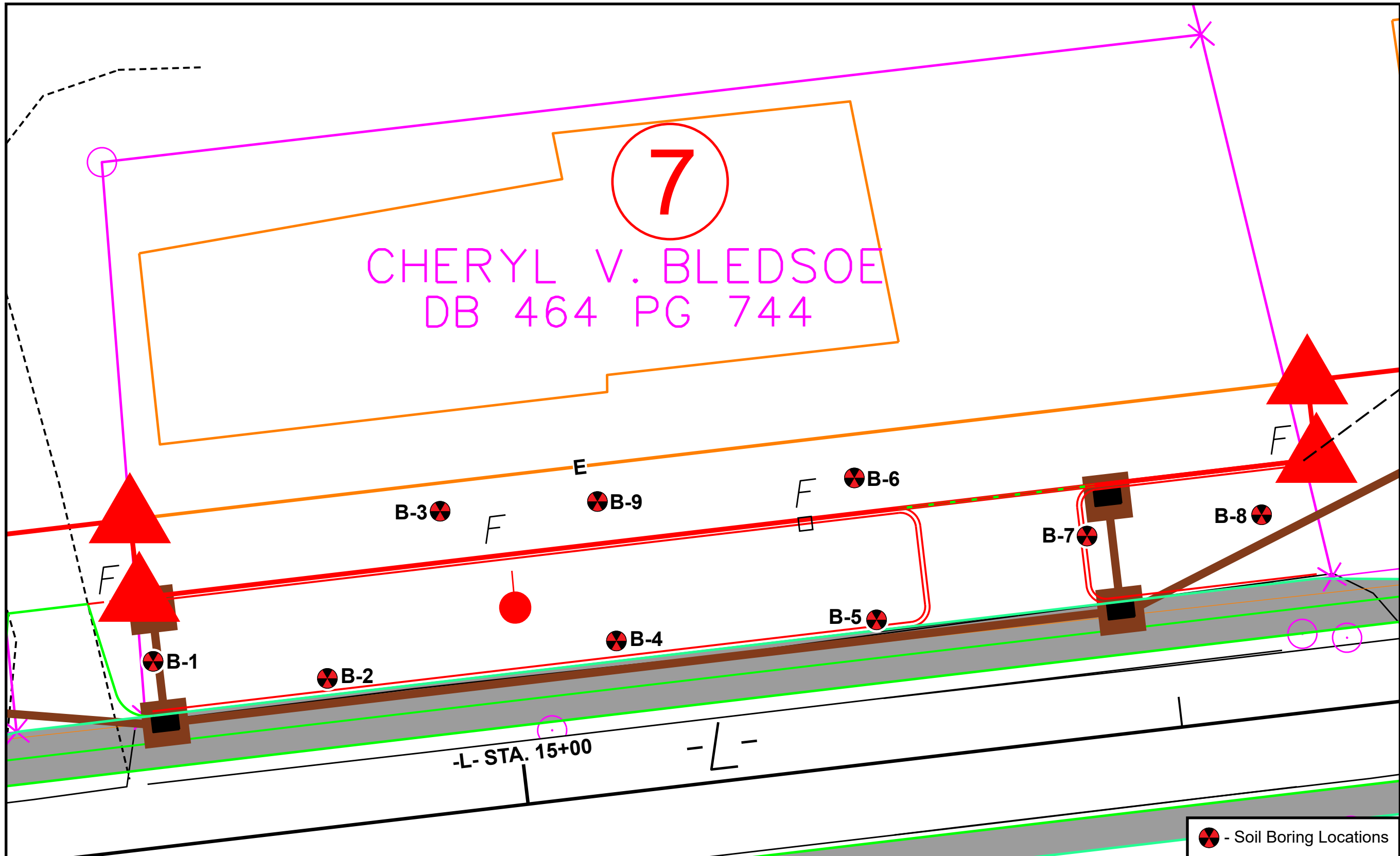
ft. BGS = feet below ground surface
mg/kg =milligrams per kilogram



