

**PROJECT SPECIAL PROVISIONS
GEOENVIRONMENTAL**

CONTAMINATED SOIL (12/13/2022)

The Contractor's attention is directed to the fact that soil contaminated with petroleum hydrocarbon compounds exist within the project area. The known areas of contamination are indicated on corresponding plans sheets. Information relating to these contaminated areas, sample locations, and investigation reports will be available at the following web address by navigating to the correct letting year and month then selecting, "Plans and Proposals", "R-5705A", "Individual Sheets/520 GeoEnvironmental":

<http://dotw-xfer01.dot.state.nc.us/dsplan/>

Petroleum contaminated soil may be encountered during any earthwork activities on the project. The Contractor shall only excavate those soils that the Engineer designates necessary to complete a particular task. The Engineer shall determine if soil is contaminated based on areas shown on the plans, petroleum odors, and unusual soil staining. Contaminated soil not required to be excavated is to remain in place and undisturbed. Undisturbed soil shall remain in place, whether contaminated or not. The Contractor shall transport all contaminated soil excavated from the project to a facility licensed to accept contaminated soil.

In the event that a stockpile is needed, the stockpile shall be created within the property boundaries of the source material and in accordance with the Diagram for Temporary Containment and Treatment of Petroleum-Contaminated Soil per North Carolina Department of Environmental Quality's (NCDEQ) Division of Waste Management UST Section GUIDELINES FOR EX SITU PETROLEUM CONTAMINATED SOIL REMEDIATION. If the volume of contaminated material exceeds available space on site, the Contractor shall obtain a permit from the NCDEQ UST Section's Regional Office for off-site temporary storage. The Contractor shall provide copies of disposal manifests completed per the disposal facilities requirements and weigh tickets to the Engineer.

Measurement and Payment:

The quantity of contaminated soil hauled and disposed of shall be the actual number of tons of material, which has been acceptably transported and weighed with certified scales as documented by disposal manifests and weigh tickets. The quantity of contaminated soil, measured as provided above, shall be paid for at the contract unit price per ton for "Hauling and Disposal of Petroleum Contaminated Soil".

The above price and payment shall be full compensation for all work covered by this section, including, but not limited to stockpiling, loading, transportation, weighing, laboratory testing, disposal, equipment, decontamination of equipment, labor, and personal protective equipment.

Payment shall be made under:

Pay Item

Hauling and Disposal of Petroleum Contaminated Soil

Pay Unit

Ton

DocuSigned by:
Ethan J. Caldwell
E9A1CFAC49A24...
12/13/2022



October 25, 2022



North Carolina Department of Transportation
Attention: Mr. John Pilipchuk, LG, PE
GeoEnvironmental Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

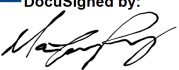
Re: Phase II Preliminary Site Assessment Report
NC 55 from South of SR 1532 to North of NC 210
Parcel 21 - Sherill McLamb Property
2940 Oak Grove Church Road, Angier, Harnett County, North Carolina
TIP No. R-5705A
WBS Element: 46377.1.2

Dear Mr. Pilipchuk:

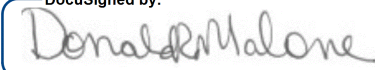
Terracon Consultants, Inc. (Terracon) is pleased to submit this Phase II Preliminary Site Assessment (PSA) Report for the above-referenced site. This assessment was performed in accordance with our *Revised Proposal for GeoEnvironmental Phase II Site Investigations* (Terracon Proposal No. P70207241) dated December 8, 2020 and *Proposal Modification #1 for GeoEnvironmental Phase II Site Investigations* dated September 8, 2022. This report includes the findings of the investigation and provides our conclusions and recommendations. Terracon appreciates the opportunity to provide these services to the North Carolina Department of Transportation. If you have any questions concerning this report or need additional information, please contact us at 919-873-2211.


Sincerely,



DocuSigned by:

5ABC0739D7334DC...

Matthew Perry
Field Scientist

DocuSigned by:

67EB838805B1477...
Donald R. Malone, PE, RSM
Senior Engineering Consultant

DocuSigned by:

076CA5FA770E478...

Ethan C. Dinwiddie, PG
Senior Staff Geologist

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Explore with us

Phase II Preliminary Site Assessment Report

NC 55 from South of SR 1532 to North of NC 210

Parcel 21 - Sherill McLamb Property

2940 Oak Grove Church Road, Angier, Harnett County, North
Carolina

TIP No. R-5705A

WBS Element: 46377.1.2

October 25, 2022

Terracon Project No. 70207241



Prepared for:

North Carolina Department of Transportation
Raleigh, North Carolina

Prepared by:

Terracon Consultants, Inc.
Raleigh, North Carolina

2401 Brentwood Road, Suite 107
Raleigh, NC 27604
P (919) 873-2211



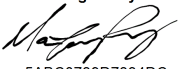
Nationwide
Terracon.com

- Environmental
- Facilities
- Geotechnical
- Materials


Phase II Preliminary Site Assessment Report

NC 55 from South of SR 1532 to North of NC 210
Parcel 21 - Sherill McLamb Property
2940 Oak Grove Church Road, Angier, Harnett County, North
Carolina

TIP No. R-5705A
WBS Element: 46377.1.2
October 25, 2022
Terracon Project No. 70207241


DocuSigned by:

5ABC0739D7334DC...

Matthew Perry
Field Scientist

DocuSigned by:

076CA5FA770E478...

Ethan C. Dinwiddie, PG
Senior Staff Geologist



DocuSigned by:

67EB838805B1477...

Donald R. Malone, PE, RSM
Senior Engineering Consultant

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Explore with us

TABLE OF CONTENTS

Page No.

| | | |
|------------|---|----------|
| 1.0 | INTRODUCTION | 1 |
| 1.1 | Site Description..... | 1 |
| 1.2 | Site History | 1 |
| 1.3 | Scope of Work | 2 |
| 1.4 | Standard of Care..... | 2 |
| 1.5 | Additional Scope Limitations | 2 |
| 1.6 | Reliance..... | 3 |
| 2.0 | FIELD ACTIVITIES..... | 3 |
| 2.1 | Geophysical Survey | 3 |
| 2.2 | Soil Sampling..... | 3 |
| 3.0 | LABORATORY ANALYSES | 4 |
| 4.0 | DATA EVALUATION..... | 5 |
| 4.1 | Soil Analytical Results..... | 5 |
| 5.0 | CONCLUSIONS AND RECOMMENDATIONS..... | 5 |
| 6.0 | REFERENCES | 6 |

EXHIBITS

Exhibit 1 – Topographic Vicinity Map

Exhibit 2 – State of North Carolina, Division of Highways Conventional Plan Sheet Symbols

Exhibit 3 – Boring Locations and Summarized Soil Sample Results

TABLES

Table 1 – Summary of PID Field Screening Values

Table 2 – Summary of Soil Analytical Results

APPENDICES

Appendix A – Geophysical Survey Report

Appendix B – Photographs

Appendix C – Soil Boring Logs

Appendix D – Laboratory Analytical Reports and Chain-of-Custody Records

PHASE II PRELIMINARY SITE ASSESSMENT REPORT

NC 55 FROM SOUTH OF SR 1532 TO NORTH OF NC 210

TIP NO. R-5705A

WBS ELEMENT: 46377.1.2

PARCEL 21 - SHERILL MCLAMB PROPERTY

2940 OAK GROVE CHURCH ROAD, ANGIER, HARNETT COUNTY, NORTH CAROLINA

1.0 INTRODUCTION

1.1 Site Description

| | |
|---------------------------------|--|
| Site Name | Sherill McLamb Property (2940 Oak Grove Church Road, Angier) |
| Site Location/Address | 2940 Oak Grove Church Road, Angier, Harnett County, North Carolina |
| General Site Description | The site consists of an approximate 0.3-acre portion of a 2.00-acre parcel and is developed with an approximate 3,400 square foot building and an approximate 500 square foot mobile home building. The remainder of the site consisted of gravel parking areas and grassed areas. |

1.2 Site History

At the time of the Phase II Preliminary Site Assessment (PSA), Terracon Consultants, Inc. (Terracon) observed at the site an approximate 3,400 square foot building that operated as an apparent service garage and an approximate 500 square foot mobile home building that appeared vacant. The remainder of the site consisted of gravel parking areas and grassed areas. According to a GeoEnvironmental Planning Report dated September 26, 2018, the design of the building suggested it may have been a convenience store/gas station (North Carolina Department of Transportation [NCDOT], 2018). The address was not listed in the North Carolina Department of Environmental Quality (NCDEQ), Division of Waste Management, Underground Storage Tank (UST) section registry. According to available signage and an interview with the site owner, Mr. Sherill McLamb, the site operated as a wrecker service and salvage yard with junk vehicles located throughout the site. At the time of the PSA, Terracon observed a probable former concrete fuel dispenser island north of the larger on-site building but outside of the proposed rights-of-way (ROW). Fuel dispensers were not observed on the concrete island. Additional historical records were not available for review.



1.3 Scope of Work

Terracon conducted the PSA scope of work in accordance with Terracon's Proposal Nos. P70207241 and P70227548 dated December 8, 2020 and September 8, 2022, respectively. This PSA is being completed prior to a planned upgrade to NC 55 from South of SR 1532 (Oak Grove Church Road) to North of NC 210. The scope of work included a geophysical investigation, the screening and collection of soil samples, and preparation of a report documenting our investigation activities. The PSA is not intended to delineate potential impacts. The PSA was performed within the proposed ROW as indicated by NCDOT provided plan sheets.

1.4 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either expressed or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These services were performed in accordance with our *Revised Proposal for GeoEnvironmental Phase II Site Investigations* (Terracon Proposal No. P70207241) dated December 8, 2020 and *Proposal Modification #1 for GeoEnvironmental Phase II Site Investigations* (Terracon Proposal No. P70227548) dated September 8, 2022 and were not necessarily conducted in strict accordance with ASTM E1903-19.

1.5 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, undetectable or not present during these services; thus, we cannot represent that the site is free of hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this PSA. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.6 Reliance

This report has been prepared for the exclusive use of the NCDOT. Authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the expressed written authorization of the client and Terracon.

2.0 FIELD ACTIVITIES

The following PSA activities are presented in the order that they were conducted in the field. **Exhibit 1** presents the topography of the site on a portion of the USGS topographic quadrangles map of Coats, North Carolina, 1997. **Exhibit 2** depicts conventional plan sheet symbols used by the NCDOT, Division of Highways. **Exhibit 3** depicts the site layout and indicates the approximate locations of the site features, soil boring locations, and analytical results.

2.1 Geophysical Survey

On September 22, 2022, Terracon conducted a geophysical investigation at the site to determine if unknown, metallic USTs, or other geophysical anomalies were present beneath the proposed ROW area. The geophysical investigation included an electromagnetic (EM) induction survey using a Geonics EM-31-SH metal detection instrument and a ground penetrating radar (GPR) survey using a Geophysical Survey Systems SIR-4000 unit. In addition to metal detection and GPR scans, NC One Call public utility locator was used to identify several underground utility lines and to clear boring locations.

The geophysical investigation did not identify metallic USTs or other geophysical anomalies beneath the proposed ROW area. Terracon identified a concrete pad outside of the proposed ROW that was probably a former fuel dispenser island based on its location and shape, and the presence of metal pipes protruding from its surface. Fuel dispensers were not present on the concrete island. A copy of the geophysical report is in **Appendix A**. Photographs of the site and relevant site features are in **Appendix B**.

2.2 Soil Sampling

Based on the findings of the geophysical investigation and Terracon's site observations, Terracon oversaw the advancement of eight soil borings (SB-21-01 through SB-21-08) within the proposed NCDOT ROW. The borings were completed by a North Carolina Certified Well Contractor (Quantex, Inc. [Quantex]) using a track-mount Geoprobe® 7822 direct-push drill rig.

Terracon collected soil samples using a 5-foot long, disposable, Macro-Core® sampler tubes to document soil lithology, color, moisture content, and sensory evidence of impacts. Each soil sample was screened for organic vapors using an 11.7 electron volt photoionization detector

(PID). Terracon used the PID data to help select the most appropriate sample intervals for laboratory analysis and to corroborate the laboratory data. PID readings from the borings ranged from less than the instrument detection limit of 0.1 part per million (ppm) to 3.8 ppm. The PID screening values are summarized in **Table 1**.

Terracon directed Quantex to advance each soil boring to a depth of approximately 10 feet bls. Based on the results of the field screening, Terracon collected eight soil samples, one from each boring, from depths between approximately 3 feet and 6 feet bls. Soil samples were generally collected from the unsaturated intervals with the highest PID readings. Samples were placed in laboratory-provided sample containers and shipped to REDLAB, LLC – Environmental Testing (REDLAB) for analysis by Ultraviolet Fluorescence (UVF).

The drilling equipment used at the site was decontaminated prior to use and between the advancement of each boring. Non-dedicated sampling equipment was decontaminated using a Liquinox[®]-water wash followed by a distilled water rinse. Each of the boreholes was backfilled with soil cuttings and bentonite pellets. Backfilling was completed at the surface of each boring with soil. Remaining investigation-derived waste was spread on the site.

Soil generally consisted of medium-grained sand with varying amounts of clay-sized particles. Wet to saturated soils were observed at depths between 4 to 6 feet bls in the majority of the soil borings. The soil boring logs are included in **Appendix C**. Sample locations were measured using a sub-foot Trimble Geo7X GPS unit and are depicted on **Exhibit 3**.

3.0 LABORATORY ANALYSES

Soil samples were submitted to REDLAB for analysis of the following:

- Total petroleum hydrocarbons (C₅-C₃₅) (TPH);
- TPH-gasoline range organics (C₅-C₁₀) (TPH-GRO);
- TPH-diesel range organics (C₁₀-C₃₅) (TPH-DRO);
- Benzene, toluene, ethylbenzene, and xylenes (BTEX);
- Total aromatics (C₁₀-C₃₅);
- 16 EPA Polycyclic Aromatic Hydrocarbons (16 EPA PAHs); and
- Benzo(a)pyrene (BaP).

Appendix D contains the laboratory analytical reports.

