
Preliminary Site Assessment Report

September 3, 2018
WBS Element: 32574.1.FD7
State Project: A-0011C
Clay County

at

SRP 2014 – 2 Funding Trust Property
Parcel I.D.: #015
3399 Highway 69, Hayesville, NC 28904
PIN #: 545802588281
Facility ID No.: 00-0-0000012476
Groundwater Incident No.: None

Prepared For:

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10/11/2018



Keith C. Seramur, P.G.

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1.0 Introduction

1.1 General Site Background Information

Seramur & Associates, PC was contracted to complete a Preliminary Site Assessment (PSA) at:

SRP 2014 – 2 Funding Trust Property
Parcel I.D.: #015
PIN #: 545802588281
3399 Highway 69, Hayesville, NC 28904
Facility ID No.: 00-0-0000012476
Groundwater Incident No.: None

This property is located on the east side of Highway 69 approximately one half mile north of the North Carolina – Georgia State Line (Figure 1). The property previously operated as a convenience store that sold fuel and an auto repair shop. Our area of investigation covers the entirety of the property (Figure 2).

2.0 Scope of Work

The PSA scope of work included completing a geophysical survey at the property to investigate the potential for underground storage tanks. Following the geophysical survey, soil sampling, screening and analyses were performed to assess soil quality and estimate the volume of potentially contaminated soil at the site, if present (Figure 3).

2.1 Background Research

According to Clay County Tax Administration records, the property is currently owned by SRP 2014 – 2 Funding Trust. A review of historic aerial photographs showed that the property was undeveloped through the late 1950's. The next available historic aerial photograph was taken in 1975. The property appears to be developed at that time. Clay County Tax Administration records do not indicate the year that the building was constructed. According to the NCDEQ UST Database, one 2,000 gallon gasoline UST was installed at the property on May 9, 1976 and closed on March 11, 1996.

Our background research revealed that the 2,000 gallon gasoline UST was removed in June 1996, but closure documentation was not provided to NCDENR at that time. In December 1997, Enviromark, P.A. mobilized to the site to drill hand auger borings around the former tank, near the product lines and near the dispenser. No petroleum constituents were detected in any of the soil samples collected during this sampling event. NCDEQ issued a Notice of No Further Action for the site on January 20, 1998.

Seramur and Associates personnel made a pedestrian reconnaissance of the property during the initial site visit on August 9, 2018. At that time, the proposed work area was marked with white paint for utility locating purposes. A utility locate request was initiated with the North Carolina 811 system prior to mobilizing to drill the soil borings.

There is an AST system on the property. Three tanks are in the cinder block tank secondary containment structure that has a concrete floor. Exact sizes and contents of the ASTs are not known. ASTs are not required to be registered with NCDEQ unless they are related to an oil terminal facility (i.e. oil refinery); therefore, no information on these tanks is readily available.

A concrete vault is located next to the ASTs (Plate 1, Photo 3). Inside the vault is what appears to be the electrical and plumbing for a sewage lift station (Plate 1, Photo 3). A septic tank lid was observed on the east side of the former store (Plate 2, Photo 7). This tank is at an elevation that is higher than the storefront. A septic tank is also located on the north side of the auto repair shop (Plate 1, Photo 5). A stand for a former heating oil AST was observed on the east side of the auto repair shop. Oil-stained concrete was also observed on the east side of the auto repair shop (Plate 2, Photo 6). A propane AST is located behind (east of) the ASTs (Plate 2, Photo 7).

2.2 Plates 1 & 2 – Photos of Work Area



Plate 1.



5. Septic tank for former auto repair facility and location of Boring B-13.



6. Stand for former heating oil AST and stained pavement behind former auto repair facility.



7. Back of AST containment wall and septic tank cover. Also shown is location of Boring B-17.

2.3 Geophysical Surveys

Seramur & Associates set up seven grids for a geophysical survey at Parcel #015 (Figure 4). Grids 1 and 2 extended across the southwest portion of the property in front of the former store building and fuel dispensers and were run towards Highway 69. Grid 3 was located in the narrow space between the store building and the fuel dispenser island and was run to the south. Grid 4 was located off of the northwest corner of the garage and ran south towards the building. Grid 5 was located on the north side of the garage building and run towards the building. Grid 6 was located along the east side of the garage building and run towards the store building. Grid 7 was located east of the store building and run to the south. Geophysical data were collected along transects at a 2-foot spacing.

An additional six GPR transects were collected within the area of investigation in areas where a grid was not reasonably collectable (Figures 4 and 9). The first two were located between the two structures and the other four were collected in the long, open grassy area north of the two buildings.

The Magnetometer survey was completed with a MF-1 Fluxgate magnetometer. The MF-1 Fluxgate magnetometer is designed to measure changes in the Earth's magnetic field associated with larger ferrous objects. It does not respond to smaller objects such as nails or wire, but responds well to variations in the Earth's magnetic field produced by manholes, steel pipe, buried drums and tanks. The sensitivity level is well suited for detecting buried USTs at commercial and industrial facilities. Magnetometer data was compiled in an Excel spreadsheet and a contour map with hill shade was drafted using Golden Software's Surfer® modeling program (Figure 5).

A Ground Penetrating Radar (GPR) survey was completed across the grid using Geophysical Survey Systems, Inc. 400 MHz antenna and a SIR-3000 Single Channel Data Acquisition System 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. The additional GPR transects collected within the area of investigation were processed using Radan® software.

Three-dimensional models of the GPR grid data were produced with the GPR Slice® software. Three time slices (or depth slices) were imaged in each of the seven grids at depths of 0.3 to 0.8 feet, 1.9 to 2.4 feet and 3.0 to 4.0 feet (Figures 6 through 8). Each depth slice is a horizontal slice or plan view of the reflections across a 0.5 to 1.0 foot thickness of the subsurface. For example, the shallow GPR depth slices for Grids 1 through 7 show reflections in the radar data between depths of 0.3 and 0.8 feet.

2.4 Soil Sampling and Analyses

On August 23, 2018, Carolina Soil Investigations, LLC mobilized to the site to drill Geoprobe borings and collect soil samples. Our project design called 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 samples were collected at other depths within the Geoprobe cores if soil staining or petroleum vapors were observed or if limited core recovery occurred. Soil borings were drilled around the former UST system, the dispenser island and around the two buildings on Parcel #015 (Figure 3).

A track-mounted Geoprobe rig was used to drill a total of seventeen soil borings. 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 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). The texture and type of soil material in the Geoprobe cores was described and recorded. Table 1 lists the boring data including sample number, depth, PID reading, lithology and type of soil material.

Samples were collected and shipped on ice to REDLab, LLC, in Wilmington, NC for laboratory analyses. 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 as 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. A hydrocarbon fingerprint is interpreted by REDLab for each sample using a library search of spectra for known hydrocarbon types and concentrations. The laboratory reports and fingerprint spectra are included in Appendix B.

3.0 Results of Investigation

Parcel #015 contains two commercial buildings that previously operated as a convenience store that sold fuel and an auto repair shop. One 2,000 gallon gasoline UST was removed from the property in 1996. Soil samples collected from the site in 1997 indicated that no petroleum had leaked into soil in the vicinity of the former UST system. A Notice of No Further Action was issued for the site in 1998.

3.1 Geophysical Surveys

One magnetic anomaly was detected in Grid 1 at the location of the former UST system (Figure 5). GPR profiles across this magnetic anomaly are not characteristic of a UST (see insets on Figure 5). One magnetic anomaly was detected in front of the former auto repair shop at the location of a steel, storm water grate. A small, localized anomaly was detected in the southern end of Grid 6. SAPC personnel could not identify the ferrous object producing this magnetic anomaly, but it is too small to be a UST.

The magnetometer was used to survey areas of the property that were outside of the seven grids. The only magnetic anomalies detected outside of the grids were attributed to the water meter and a water valve.

The shallow GPR depth slice (0.3 to 0.8 feet) shows several features (Figure 6). A linear, medium amplitude reflection (green) was observed in the sewer line trench along Hwy 69 in Grids 1 and 2. The backfill in the product line trenches is shown as a reflection-free area (blue) on the GPR depth slices of Grids 1 and 2 (Figure 6). The fill material below a concrete ramp in front of the auto repair shop also produces a rectangular reflection-free area on the GPR depth slice of Grid 4. The septic tank north of the auto repair shop is represented by two high amplitude reflections (yellow) in the southern end of Grid 5 (Figure 6).

The intermediate GPR depth slice (1.9 to 2.4 feet) shows the product lines from the former UST and from the ASTs leading out to the dispenser island (Figure 7). Inset A shows that these reflections are distinct, narrow hyperbola on the GPR profile. An oval-shaped, low amplitude reflection (white) could show the outline of the former UST excavation (Figure 7). Inset B is a GPR profile across this feature and appears to show reflections along the edge of an excavation. A septic line was imaged in Grid 5 on the north side of the auto repair shop.

A high amplitude, linear reflection on the deep GPR depth slice (3.0 to 4.0 feet) shows the sewer line along Hwy 69 in Grids 1 and 2 (Figure 8). A high amplitude, linear reflection is also seen extending into Grid 1 from the south. This reflection is related to a fiber optic cable trench. A high amplitude, linear reflection in Grid 7 appears to be a septic line extending away from the septic tank located off the southeast corner of the former gas station (Figure 8).

The six additional GPR profiles collected did show a couple of reflections that could indicate a UST (Figure 9). However, the magnetometer did not indicate that a large ferrous object was present.

3.2 Soil Borings, Sampling and Laboratory Results

The soil types at Parcel #015 consisted of a sandy silt fill material and a silty sand saprolite (Table 1). Groundwater was not encountered in any of the soil borings.

Borings B-1 through B-4 were drilled in the vicinity of the AST system and former UST and associated piping. Borings B-5 through B-8 were drilled around the dispenser island. Borings B-9 and B-15 were drilled in the center of the two buildings on the west and east sides respectively. Borings B-10 and B-11 were drilled west of the garage building. Borings B-12 through B-14 were drilled along the east side of the garage building. Borings B-16 and B-17 were drilled east of the store building.

Petroleum constituents were not detected in any of the soil samples collected from these borings above 2.4 ppm (Table B-3 and Figure 8). TPH GRO concentrations were only detected at 1.1 ppm in soil sample S-28 from Boring B-14. TPH DRO concentrations were detected in 10 of the samples. Concentrations were below 1.0 ppm in seven of these samples. Concentrations above

1.0 ppm were detected in the shallow samples of Boring B-1 and B-3 and the deep sample for Boring B-3. A strange odor was detected in the shallow core of Boring B-15, but petroleum constituents were not detected above 0.58 ppm TPH DRO in sample S-29.

3.3 Volume and Extent of Soil Contamination

Laboratory analyses of soil samples collected from Parcel #015 did not detect concentrations of GRO and DRO constituents above their respective action levels of 50 ppm and 100 ppm. Based on these results, delineation of soil contamination is not necessary at this time.

3.4 Conclusions

One 2,000 gallon gasoline UST was removed from Parcel #015 in 1996. Soil sampling in 1997 determined that no petroleum constituents were present in the soil around this former UST system. A Notice of No Further Action was issued for the site on January 20, 1998.

No evidence of abandoned USTs was found at Parcel #015 during this PSA.

Laboratory analyses of soil samples collected at Parcel #015 did not detect concentrations of GRO and DRO constituents above their respective action levels.

3.5 Recommendations

Seramur & Associates, PC, does not recommend any further environmental assessment work within the area of investigation at Parcel #015.