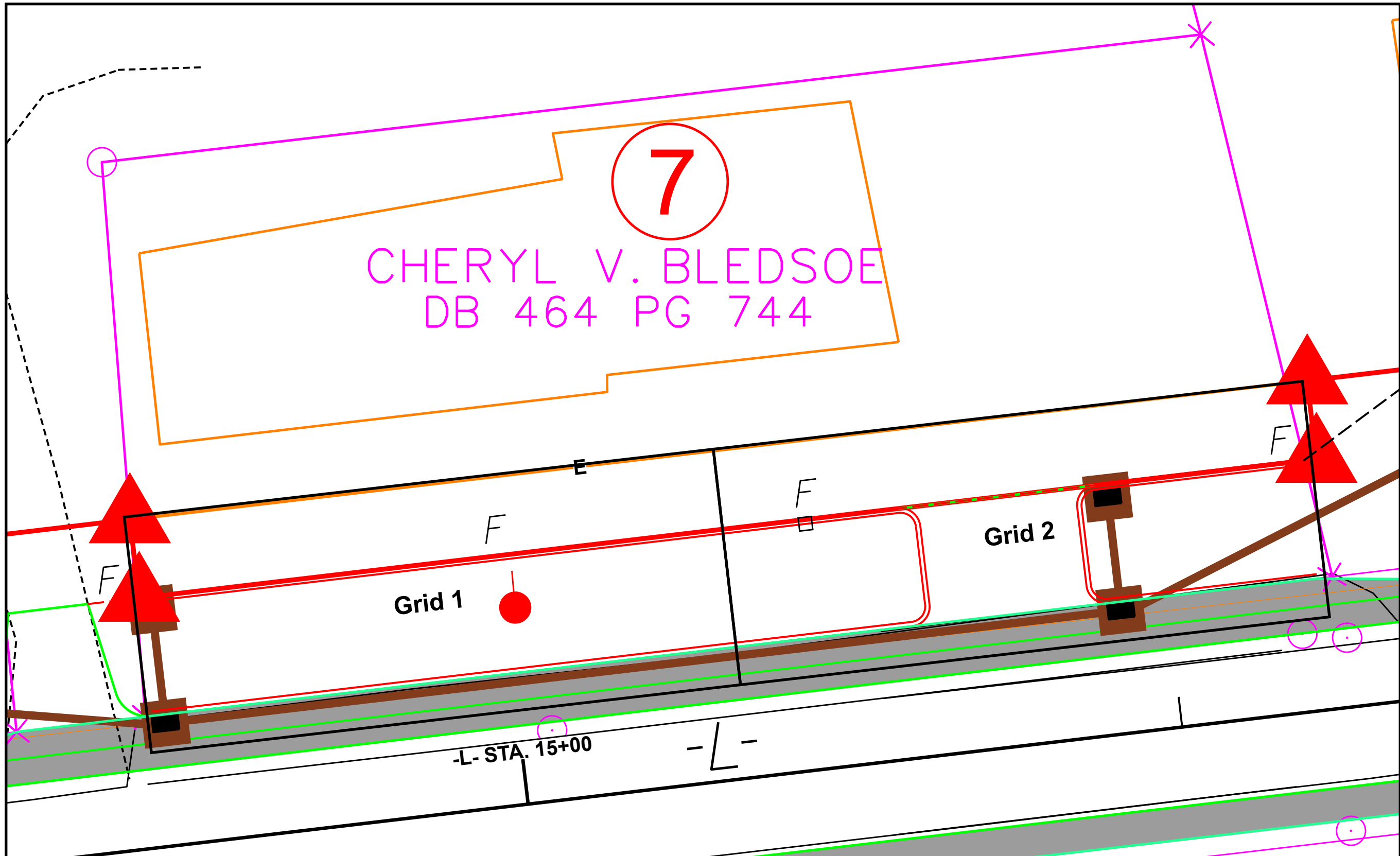
<p>Figure 1 Site Location Map Source: U.S.G.S. The National Map</p>	<p>TIP Number: B-5833 Yadkin County, NC</p>	<p>Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC</p>	<p>Parcel I.D. #: 007 Facility I.D. #: N/A</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 300 600 Feet</p> <p>N</p>
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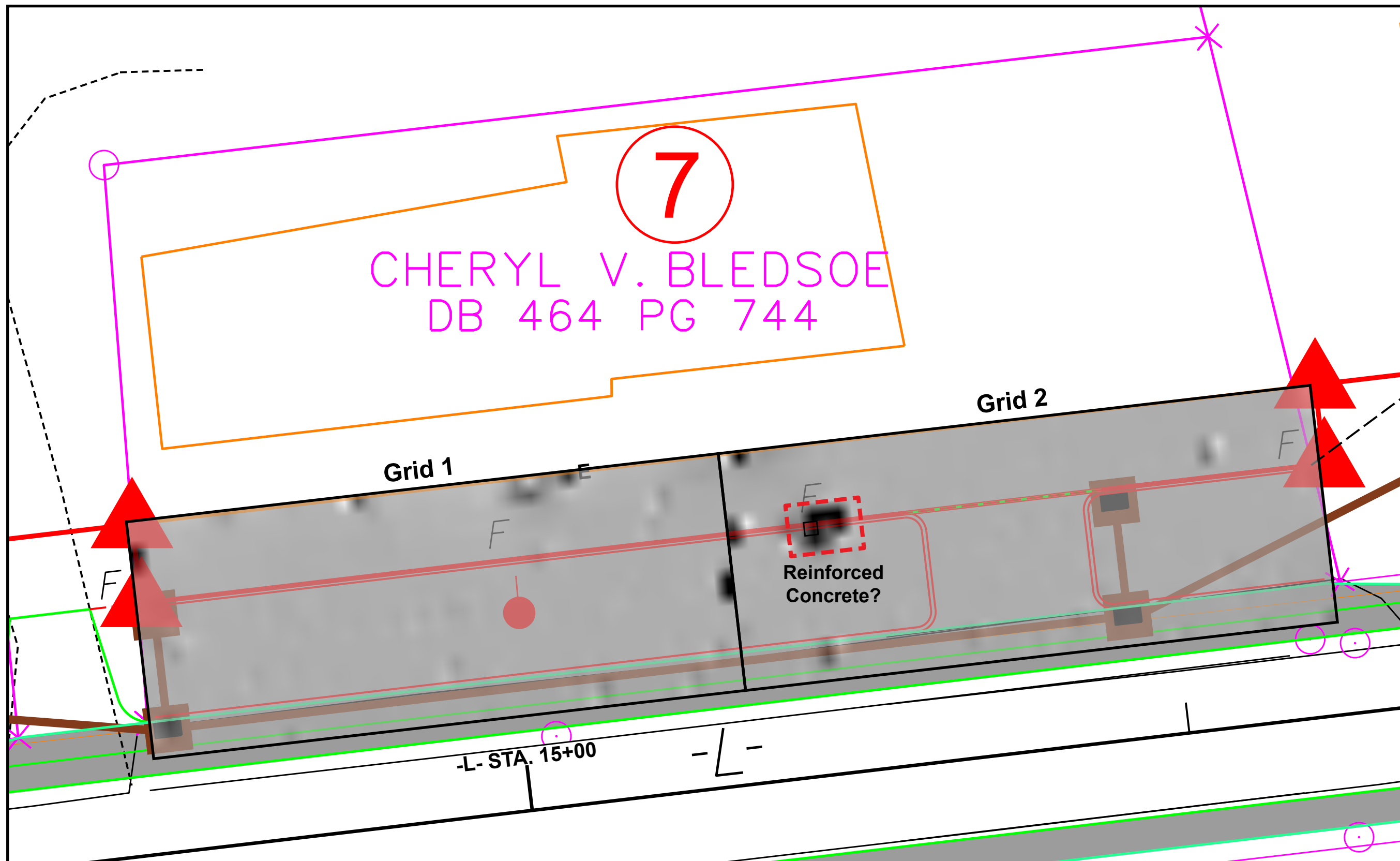
<p>Figure 2 Site Plan</p>	<p>TIP Number: B-5833 Yadkin County, NC</p>	<p>Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC</p>	<p>Parcel I.D. #: 007 Facility I.D. #: N/A</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 10 20 Feet</p> <p>N</p>