4.0 DATA EVALUATION

4.1 Soil Analytical Results

Laboratory analysis identified the following detections above the laboratory reporting limits in soil samples SB-21-01 through SB-21-08:

- TPH-GRO was reported within SB-21-02, SB-21-03, SB-21-06, SB-21-07 and SB-21-08 at concentrations ranging from 0.76 to 6.3 milligram per kilogram (mg/kg), as compared to the NCDEQ Action Level of 50 mg/kg.
- TPH-DRO was reported within SB-21-02, SB-21-03, SB-21-07 and SB-21-08 at concentrations ranging from 13.5 to 45.4 milligram per kilogram (mg/kg) , as compared to the NCDEQ Action Level of 100 mg/kg.
- TPH (C5-C35) was reported within SB-21-02, SB-21-03, SB-21-06, SB-21-07 and SB-21-08 at concentrations ranging from 0.76 to 51.7 mg/kg. NCDEQ does not have an Action Level for TPH (C5-C35).
- Total aromatics (C₁₀-C₃₅) was reported within SB-21-02, SB-21-03, SB-21-07 and SB-21-08 at concentrations ranging from 1.9 to 9.0 mg/kg. NCDEQ does not have an Action Level for Total aromatics (C₁₀-C₃₅).
- 16 EPA PAHs was reported within SB-21-02, SB-21-03 and SB-21-07 at concentrations ranging from 0.34 to 0.48 mg/kg. NCDEQ does not have an Action Level for 16 EPA PAHs.

BTEX (C6 – C9) and BaP were not reported above the laboratory reporting limits in the soil samples.

The concentrations of TPH-GRO and TPH-DRO detected did not exceed NCDEQ Action Levels (50 mg/kg and 100 mg/kg, respectively).

Table 2 summarizes the results of the analyses of the soil samples. **Exhibit 3** depicts the boring locations and detected compounds.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The findings of this investigation are discussed below.

- The geophysical investigation did not identify metallic USTs or other geophysical anomalies beneath the proposed ROW area.

- Laboratory analysis reported concentrations of TPH-GRO, TPH-DRO, TPH (C5 - C35), Total Aromatics (C10 - C35) and 16 EPA PAHs in multiple soil borings at the site. However, the concentrations of TPH-GRO and TPH-DRO did not exceed NCDEQ Action Levels.
- Concentrations of BTEX and BaP were not detected above laboratory reporting limits in the soil borings at the site.
- Terracon does not recommend further environmental investigations in the proposed ROW at this site.

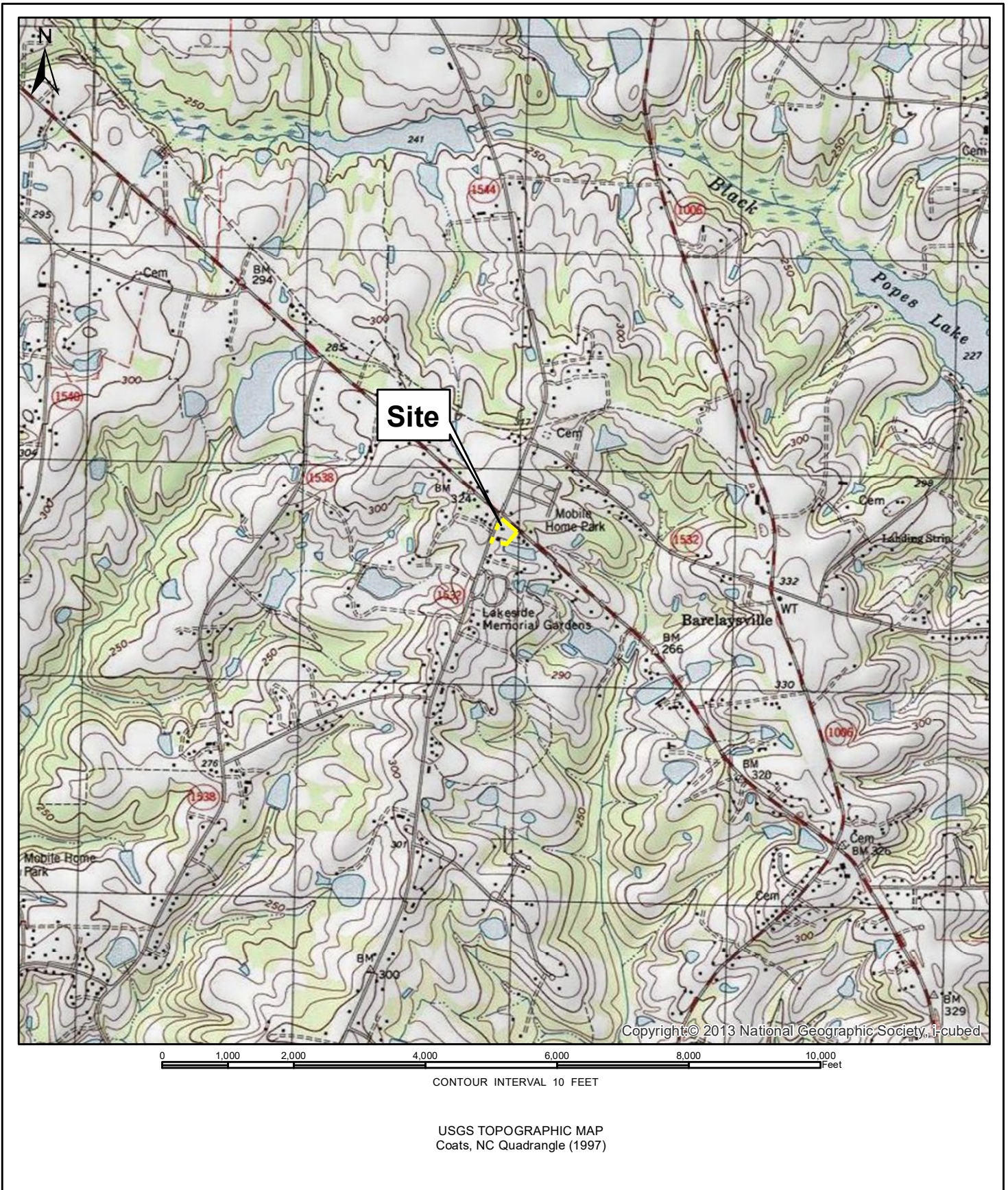
6.0 REFERENCES

North Carolina Department of Environmental Quality, 2021. Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement, May 17.

North Carolina Department of Transportation, 2018. GeoEnvironmental Planning Report. September 26.


Terracon Consultants, Inc., 2020. Revised Proposal for GeoEnvironmental Phase II Site Investigations, NC 55 from South of SR 1532 to North of NC 210. December 8.

EXHIBITS



PM: DRM
 Drawn By: ECD
 Checked By: DRM
 Approved By: DRM

Project No.
70207241
 Scale: 1:24,000
 File Path:
 Date: October 2022



2401 Brentwood Drive, Suite 107 Raleigh, NC 27604
 Phone: (919) 873-2211 Fax: (919) 873-9555

Topographic Vicinity Map

Preliminary Site Assessment
 Parcel 21 - Sherrill McLamb Property
 2940 Oak Grove Church Road
 Angier, Harnett County, North Carolina

EXHIBIT NO.
1

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale *S.U.E. = Subsurface Utility Engineering

BOUNDARIES AND PROPERTY:

| | |
|---------------------------------------|-----------|
| State Line | ----- |
| County Line | ----- |
| Township Line | ----- |
| City Line | ----- |
| Reservation Line | ----- |
| Property Line | ----- |
| Existing Iron Pin | ○ EIP |
| Property Corner | -----> |
| Property Monument | □ EDM |
| Parcel/Sequence Number | ⑫③ |
| Existing Fence Line | -x-x-x- |
| Proposed Woven Wire Fence | ○ |
| Proposed Chain Link Fence | □ |
| Proposed Barbed Wire Fence | ◇ |
| Existing Wetland Boundary | ----- WLB |
| Proposed Wetland Boundary | ----- WLB |
| Existing Endangered Animal Boundary | ----- EAB |
| Existing Endangered Plant Boundary | ----- EPB |
| Existing Historic Property Boundary | ----- HPB |
| Known Contamination Area: Soil | ----- |
| Potential Contamination Area: Soil | ----- |
| Known Contamination Area: Water | ----- |
| Potential Contamination Area: Water | ----- |
| Contaminated Site: Known or Potential | ☠ ? |

BUILDINGS AND OTHER CULTURE:

| | |
|-------------------------------|-----|
| Gas Pump Vent or U/G Tank Cap | ○ |
| Sign | ○ S |
| Well | ○ W |
| Small Mine | ✕ |
| Foundation | □ |
| Area Outline | □ |
| Cemetery | □ |
| Building | □ |
| School | □ |
| Church | □ |
| Dam | □ |

HYDROLOGY:

| | |
|------------------------------------|------------|
| Stream or Body of Water | ----- |
| Hydro, Pool or Reservoir | □ |
| Jurisdictional Stream | ----- JS |
| Buffer Zone 1 | ----- BZ 1 |
| Buffer Zone 2 | ----- BZ 2 |
| Flow Arrow | ← |
| Disappearing Stream | ----- |
| Spring | ○ |
| Wetland | ----- |
| Proposed Lateral, Tail, Head Ditch | ----- FLOW |
| False Sump | ▽ |

RAILROADS:

| | |
|--------------------|----------------------------------|
| Standard Gauge | ----- |
| RR Signal Milepost | ○ CSX TRANSPORTATION MILEPOST 35 |
| Switch | □ SWITCH |
| RR Abandoned | ----- |
| RR Dismantled | ----- |

RIGHT OF WAY:

| | |
|--|-----------|
| Baseline Control Point | ◆ |
| Existing Right of Way Marker | △ |
| Existing Right of Way Line | ----- |
| Proposed Right of Way Line | ----- RW |
| Proposed Right of Way Line with Iron Pin and Cap Marker | △ RW |
| Proposed Right of Way Line with Concrete or Granite R/W Marker | ▲ RW |
| Proposed Control of Access Line with Concrete CA Marker | ○ CA |
| Existing Control of Access | ○ CA |
| Proposed Control of Access | ○ CA |
| Existing Easement Line | ----- E |
| Proposed Temporary Construction Easement | ----- E |
| Proposed Temporary Drainage Easement | ----- TDE |
| Proposed Permanent Drainage Easement | ----- PDE |
| Proposed Permanent Drainage / Utility Easement | ----- DUE |
| Proposed Permanent Utility Easement | ----- PUE |
| Proposed Temporary Utility Easement | ----- TUE |
| Proposed Aerial Utility Easement | ----- AUE |
| Proposed Permanent Easement with Iron Pin and Cap Marker | ◆ |

ROADS AND RELATED FEATURES:

| | |
|----------------------------|---------|
| Existing Edge of Pavement | ----- |
| Existing Curb | ----- |
| Proposed Slope Stakes Cut | ----- C |
| Proposed Slope Stakes Fill | ----- F |
| Proposed Curb Ramp | ○ CR |
| Existing Metal Guardrail | ----- |
| Proposed Guardrail | ----- |
| Existing Cable Guiderail | ----- |
| Proposed Cable Guiderail | ----- |
| Equality Symbol | ⊕ |
| Pavement Removal | ▣ |

VEGETATION:

| | |
|--------------|-------|
| Single Tree | ☼ |
| Single Shrub | ☼ |
| Hedge | ----- |
| Woods Line | ----- |

| | |
|----------|------------|
| Orchard | ☼ ☼ ☼ ☼ |
| Vineyard | □ Vineyard |

EXISTING STRUCTURES:

| | |
|--|-------------|
| MAJOR: | |
| Bridge, Tunnel or Box Culvert | □ CONC |
| Bridge Wing Wall, Head Wall and End Wall | ┌ CONC WW ┐ |
| MINOR: | |
| Head and End Wall | ┌ CONC HW ┐ |
| Pipe Culvert | ----- |
| Footbridge | ----- |
| Drainage Box: Catch Basin, DI or JB | □ CB |
| Paved Ditch Gutter | ----- |
| Storm Sewer Manhole | ○ S |
| Storm Sewer | ----- S |

UTILITIES:

| | |
|--------------------------------|---------|
| POWER: | |
| Existing Power Pole | ● |
| Proposed Power Pole | ○ |
| Existing Joint Use Pole | ● |
| Proposed Joint Use Pole | ○ |
| Power Manhole | ⊕ |
| Power Line Tower | □ |
| Power Transformer | ⊠ |
| U/G Power Cable Hand Hole | ● |
| H-Frame Pole | ● |
| U/G Power Line LOS B (S.U.E.*) | ----- P |
| U/G Power Line LOS C (S.U.E.*) | ----- P |
| U/G Power Line LOS D (S.U.E.*) | ----- P |

TELEPHONE:

| | |
|--|------------|
| Existing Telephone Pole | ● |
| Proposed Telephone Pole | ○ |
| Telephone Manhole | ⊕ |
| Telephone Pedestal | □ |
| Telephone Cell Tower | ⊕ |
| U/G Telephone Cable Hand Hole | ● |
| U/G Telephone Cable LOS B (S.U.E.*) | ----- T |
| U/G Telephone Cable LOS C (S.U.E.*) | ----- T |
| U/G Telephone Cable LOS D (S.U.E.*) | ----- T |
| U/G Telephone Conduit LOS B (S.U.E.*) | ----- TC |
| U/G Telephone Conduit LOS C (S.U.E.*) | ----- TC |
| U/G Telephone Conduit LOS D (S.U.E.*) | ----- TC |
| U/G Fiber Optics Cable LOS B (S.U.E.*) | ----- T FO |
| U/G Fiber Optics Cable LOS C (S.U.E.*) | ----- T FO |
| U/G Fiber Optics Cable LOS D (S.U.E.*) | ----- T FO |

WATER:

| | |
|--------------------------------|-----------------|
| Water Manhole | ⊕ |
| Water Meter | ○ |
| Water Valve | ⊗ |
| Water Hydrant | ⊕ |
| U/G Water Line LOS B (S.U.E.*) | ----- W |
| U/G Water Line LOS C (S.U.E.*) | ----- W |
| U/G Water Line LOS D (S.U.E.*) | ----- W |
| Above Ground Water Line | ----- A/G Water |