Appendix A

Tables and Figures

Boring No.	Depth (ft)	Lithology	Soil type	Soil Sample	PID ppm	Comments
B-1	0.0 to 5.0	Sandy Silt	Fill	S-1	0.2	Sample at 3.0 feet.
B-1	5.0 to 10.0	Sandy Silt	Fill	S-2	0.1	Sample at 9.0 feet.
B-2	0.0 to 5.0	Sandy Silt	Fill	S-3	0.1	Sample at 3.0 feet.
B-2	5.0 to 10.0	Sandy Silt	Fill	S-4	0.2	Sample at 9.0 feet.
B-3	0.0 to 5.0	Sandy Silt	Fill	S-5	0.1	Sample at 3.0 feet.
B-3	5.0 to 10.0	Sandy Silt	Fill	S-6	0.1	Sample at 9.0 feet.
B-4	0.0 to 5.0	Sandy Silt	Fill	S-7	0.2	Sample at 3.0 feet.
B-4	5.0 to 8.0 8.0 to 10.0	Sandy Silt Silty Sand	Fill Saprolite	S-8	0.2	Sample at 9.0 feet.
B-5	0.0 to 5.0	Sandy Silt	Fill	S-9	0.1	Sample at 3.0 feet.
B-5	5.0 to 7.0 7.0 to 10.0	Sandy Silt Silty Sand	Fill Saprolite	S-10	0.1	Sample at 9.0 feet.
B-6	0.0 to 4.0 4.0 to 5.0	Sandy Silt Silty Sand	Fill Saprolite	S-11	0.0	Sample at 3.0 feet.
B-6	5.0 to 10.0	Silty Sand	Saprolite	S-12	0.1	Sample at 9.0 feet.
B-7	0.0 to 5.0	Sandy Silt	Fill	S-13	0.0	Sample at 3.0 feet.
B-7	5.0 to 7.0 7.0 to 10.0	Sandy Silt Silty Sand	Fill Saprolite	S-14	0.1	Sample at 9.0 feet.
B-8	0.0 to 4.5 4.5 to 5.0	Sandy Silt Silty Sand	Fill Saprolite	S-15	0.2	Sample at 3.0 feet.
B-8	5.0 to 10.0	Silty Sand	Saprolite	S-16	0.2	Sample at 9.0 feet.
B-9	0.0 to 5.0	Sandy Silt	Fill	S-17	0.3	Sample at 3.0 feet.
B-9	5.0 to 10.0	Silty Sand	Saprolite	S-18	0.1	Sample at 9.0 feet.
B-10	0.0 to 2.0 2.0 to 5.0	Sandy Silt Silty Sand	Fill Saprolite	S-19	0.2	Sample at 3.0 feet.
B-10	5.0 to 10.0	Silty Sand	Saprolite	S-20	0.2	Sample at 9.0 feet.
B-11	0.0 to 5.0	Sandy Silt	Fill	S-21	0.3	Sample at 3.0 feet.
B-11	5.0 to 10.0	Silty Sand	Saprolite	S-22	0.2	Sample at 9.0 feet.
B-12	0.0 to 5.0	Sandy Silt	Fill	S-23	0.2	Sample at 3.0 feet.
B-12	5.0 to 8.0 8.0 to 10.0	Sandy Silt Silty Sand	Fill Saprolite	S-24	0.0	Sample at 9.0 feet.
B-13	0.0 to 2.5 2.5 to 5.0	Sandy Silt Silty Sand	Fill Saprolite	S-25	0.1	Sample at 3.0 feet.
B-13	5.0 to 10.0	Silty Sand	Saprolite	S-26	0.1	Sample at 9.0 feet.
B-14	0.0 to 5.0	Sandy Silt	Fill	S-27	0.1	Sample at 3.0 feet.
B-14	5.0 to 10.0	Silty Sand	Saprolite	S-28	0.2	Sample at 9.0 feet.
B-15	0.0 to 5.0	Sandy Silt	Fill	S-29	0.1	Sample at 1.5 feet. Staining and strange odor.
B-15	5.0 to 6.0 6.0 to 10.0	Sandy Silt Silty Sand	Fill Saprolite	S-30	0.1	Sample at 9.0 feet.
B-16	0.0 to 5.0	Sandy Silt	Fill	S-31	0.1	Sample at 3.0 feet.
B-16	5.0 to 9.0 9.0 to 10.0	Sandy Silt Silty Sand	Fill Saprolite	S-32	0.2	Sample at 9.0 feet.
B-17	0.0 to 5.0	Sandy Silt	Fill	S-33	0.1	Sample at 3.0 feet.
B-17	5.0 to 10.0	Sandy Silt	Fill	S-34	0.1	Sample at 9.0 feet.

Table B-3: Summary of Soil Sampling Results

Revision Date: 08/28/18

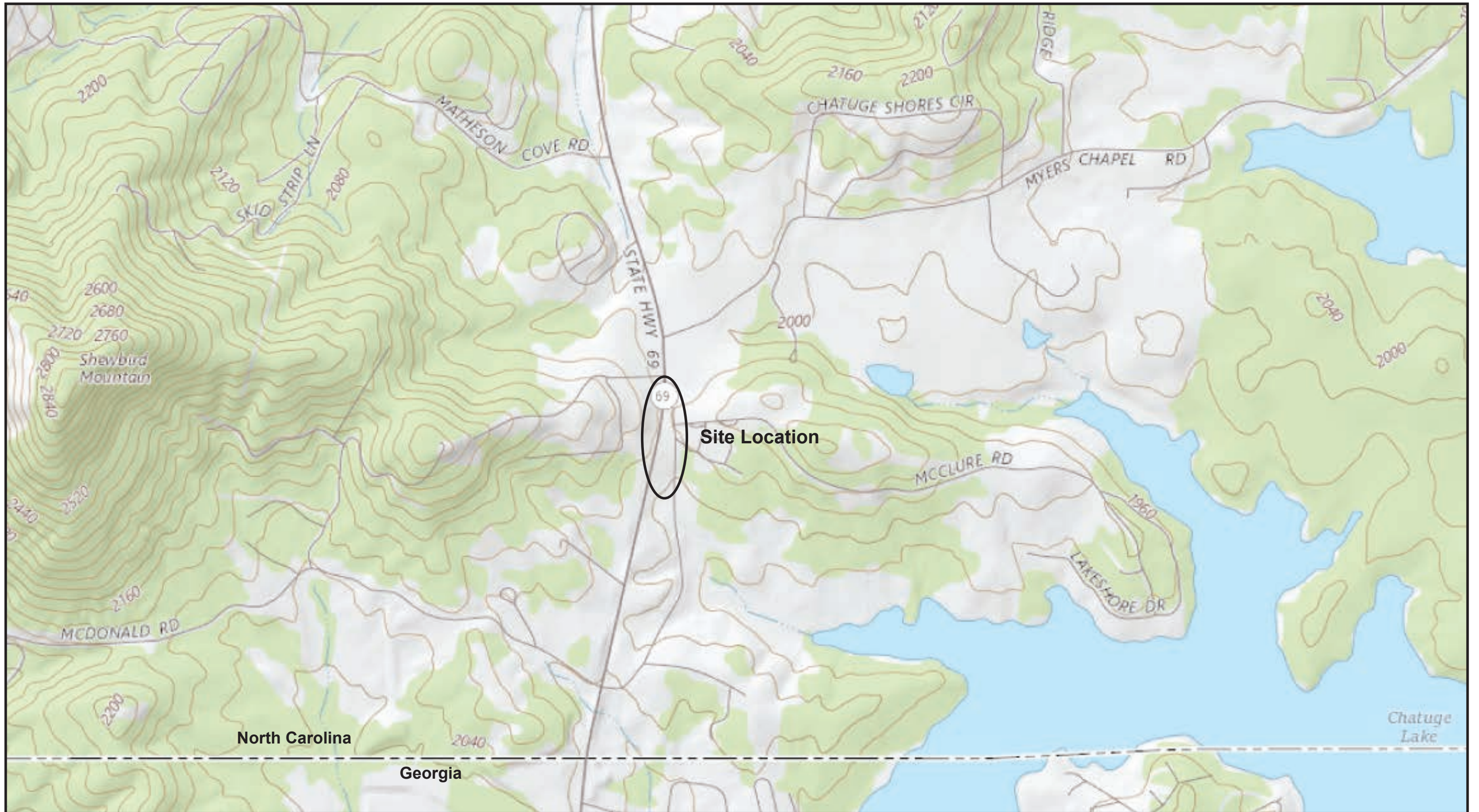
Property Name: SRP 2014 – 2 Funding Trust Property

Parcel ID#: 015

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	08/23/18	B-1	3.0	PSA	<0.57	2.2
S-2	08/23/18	B-1	9.0	PSA	<0.59	<0.59
S-3	08/23/18	B-2	3.0	PSA	<0.62	<0.62
S-4	08/23/18	B-2	9.0	PSA	<0.68	0.68
S-5	08/23/18	B-3	3.0	PSA	<0.58	2.4
S-6	08/23/18	B-3	9.0	PSA	<0.72	1.3
S-7	08/23/18	B-4	3.0	PSA	<0.66	<0.66
S-8	08/23/18	B-4	9.0	PSA	<0.26	<0.26
S-9	08/23/18	B-5	3.0	PSA	<0.63	0.63
S-10	08/23/18	B-5	9.0	PSA	<0.23	<0.23
S-11	08/23/18	B-6	3.0	PSA	<0.63	<0.63
S-12	08/23/18	B-6	9.0	PSA	<0.77	<0.77
S-13	08/23/18	B-7	3.0	PSA	<0.64	0.64
S-14	08/23/18	B-7	9.0	PSA	<0.56	<0.56
S-15	08/23/18	B-8	3.0	PSA	<0.71	<0.71
S-16	08/23/18	B-8	9.0	PSA	<0.61	<0.61
S-17	08/23/18	B-9	3.0	PSA	<0.35	0.35
S-18	08/23/18	B-9	9.0	PSA	<0.31	<0.31
S-19	08/23/18	B-10	3.0	PSA	<0.57	<0.57
S-20	08/23/18	B-10	9.0	PSA	<0.61	<0.61
S-21	08/23/18	B-11	3.0	PSA	<0.63	<0.63
S-22	08/23/18	B-11	9.0	PSA	<0.6	<0.6
S-23	08/23/18	B-12	3.0	PSA	<0.26	0.33
S-24	08/23/18	B-12	9.0	PSA	<0.27	<0.27
S-25	08/23/18	B-13	3.0	PSA	<0.34	0.34
S-26	08/23/18	B-13	9.0	PSA	<0.32	<0.32
S-27	08/23/18	B-14	3.0	PSA	<0.3	<0.3
S-28	08/23/18	B-14	9.0	PSA	1.1	<0.25
S-29	08/23/18	B-15	1.5	PSA	<0.29	0.58
S-30	08/23/18	B-15	9.0	PSA	<0.34	<0.34
S-31	08/23/18	B-16	3.0	PSA	<0.3	<0.3
S-32	08/23/18	B-16	9.0	PSA	<0.37	<0.37
S-33	08/23/18	B-17	3.0	PSA	<0.32	<0.32
S-34	08/23/18	B-17	9.0	PSA	<0.28	<0.28
NC DEQ Action Level (mg/kg)					50	100

ft. BGS = feet below ground surface

mg/kg = milligrams per kilogram



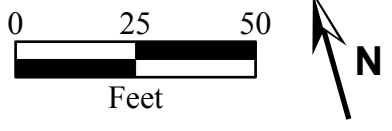
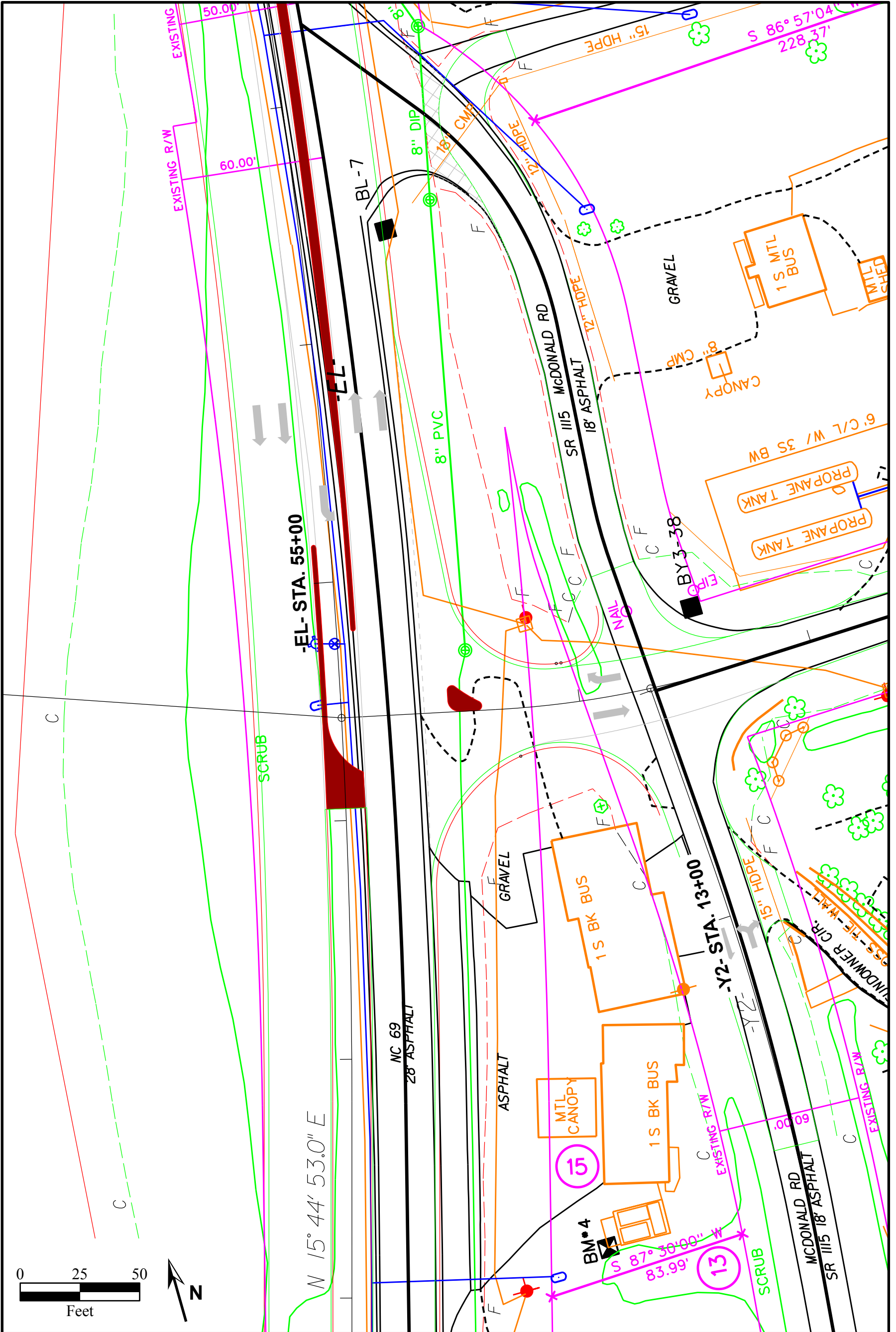
Site Location