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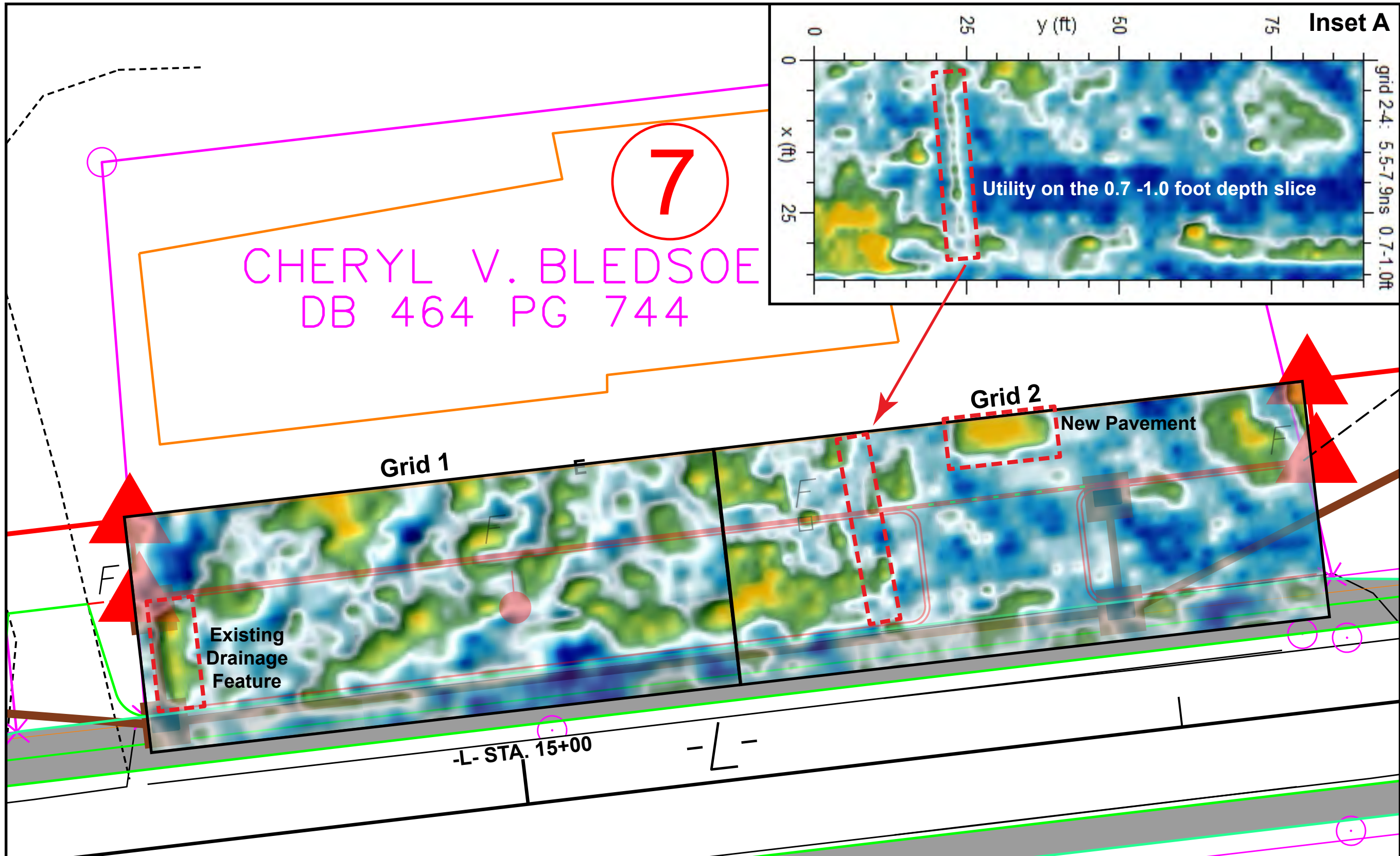
<p>Figure 3 Site Plan with Soil Boring Locations</p>	<p>TIP Number: B-5833 Yadkin County, NC</p>	<p>Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC</p>	<p>Parcel I.D. #: 007 Facility I.D. #: N/A</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 10 20 Feet</p> <p>N</p>
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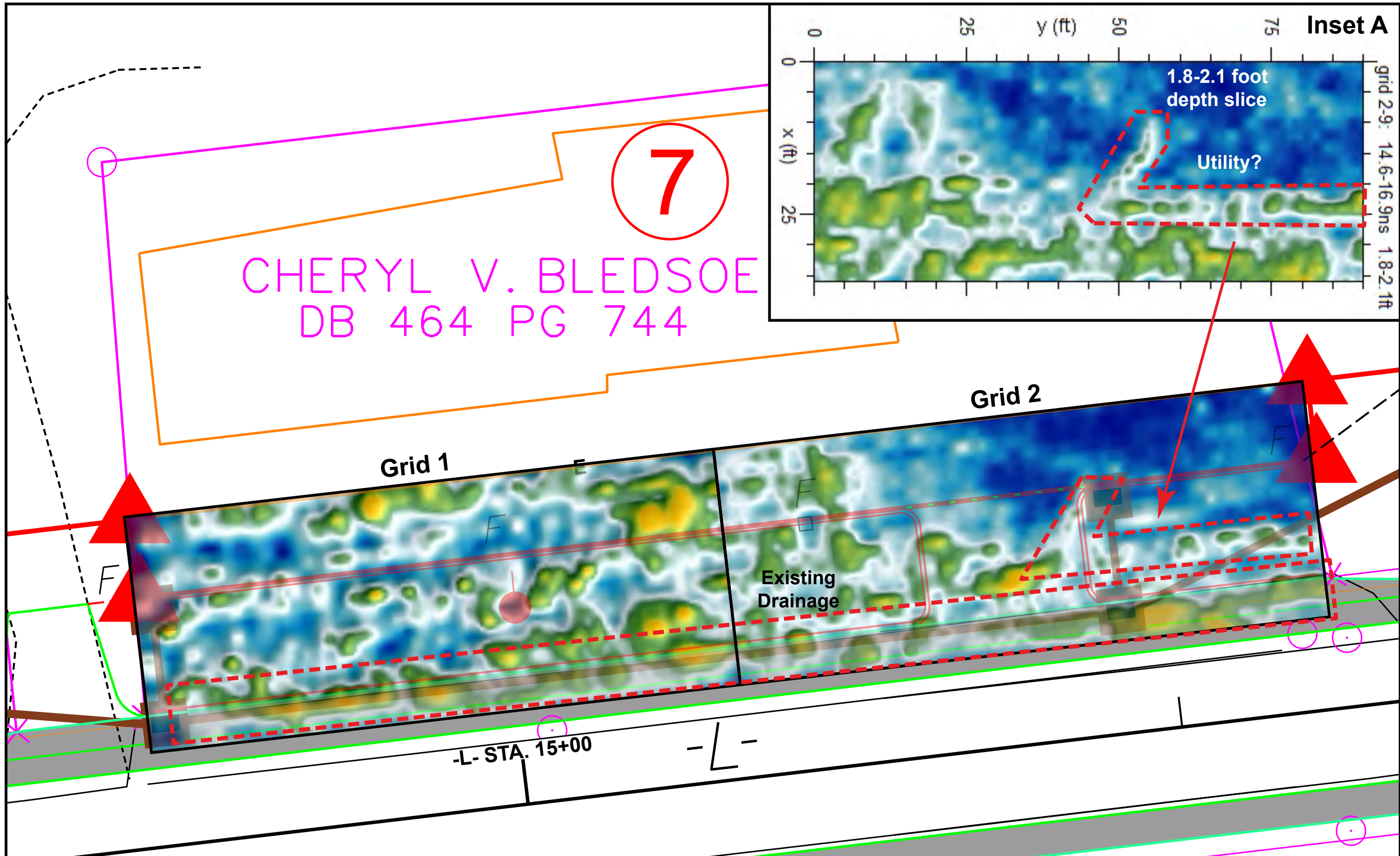
<p>Figure 4 Site Plan with Geophysical Grid Locations</p>	<p>TIP Number: B-5833 Yadkin County, NC</p>	<p>Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC</p>	<p>Parcel I.D. #: 007 Facility I.D. #: N/A</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 10 20 Feet</p> <p>N</p>