TV:

| | |
|---------------------------------------|-------------|
| TV Pedestal | □ |
| TV Tower | ⊗ |
| U/G TV Cable Hand Hole | ● |
| U/G TV Cable LOS B (S.U.E.*) | ----- TV |
| U/G TV Cable LOS C (S.U.E.*) | ----- TV |
| U/G TV Cable LOS D (S.U.E.*) | ----- TV |
| U/G Fiber Optic Cable LOS B (S.U.E.*) | ----- TV FO |
| U/G Fiber Optic Cable LOS C (S.U.E.*) | ----- TV FO |
| U/G Fiber Optic Cable LOS D (S.U.E.*) | ----- TV FO |

GAS:

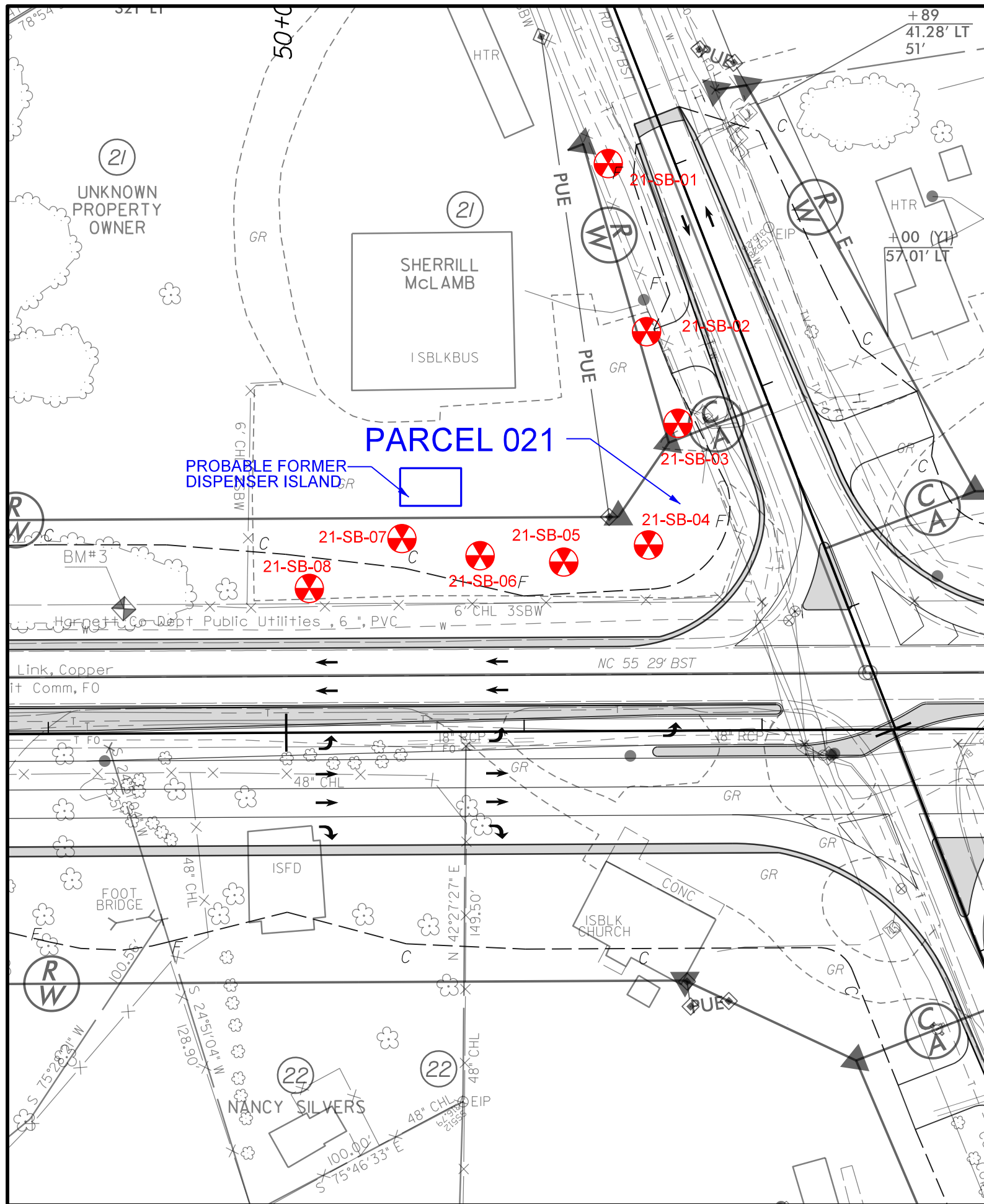
| | |
|------------------------------|---------------|
| Gas Valve | ◇ |
| Gas Meter | ⊕ |
| U/G Gas Line LOS B (S.U.E.*) | ----- G |
| U/G Gas Line LOS C (S.U.E.*) | ----- G |
| U/G Gas Line LOS D (S.U.E.*) | ----- G |
| Above Ground Gas Line | ----- A/G Gas |

SANITARY SEWER:

| | |
|-------------------------------------|--------------------------|
| Sanitary Sewer Manhole | ⊕ |
| Sanitary Sewer Cleanout | ⊕ |
| U/G Sanitary Sewer Line | ----- SS |
| Above Ground Sanitary Sewer | ----- A/G Sanitary Sewer |
| SS Forced Main Line LOS B (S.U.E.*) | ----- FSS |
| SS Forced Main Line LOS C (S.U.E.*) | ----- FSS |
| SS Forced Main Line LOS D (S.U.E.*) | ----- FSS |

MISCELLANEOUS:

| | |
|--|------------|
| Utility Pole | ● |
| Utility Pole with Base | □ |
| Utility Located Object | ○ |
| Utility Traffic Signal Box | ⊕ |
| Utility Unknown U/G Line LOS B (S.U.E.*) | ----- ?UTL |
| U/G Tank; Water, Gas, Oil | □ |
| Underground Storage Tank, Approx. Loc. | ⊕ UST |
| A/G Tank; Water, Gas, Oil | □ |
| Geoenvironmental Boring | ⊕ |
| U/G Test Hole LOS A (S.U.E.*) | ● |
| Abandoned According to Utility Records | AATUR |
| End of Information | E.O.I. |

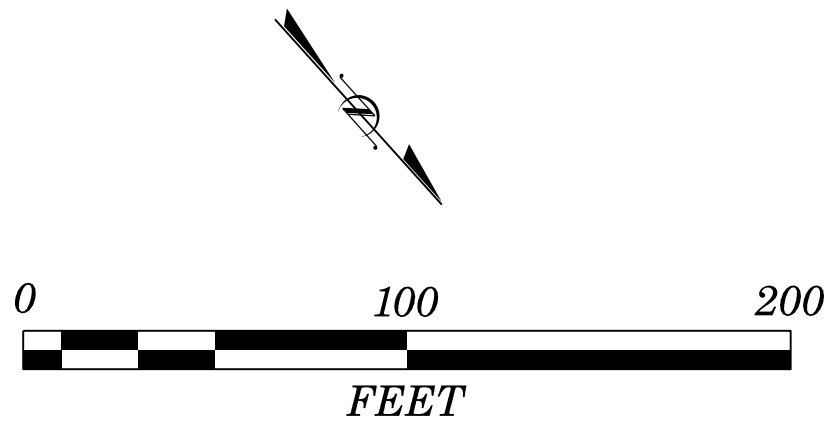


PROJECT DESCRIPTION:
 PARCEL 021
 SHERRILL McLAMB
 2940 OAK GROVE CHURCH ROAD
 ANGIER, HARNETT COUNTY

PROJECT REFERENCE NO. 46377.1.2 (R-5705A)
EXHIBIT 3
BORING LOCATIONS AND SUMMARIZED SOIL SAMPLE RESULTS

| Sample ID | Sample Depth (ft bls) | BTEX (C6 - C9) | GRO (C5 - C10) | DRO (C10 - C35) | TPH (C5 - C35) | Total Aromatics (C10-C35) | 16 EPA PAHs | BaP |
|------------------------------|-----------------------|----------------|----------------|-----------------|----------------|---------------------------|-------------|--------|
| SB-21-01 | (5-6) | <0.39 | <0.39 | <0.39 | <0.39 | <0.08 | <0.13 | <0.016 |
| SB-21-02 | (4-5) | <0.79 | 3.9 | 13.5 | 17.4 | 7.7 | 0.41 | <0.032 |
| SB-21-03 | (3-4) | <1.8 | 2.5 | 15.8 | 18.3 | 9.0 | 0.48 | <0.036 |
| SB-21-04 | (3-4) | <0.3 | <0.3 | <0.3 | <0.3 | <0.06 | <0.1 | <0.012 |
| SB-21-05 | (4-5) | <0.38 | <0.38 | <0.38 | <0.38 | <0.08 | <0.12 | <0.015 |
| SB-21-06 | (4-5) | <0.28 | 0.76 | <0.28 | 0.76 | <0.06 | <0.09 | <0.011 |
| SB-21-07 | (5-6) | <0.7 | 5.8 | 16.3 | 22.1 | 6.1 | 0.34 | <0.028 |
| SB-21-08 | (5-6) | <0.69 | 6.3 | 45.4 | 51.7 | 1.9 | <0.22 | <0.028 |
| NCDEQ Action Level | | NE | 50 | 100 | NE | NE | NE | NE |
| MSCC Industrial / Commercial | | NE | NE | NE | NE | NE | NE | 3.2 |

Notes:
 Soil samples were collected on September 27, 2022.
 Detected compounds are shown in the table.
 Concentrations are reported in milligrams per kilogram (mg/kg).
 Bold: Constituent concentration reported above the method detection limit.
 Detections shaded in gray exceed the applicable North Carolina Department of Environmental Quality (NCDEQ) cleanup standards.
 MSCC Industrial/Commercial - NCDEQ Maximum Soil Contaminant Concentration Levels Industrial/Commercial soil cleanup levels (September 7, 2022)
 ft bls - feet below land surface
 GRO - Gasoline Range Organics
 DRO - Diesel Range Organics
 TPH - Total Petroleum Hydrocarbons
 BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
 16 EPA PAHs - Environmental Protection Agency Polycyclic Aromatic Hydrocarbons (acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[g,h,i]perylene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-c,d]pyrene, naphthalene, phenanthrene, pyrene)
 BaP - benzo(a)pyrene
 NE - Standard not established



TABLES

Table 1
 Summary of PID Field Screening Values
 Phase II Preliminary Site Assessment
 Parcel 21 - Sherill McLamb Property
 2940 Oak Grove Church Road, Angier, Harnett County, North Carolina
 Terracon Project No. 70207241

| Boring Depth (feet bls) | SB-21-01 | SB-21-02 | SB-21-03 | SB-21-04 | SB-21-05 | SB-21-06 | SB-21-07 | SB-21-08 |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| (0 - 2) | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| (2 - 4) | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| (4 - 6) | <0.1 | <0.1 | <0.1 | 2.3 | <0.1 | <0.1 | <0.1 | <0.1 |
| (6 - 8) | <0.1 | <0.1 | <0.1 | 3.0 | 3.6 | 1.4 | <0.1 | <0.1 |
| (8 - 10) | <0.1 | <0.1 | <0.1 | 2.7 | 3.8 | 2.3 | <0.1 | <0.1 |

Notes:

Field screening was conducted on September 27, 2022

Values shown are given in parts per million (ppm)

PID - Photo-ionization detector

PID was calibrated using 100 ppm isobutylene gas

ft bls - feet below land surface.

Table 2
 Summary of Soil Analytical Results
 Phase II Preliminary Site Assessment
 Parcel 21 - Sherill McLamb Property
 2940 Oak Grove Church Road, Angier, Harnett County, North Carolina
 Terracon Project No. 70207241

| Sample ID: Sample Depth (ft bls): | SB-21-01 (5-6) | SB-21-02 (4-5) | SB-21-03 (3-4) | SB-21-04 (3-4) | SB-21-05 (4-5) | SB-21-06 (4-5) | SB-21-07 (5-6) | SB-21-08 (5-6) | NCDEQ Action Level | MSCC Industrial / Commercial |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|---------------------------------|
| BTEX (C6 - C9) | <0.39 | <0.79 | <1.8 | <0.3 | <0.38 | <0.28 | <0.7 | <0.69 | NE | NE |
| GRO (C5 - C10) | <0.39 | 3.9 | 2.5 | <0.3 | <0.38 | 0.76 | 5.8 | 6.3 | 50 | NE |
| DRO (C10 - C35) | <0.39 | 13.5 | 15.8 | <0.3 | <0.38 | <0.28 | 16.3 | 45.4 | 100 | NE |
| TPH (C5 - C35) | <0.39 | 17.4 | 18.3 | <0.3 | <0.38 | 0.76 | 22.1 | 51.7 | NE | NE |
| Total Aromatics (C10-C35) | <0.08 | 7.7 | 9.0 | <0.06 | <0.08 | <0.06 | 6.1 | 1.9 | NE | NE |
| 16 EPA PAHs | <0.13 | 0.41 | 0.48 | <0.1 | <0.12 | <0.09 | 0.34 | <0.22 | NE | NE |
| BaP | <0.016 | <0.032 | <0.036 | <0.012 | <0.015 | <0.011 | <0.028 | <0.028 | NE | 3.2 |

Notes:

Soil samples were collected on September 27, 2022.

Concentrations are reported in milligrams per kilogram (mg/kg).

Bold: Constituent concentration reported above the method detection limit.

Detections shaded in gray exceed the applicable North Carolina Department of Environmental Quality (NCDEQ) cleanup standards.