North Carolina

Georgia

Chatuge Lake

<p>Figure 1 Site Location Map Source: U.S.G.S. The National Map</p>	<p>State Project: A-0011C Clay County, NC</p>	<p>SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC</p>	<p>Parcel #015 Facility I.D.: 0-0-12476</p>	<p>Seramur & Associates, PC Boone, NC</p>	<p>0 750 1,500 Feet</p>
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<p>Figure 2 Site Plan</p>	<p>State Project: A-0011C Clay County, NC</p>	<p>SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC</p>	<p>Parcel #015 Facility I.D.: 0-0-12476</p>	<p>Seramur & Associates, PC Boone, NC</p>
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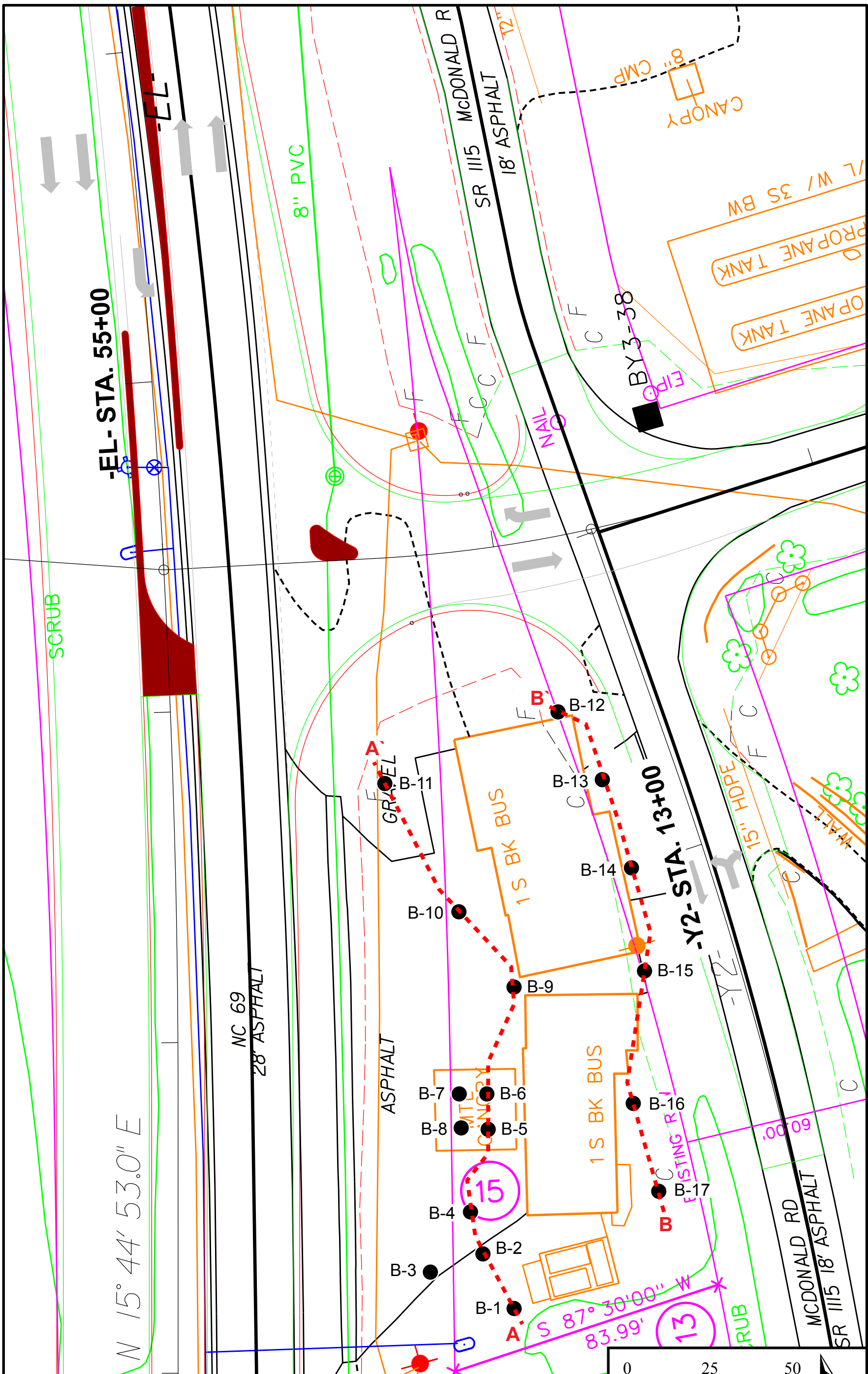
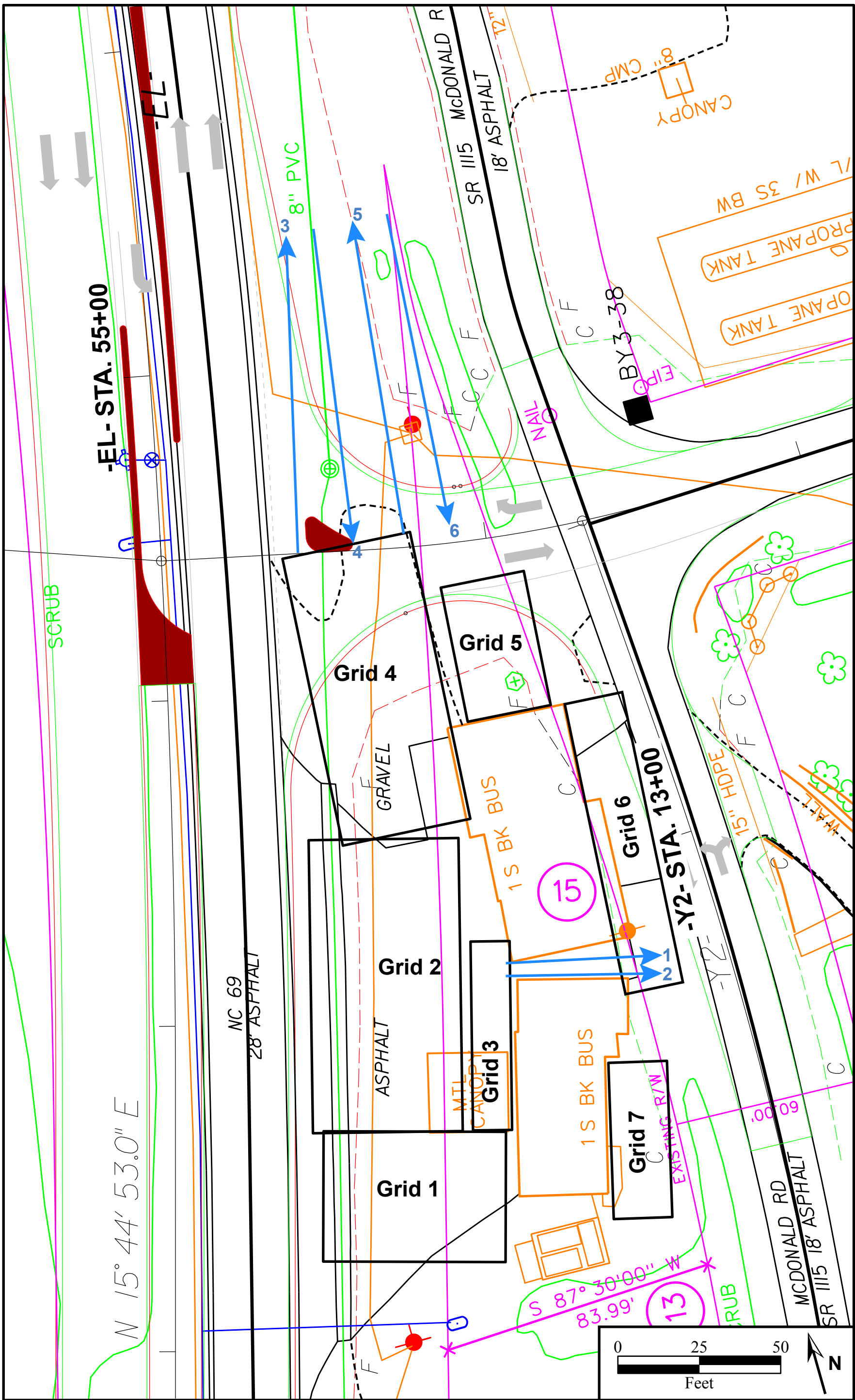
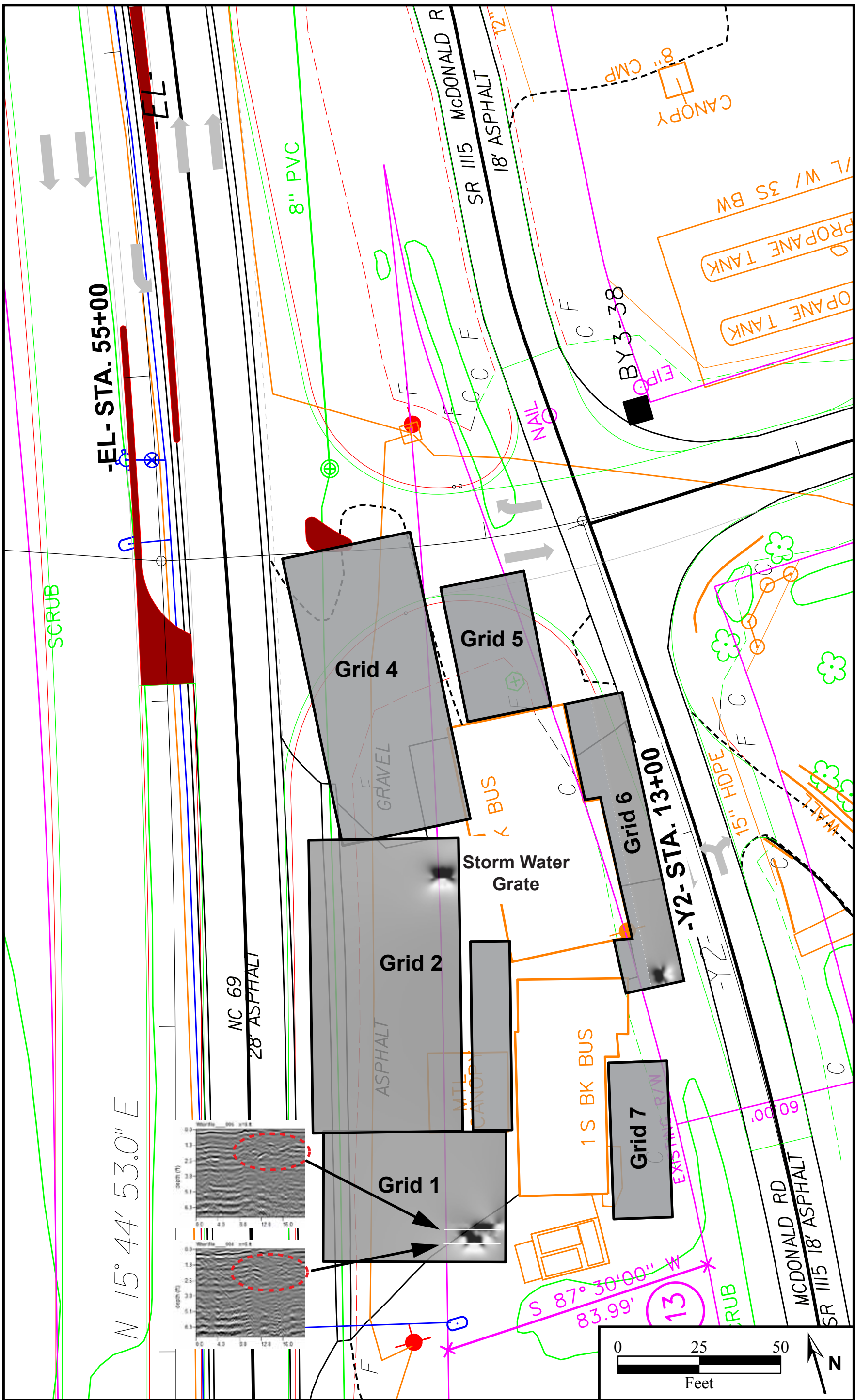