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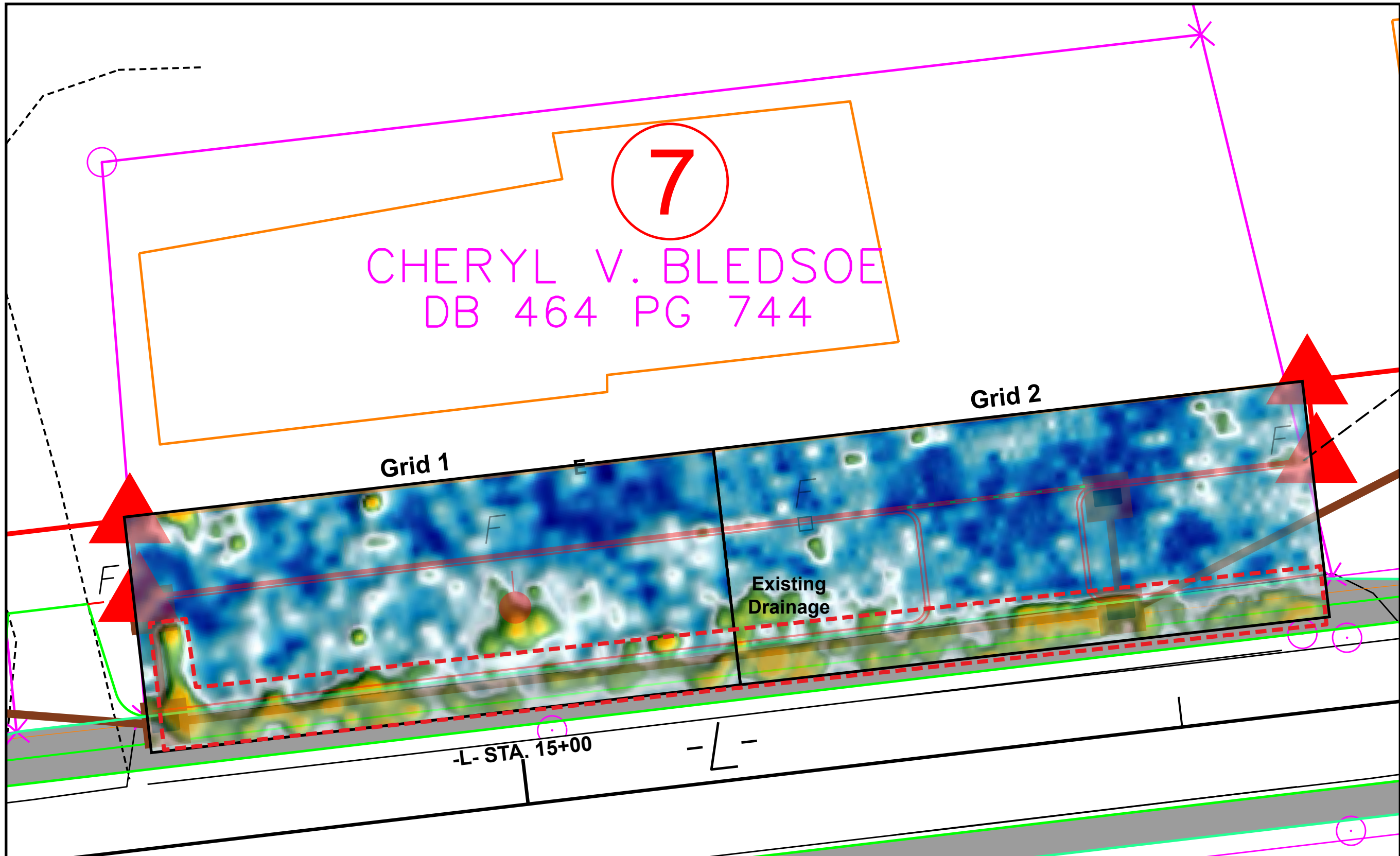
<p>Figure 5 Magnetometer Survey Hillshade Map</p>	<p>TIP Number: B-5833 Yadkin County, NC</p>	<p>Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC</p>	<p>Parcel I.D. #: 007 Facility I.D. #: N/A</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 10 20 Feet</p> <p>N</p>
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<p>Figure 6 Shallow GPR Depth Slices (0.2 - 0.5 ft.)</p>	<p>TIP Number: B-5833 Yadkin County, NC</p>	<p>Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC</p>	<p>Parcel I.D. #: 007 Facility I.D. #: N/A</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 10 20 Feet</p> <p>N</p>