MSCC Industrial/Commercial - NCDEQ Maximum Soil Contaminant Concentration Levels Industrial/Commercial soil cleanup levels (September 7, 2022)

ft bls - feet below land surface

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

TPH - Total Petroleum Hydrocarbons

16 EPA PAHs - Environmental Protection Agency Polycyclic Aromatic Hydrocarbons (acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[g,h,i]perylene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-c,d]pyrene, naphthalene, phenanthrene, pyrene)

BaP - benzo(a)pyrene

NE - Standard not established

APPENDIX A
GEOPHYSICAL SURVEY REPORT



October 24, 2022

North Carolina Department of Transportation
Attention: Mr. John Pilipchuk, LG, PE
GeoEnvironmental Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

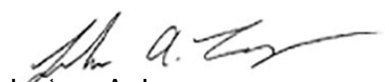
Re: Phase II Preliminary Site Assessment Report
Locate USTs and Utilities using Geophysical Methods
Parcel 21 - Sherill McLamb Property
2940 Oak Grove Church Road, Angier, Harnett County, North Carolina
TIP No. R-5705A
WBS Element: 46377.1.2


Dear Mr. Pilipchuk:

On September 22, 2021, representatives of Terracon Consultants, Inc. (Terracon) performed geophysical exploration services at the above referenced site in general accordance with our *Revised Proposal for GeoEnvironmental Phase II Site Investigations* (Terracon Proposal No. P70207241) dated December 8, 2020 and *Proposal Modification #1 for GeoEnvironmental Phase II Site Investigations* dated September 8, 2022. This report is presented as a summary of those geophysical services.

Sincerely,




Joshua A. Lopez
Geophysical Group Manager


James (Jim) D. Hoskins, III, P.E.
Sr. Principal / Office Manager

7327 W. Friendly Ave.
Greensboro, North Carolina 27410
P (336) 854-8135
Terracon.com

Explore with us

**PHASE II PRELIMINARY SITE ASSESSMENT REPORT
 LOCATE USTS AND UTILITIES USING GEOPHYSICAL METHODS
 NC 55 FROM SOUTH OF SR 1532 TO NORTH OF NC 210**

TIP NO. R-5705A

WBS ELEMENT: 46377.1.2

PARCEL 21 - SHERILL MCLAMB PROPERTY

2940 OAK GROVE CHURCH ROAD, ANGIER, HARNETT COUNTY, NORTH CAROLINA

1.0 PROJECT DESCRIPTION

Based on the Request for Proposal (RFP) from the North Carolina Department of Transportation (NCDOT), a Phase II Preliminary Site Assessment (PSA) was requested for Parcel #21 – Sherill McLamp Property, 2940 Oak Grove Church Road, Angier, North Carolina. The project consisted of the exploration of an approximate 200-foot by 50-foot area along Highway 55 and an approximate 180-foot by 30-foot area along Oak Grove Church Road (entire area, not just along the roadways). The purpose of the geophysical exploration was to aid in identifying anomalies consistent with Underground Storage Tanks (USTs) utilizing non-intrusive geophysical methods.

Terracon attempted to define the findings from this survey according to the following NCDOT standard terms:

Geophysical Surveys for Underground Storage Tanks on NCDOT Projects

| High Confidence | Intermediate Confidence | Low Confidence | No Confidence |
|--|--|---|---|
| Known UST Active tank - spatial location, orientation, and approximate depth determined by geophysics. | Probable UST Sufficient geophysical data from both magnetic and radar surveys that is characteristic of a tank. Interpretation may be supported by physical evidence such as fill/vent pipe, metal cover plate, asphalt/concrete patch, etc. | Possible UST Sufficient geophysical data from either magnetic or radar surveys that is characteristic of a tank. Additional data is not sufficient enough to confirm or deny the presence of a UST. | Anomaly noted but not characteristic of a UST. Should be noted in the text and may be called out in the figures at the geophysicist's discretion. |

2.0 EXPLORATION METHODS

Terracon used a frequency domain electromagnetic profiler (EM) consisting of a Geonics EM-31-Short system with data logger to collect EM data. In general, field data collection followed the procedures referenced in ASTM D6639. More information on both the general method and collection procedures can be found in the referenced standard. EM collects soil conductivity in millisiemens per meter (mS/m) and magnetic susceptibility in parts per trillion (ppt). Data was collected on a bi-directional grid at approximately 5-foot spacings in both directions. However, the EM-31 uses a sub-meter GPS system to accurately plot data points of collection, therefore the grid was approximate. Data was post-processed utilizing Trackmaker 31 software engineered by Geomar and Surfer software developed by Golden Software.

Additionally, a Ground Penetrating Radar (GPR) system consisting of a 350 MHz antenna and SIR-4000 system made by Geophysical Survey Systems Inc. (GSSI), was utilized to collect GPR

data. Data was collected on a bi-directional grid with spacings of approximately 5 feet in both directions. Following the completion of field data collection, data was post-processed utilizing RADAN software engineered by GSSI. While collecting data, if USTs were observed, we marked them in the field.

3.0 FINDINGS

Terracon reviewed the EM and GPR data collected. Anomalies identified are classified as “No Confidence” and likely due to interference from multiple underground utilities and above-ground structures and debris. Anomalies consistent with possible USTs were not identified in the EM data. In general, soil conductivity measurements between -6 to 10 mS/m and magnetic susceptibility measurements between -2 to 1.5 ppt were considered “background”. Measurements outside of these ranges were interpreted to be caused by above or below ground anomalies. The depth of EM signal penetration is approximately 9 feet below the existing grade; however, the actual depth is not produced from the data collected.

Upon review of the GPR data, anomalies consistent with possible USTs were not identified on the site. The depth of GPR signal penetration across the site was approximately 7 feet below the existing grade. Some areas of the site were inaccessible due to above ground obstructions caused by immovable vehicles. Complete results of our findings can be found in the attached Exhibits.

4.0 LIMITATIONS

It should be noted that, as with any geophysical testing method, the processes rely on instrument signals to indicate physical conditions in the field. Signal information can be affected by on-site conditions beyond the control of the operator, such as, but not limited to, ground surface cover, concrete/soil types, concrete/soil moisture, groundwater table depth, and/or reinforcing steel spacing. Some conditions encountered on the site that may have affected signal information include the following:

- Immovable vehicles
- Large metallic debris at the surface
- A metal chain link fence

Interpretation of GPR signals is based on a combination of known factors combined with the experience of the operator and geophysicist evaluating the results. Additionally, GPR may not be able to identify the diameter of an object such as a pipe or UST. Utilizing conventional observation, sampling, and testing (“truthing”) of select areas is recommended to confirm the results from the geophysical surveys. As with all geophysical methods, the geophysical results provide a level of confidence, but should not be considered absolute. We cannot be responsible for the interpretation of geophysical results by others.