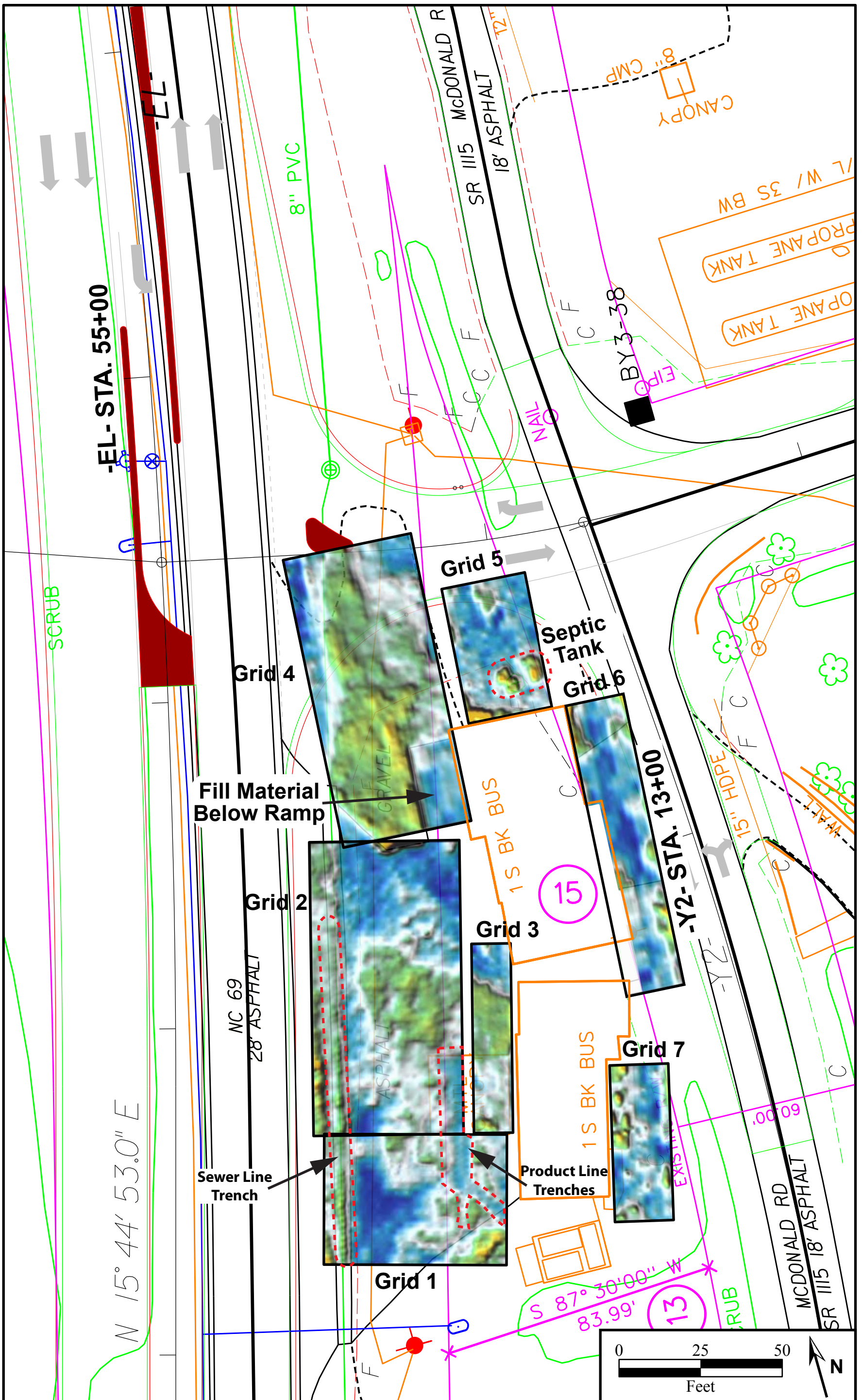
Figure 3 Site Plan with Soil Boring Locations and Approximate X-Section Lines	- Approximate Cross Section Locations	● - Location of Soil Boring		
	State Project: A-0011C Clay County, NC	SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC	Parcel #015 Facility I.D.: 0-0-12476	Seramur & Associates, PC Boone, NC



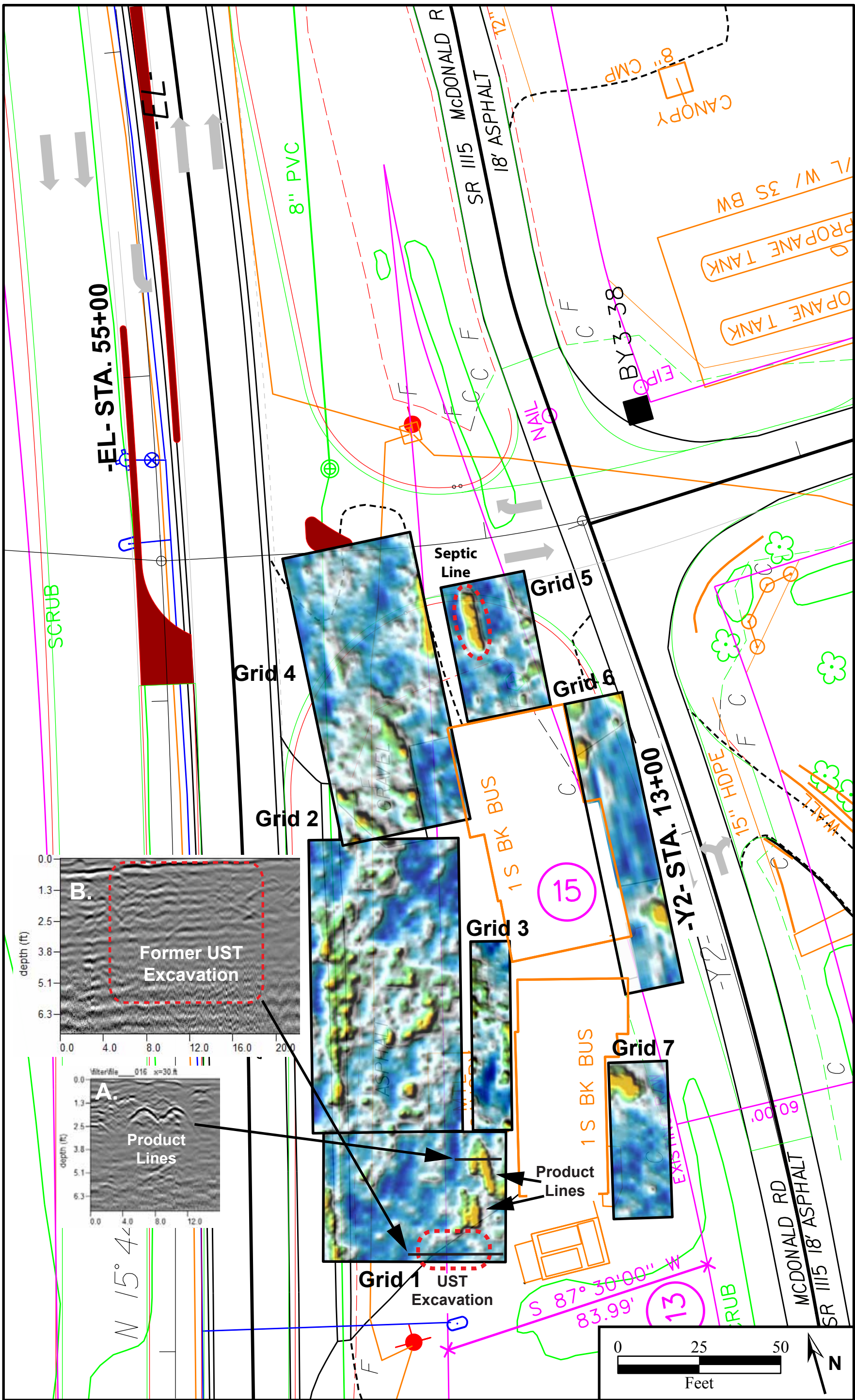
<p>Figure 4 Site Plan with GPR Grids and Transects</p>	<p>State Project: A-0011C Clay County, NC</p>	<p>SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC</p>	<p>Parcel #015 Facility I.D.: 0-0-12476</p>	<p>Seramur & Associates, PC Boone, NC</p>
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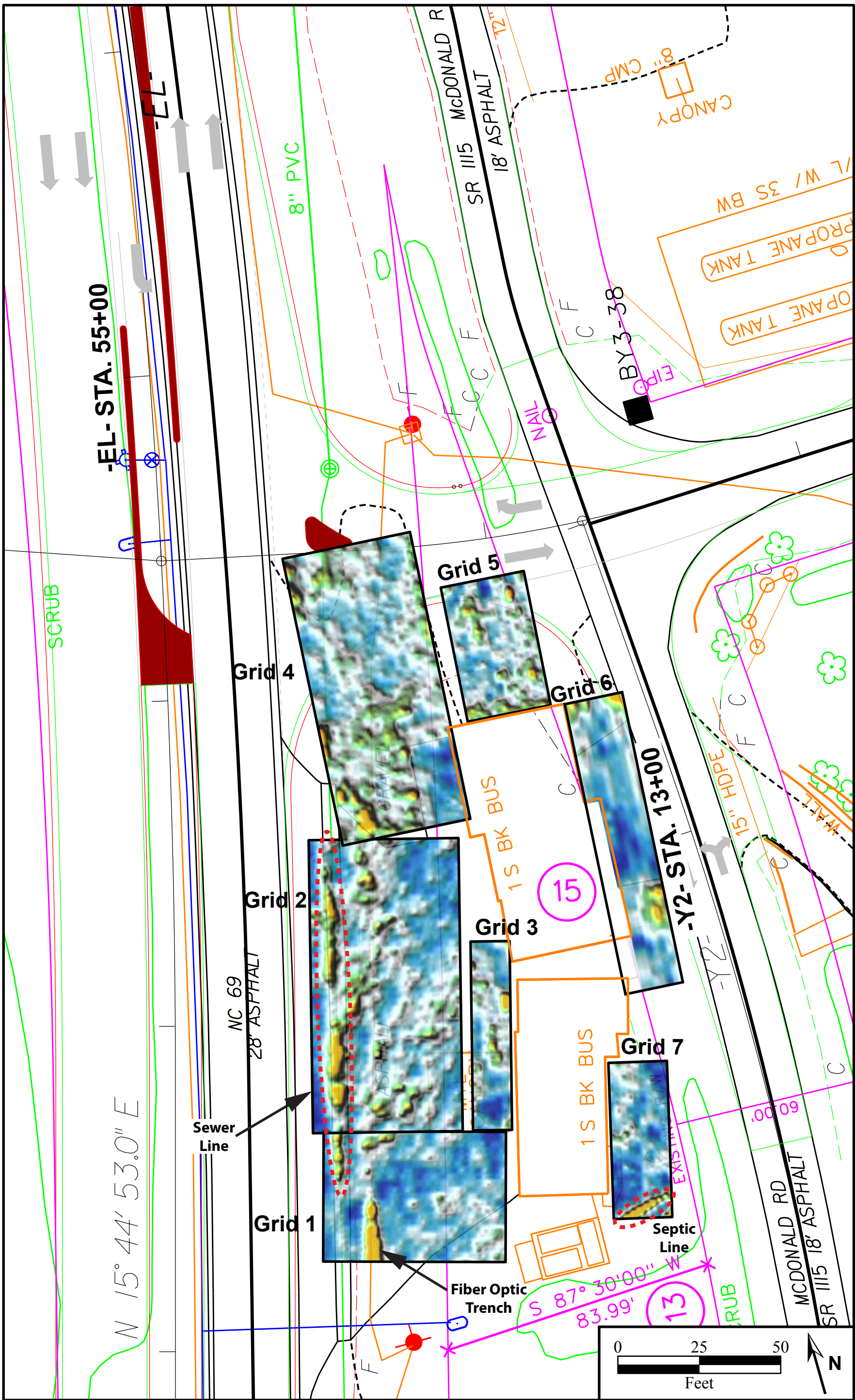
<p>Figure 5 Magnetometer Survey Results</p>	<p>State Project: A-0011C Clay County, NC</p>	<p>SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC</p>	<p>Parcel #015 Facility I.D.: 0-0-12476</p>	<p>Seramur & Associates, PC Boone, NC</p>
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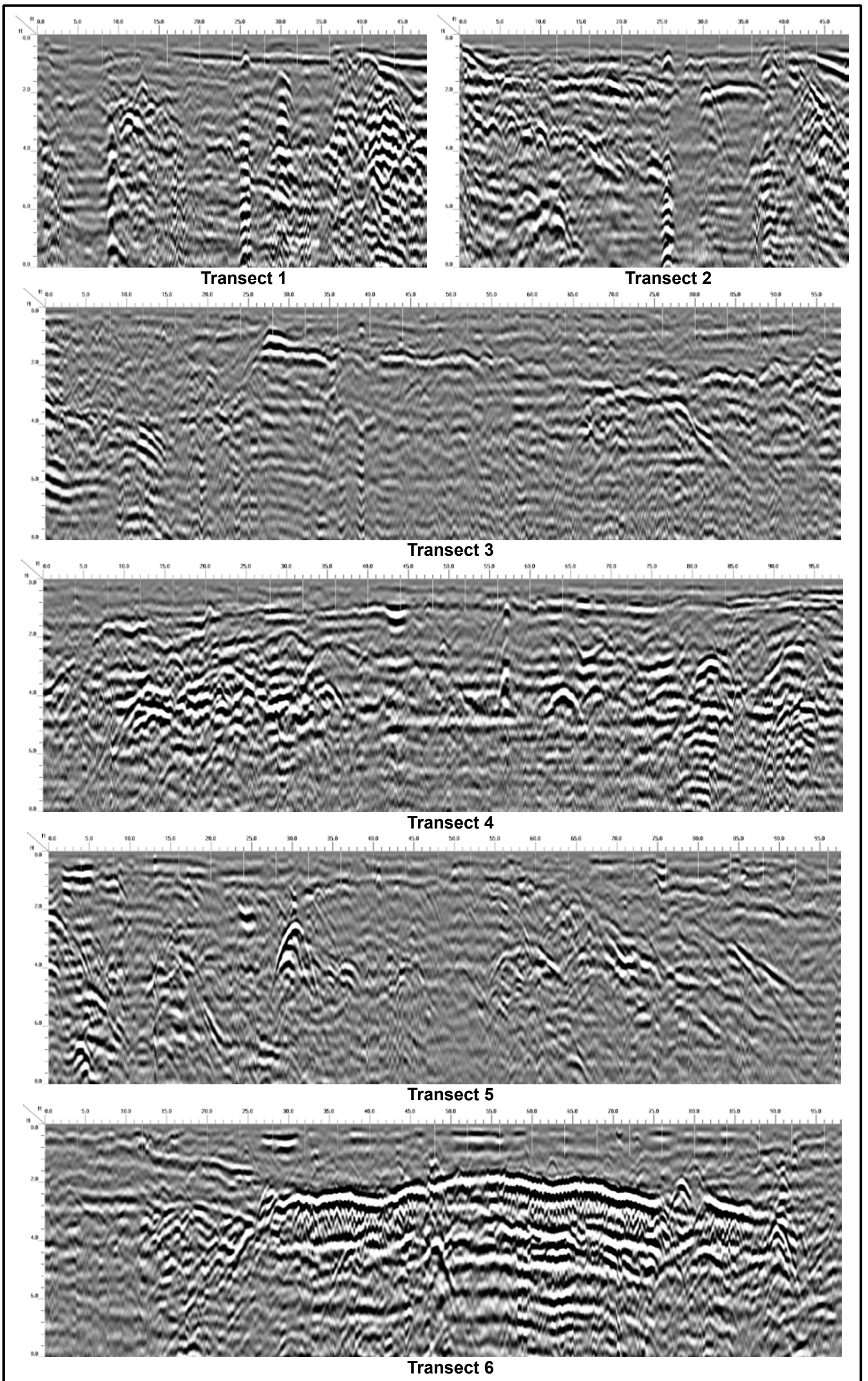
<p>Figure 6 Shallow GPR Depth Slices (0.3 - 0.8 ft.)</p>	<p>State Project: A-0011C Clay County, NC</p>	<p>SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC</p>	<p>Parcel #015 Facility I.D.: 0-0-12476</p>	<p>Seramur & Associates, PC Boone, NC</p>
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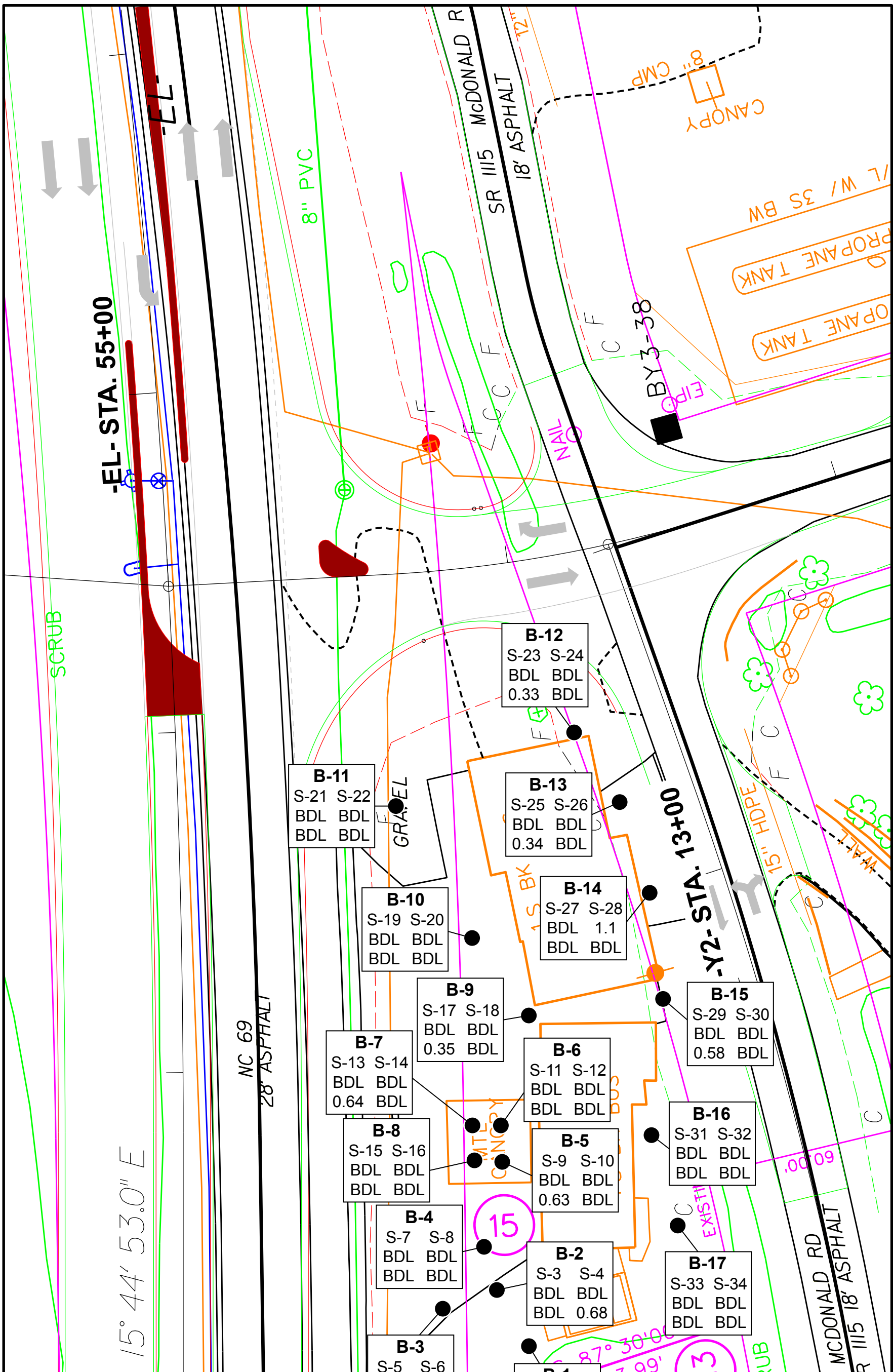
<p>Figure 7 Intermediate GPR Depth Slices (1.9 - 2.4 ft.)</p>	<p>State Project: A-0011C Clay County, NC</p>	<p>SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC</p>	<p>Parcel #015 Facility I.D.: 0-0-12476</p>	<p>Seramur & Associates, PC Boone, NC</p>
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<p>Figure 8 Deep GPR Depth Slices (3.0 - 4.0 ft.)</p>	<p>State Project: A-0011C Clay County, NC</p>	<p>SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC</p>	<p>Parcel #015 Facility I.D.: 0-0-12476</p>	<p>Seramur & Associates, PC Boone, NC</p>
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<p>Figure 9 GPR Transects 1 - 6</p>	<p>State Project: A-0011C Clay County, NC</p>	<p>SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC</p>	<p>Parcel #015 Facility I.D.: 0-0-12476</p>	<p>Seramur & Associates, PC Boone, NC</p>
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● - Location of Soil Boring
 BDL - Below Detectable Limit
 BDL - Petroleum Constituent Concentrations
 2.2 Detected as GRO (upper) and DRO (lower)