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<p>Figure 7 Intermediate GPR Depth Slices (1.4 - 1.7 ft.)</p>	<p>TIP Number: B-5833 Yadkin County, NC</p>	<p>Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC</p>	<p>Parcel I.D. #: 007 Facility I.D. #: N/A</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 10 20 Feet</p> <p>N</p>
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<p>Figure 8 Deep GPR Depth Slices (2.8 - 3.1 ft.)</p>	<p>TIP Number: B-5833 Yadkin County, NC</p>	<p>Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC</p>	<p>Parcel I.D. #: 007 Facility I.D. #: N/A</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 10 20 Feet</p> <p>N</p>
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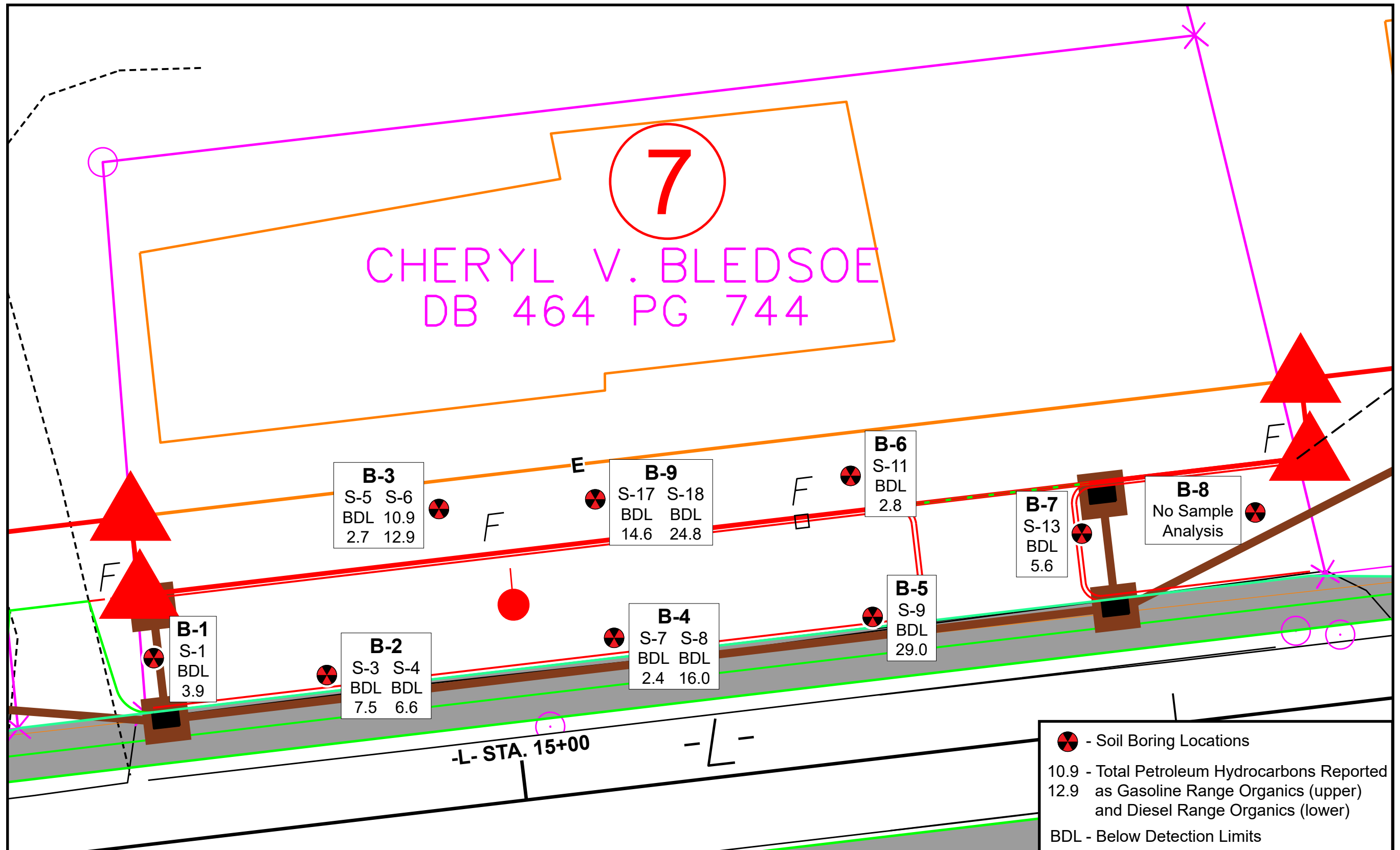