Site Location

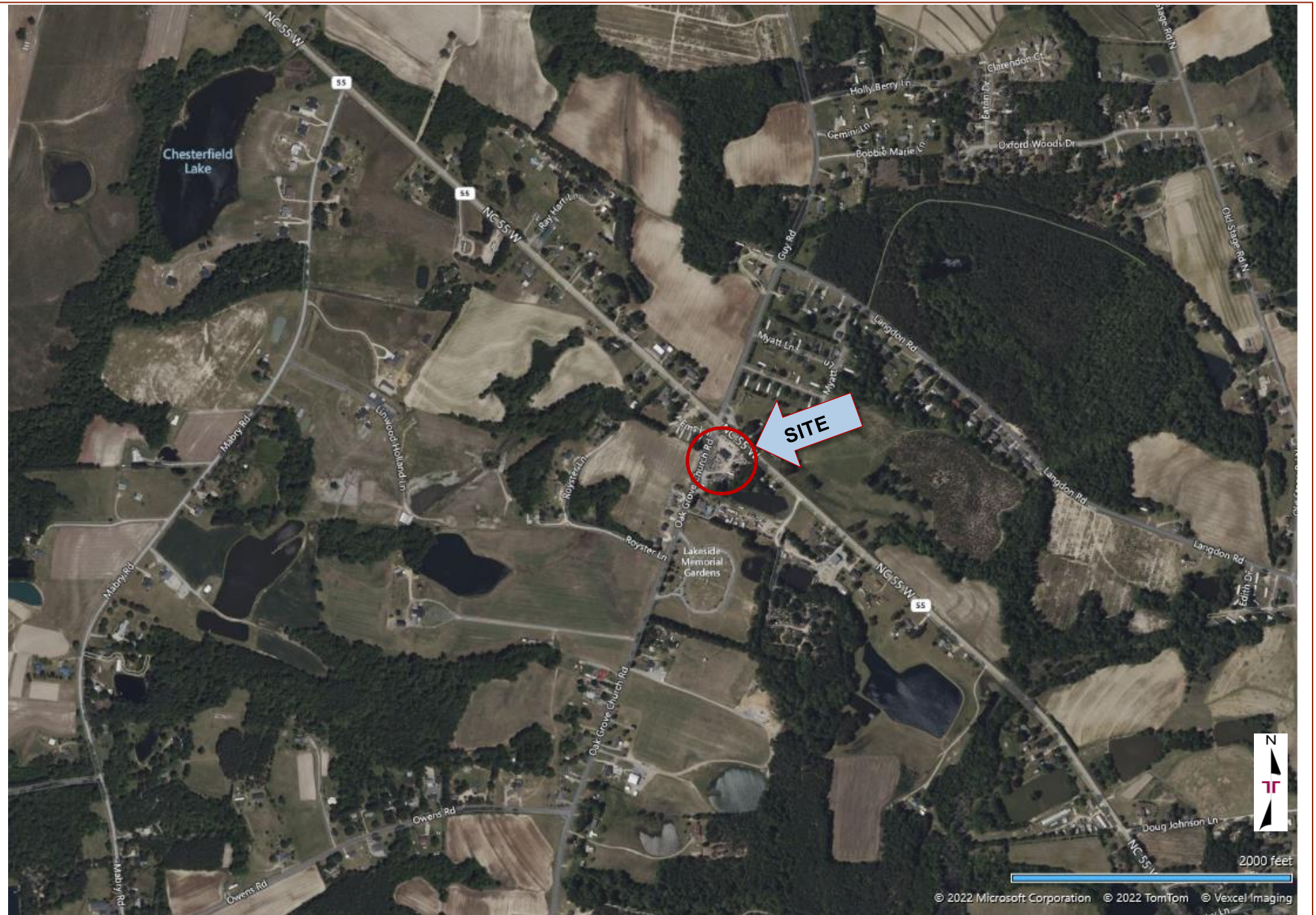


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Figure No.: 1

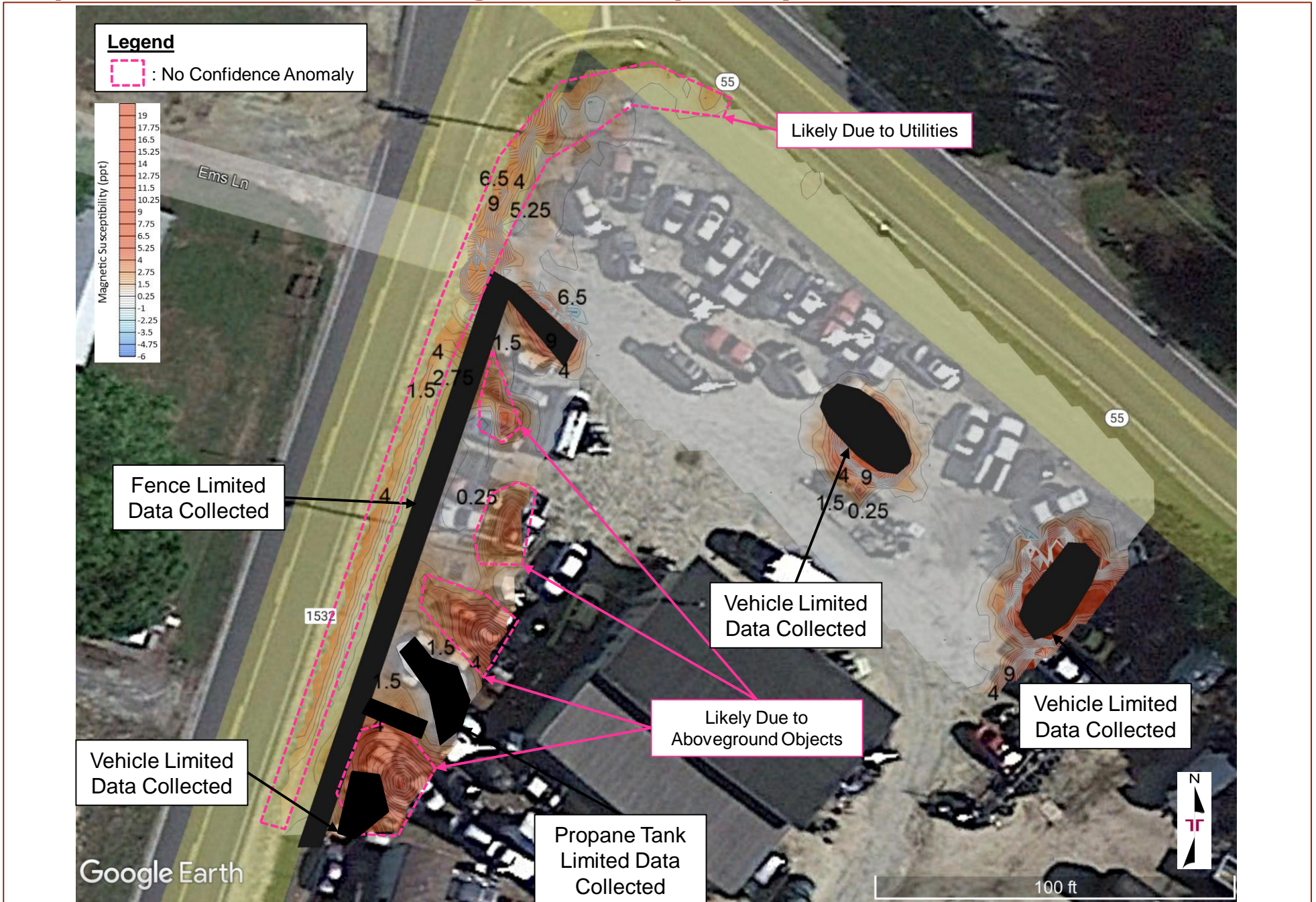
Exploration Plan



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Figure No.: 2

Exploration Results – EM Magnetic Susceptibility



Exploration Results – EM Soil Conductivity

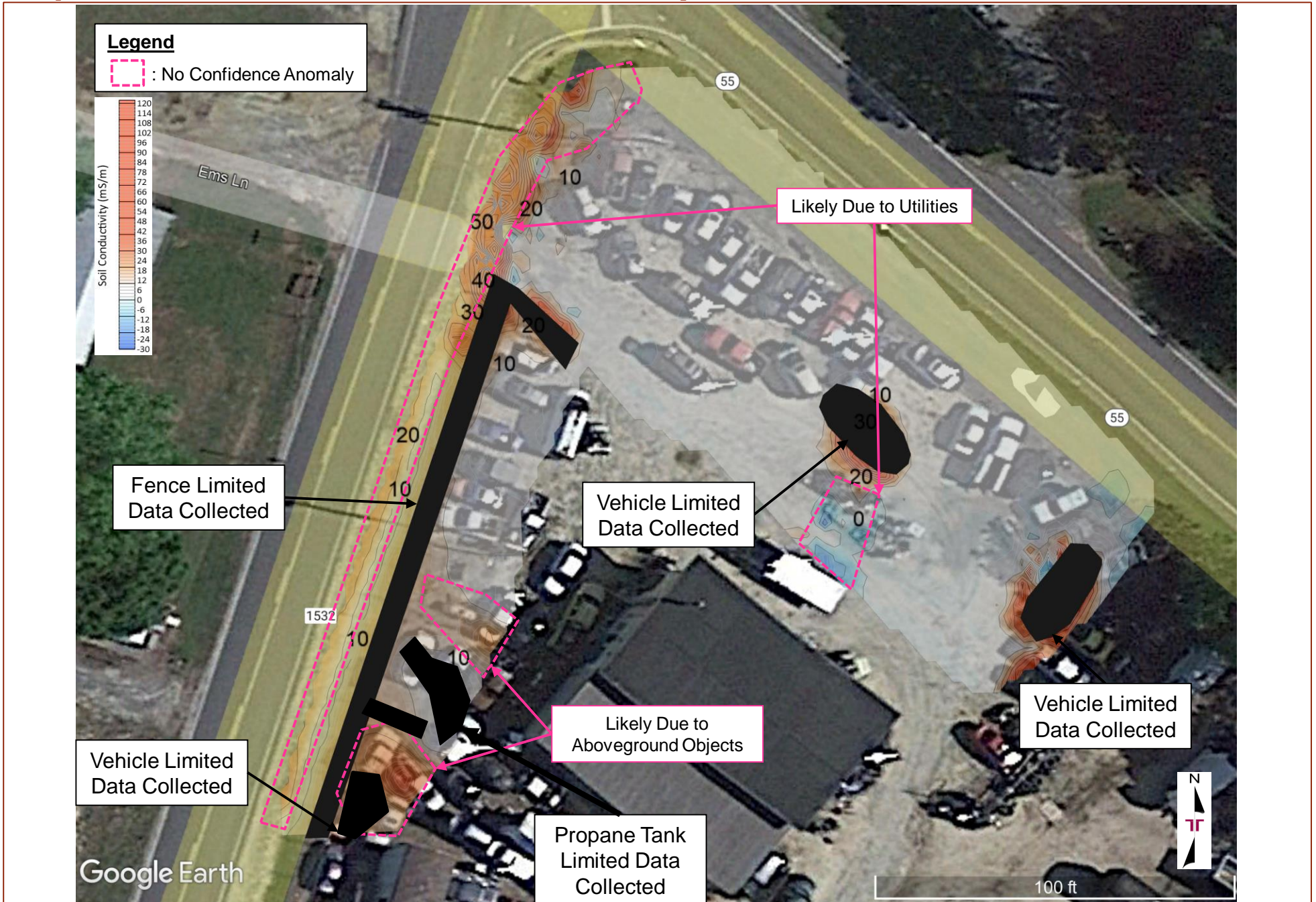


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Figure No.: 4

**APPENDIX B
PHOTOGRAPHS**



Photo 1 View of the site; facing southwest.



Photo 2 View of the site; facing south.



Photo 3 View of SB-21-01; facing northeast.



Photo 4 View of SB-21-02; facing southwest.



Photo 5 View of SB-21-03; facing north.



Photo 6 View of SB-21-04; facing north.



Photo 7 View of SB-21-05; facing east.



Photo 8 View of SB-21-06; facing southeast.



Photo 9 View of SB-21-07; facing south.



Photo 10 View of SB-21-08; facing southeast.



Photo 11 View of Quantex advancing soil boring; facing north.



Photo 12 View of Quantex advancing soil boring; facing east.

APPENDIX C
SOIL BORING LOGS

BORING LOG NO. SB-21-01

PROJECT: Phase II Preliminary Site Assessment - Parcel 21

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: 2940 Oak Grove Church Road
Angier, NC**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|--|------------|--------------------------|-------------|---------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | |
| 2.0 | SILTY SAND (SM) , light brown, odor and staining not observed, dry | | | | <0.1 | |
| 10.0 | SANDY CLAY (CL) , light brown and dark brown, odor and staining not observed, moist | 5 | | Grab | <0.1 | SB-21-01 (5-6) TPH via QED UVF |
| 10.0 | Boring Terminated at 10 Feet | 10 | | | <0.1 | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

| | | | |
|--|---|---|---|
| Advancement Method: DPT | | Notes: PID: Photoionization detector TPH: Total petroleum hydrocarbons UVF: Ultraviolet fluorescence | |
| Abandonment Method: Boring backfilled with soil cuttings and bentonite chips upon completion. | | | |
| WATER LEVEL OBSERVATIONS Depth to water not measured |  2401 Brentwood Rd Ste 107 Raleigh, NC | Boring Started: 09-27-2022 Drill Rig: Geoprobe 7822 Project No.: 70207241 | Boring Completed: 09-27-2022 Driller: Quantex Logged by: M. Perry |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_PARCEL 21 LOGS.GPJ TERRACON.DATATEMPLATE.GDT 10/13/22

BORING LOG NO. SB-21-02

PROJECT: Phase II Preliminary Site Assessment - Parcel 21

CLIENT: NCDOT
Raleigh, North Carolina

SITE: 2940 Oak Grove Church Road
Angier, NC

| GRAPHIC LOG | LOCATION | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|---|------------|--------------------------|-------------|---------------|--------------------------------|
| | See Exhibit 3 | | | | | |
| DEPTH | MATERIAL DESCRIPTION | | | | | |
| 0.0 | SAND (SP) , medium grained, light brown and yellow, odor and staining not observed, moist | | | | <0.1 | |
| 5.0 | CLAYEY SAND (SC) , medium grained, light brown and yellow, odor and staining not observed, saturated | 5 | | Grab | <0.1 | SB-21-02 (4-5) TPH via QED UVF |
| 10.0 | Boring Terminated at 10 Feet | 10 | | | <0.1 | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
DPT

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

WATER LEVEL OBSERVATIONS
Depth to water not measured

Notes:
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence



Boring Started: 09-27-2022
Drill Rig: Geoprobe 7822
Project No.: 70207241

Boring Completed: 09-27-2022
Driller: Quantex
Logged by: M. Perry

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG. 70207241_PARCEL 21 LOGS.GPJ TERRACON_DATATEMPLATE.GDT_10/13/22

BORING LOG NO. SB-21-03

PROJECT: Phase II Preliminary Site Assessment - Parcel 21

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: 2940 Oak Grove Church Road
Angier, NC**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|---|------------|--------------------------|-------------|---------------|---|
| DEPTH | MATERIAL DESCRIPTION | | | | | |
| 0.0 | SAND (SP) , medium grained, light brown and tan, odor and staining not observed, moist | | | | <0.1 | |
| 5.0 | CLAYEY SAND (SC) , light brown and tan, odor and staining not observed, saturated | 5 | | Grab | <0.1 | SB-21-03 (3-4) TPH via QED UVF |
| 10.0 | Boring Terminated at 10 Feet | 10 | | | <0.1 | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
DPT

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

WATER LEVEL OBSERVATIONS
Depth to water not measured

Notes:
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence



Boring Started: 09-27-2022

Boring Completed: 09-27-2022

Drill Rig: Geoprobe 7822

Driller: Quantex

Project No.: 70207241

Logged by: M. Perry

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_PARCEL 21 LOGS.GPJ TERRACON_DATATEMPLATE.GDT 10/13/22

BORING LOG NO. SB-21-04

PROJECT: Phase II Preliminary Site Assessment - Parcel 21

CLIENT: NCDOT
Raleigh, North Carolina

SITE: 2940 Oak Grove Church Road
Angier, NC

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|--|------------|--------------------------|-------------|---------------|--------------------------------|
| DEPTH | MATERIAL DESCRIPTION | | | | | |
| 0.0 | SAND (SP) , medium grained, light brown, odor and staining not observed, moist | | | | <0.1 | |
| 4.0 | CLAYEY SAND (SC) , medium grained, light brown, slight petroleum odor observed, saturated | | | Grab | <0.1 | SB-21-04 (3-4) TPH via QED UVF |
| | | 5 | | | 2.3 | |
| | | | | | 3.0 | |
| | | | | | 2.7 | |
| 10.0 | Boring Terminated at 10 Feet | 10 | | | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
DPT

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

WATER LEVEL OBSERVATIONS
Depth to water not measured

Notes:
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence



Boring Started: 09-27-2022

Boring Completed: 09-27-2022

Drill Rig: Geoprobe 7822

Driller: Quantex

Project No.: 70207241

Logged by: M. Perry

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_PARCEL 21 LOGS.GPJ TERRACON_DATATEMPLATE.GDT 10/13/22

BORING LOG NO. SB-21-05

PROJECT: Phase II Preliminary Site Assessment - Parcel 21

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: 2940 Oak Grove Church Road
Angier, NC**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|---|------------|--------------------------|-------------|---------------|--------------------------------|
| DEPTH | MATERIAL DESCRIPTION | | | | | |
| 0.0 | SAND (SP) , medium grained, light brown, odor and staining not observed, moist | | | | <0.1 | |
| 5.0 | CLAYEY SAND (SC) , medium grained, light brown and tan, odor and staining not observed, saturated | 5 | | Grab | <0.1 | SB-21-05 (4-5) TPH via QED UVF |
| 6.0 | CLAYEY SAND (SC) , medium grained, light brown and gray, slight petroleum odor and light gray staining observed, saturated | | | | 3.6 | |
| 10.0 | Boring Terminated at 10 Feet | 10 | | | 3.8 | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
DPT

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

WATER LEVEL OBSERVATIONS
Depth to water not measured

Notes:
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence



Boring Started: 09-27-2022
Drill Rig: Geoprobe 7822
Project No.: 70207241

Boring Completed: 09-27-2022
Driller: Quantex
Logged by: M. Perry

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_PARCEL 21 LOGS.GPJ TERRACON_DATATEMPLATE.GDT 10/13/22

BORING LOG NO. SB-21-06

PROJECT: Phase II Preliminary Site Assessment - Parcel 21

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: 2940 Oak Grove Church Road
Angier, NC**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|--|------------|--------------------------|-------------|---------------|---|
| DEPTH | MATERIAL DESCRIPTION | | | | | |
| 0.0 | SAND (SP) , medium grained, light brown and tan, odor and staining not observed, moist | | | | <0.1 | |
| 5.0 | CLAYEY SAND (SC) , medium grained, light brown and tan, odor and staining not observed, saturated | 5 | | Grab | <0.1 | SB-21-06 (4-5) TPH via QED UVF |
| 7.0 | CLAYEY SAND (SC) , medium grained, light gray, slight petroleum odor observed, saturated | | | 1.4 | | |
| 10.0 | Boring Terminated at 10 Feet | 10 | | 2.3 | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
DPT

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

WATER LEVEL OBSERVATIONS
Depth to water not measured

Notes:
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence



Boring Started: 09-27-2022

Boring Completed: 09-27-2022

Drill Rig: Geoprobe 7822

Driller: Quantex

Project No.: 70207241

Logged by: M. Perry

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_PARCEL 21 LOGS.GPJ TERRACON_DATATEMPLATE.GDT 10/13/22

BORING LOG NO. SB-21-07

PROJECT: Phase II Preliminary Site Assessment - Parcel 21

CLIENT: NCDOT
Raleigh, North Carolina

SITE: 2940 Oak Grove Church Road
Angier, NC

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|---|------------|--------------------------|-------------|---------------|--------------------------------|
| DEPTH | MATERIAL DESCRIPTION | | | | | |
| 10.0 | CLAYEY SAND (SC) , medium grained, light brown and tan, odor and staining not observed, moist to saturated at 6 feet bls | 5 | | Grab | <0.1 | SB-21-07 (5-6) TPH via QED UVF |
| | | 10 | | | <0.1 | |
| | Boring Terminated at 10 Feet | | | | <0.1 | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
DPT

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

WATER LEVEL OBSERVATIONS
Depth to water not measured

Notes:
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence



Boring Started: 09-27-2022
Drill Rig: Geoprobe 7822
Project No.: 70207241

Boring Completed: 09-27-2022
Driller: Quantex
Logged by: M. Perry

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG_70207241_PARCEL 21 LOGS.GPJ TERRACON_DATATEMPLATE.GDT_10/13/22

BORING LOG NO. SB-21-08

PROJECT: Phase II Preliminary Site Assessment - Parcel 21

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: 2940 Oak Grove Church Road
Angier, NC**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|---|------------|--------------------------|-------------|---------------|--------------------------------|
| DEPTH | MATERIAL DESCRIPTION | | | | | |
| 10.0 | CLAYEY SAND (SC) , medium grained, light brown, odor and staining not observed, moist to saturated at 6 feet bls | 5 | | Grab | <0.1 | SB-21-08 (5-6) TPH via QED UVF |
| | | 10 | | | <0.1 | |
| | Boring Terminated at 10 Feet | | | | <0.1 | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
DPT

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

WATER LEVEL OBSERVATIONS
Depth to water not measured



2401 Brentwood Rd Ste 107
Raleigh, NC

Notes:
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

| | |
|----------------------------|------------------------------|
| Boring Started: 09-27-2022 | Boring Completed: 09-27-2022 |
| Drill Rig: Geoprobe 7822 | Driller: Quantex |
| Project No.: 70207241 | Logged by: M. Perry |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG_70207241_PARCEL 21 LOGS.GPJ TERRACON_DATATEMPLATE.GDT_10/13/22