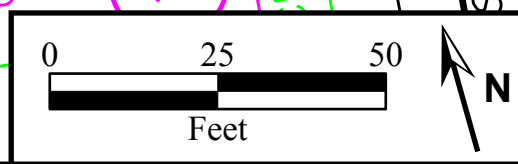


Figure 10 Soil Analytical Results	State Project: A-0011C Clay County, NC	SRP 2014 - 2 Funding Trust Property 3399 Hwy 69 Hayesville, NC	Parcel #015 Facility I.D.: 0-0-12476	Seramur & Associates, PC Boone, NC
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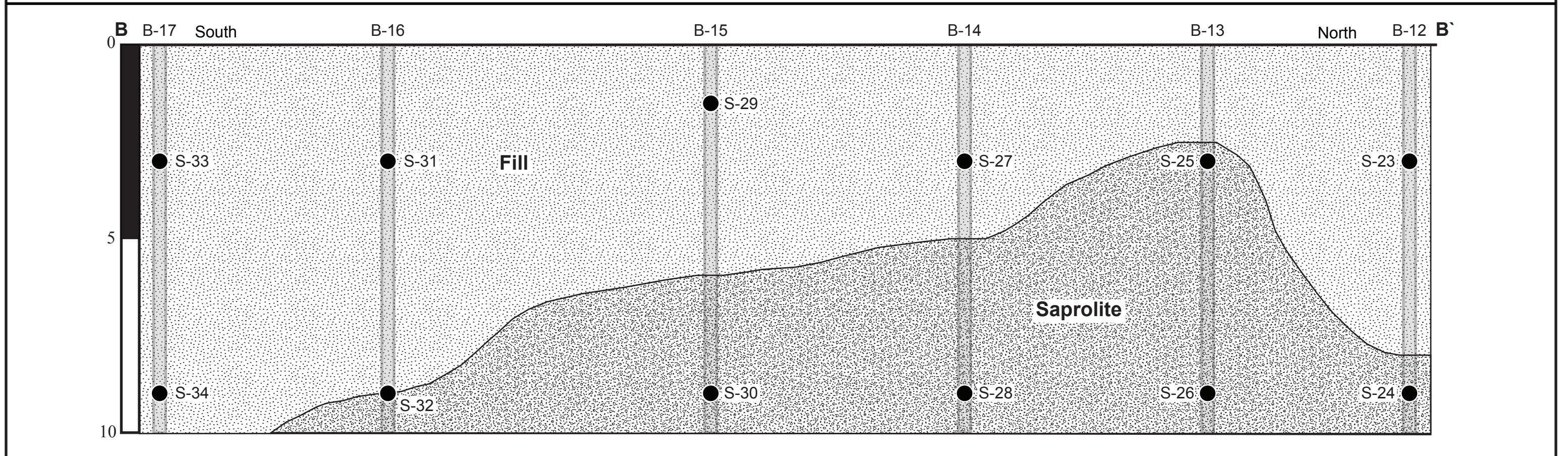
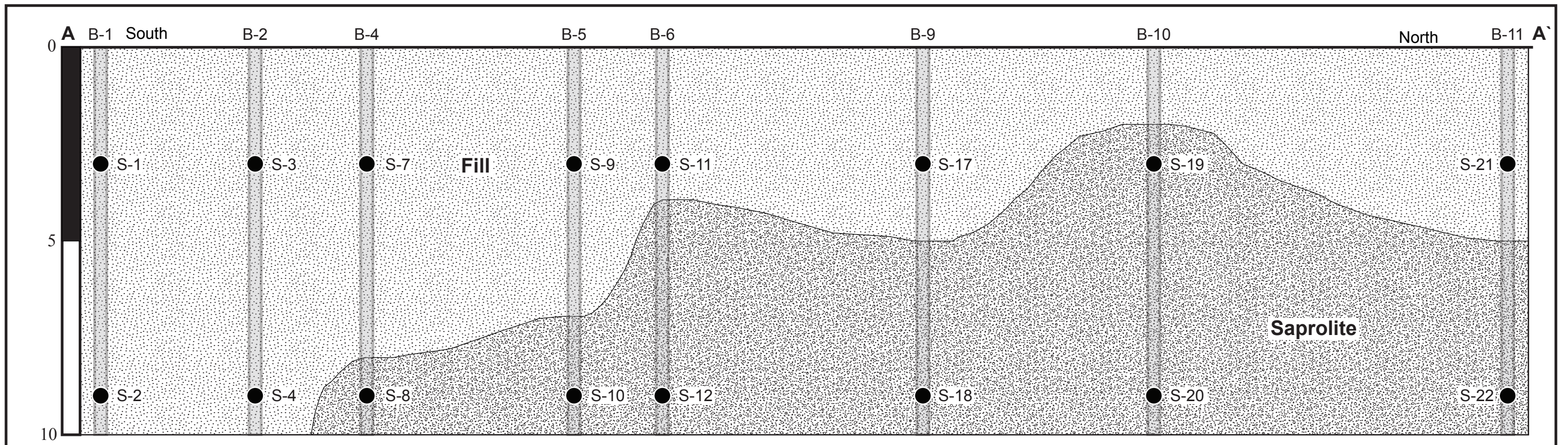


Figure 11
Cross Sections
A-A' and B-B'

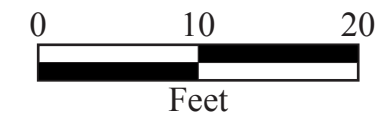
State Project: A-0011C
Clay County, NC

SRP 2014 - 2 Funding
Trust Property

3399 Highway 69
Hayesville, NC

Parcel #015
Facility I.D.: 0-0-12476

Seramur & Associates, PC
Boone, NC



● - Location of Soil Sample
Within Geoprobe Boring

Appendix B

Laboratory Reports and Chain of Custody Records



Hydrocarbon Analysis Results

Client: SERAMUR & ASSOCIATES
Address: 165 KNOLL DRIVE
 BOONE, NC 28607

Samples taken Thursday, August 23, 2018
Samples extracted Thursday, August 23, 2018
Samples analysed Friday, August 24, 2018

Contact: KEITH SERAMUR

Operator MAX MOYER

Project: NCDOT A-0011

											F03640															
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													
										% light	% mid	% heavy														
s	S-1	22.6	<0.57	<0.57	2.2	2.2	1	<0.18	<0.023	0	75.5	24.5	V.Deg.Diesel 58.7%,(FCM)													
s	S-2	23.6	<0.59	<0.59	<0.59	<0.59	<0.12	<0.19	<0.024	0	0	0	PHC not detected,(BO)													
s	S-3	24.8	<0.62	<0.62	<0.62	<0.62	<0.12	<0.2	<0.025	0	0	0	PHC not detected,(BO)													
s	S-4	27.1	<0.68	<0.68	0.68	0.68	0.67	<0.22	<0.027	0	61.3	38.7	V.Deg.PHC 90.9%,(FCM),(BO)													
s	S-5	23.2	<0.58	<0.58	2.4	2.4	1.3	<0.19	<0.023	0	68.3	31.7	V.Deg.PHC 91.8%,(FCM)													
s	S-6	28.9	<0.72	<0.72	1.3	1.3	0.76	<0.23	<0.029	0	70.3	29.7	V.Deg.PHC 77.8%,(FCM)													
s	S-7	26.3	<0.66	<0.66	<0.66	<0.66	<0.13	<0.21	<0.026	0	0	0	PHC not detected													
s	S-8	10.2	<0.26	<0.26	<0.26	<0.26	<0.05	<0.08	<0.01	0	90.1	9.9	,(FCM)													
s	S-9	25.0	<0.63	<0.63	0.63	0.63	0.41	<0.2	<0.025	0	55.9	44.1	V.Deg.PHC 57.7%,(FCM),(BO)													
s	S-10	9.3	<0.23	<0.23	<0.23	<0.23	<0.05	<0.07	<0.009	0	0	0	,(FCM)													
Initial Calibrator QC check											OK		Final FCM QC Check											OK		98.7 %