Figure 9 Soil Analytical Results	TIP Number: B-5833 Yadkin County, NC	Cheryl V. Bledsoe Property 5724 U.S. Hwy. 21 Jonesville, NC	Parcel I.D. #: 007 Facility I.D. #: N/A	Seramur & Associates, PC Boone, NC	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p style="margin: 0;">0 10 20</p> <p style="margin: 0; text-align: center;">Feet</p> </div> <div style="flex: 1; text-align: right;"> <p style="margin: 0;">N</p> </div> </div>
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Appendix B
Laboratory Reports



Petroleum Hydrocarbon Analysis Results

Client: SERAMUR & ASSOCIATES	Samples Taken: Tuesday, November 9, 2021
Address: 165 KNOLL DRIVE BOONE NC 28607	Samples Extracted: Tuesday, November 9, 2021
	Samples Analysed: Tuesday, November 9, 2021
Contact: KEITH SERAMUR	Analyst: MAX MOYER
Project: NCDOT-5833 P007	

U00904

Matrix	Sample ID	Dilution Used	BTEX	GRO C5 - C9	DRO C10 - C40	TPH C5 - C40	Total Aromatics C10 - C35	16 EPA PAHs	BaP	Carbon Band Ratio %			HC Identification
										C5:10	C10:C18	C18+	
Soil	S-1	20	<0.5	<0.5	3.9	3.9	1.6	0.06	<0.006	0	97.1	2.9	Deg.Diesel 73.2%,(FCM)
Soil	S-3	22	<0.55	<0.55	7.5	7.5	8.5	0.46	<0.006	0	90.1	9.9	V.Deg.Fuel 83.8%,(FCM)
Soil	S-4	19	<0.47	<0.47	6.6	6.6	4.9	0.22	<0.002	0	91.2	8.8	V.Deg.Fuel 86.1%,(FCM),(BO)
Soil	S-5	19	<0.47	<0.47	2.7	2.7	1.3	0.055	<0.006	0	97.2	2.8	V.Deg.Diesel 68.3%,(FCM)
Soil	S-6	20	<0.5	10.9	12.9	23.8	8	0.4	<0.002	4.8	93.2	0.7	V.Deg.Gas 46.7%,(FCM)
Soil	S-7	19	<0.47	<0.47	2.4	2.4	1.8	0.094	<0.001	0	90.1	9.9	V.Deg.Fuel 85.7%,(FCM)
Soil	S-8	21	<0.52	<0.52	16	16	7.3	0.22	<0.002	0	88.9	11	Bit.Road Binder 95.7%,(FCM)
Soil	S-9	18	<0.45	<0.45	29	29	17.3	0.41	<0.005	0	93.6	6.4	Bit.Road Binder 88.5%,(FCM)
Soil	S-11	18	<0.45	<0.45	2.8	2.8	2.1	0.094	<0.001	0	89.1	11	V.Deg.Fuel 87%,(FCM)
Soil	S-13	18	<0.45	<0.45	5.6	5.6	4.6	0.24	<0.004	0	86.8	13	V.Deg.Fuel 87.9%,(FCM),(BO)

Initial Calibrator QC check **OK** Final FCM QC Check **OK** 1.2 % Drift

Results generated by QED HC-1 analyser

Concentration values : mg/kg for soil : mg/L for water. Soil values uncorrected for moisture or stone content. HC identification shows % confidence in match.
 FCM = Results calculated using Fundamental Calibration Mode : (PFM) = Poor Fingerprint Match : HC = Hydrocarbon : PHC = Petroleum HC : Deg = Degraded : FP = Fingerprint only
 (OCR)/(Q) = Outside cal range, values and HC match estimates : ND = Not Detected : (TD) = Cal temp drift : (T) = Turbid : (P) = Particulate detected : (B) = Blank Drift : (M) = Adjusted value
 (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : SB = sample selected as site background



Petroleum Hydrocarbon Analysis Results

Client: SERAMUR & ASSOCIATES	Samples Taken: Tuesday, November 9, 2021
Address: 165 KNOLL DRIVE BOONE NC 28607	Samples Extracted: Tuesday, November 9, 2021
	Samples Analysed: Tuesday, November 9, 2021
Contact: KEITH SERAMUR	Analyst: MAX MOYER
Project: NCDOT-5833 P007	