APPENDIX D
LABORATORY ANALYTICAL REPORTS AND
CHAIN-OF-CUSTODY RECORDS



Hydrocarbon Analysis Results

Client: TERRACON
Address: 2401 BRENTWOOD
 RALEIGH, NC 27604

Samples taken
Samples extracted
Samples analysed

Tuesday, September 27, 2022
 Tuesday, September 27, 2022
 Wednesday, September 28, 2022

Contact: ETHAN DINWIDDIE

Operator

CLAIRE NAKAMURA

Project: # 70207241

U04049

| 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 | SB-21-01 (5-6) | 15.6 | <0.39 | <0.39 | <0.39 | <0.39 | <0.08 | <0.13 | <0.016 | 0 | 0 | 100 | PHC not detected,(BO),(P) |
| s | SB-21-02 (4-5) | 31.7 | <0.79 | 3.9 | 13.5 | 17.4 | 7.7 | 0.41 | <0.032 | 43.8 | 48.1 | 8.1 | Deg Fuel 84%,(FCM) |
| s | SB-21-03 (3-4) | 35.6 | <1.8 | 2.5 | 15.8 | 18.3 | 9 | 0.48 | <0.036 | 29.9 | 60 | 10.1 | Deg Fuel 84.2%,(FCM) |
| s | SB-21-04 (3-4) | 12.2 | <0.3 | <0.3 | <0.3 | <0.3 | <0.06 | <0.1 | <0.012 | 0 | 0 | 100 | ,(FCM),(BO),(P) |
| s | SB-21-05 (4-5) | 15.4 | <0.38 | <0.38 | <0.38 | <0.38 | <0.08 | <0.12 | <0.015 | 0 | 0 | 0 | Residual HC,(BO) |
| s | SB-21-06 (4-5) | 11.1 | <0.28 | 0.76 | <0.28 | 0.76 | <0.06 | <0.09 | <0.011 | 95.7 | 2.3 | 1.9 | V.Deg.PHC 73.4%,(FCM) |
| s | SB-21-07 (5-6) | 28.0 | <0.7 | 5.8 | 16.3 | 22.1 | 6.1 | 0.34 | <0.028 | 60.1 | 34.2 | 5.8 | Deg.PHC 83.4%,(FCM) |
| s | SB-21-08 (5-6) | 27.7 | <0.69 | 6.3 | 45.4 | 51.7 | 1.9 | <0.22 | <0.028 | 89.9 | 8.1 | 2 | Waste Oil 56.3%,(FCM) |

Initial Calibrator QC check **OK**

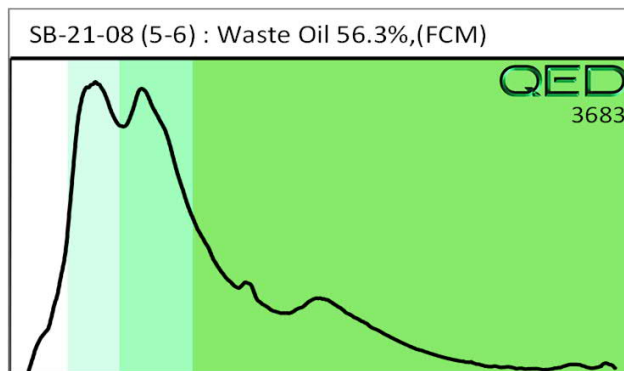
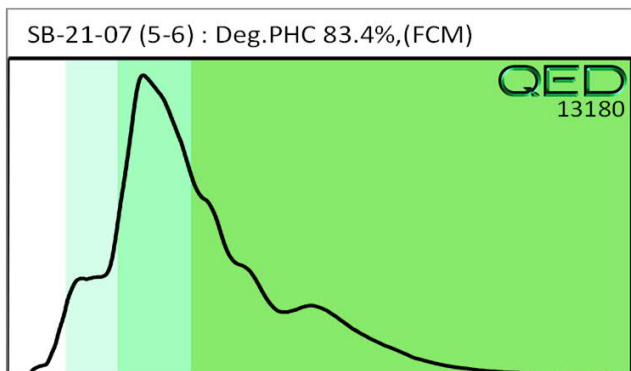
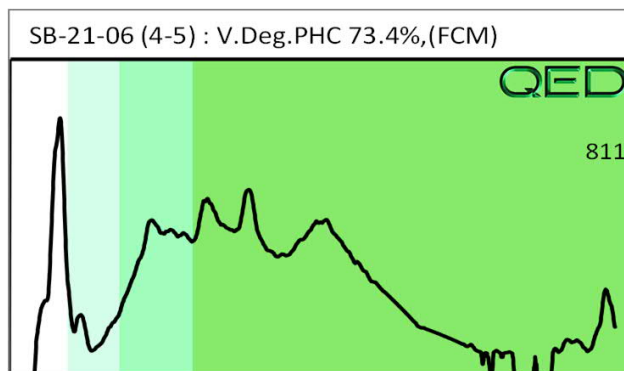
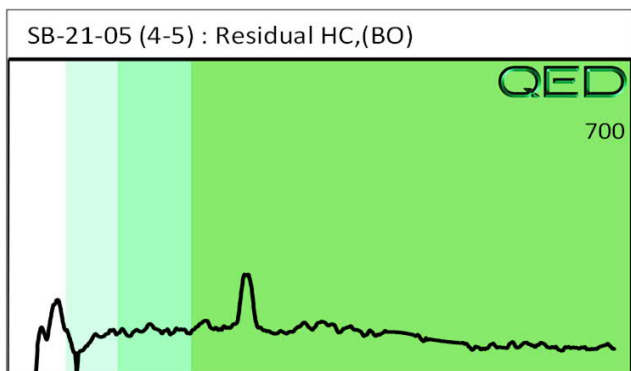
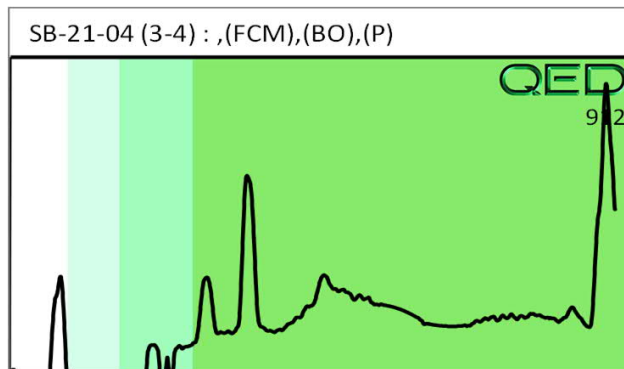
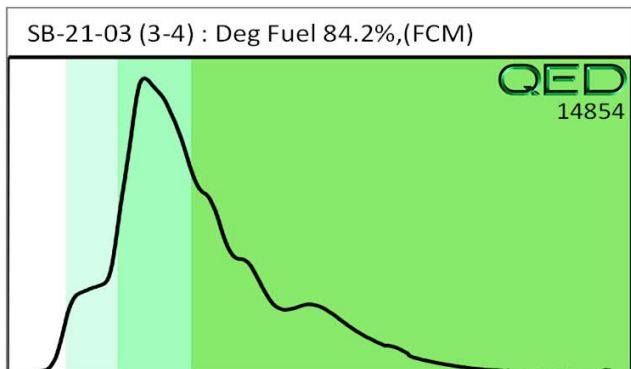
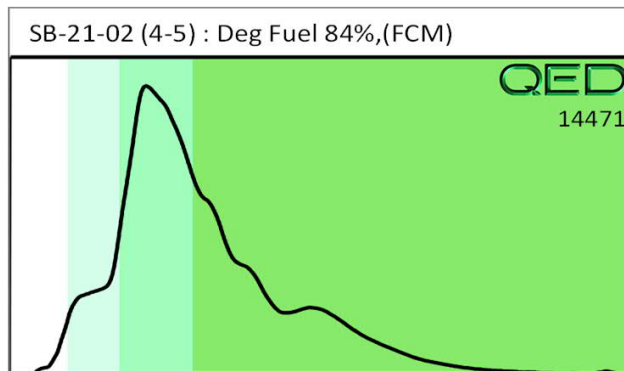
Final FCM QC Check **OK**

93.9 %

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



Client Name: Terracon
 Address: 2401 Brentwood Rd
 Raleigh, NC 27604
 Contact: ethen.dinmiddie@terracon.com
 Project Ref.: 70207241
 Email:
 Phone #:
 Collected by: Matthew Perry



RED Lab, LLC
 105 Portwatch Way
 Suite F
 Wilmington, NC 28412

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 Date/Time | TAT Requested | | Analysis Type | | Initials | Sample ID | Total Wt. | Tare Wt. | Sample Wt. |
|-----------------------------|---------------|---------|---------------|----|----------|--------------------|---------------|----------|------------|
| | 24 Hour | 48 Hour | UVF | GC | | | | | |
| 9/27/22 0830 | | X | X | | MP | SB-21-01 (5-6) | 50.3 | 43.9 | 6.4 |
| 0845 | | | | | MP | SB-21-02 (4-5) | 48.5 | 40.7 | 8.2 |
| 0900 | | | | | MP | SB-21-03 (3-A) | 47.7 | 40.4 | 7.3 |
| 0915 | | | | | MP | SB-21-04 (3-4) 524 | 50 | 44.2 | 8.2 |
| 0930 | | | | | MP | SB-21-05 (4-5) | 53.4 | 44.3 | 9.1 |
| 0945 | | | | | MP | SB-21-06 (A-5) | 52.9 | 43.9 | 9.0 |
| 1000 | | | | | MP | SB-21-07 (5-6) | 49.6 | 40.3 | 9.3 |
| ↓ 1015 | | ↓ | ↓ | | MP | SB-21-08 (5-6) | 53.4 | 44.0 | 9.4 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS/REQUESTS:

TARGET GC/UVF ANALYTES:

| | | | | |
|--------------------|------|------------------------------------|-----------|------------------|
| Relinquished by | 9/27 | Accepted by | Date/Time | RED Lab USE ONLY |
| <i>[Signature]</i> | 1525 | | | |
| Relinquished by | | Accepted by | Date/Time | |
| | | <i>[Signature]</i> 9/28/22 11:00AM | | |
| | | | | Ref. No 9-2022-1 |

March 23, 2021



North Carolina Department of Transportation
Attention: Mr. John Pilipchuk, LG, PE
GeoEnvironmental Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Re: Phase II Preliminary Site Assessment Report
NC 55 from South of SR 1532 to North of NC 210
Parcel 23 - Nancy Myatt Property
4660 NC 55, Angier, Harnett County, North Carolina
TIP No. R-5705A
WBS Element: 46377.1.2

Dear Mr. Pilipchuk:

Terracon Consultants, Inc. (Terracon) is pleased to submit this Phase II Preliminary Site Assessment (PSA) Report for the above referenced site. This assessment was performed in accordance with our *Revised Proposal for GeoEnvironmental Phase II Site Investigations* (Terracon Proposal No. P70207241) dated December 8, 2020. This report includes the findings of the investigation and provides our conclusions and recommendations. Terracon appreciates the opportunity to provide these services to the North Carolina Department of Transportation. If you have any questions concerning this report or need additional information, please contact us at 919-873-2211.

Sincerely,

Terracon Consultants, Inc.

DocuSigned by:

5ABC0739D7334DC...
James M. Perry
Field Scientist

DocuSigned by:

076CA5FA770E478...
Ethan C. Dinwiddie, GIT
Field Geologist

DocuSigned by:

67EB83805B1477...
Donald R. Malone, PE, RSM
Senior Engineer

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Terracon Consultants, Inc. 2401 Brentwood Road, Suite 107 Raleigh, North Carolina 27615
P (919) 873-2211 F (919) 873 9555 terracon.com



Phase II Preliminary Site Assessment Report

NC 55 from South of SR 1532 to North of NC 210
Parcel 23 - Nancy Myatt Property
4660 NC 55, Angier, Harnett County, North Carolina

TIP No. R-5705A

WBS Element: 46377.1.2

March 23, 2021

Terracon Project No. 70207241



Prepared for:

North Carolina Department of Transportation
Raleigh, North Carolina

Prepared by:

Terracon Consultants, Inc.
Raleigh, North Carolina

terracon.com

Terracon

Environmental



Facilities



Geotechnical

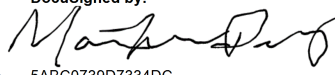



Materials

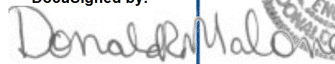
Phase II Preliminary Site Assessment Report

NC 55 from South of SR 1532 to North of NC 210
Parcel 23 - Nancy Myatt Property
4660 NC 55, Angier, Harnett County, North Carolina

TIP No. R-5705A
WBS Element: 46377.1.2
March 23, 2021
Terracon Project No. 70207241

DocuSigned by:

5ABC0739D7334DC...
James M. Perry
Field Scientist

DocuSigned by:

076CA5FA770E478...
DocuSigned by:
Ethan C. Dinwiddie, GIT
Field Geologist

DocuSigned by:

67EB838805B1477...
Donald R. Malone, PE, RSM
Senior Engineer



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Terracon Consultants, Inc. 2401 Brentwood Road, Suite 107 Raleigh, North Carolina 27615
P (919) 873-2211 F (919) 873 9555 terracon.com



TABLE OF CONTENTS

| | Page No. |
|--|----------|
| 1.0 INTRODUCTION | 1 |
| 1.1 Site Description..... | 1 |
| 1.2 Site History | 1 |
| 1.3 Scope of Work | 1 |
| 1.4 Standard of Care..... | 2 |
| 1.5 Additional Scope Limitations | 2 |
| 1.6 Reliance..... | 2 |
| 2.0 FIELD ACTIVITIES..... | 2 |
| 2.1 Geophysical Survey | 3 |
| 2.2 Soil Sampling..... | 4 |
| 3.0 LABORATORY ANALYSES | 4 |
| 4.0 DATA EVALUATION..... | 5 |
| 4.1 Soil Analytical Results..... | 5 |
| 5.0 CONCLUSIONS AND RECOMMENDATIONS | 5 |
| 6.0 REFERENCES | 6 |