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content
 Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library
 (SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present



Hydrocarbon Analysis Results

Client: SERAMUR & ASSOCIATES
Address: 165 KNOLL DRIVE
 BOONE, NC 28607

Samples taken Thursday, August 23, 2018
Samples extracted Thursday, August 23, 2018
Samples analysed Friday, August 24, 2018

Contact: KEITH SERAMUR

Operator MAX MOYER

Project: NCDOT A-0011

											F03640															
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													
										% light	% mid	% heavy														
s	S-11	25.0	<0.63	<0.63	<0.63	<0.63	<0.13	<0.2	<0.025	0	89.5	10.5	Residual HC													
s	S-12	31.0	<0.77	<0.77	<0.77	<0.77	<0.15	<0.25	<0.031	0	0	0	PHC not detected,(BO)													
s	S-13	25.5	<0.64	<0.64	0.64	0.64	0.58	<0.2	<0.025	0	65.8	34.2	V.Deg.PHC 76.2%,(FCM)													
s	S-14	22.4	<0.56	<0.56	<0.56	<0.56	<0.11	<0.18	<0.022	0	0	0	PHC not detected,(BO)													
s	S-15	28.6	<0.71	<0.71	<0.71	<0.71	<0.14	<0.23	<0.029	0	0	0	PHC not detected,(BO)													
s	S-16	24.3	<0.61	<0.61	<0.61	<0.61	<0.12	<0.19	<0.024	0	68.8	31.2	PHC not detected													
s	S-17	13.9	<0.35	<0.35	0.35	0.35	0.39	<0.11	<0.014	0	67.6	32.4	V.Deg.PHC 76.4%,(FCM),(BO)													
s	S-18	12.5	<0.31	<0.31	<0.31	<0.31	<0.06	<0.1	<0.013	0	0	0	,(FCM)													
s	S-19	23.0	<0.57	<0.57	<0.57	<0.57	<0.11	<0.18	<0.023	0	0	0	PHC not detected													
s	S-20	24.5	<0.61	<0.61	<0.61	<0.61	<0.12	<0.2	<0.025	0	0	0	PHC not detected													
Initial Calibrator QC check											OK		Final FCM QC Check											OK		100.3 %

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content
 Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library
 (SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present



Hydrocarbon Analysis Results

Client: SERAMUR & ASSOCIATES
Address: 165 KNOLL DRIVE
 BOONE, NC 28607

Samples taken Thursday, August 23, 2018
Samples extracted Thursday, August 23, 2018
Samples analysed Friday, August 24, 2018

Contact: KEITH SERAMUR

Operator MAX MOYER

Project: NCDOT A-0011

											F03640																			
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																	
										% light	% mid	% heavy																		
s	S-21	25.0	<0.63	<0.63	<0.63	<0.63	<0.13	<0.2	<0.025	0	0	0	PHC not detected																	
s	S-22	24.1	<0.6	<0.6	<0.6	<0.6	<0.12	<0.19	<0.024	0	0	0	PHC not detected,(BO)																	
s	S-23	10.2	<0.26	<0.26	0.33	0.33	0.19	<0.08	<0.01	0	69.4	30.6	v.Deg.PHC 89.7%,(FCM)																	
s	S-24	10.6	<0.27	<0.27	<0.27	<0.27	<0.05	<0.09	<0.011	0	0	0	,(FCM)																	
s	S-25	13.7	<0.34	<0.34	0.34	0.34	0.18	<0.11	<0.014	0	0	100	,(FCM),(BO),(P)																	
s	S-26	12.6	<0.32	<0.32	<0.32	<0.32	<0.06	<0.1	<0.013	0	0	0	,(FCM),(BO)																	
s	S-27	12.0	<0.3	<0.3	<0.3	<0.3	<0.06	<0.1	<0.012	0	0	0	,(FCM),(BO)																	
s	S-28	10.0	<0.25	1.1	<0.25	1.1	<0.05	<0.08	<0.01	100	0	0	,(FCM)																	
s	S-29	11.6	<0.29	<0.29	0.58	0.58	0.36	<0.09	<0.012	0	50.9	49.1	Deg Fuel 47.7%,(FCM)																	
s	S-30	13.6	<0.34	<0.34	<0.34	<0.34	<0.07	<0.11	<0.014	0	0	0	,(FCM)																	
Initial Calibrator QC check											OK			Final FCM QC Check											OK			102.2 %		

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content
 Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library
 (SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present



Hydrocarbon Analysis Results

Client: SERAMUR & ASSOCIATES
Address: 165 KNOLL DRIVE
 BOONE, NC 28607

Samples taken Thursday, August 23, 2018
Samples extracted Thursday, August 23, 2018
Samples analysed Friday, August 24, 2018

Contact: KEITH SERAMUR

Operator MAX MOYER

Project: NCDOT A-0011

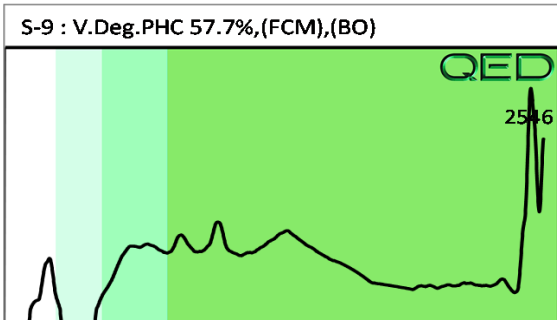
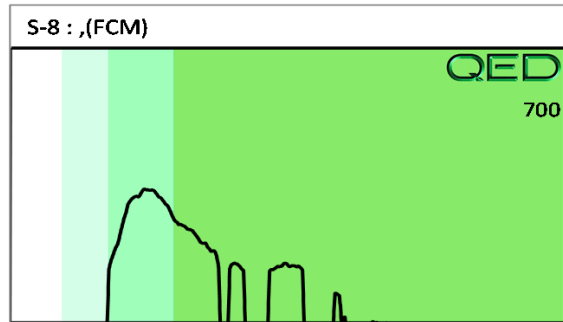
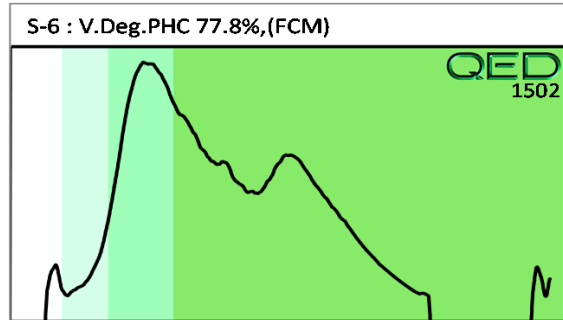
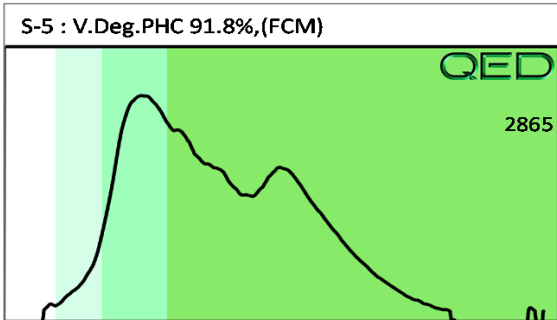
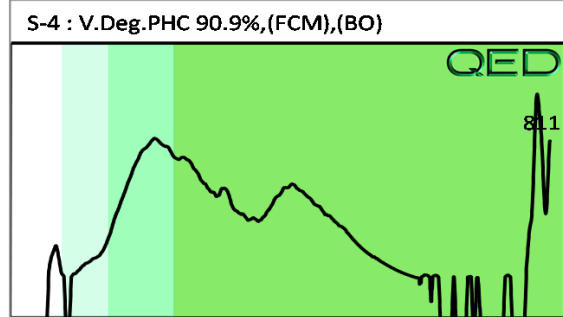
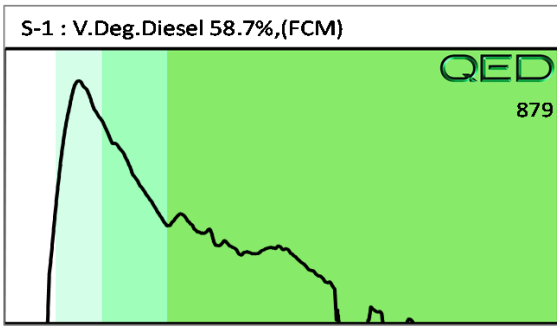
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Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match													
										% light	% mid	% heavy														
s	S-31	11.9	<0.3	<0.3	<0.3	<0.3	<0.06	<0.09	<0.012	0	0	0	(FCM),(BO)													
s	S-32	14.9	<0.37	<0.37	<0.37	<0.37	<0.07	<0.12	<0.015	0	0	0	(FCM),(BO)													
s	S-33	13.0	<0.32	<0.32	<0.32	<0.32	<0.06	<0.1	<0.013	0	0	0	(FCM)													
s	S-34	11.3	<0.28	<0.28	<0.28	<0.28	<0.06	<0.09	<0.011	0	0	0	(FCM)													
Initial Calibrator QC check											OK		Final FCM QC Check											OK		97.6 %

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content
 Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library
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QED Hydrocarbon Fingerprints

Project: NCDOT A-0011

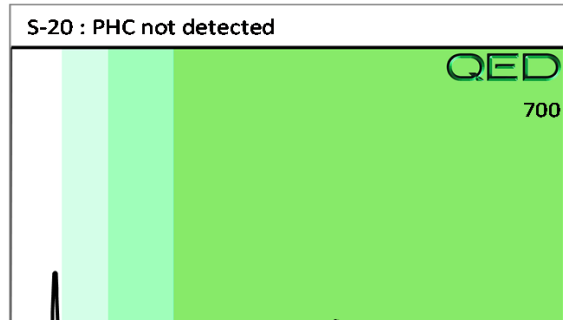
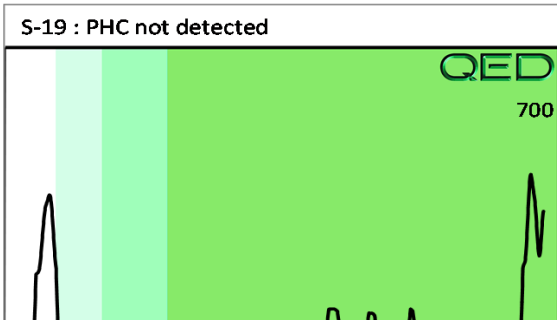
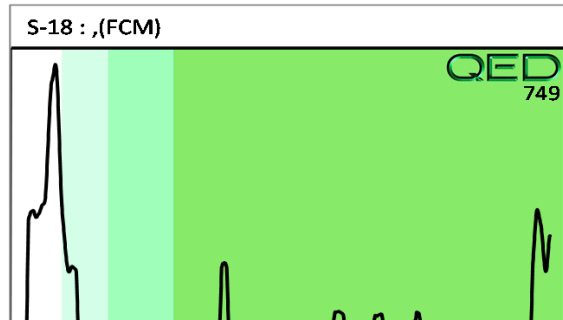
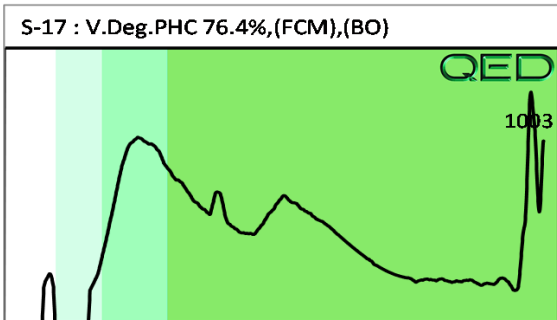
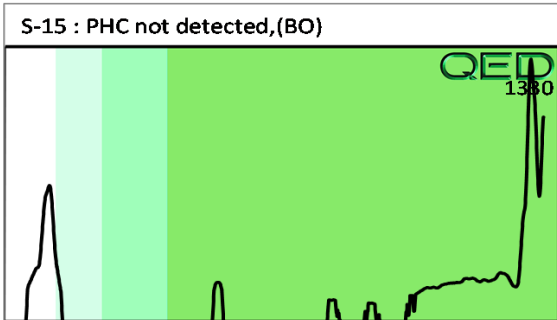
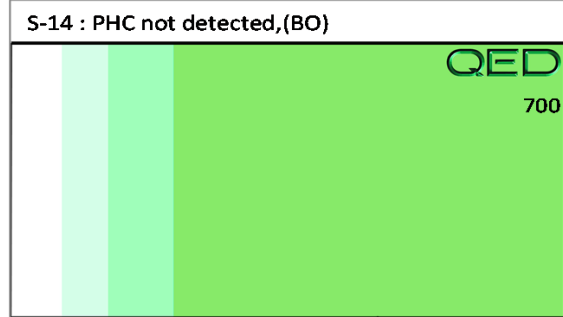
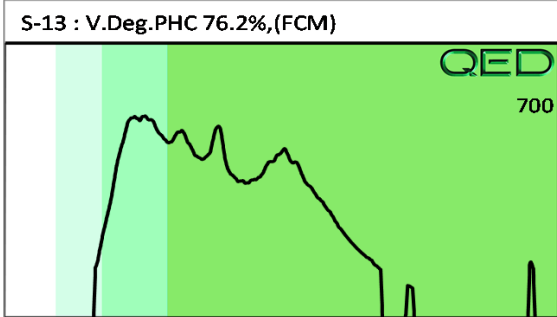
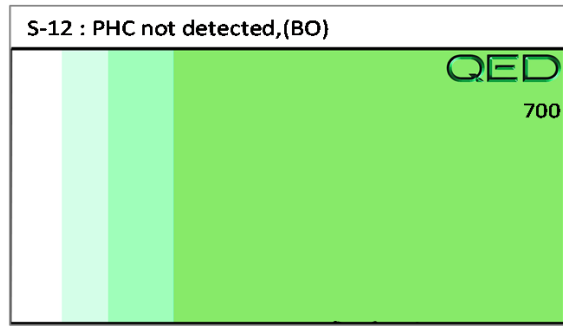
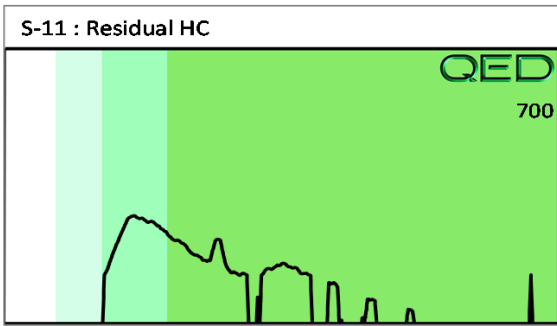
Friday, August 24, 2018