U00904

Matrix	Sample ID	Dilution Used	BTEX	GRO C5 - C9	DRO C10 - C40	TPH C5 - C40	Total Aromatics C10 - C35	16 EPA PAHs	BaP	Carbon Band Ratio %			HC Identification
										C5:10	C10:C18	C18+	
Soil	S-17	21	<0.52	<0.52	14.6	14.6	7	0.19	<0.001	0	90	10	Bit.Road Binder 91.3%,(FCM)
Soil	S-18	20	<0.5	<0.5	24.8	24.8	11.8	0.38	<0.002	0	90.2	9.8	Bit.Road Binder 97.2%,(FCM)

Initial Calibrator QC check **OK** Final FCM QC Check **OK** -0.1 % Drift

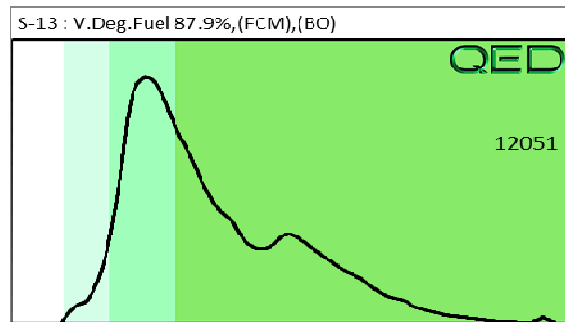
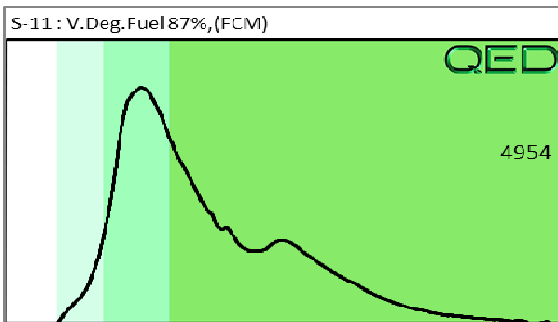
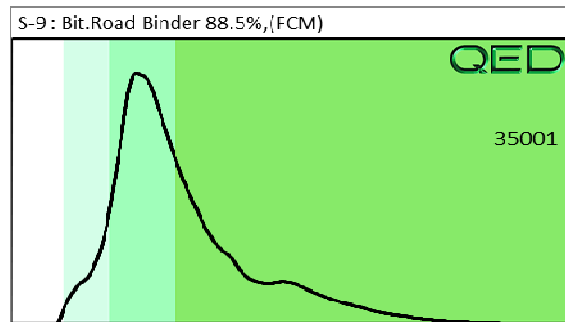
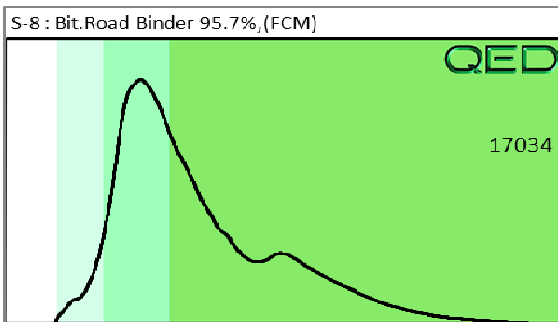
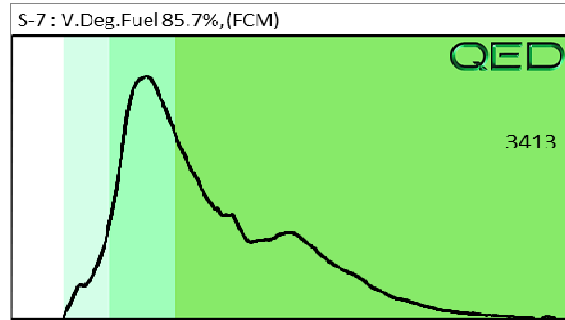
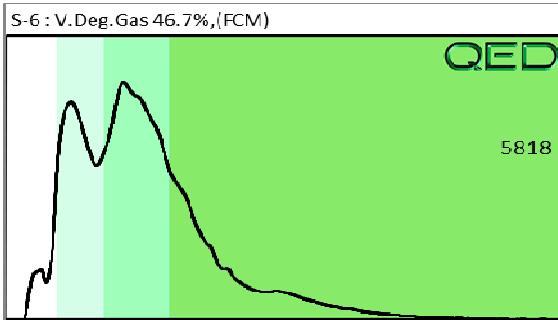
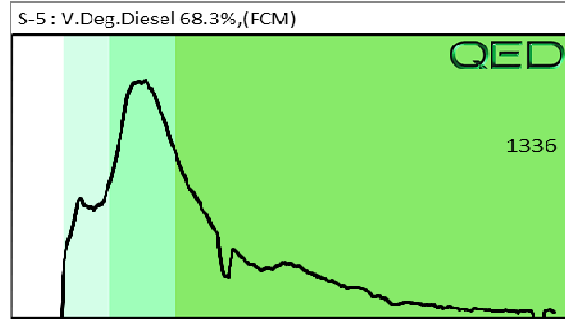
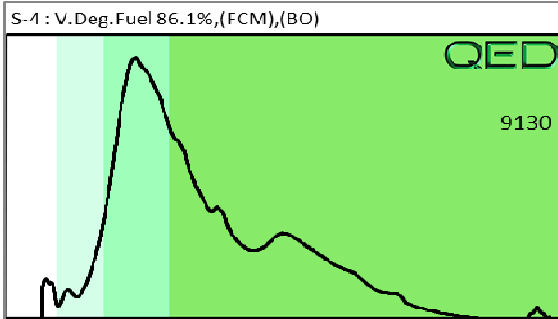
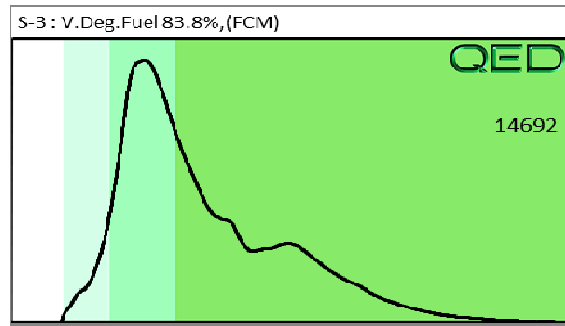
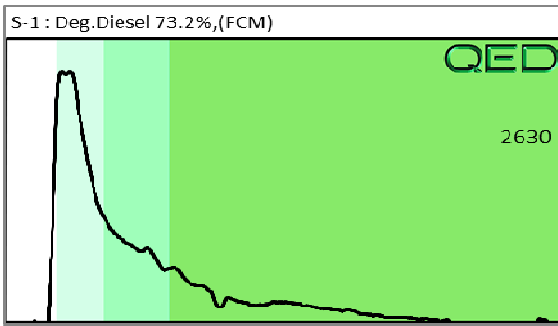
Results generated by QED HC-1 analyser