EXHIBITS

Exhibit 1 – Topographic Vicinity Map

Exhibit 2 – State of North Carolina, Division of Highways Conventional Plan Sheet Symbols

Exhibit 3 – Boring Locations and Summarized Soil Sample Results

TABLES

Table 1 – Summary of PID Field Screening Values

Table 2 – Summary of Soil Analytical Results

APPENDICES

Appendix A – Geophysical Survey Report

Appendix B – Photographs

Appendix C – Soil Boring Logs

Appendix D – Laboratory Analytical Reports and Chain-of-Custody Records

PHASE II PRELIMINARY SITE ASSESSMENT REPORT

NC 55 FROM SOUTH OF SR 1532 TO NORTH OF NC 210

TIP NO. R-5705A

WBS ELEMENT: 46377.1.2

PARCEL 23 - NANCY MYATT PROPERTY

4660 NC 55, ANGIER, HARNETT COUNTY, NORTH CAROLINA

1.0 INTRODUCTION

1.1 Site Description

| | |
|---------------------------------|--|
| Site Name | Nancy Myatt Property (4660 NC 55, Angier) |
| Site Location/Address | 4660 NC 55, Angier, Harnett County, North Carolina |
| General Site Description | The site consists of an approximate 0.5-acre portion of a 1.36-acre parcel and is developed with an approximate 1,700 square foot building. The remainder of the site consisted of paved and gravel parking areas and grassed areas. |

1.2 Site History

At the time of the Phase II Preliminary Site Assessment (PSA), the site was observed to contain an approximate 1,700 square foot building that operated as a church. The remainder of the site consisted of paved and gravel parking areas and grassed areas. According to a GeoEnvironmental Planning Report dated September 26, 2018, the design of the building suggested it may have been a convenience store/gas station at one time (Terracon Consultants, Inc. [Terracon], 2020). The address was not listed in the North Carolina Department of Environmental Quality (NCDEQ), Division of Waste Management, Underground Storage Tank (UST) section registry. According to an interview with the site owner, Ms. Nancy Myatt, the on-site building historically operated as a restaurant and a grease trap and septic tank are located on the site. Ms. Myatt reported that to the best of her knowledge, USTs were not located on the site. Additional historical records were not available for review.

1.3 Scope of Work

Terracon conducted the following PSA scope of work in accordance with Terracon's Proposal No. P70207241 dated December 8, 2020. This PSA is being completed prior to a planned upgrade to NC 55 from South of SR 1532 (Oak Grove Church Road) to North of NC 210. The scope of work included a geophysical investigation, the collection of soil samples, and preparation of a report documenting our investigation activities. The PSA is not intended to delineate potential

impacts. The PSA was performed within the proposed rights-of-way (ROW) as indicated by North Carolina Department of Transportation (NCDOT) provided plan sheets.

1.4 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either expressed or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These services were performed in accordance with our *Revised Proposal for GeoEnvironmental Phase II Site Investigations* (Terracon Proposal No. P70207241) dated December 8, 2020 and were not necessarily conducted in strict accordance with ASTM E1903-11.

1.5 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, undetectable or not present during these services; thus, we cannot represent that the site is free of hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this PSA. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.6 Reliance

This report has been prepared for the exclusive use of the NCDOT. Authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the expressed written authorization of the client and Terracon.

2.0 FIELD ACTIVITIES

The following PSA activities are presented in the order that they were conducted in the field. **Exhibit 1** presents the topography of the site on a portion of the USGS topographic quadrangles map of Coats, North Carolina, 1997. **Exhibit 2** depicts conventional plan sheet symbols used by

the NCDOT, Division of Highways. **Exhibit 3** depicts the site layout and indicates the approximate locations of the site features, soil boring locations, and analytical results.

2.1 Geophysical Survey

On January 21 and 22, 2021, Terracon conducted a geophysical investigation at the site in an effort to determine if unknown, metallic USTs or other geophysical anomalies were present beneath the proposed ROW area. The geophysical investigation included an electromagnetic (EM) induction survey using a Geonics EM31-SH metal detection instrument and a ground penetrating radar (GPR) survey using a Geophysical Survey Systems SIR-4000 unit. In addition to metal detection and GPR scans, NC One Call public utility locator was used to identify several underground utility lines and to clear boring locations. A copy of the geophysical report is in **Appendix A**.

The geophysical investigation identified three possible USTs located north of the on-site building and within the proposed ROW area. The possible USTs measured approximately 5 feet long and were located approximately 2.5 feet below land surface (bls). This area of the site was covered by grass and surface features such as vent pipes or fill ports were not observed in association with the possible USTs. Fuel lines on the site were not identified in the geophysical investigation.

Terracon attempted to verify the possible USTs further by advancing hand augers in the identified locations. Terracon was unable to confirm the existence of the USTs after numerous attempts were made by hand augering to approximately 4 to 5 feet bls in the three identified locations.

While on site for the soil sampling event, Terracon directed the driller to advance two borings, downgradient of the potential USTs, in order to further assess potential releases from the USTs. Borings 23-SB-07 and 23-SB-08, further discussed in the soil sampling section below, were advanced on the eastern side of the potential USTs. Field screening of the soils and soil samples collected beside the potential USTs did not indicate potential fuel releases.

Terracon also identified evidence of a multi-compartment grease trap within the proposed ROW area and located south of the on-site building. Terracon was unable to identify evidence of the septic tank reported by the site owner, Ms. Myatt, to be located directly east and adjacent to the on-site building; however, several sanitary sewer vent pipes were observed attached to the eastern wall of the on-site building and connected by an underground sanitary sewer line that extended south and entered the on-site building on the southern side. The underground sanitary sewer line was located using a radiodetection pipe locator. Photographs of the site and relevant site features are in **Appendix B**.

2.2 Soil Sampling

Based on the findings of the geophysical investigation and Terracon's site observations, Terracon oversaw the advancement of eight soil borings (23-SB-01 through 23-SB-08) throughout the parcel and within the proposed NCDOT ROW. The borings were completed by a North Carolina Certified Well Contractor (Regional Probing Services, Inc. [Regional Probing]) using a truck-mount Geoprobe® 5410 direct-push drill rig.

Terracon collected soil samples using a 5-foot long, disposable, Macro-Core® sampler tubes to document soil lithology, color, moisture content, and sensory evidence of impacts. Each soil sample was screened for organic vapors using an 11.7 electron volt photoionization detector (PID). The PID data were collected to help select the most appropriate sample intervals for laboratory analysis and to corroborate the laboratory data. PID readings from the borings ranged from less than the instrument detection limit of 0.1 part per million (ppm) to 1.6 ppm. The PID screening values are summarized in **Table 1**.

Terracon directed Regional Probing to advance each soil boring to a depth of approximately 8 feet bls. Based on the results of the field screening, eight soil samples, one from each boring, were collected from depths between approximately 2 feet and 8 feet bls. We collected the soil samples generally from the intervals with the largest PID readings. Samples were placed in laboratory-provided sample containers and shipped to REDLAB, LLC – Environmental Testing (REDLAB) for analysis by Ultraviolet Fluorescence (UVF).

The drilling equipment used at the site was decontaminated prior to use and between the advancement of each boring. Non-dedicated sampling equipment was decontaminated using a Liquinox®-water wash followed by a distilled water rinse. Each of the boreholes was backfilled with soil cuttings and bentonite pellets. Surface completion was achieved with either dirt or asphalt cold patch. Remaining investigation derived waste was spread on the site.

Soil generally consisted of fine- to coarse-grained sand with varying amounts of clay- and silt-sized particles. Wet to saturated soils were observed at depths between 2 to 4 feet bls in the majority of the soil borings. The soil boring logs are included in **Appendix C**. Sample locations were measured using a sub-foot Trimble Geo7X GPS unit and are depicted on **Exhibit 3**.

3.0 LABORATORY ANALYSES

Soil samples were submitted to REDLAB for analysis of the following:

- TPH-gasoline range organics (C₅-C₁₀) (TPH-GRO);
- TPH-diesel range organics (C₁₀-C₃₅) (TPH-DRO);

Phase II Preliminary Site Assessment Report

Parcel 23 – Nancy Myatt Property
4660 NC 55, Angier, Harnett County, NC
March 23, 2021 ■ Terracon Project No. 70207241



- Total petroleum hydrocarbons (C₅-C₃₅) (TPH);
- Benzene, toluene, ethylbenzene, and xylenes (BTEX);
- Total aromatics (C₁₀-C₃₅);
- 16 EPA Polycyclic Aromatic Hydrocarbons (16 EPA PAHs); and
- Benzo(a)pyrene (BaP).

Please refer to **Appendix D** for the laboratory analytical reports.

4.0 DATA EVALUATION

4.1 Soil Analytical Results

Laboratory analysis identified the following detections above the laboratory reporting limits in soil samples 23-SB-01 through 23-SB-03 and 23-SB-06:

- TPH-DRO was reported within 23-SB-01 and 23-SB-02 at concentrations ranging from 0.51 to 0.79 milligram per kilogram (mg/kg);
- TPH was reported within each sample at concentrations ranging from 0.13 to 0.79 mg/kg; and
- Total aromatics (C₁₀-C₃₅) was reported within each sample at concentrations ranging from 0.13 to 0.68 mg/kg.

TPH-DRO, TPH, and Total aromatics (C₁₀-C₃₅) were not reported above laboratory reporting limits in soil samples 23-SB-04, 23-SB-05, 23-SB-07, and 23-SB-08. Additionally, BTEX, TPH-GRO, 16 EPA PAHs, and BaP were not reported above laboratory reporting limits in the collected soil samples.

The concentrations of TPH-GRO and TPH-DRO detected do not exceed NCDEQ Action Levels (50 mg/kg and 100 mg/kg, respectively).

Table 2 summarizes the results of the analyses of the soil samples. **Exhibit 3** depicts the boring locations and detected compounds.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The findings of this investigation are discussed below.

- The geophysical investigation identified three possible USTs located north of the on-site building and within the proposed NCDOT ROW. The possible USTs measured

Phase II Preliminary Site Assessment Report

Parcel 23 – Nancy Myatt Property

4660 NC 55, Angier, Harnett County, NC

March 23, 2021 ■ Terracon Project No. 70207241



approximately 5 feet long and were located approximately 2.5 feet bls. Surface features such as vent pipes or fill ports were not observed in association with the possible USTs. Terracon was unable to confirm the existence of the USTs by advancing numerous borings via hand auger in the identified locations to approximate depths of 4 to 5 feet bls. After reviewing the soil sampling analytical results, it does not appear that petroleum releases have occurred from the possible USTs.

- The geophysical investigation also identified evidence of a multi-compartment grease trap, located south of the on-site building. Terracon was unable to identify evidence of the septic tank reported by the site owner to be located east and adjacent to the on-site building.
- Laboratory analysis reported concentrations of TPH-DRO, TPH, and Total Aromatics in multiple soil borings at the site; however, the concentrations of TPH-DRO detected did not exceed NCDEQ Action Levels.
- Concentrations of BTEX, TPH-GRO, 16 EPA PAHs, and BaP were not detected above laboratory reporting limits in the soil borings at the site.
- Terracon recommends further explorations and/or test pit excavations in the vicinity of the possible USTs because they reside in the Proposed ROW at this site. Upon confirmation of the presence of the USTs, they should be excavated and removed in accordance with NCDEQ (2021) *Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement* dated January 19, 2021. Impacted groundwater or soil identified during the UST removal activities should be managed and/or disposed of in accordance with applicable local and State requirements.

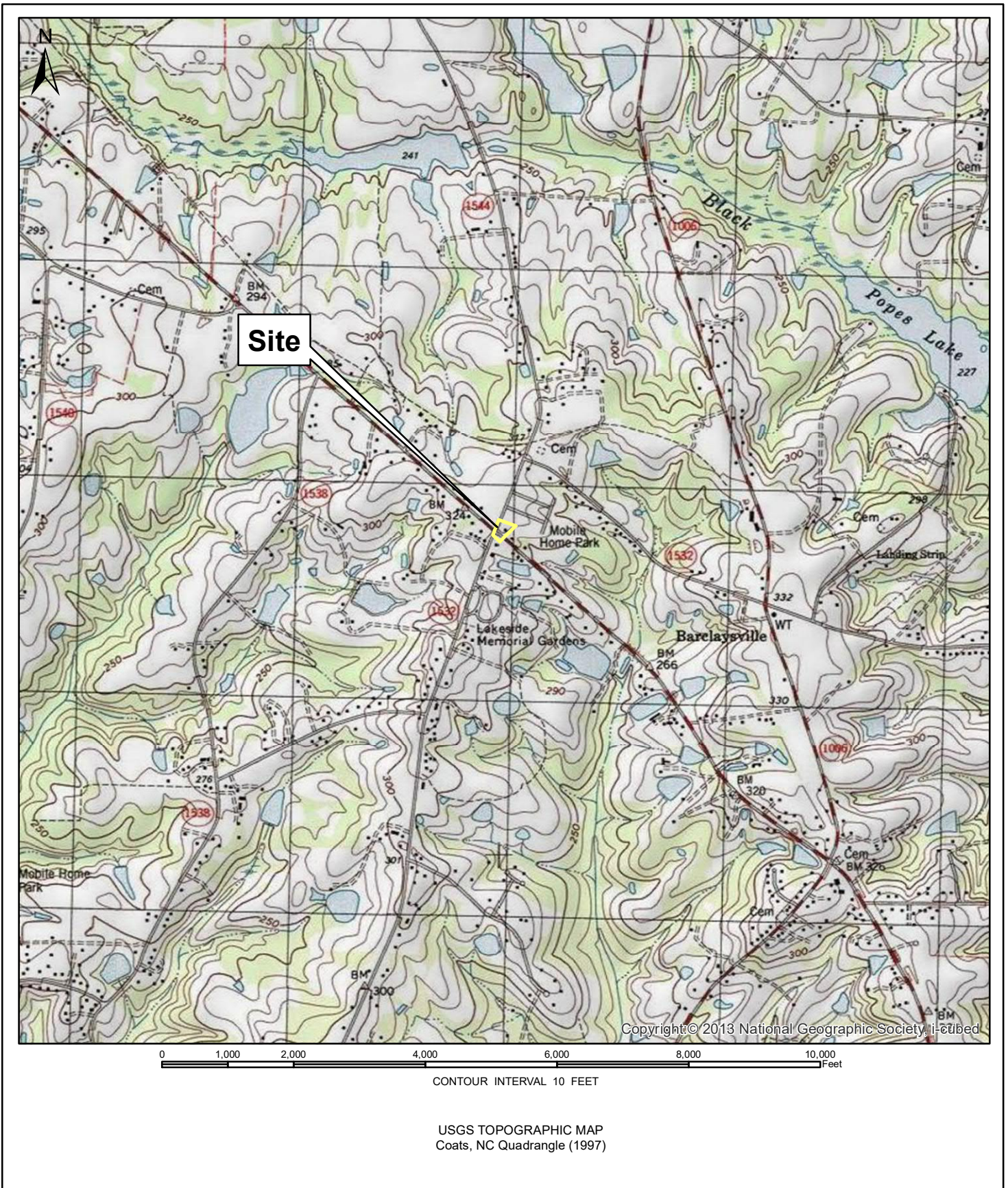
6.0 REFERENCES

North Carolina Department of Environmental Quality, 2021. *Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement*, January 19.