QED Hydrocarbon Fingerprints

Project: NCDOT A-0011

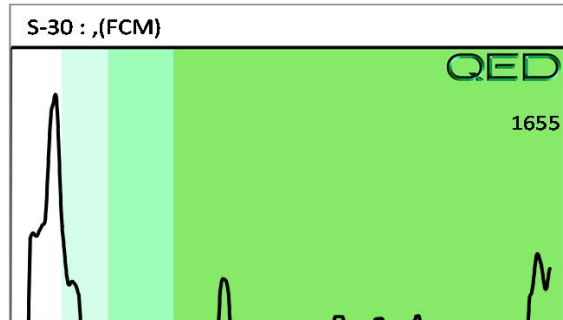
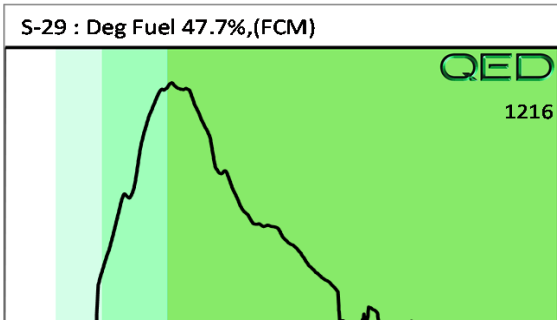
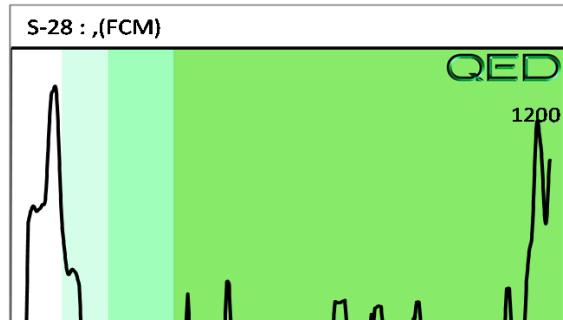
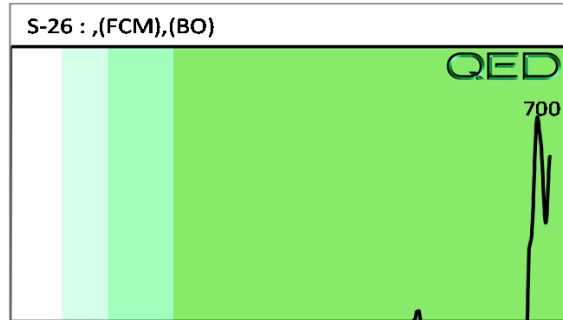
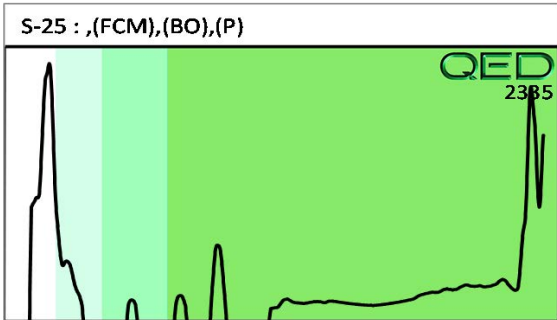
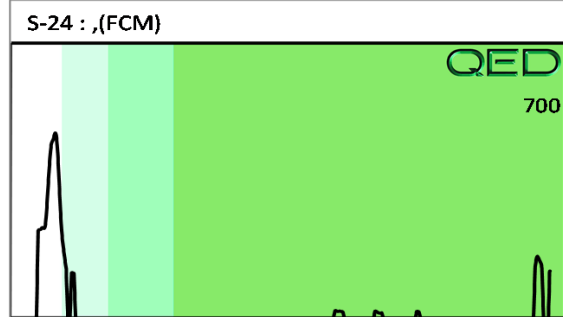
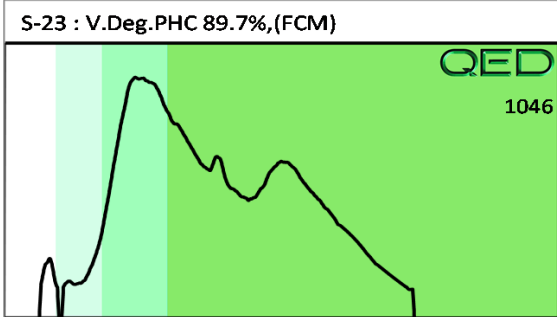
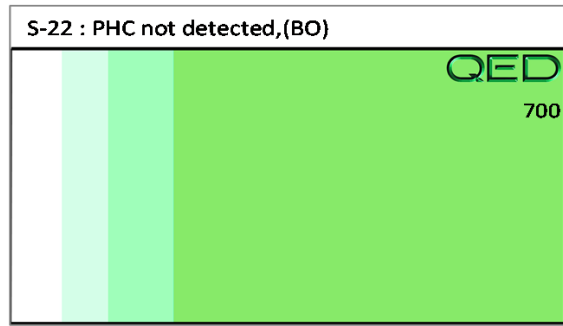
Friday, August 24, 2018



QED Hydrocarbon Fingerprints

Project: NCDOT A-0011

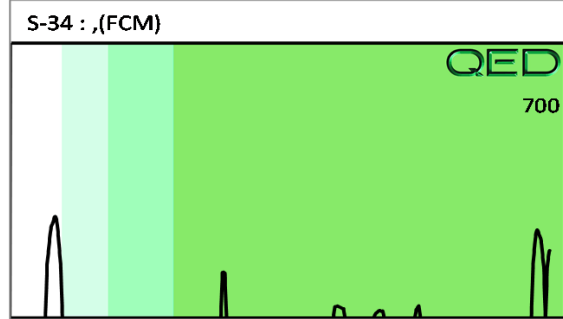
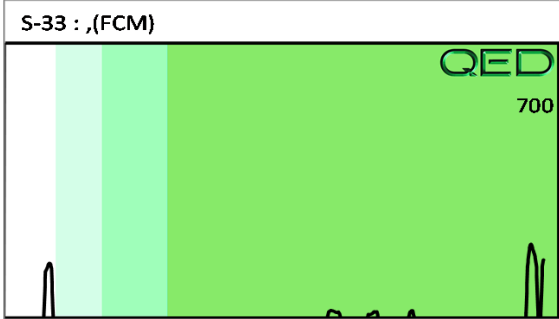
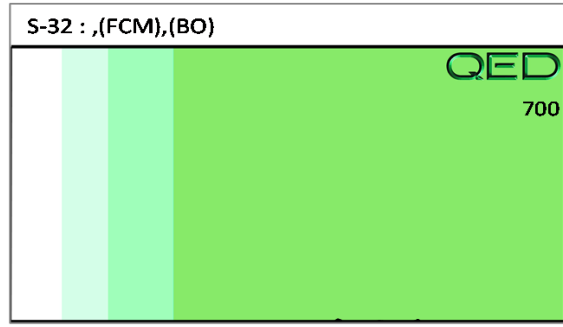
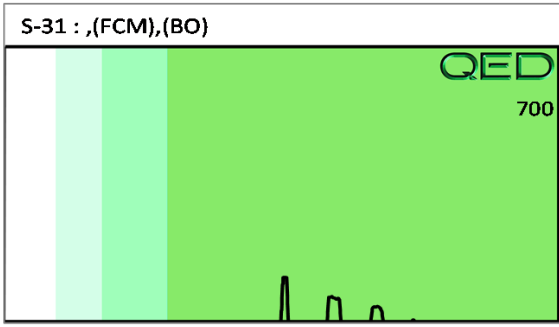
Friday, August 24, 2018



QED Hydrocarbon Fingerprints

Project: NCDOT A-0011

Friday, August 24, 2018



B 91

Client Name: *Sevamer + Assoc. PC*
 Address: *165 Knoll Drive
Boone NC 28607*
 Contact: *Keith Sevamer*
 Project Ref.: *NC DOT A-0011*
 Email: *Sevamer@icloud.com*
 Phone #: *828 264 0299*
 Collected by: *Keith Sevamer*



RAPID ENVIRONMENTAL DIAGNOSTICS
CHAIN OF CUSTODY AND ANALYTICAL
REQUEST FORM

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

Each sample will be analyzed for
 BTEX, GRO, DRO, TPH, PAH total
 aromatics and BaP

Sample Collection Date/Time	TAT Requested		Matrix (S/W)	Sample ID	UVF	GC BTEX	Total Wt.	Tare Wt.	Sample Wt.
	24 Hour	48 Hour							
8/12/18 9:39		X	S	S-1	X		55.9	44.4	11.5
9:41		X	S	S-2	X		55.7	44.7	11.0
9:48		X	S	S-3	X		54.5	44.0	10.5
9:51		X	S	S-4	X		53.6	44.0	9.6
9:54		X	S	S-5	X		55.4	44.2	11.2
9:56		X	S	S-6	X		53.5	44.5	9.0
1001 9:59		X	S	S-7	X		54.2	44.3	9.9
1004		X	S	S-8	X		54.3	44.5	9.8
1005		X	S	S-9	X		54.5	44.1	10.4
1007		X	S	S-10	X		55.3	44.5	10.8
1011		X	S	S-11	X		54.6	44.2	10.4
1013		X	S	S-12	X		52.7	44.3	8.4
1019		X	S	S-13	X		54.3	44.1	10.2
1021		X	S	S-14	X		56.0	44.4	11.6
1026		X	S	S-15	X		53.2	44.1	9.1
1028		X	S	S-16	X		54.9	44.2	10.7
1033		X	S	S-17	X		51.7	44.5	7.2
1035		X	S	S-18	X		52.5	44.5	8.0
1039		X	S	S-19	X		50.3	44.2	6.1
1041		X	S	S-20	X		54.7	44.1	10.6

Comments:

RED Lab USE ONLY

Relinquished by <i>PC</i>	Date/Time <i>8/23/18 1600</i>	Accepted by <i>UPS</i>	Date/Time
Relinquished by	Date/Time	Accepted by <i>MM</i>	Date/Time <i>8/24</i>

20

B91

Client Name: *Seramur & Assoc PC*
 Address: *165 Knoll Drive
Boone NC 28607*
 Contact: *Keith Seramur*
 Project Ref.: *NC DOT A-0011*
 Email: *Seramur@icloud.com*
 Phone #: *828 264 0289*
 Collected by: *Keith Seramur*

REDLAB™

RAPID ENVIRONMENTAL DIAGNOSTICS

CHAIN OF CUSTODY AND ANALYTICAL REQUEST FORM

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

Each sample will be analyzed for BTEX, GRO, DRO, TPH, PAH total aromatics and BaP

Sample Collection Date/Time	TAT Requested		Matrix (S/W)	Sample ID	UVF	GC BTEX	Total Wt.	Tare Wt.	Sample Wt.
	24 Hour	48 Hour							
<i>8/23/18 1046</i>		<i>X</i>	<i>S</i>	<i>S-21</i>			<i>54.6</i>	<i>44.2</i>	<i>10.4</i>
<i>1048</i>		<i>X</i>	<i>S</i>	<i>S-22</i>			<i>55.2</i>	<i>44.4</i>	<i>10.8</i>
<i>1054</i>		<i>X</i>	<i>S</i>	<i>S-23</i>			<i>53.7</i>	<i>43.9</i>	<i>9.8</i>
<i>1056</i>		<i>X</i>	<i>S</i>	<i>S-24</i>			<i>53.8</i>	<i>44.4</i>	<i>9.4</i>
<i>1112</i>		<i>X</i>	<i>S</i>	<i>S-25</i>			<i>54.3</i>	<i>44.1</i>	<i>10.2</i>
<i>1114</i>		<i>X</i>	<i>S</i>	<i>S-26</i>			<i>55.5</i>	<i>44.4</i>	<i>11.1</i>
<i>1320</i>		<i>X</i>	<i>S</i>	<i>S-27</i>			<i>55.7</i>	<i>44.0</i>	<i>11.7</i>
<i>1325</i>		<i>X</i>	<i>S</i>	<i>S-28</i>			<i>54.4</i>	<i>44.4</i>	<i>10.0</i>
<i>1335</i>		<i>X</i>	<i>S</i>	<i>S-29</i>			<i>56.2</i>	<i>44.1</i>	<i>12.1</i>
<i>1341</i>		<i>X</i>	<i>S</i>	<i>S-30</i>			<i>54.7</i>	<i>44.4</i>	<i>10.3</i>
<i>1401</i>		<i>X</i>	<i>S</i>	<i>S-31</i>			<i>55.8</i>	<i>44.0</i>	<i>11.8</i>
<i>1405</i>		<i>X</i>	<i>S</i>	<i>S-32</i>			<i>53.6</i>	<i>44.2</i>	<i>9.4</i>
<i>1432</i>		<i>X</i>	<i>S</i>	<i>S-33</i>			<i>54.8</i>	<i>44.0</i>	<i>10.8</i>
<i>1437</i>		<i>X</i>	<i>S</i>	<i>S-34</i>			<i>56.9</i>	<i>44.5</i>	<i>12.4</i>

Comments:

Relinquished by <i>B.C. Seramur</i>	Date/Time <i>8/23/18 1600</i>	Accepted by <i>UPS</i>	Date/Time
Relinquished by	Date/Time	Accepted by <i>MM</i>	Date/Time <i>8/24</i>

RED Lab USE ONLY

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Appendix C

Documents From NCDEQ Incident Files

State of North Carolina
Department of Environment
and Natural Resources
Asheville Regional Office
Division of Water Quality



James B. Hunt, Jr., Governor
Wayne McDevitt, Secretary
A. Preston Howard, Jr., P.E., Director

Groundwater Section

January 20, 1998

Ms. Pat Parker
3399 Hwy 69
Hayesville, NC 28904

*logged
1/21/98*

SUBJECT: Underground Storage Tank (UST) Closure Report
Parker Brothers
Facility ID#: 0-012476
Clay County

Dear Ms. Parker:

I have reviewed the underground storage tank (UST) closure report for the subject site. The analytical results of soil sampling performed during UST closure activities indicate no detectable concentration levels of petroleum hydrocarbons above the section's soil cleanup standards. Therefore, no further action will be required at this time.