Concentration values : mg/kg for soil : mg/L for water. Soil values uncorrected for moisture or stone content. HC identification shows % confidence in match.
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 (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : SB = sample selected as site background

QED Hydrocarbon Fingerprints

Project: NCDOT-5833 P007

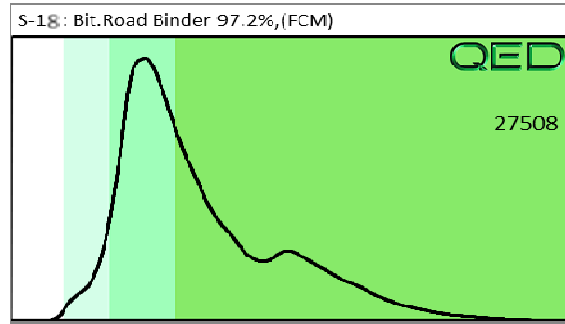
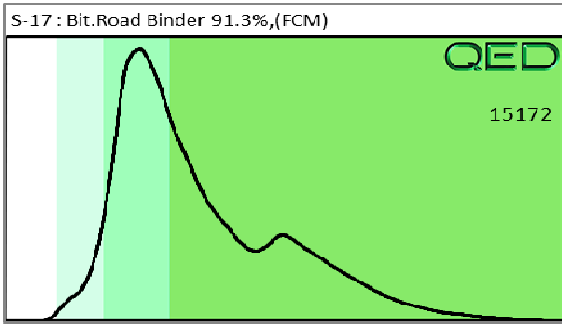
Tuesday, November 9, 2021



QED Hydrocarbon Fingerprints

Project: NCDOT-5833 P007

Tuesday, November 9, 2021



Client Name: Seramur + Associates
 Address: 1165 Knoll Drive
Boone, NC 28607
 Contact: Kelth Seramur
 Project Ref.: NC DOT B-5833 P007
 Email: seramur@icloud.com
 Phone #: (828)-773-0499
 Collected by: Joey Anderson
Brooke Steenwyk




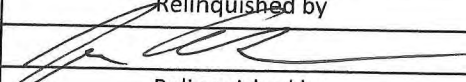
RED Lab, LLC
 5598 Marvin K Moss Lane
 MARBIONC Bldg, Suite 2003
 Wilmington, NC 28409

Each UVF sample will be analyzed for total BTEX, GRO, DRO, TPH, PAH total aromatics and BaP. Standard GC Analyses are for BTEX and Chlorinated Solvents: VC, 1,1 DCE, 1,2 cis DCE, 1,2 trans DCE, TCE, and PCE. Specify target analytes in the space provided below.

CHAIN OF CUSTODY AND ANALYTICAL REQUEST FORM

Sample Collection	TAT Requested		Analysis Type		Initials	Sample ID	Total Wt.	Tare Wt.	Sample Wt.
	Date/Time	24 Hour	48 Hour	UVF					
11/9/21 1828		X	X		BS	S-1	53.2	40.5	12.7
11/9/21 1829		X	X		BS	S-3	52.3	40.6	11.7
11/9/21 1831		X	X		BS	S-4	54.0	40.5	13.5
11/9/21 1833		X	X		BS	S-5	54.0	40.5	13.5
11/9/21 1835		X	X		BS	S-6	53.5	40.5	13.0
11/9/21 1836		X	X		BS	S-7	54.4	40.4	14.0
11/9/21 1838		X	X		BS	S-8	52.5	40.4	12.1
11/9/21 1839		X	X		BS	S-9	54.7	40.5	14.2
11/9/21 1841		X	X		BS	S-11	54.9	40.5	14.4
11/9/21 1842		X	X		BS	S-13	55.0	40.4	14.6
11/9/21 1843		X	X		BS	S-17	52.9	40.5	12.4
11/9/21 1844		X	X		BS	S-18	53.1	40.3	12.8

COMMENTS/REQUESTS: _____ TARGET GC/UVF ANALYTES: _____

Relinquished by	11/10/21	Accepted by	Date/Time	RED Lab USE ONLY 
	10:30	MM 11/15/21	1250	
Relinquished by		Accepted by	Date/Time	
				Ref. No