If you have any questions, do not hesitate to contact me at (704) 251-6208.

Sincerely,

Jan Andersen
Jan Andersen
Environmental Engineer

cc: UST Unit-RCO
Enviromark, P. A.

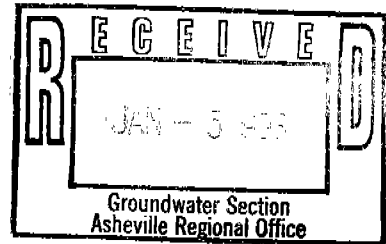
TANK CLOSURE REPORT

PARKER BROTHERS

3399 Hwy 69

Hayesville, Clay County, NC 28904

Enviromark #1300



Prepared By

ENVIROMARK, P.A.

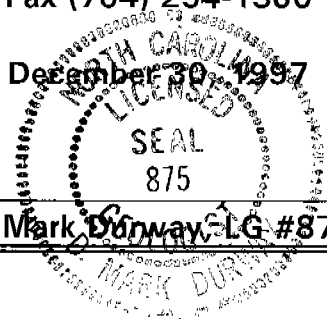
ENVIRONMENTAL SERVICES

108 Coleman Avenue • Asheville, NC 28801

Tel (704) 254-4300

Fax (704) 254-1360

December 30, 1997



D. Mark Durway, LG #875

UNDERGROUND STORAGE TANK CLOSURE REPORT

Parker Brothers

3399 Hwy 69 Hayesville, NC 28904

Removal date: June 1996

I. General Information

A. Ownership of UST(s)

1. Name of UST owner:
Parker Brothers
2. Owner address and telephone number:
3399 Hwy 69
Hayesville, NC 28904
Tel. (704) 389-6436

B. Facility Information

1. Facility name:
Parker Brothers
2. Facility ID #:
0-012476
3. Facility address, telephone number and county:
3399 Hwy 69
Hayesville, Clay Co., NC 28904

C. Contacts

1. Name, address, telephone number and job title of primary contact person:
Pat Parker
3399 Hwy 69
Hayesville, Clay Co., NC 28904
Tel 704-389-6436
2. Name, address and telephone number of closure contractor:
Charlie D. Sims
PO Box 779
Clyde, NC 28721
Tel 704-648-9752
3. Name, address and telephone number of primary consultant:
Enviromark, P.A.
108 Coleman Avenue
Asheville, NC 28801
Tel 704-254-4300
Fax 704-254-1360
4. Name, address, telephone number, and State certification number of laboratory:
Environmental Testing & Consulting, Inc.

2924 Walnut Grove Road
Memphis, TN 38111
(NC Lab Certification #415)
Tel 901-327-2750

D. UST Information

Table of UST Information

Tank no.	Installation date	Size in Gallons	Tank Dimensions	Last Contents	Previous Contents (if any)
T1	1976	2000	64 x 144 inches	gasoline	none

E. Site Characteristics

1. Describe any past releases at this site:
None known
2. Is the facility active or inactive at this time? If the facility is inactive note the last time the USTs were in operation:
Active.
3. Describe surrounding property use (for example, residential, commercial, farming, etc.):
Predominantly farming and residential with the nearest private well being on site. See Appendix G for additional information.
4. Describe site geology/hydrogeology:
Gravel from 0 to 1 ft; dark red clayey silt from 1 to 7 ft; orange-red clayey silt from 7 to 8 ft; yellow, black and orange banded clayey silt from 8 to 9 ft; bedrock and groundwater not encountered.

II. Closure Procedures

- A. Describe preparations for closure including the steps taken to notify authorities, permits obtained and the steps taken to clean and purge the tanks.

Tank removal had previously been performed, but a closure report was apparently never submitted to the state. Field activities by Enviromark personnel included hand augering through the former tank pit and elsewhere where appropriate tank closure samples needed to be collected. Samples and other field data were collected.

- B. Note the amount of residual material pumped from the tank(s):
Performed by a previous contractor during tank removal.
- C. Describe the storage, sampling and disposal of the residual material:

Performed by a previous contractor during tank removal.

D. Excavation

Note: Refer to the "Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater" on limiting excavations. The Trust Fund will not pay for excessive excavation unless it is justified and verified by laboratory results.

1. Describe excavation procedures noting the condition of the soils and the dimensions of the excavation in relation to the tanks, piping and/or pumps:
According to the tank owner, soil was removed directly beneath the tank to a maximum depth of 7 ft during tank removal; this soil appeared to be clean and was placed back into the excavation following tank removal. Approximate excavation dimensions are indicated on Figure 2 of Appendix A.
2. Note the depth of tank burial(s) (from land surface to top of tank):
The tank was covered with approximately 2 ft of soil. Tank bottom, therefore, was about 7 ft below land surface.
3. Quantity of soil removed:
Soil was returned to the excavation following tank removal, according to owner, as soil appeared to be clean.
4. Describe soil type(s):
Tank pit soil consisted of clayey silt.
5. Type and source of backfill used:
EnviroMark personnel observed that tank backfill appeared to be clean, natural material in the area where soil borings were made.

E. Contaminated Soil

Note: Suspected contaminated soil should be segregated from soil that appears to be uncontaminated and should be treated as contaminated until proven otherwise. It should not be used as backfill.

1. Describe how it was determined to what extent to excavate the soil:
The minimum amount of dirt required to remove the tank was excavated.
2. Describe method of temporary storage, sampling and treatment/disposal of soil:
Not applicable; soil was not removed

TANK	VOLUME	DIMENSIONS	CONTENTS
T1	2000	64" x 144"	gasoline

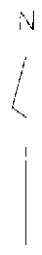
PUBLIC/PRIVATE WELLS — area within 1500 ft radius of site served by private wells, the nearest of which is on site as shown.

NEAREST SURFACE WATER — no perennial surface water bodies exist within a 1500 ft radius, based on the USGS map for the area.

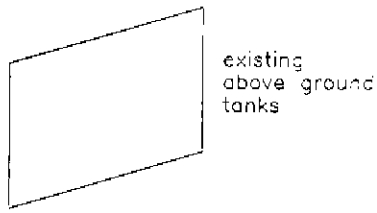
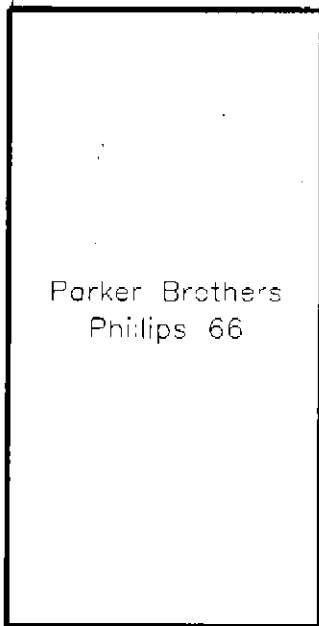
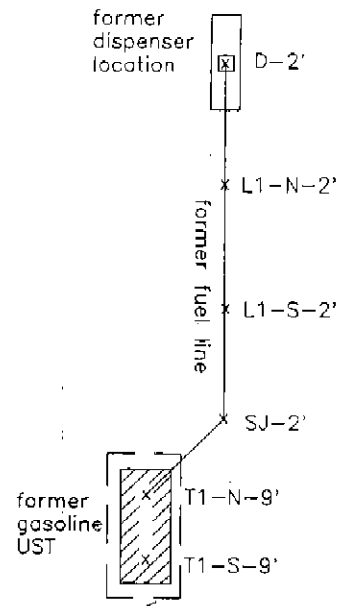
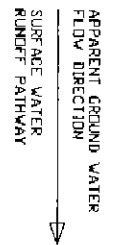
UNDERGROUND UTILITIES — none identified within the immediate vicinity of the former tank, based on visual observation.

Tank removal was conducted by a previous contractor; some of the details shown are approximate and/or based on information provided by the site owner.

nearest well is located on site approximately 85 ft from northwest corner of building



Highway 69



approximate excavation limits; pit depth reportedly 7 ft deep

ENVIROMARK, P.A.
108 Coleman Avenue
Asheville, NC 28801
704-254-4300

Drawn by: dmd
Date: 12-30-97
Job: 1300
File: 1300park.dwg

Legend

- excavation limits (approx.)
- X sample location
- ND not detected
- (<) TPH in mg/kg



Figure 2. Parker Brothers
3399 Hwy 69
Hayesville, Clay County, NC

General site layout, sample locations, water supplies and other information

ANALYTICAL DATA FOR SAMPLES COLLECTED AND ANALYZED FOR TPH (MG/KG)

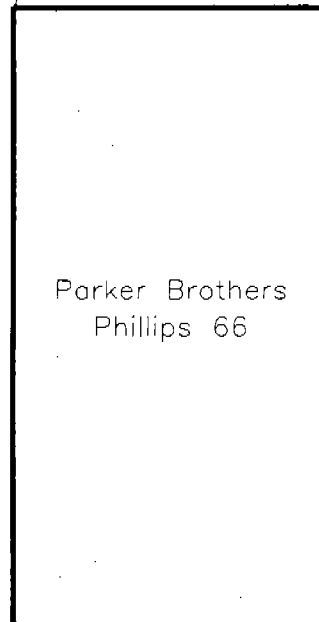
SAMPLE/DEPTH	5030
T1-N-9'	ND
T1-S-9'	ND
SJ-2'	ND
L1-N-2'	ND
L1-S-2'	ND
D-2'	ND

nearest well is located on site approximately 85 ft from northwest corner of building

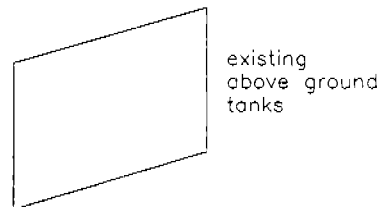
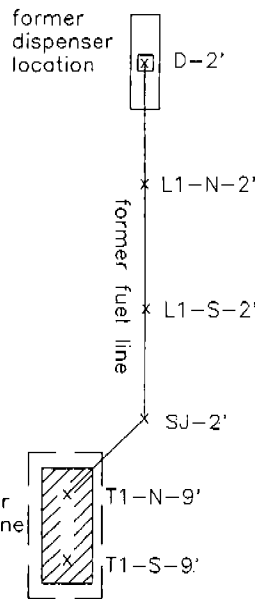


Tank removal was conducted by a previous contractor; some of the details shown are approximate and/or based on information provided by the site owner.

Highway 69



Parker Brothers Phillips 66



existing above ground tanks

approximate excavation limits; pit depth reportedly 7 ft deep

ENVIROMARK, P.A.
108 Coleman Avenue
Asheville, NC 28801
704-254-4300

Drawn by: dmd
Date: 12-30-97
Job: 1300
File: 1300park.dwg

Legend

- excavation limits (approx.)
- X sample location
- ND not detected
- (<) TPH in mg/kg

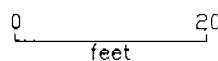


Figure 3. Parker Brothers
3399 Hwy 69
Hayesville, Clay County, NC

Analytical results and other information

B. Tables (the following information is provided on the following page)

1. Field screening results
2. Sample identifications, depths and analyses
3. Sample identifications with results and dates that samples were taken

Sample Location, Analysis, and Screening Table

SAMPLE/ DEPTH	SAMPLE DATE	DESCRIPTION	TPH GR/5030 (mg/kg)
T1-N-9'	12-16-97	Dark red clayey silt grading to an orange-red clayey silt grading to a yellow, black, and orange clayey silt	ND
T1-S-9'	12-16-97	Dark red clayey silt grading to an orange-red clayey silt	ND
SJ-2'	12-16-97	yellow and red silty clay	ND
L1-N-2'	12-16-97	red silty clay	ND
L1-S-2'	12-16-97	red silty clay	ND
D-2'	12-16-97	red silty clay	ND
Detection Limit	-----	-----	10.0

ND = not detected