North Carolina Department of Transportation, 2018. *GeoEnvironmental Planning Report*. September 26.

Terracon Consultants, Inc., 2020. *Revised Proposal for GeoEnvironmental Phase II Site Investigations, NC 55 from South of SR 1532 to North of NC 210*. December 8.

EXHIBITS



| | |
|--------------|-----|
| PM: | DRM |
| Drawn By: | ECD |
| Checked By: | DRM |
| Approved By: | DRM |

| | |
|-------------|------------|
| Project No. | 70207241 |
| Scale: | 1:24,000 |
| File Path: | |
| Date: | March 2021 |

Terracon

2401 Brentwood Drive, Suite 107 Raleigh, NC 27604
 Phone: (919) 873-2211 Fax: (919) 873-9555

Topographic Vicinity Map

Phase II Preliminary Site Assessment
 Parcel 23 - Nancy Myatt Property
 4660 NC 55
 Angier, Harnett County, North Carolina

| | |
|-------------|---|
| EXHIBIT NO. | 1 |
|-------------|---|

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

| | |
|---------------------------------------|--|
| State Line | |
| County Line | |
| Township Line | |
| City Line | |
| Reservation Line | |
| Property Line | |
| Existing Iron Pin | |
| Computed Property Corner | |
| Property Monument | |
| Parcel/Sequence Number | |
| Existing Fence Line | |
| Proposed Woven Wire Fence | |
| Proposed Chain Link Fence | |
| Proposed Barbed Wire Fence | |
| Existing Wetland Boundary | |
| Proposed Wetland Boundary | |
| Existing Endangered Animal Boundary | |
| Existing Endangered Plant Boundary | |
| Existing Historic Property Boundary | |
| Known Contamination Area: Soil | |
| Potential Contamination Area: Soil | |
| Known Contamination Area: Water | |
| Potential Contamination Area: Water | |
| Contaminated Site: Known or Potential | |

BUILDINGS AND OTHER CULTURE:

| | |
|-------------------------------|--|
| Gas Pump Vent or U/G Tank Cap | |
| Sign | |
| Well | |
| Small Mine | |
| Foundation | |
| Area Outline | |
| Cemetery | |
| Building | |
| School | |
| Church | |
| Dam | |

HYDROLOGY:

| | |
|------------------------------------|--|
| Stream or Body of Water | |
| Hydro, Pool or Reservoir | |
| Jurisdictional Stream | |
| Buffer Zone 1 | |
| Buffer Zone 2 | |
| Flow Arrow | |
| Disappearing Stream | |
| Spring | |
| Wetland | |
| Proposed Lateral, Tail, Head Ditch | |
| False Sump | |

RAILROADS:

| | |
|--------------------|--|
| Standard Gauge | |
| RR Signal Milepost | |
| Switch | |
| RR Abandoned | |
| RR Dismantled | |

RIGHT OF WAY & PROJECT CONTROL:

| | |
|---|--|
| Secondary Horiz and Vert Control Point | |
| Primary Horiz Control Point | |
| Primary Horiz and Vert Control Point | |
| Exist Permanent Easement Pin and Cap | |
| New Permanent Easement Pin and Cap | |
| Vertical Benchmark | |
| Existing Right of Way Marker | |
| Existing Right of Way Line | |
| New Right of Way Line | |
| New Right of Way Line with Pin and Cap | |
| New Right of Way Line with Concrete or Granite R/W Marker | |
| New Control of Access Line with Concrete CA Marker | |
| Existing Control of Access | |
| New Control of Access | |
| Existing Easement Line | |
| New Temporary Construction Easement | |
| New Temporary Drainage Easement | |
| New Permanent Drainage Easement | |
| New Permanent Drainage / Utility Easement | |
| New Permanent Utility Easement | |
| New Temporary Utility Easement | |
| New Aerial Utility Easement | |

ROADS AND RELATED FEATURES:

| | |
|----------------------------|--|
| Existing Edge of Pavement | |
| Existing Curb | |
| Proposed Slope Stakes Cut | |
| Proposed Slope Stakes Fill | |
| Proposed Curb Ramp | |
| Existing Metal Guardrail | |
| Proposed Guardrail | |
| Existing Cable Guiderail | |
| Proposed Cable Guiderail | |
| Equality Symbol | |
| Pavement Removal | |

VEGETATION:

| | |
|--------------|--|
| Single Tree | |
| Single Shrub | |

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

| | |
|------------|--|
| Hedge | |
| Woods Line | |
| Orchard | |
| Vineyard | |

EXISTING STRUCTURES:

| | |
|--|--|
| MAJOR: | |
| Bridge, Tunnel or Box Culvert | |
| Bridge Wing Wall, Head Wall and End Wall | |
| MINOR: | |
| Head and End Wall | |
| Pipe Culvert | |
| Footbridge | |
| Drainage Box: Catch Basin, DI or JB | |
| Paved Ditch Gutter | |
| Storm Sewer Manhole | |
| Storm Sewer | |

UTILITIES:

| | |
|--------------------------------|--|
| POWER: | |
| Existing Power Pole | |
| Proposed Power Pole | |
| Existing Joint Use Pole | |
| Proposed Joint Use Pole | |
| Power Manhole | |
| Power Line Tower | |
| Power Transformer | |
| U/G Power Cable Hand Hole | |
| H-Frame Pole | |
| U/G Power Line LOS B (S.U.E.*) | |
| U/G Power Line LOS C (S.U.E.*) | |
| U/G Power Line LOS D (S.U.E.*) | |

TELEPHONE:

| | |
|--|--|
| Existing Telephone Pole | |
| Proposed Telephone Pole | |
| Telephone Manhole | |
| Telephone Pedestal | |
| Telephone Cell Tower | |
| U/G Telephone Cable Hand Hole | |
| U/G Telephone Cable LOS B (S.U.E.*) | |
| U/G Telephone Cable LOS C (S.U.E.*) | |
| U/G Telephone Cable LOS D (S.U.E.*) | |
| U/G Telephone Conduit LOS B (S.U.E.*) | |
| U/G Telephone Conduit LOS C (S.U.E.*) | |
| U/G Telephone Conduit LOS D (S.U.E.*) | |
| U/G Fiber Optics Cable LOS B (S.U.E.*) | |
| U/G Fiber Optics Cable LOS C (S.U.E.*) | |
| U/G Fiber Optics Cable LOS D (S.U.E.*) | |

WATER:

| | |
|--------------------------------|--|
| Water Manhole | |
| Water Meter | |
| Water Valve | |
| Water Hydrant | |
| U/G Water Line LOS B (S.U.E.*) | |
| U/G Water Line LOS C (S.U.E.*) | |
| U/G Water Line LOS D (S.U.E.*) | |
| Above Ground Water Line | |

TV:

| | |
|---------------------------------------|--|
| TV Pedestal | |
| TV Tower | |
| U/G TV Cable Hand Hole | |
| U/G TV Cable LOS B (S.U.E.*) | |
| U/G TV Cable LOS C (S.U.E.*) | |
| U/G TV Cable LOS D (S.U.E.*) | |
| U/G Fiber Optic Cable LOS B (S.U.E.*) | |
| U/G Fiber Optic Cable LOS C (S.U.E.*) | |
| U/G Fiber Optic Cable LOS D (S.U.E.*) | |

GAS:

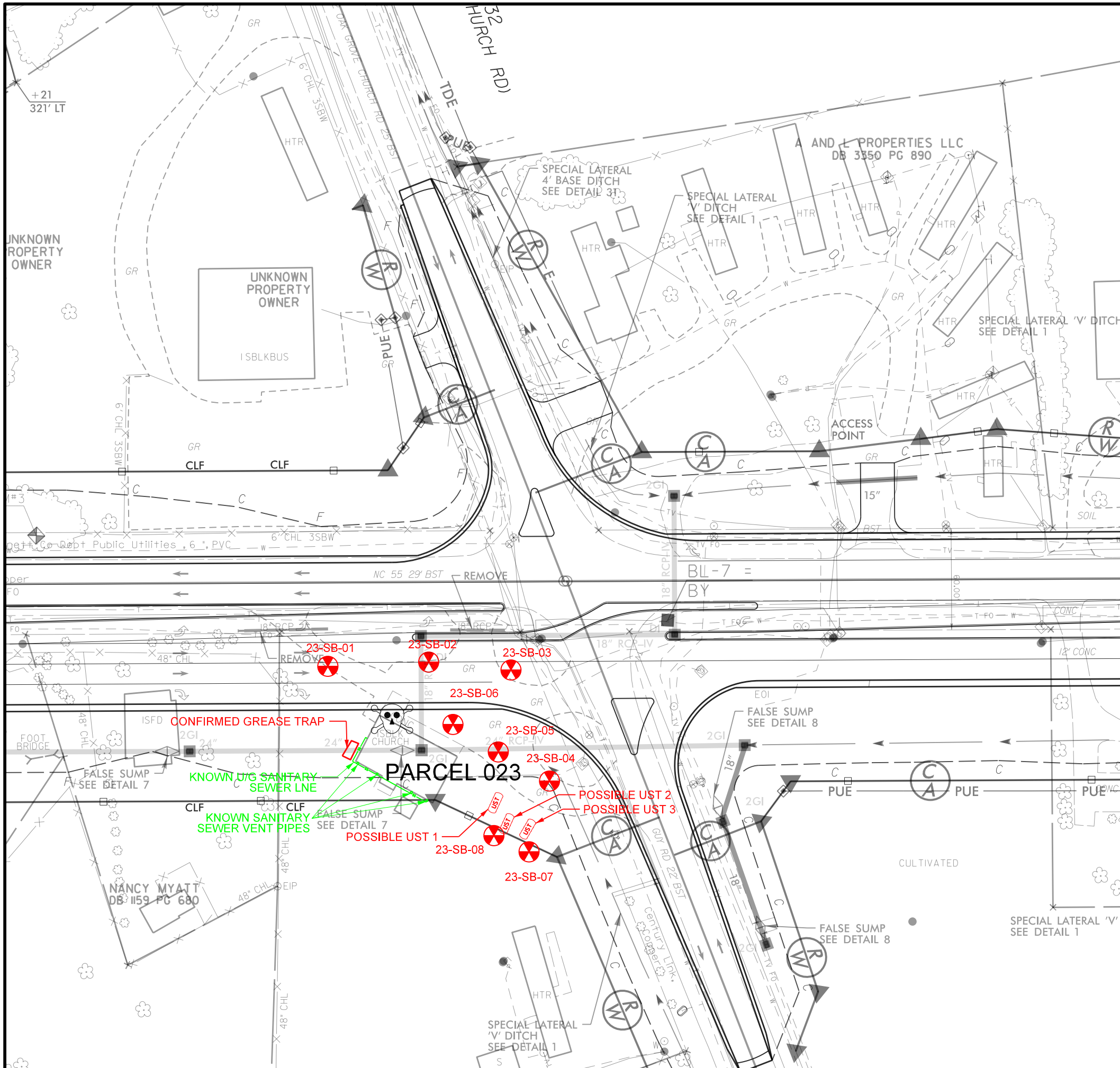
| | |
|------------------------------|--|
| Gas Valve | |
| Gas Meter | |
| U/G Gas Line LOS B (S.U.E.*) | |
| U/G Gas Line LOS C (S.U.E.*) | |
| U/G Gas Line LOS D (S.U.E.*) | |
| Above Ground Gas Line | |

SANITARY SEWER:

| | |
|-------------------------------------|--|
| Sanitary Sewer Manhole | |
| Sanitary Sewer Cleanout | |
| U/G Sanitary Sewer Line | |
| Above Ground Sanitary Sewer | |
| SS Forced Main Line LOS B (S.U.E.*) | |
| SS Forced Main Line LOS C (S.U.E.*) | |
| SS Forced Main Line LOS D (S.U.E.*) | |

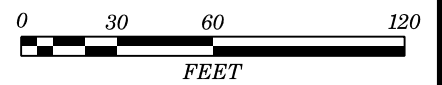
MISCELLANEOUS:

| | |
|--|--|
| Utility Pole | |
| Utility Pole with Base | |
| Utility Located Object | |
| Utility Traffic Signal Box | |
| Utility Unknown U/G Line LOS B (S.U.E.*) | |
| U/G Tank; Water, Gas, Oil | |
| Underground Storage Tank, Approx. Loc. | |
| A/G Tank; Water, Gas, Oil | |
| Geoenvironmental Boring | |
| U/G Test Hole LOS A (S.U.E.*) | |
| Abandoned According to Utility Records | |
| End of Information | |



PROJECT DESCRIPTION:
PARCEL 023
NANCY MYATT
4660 NC 55
ANGIER, HARNETT COUNTY

PROJECT REFERENCE NO. 46377.1.2 (R-5705A) **EXHIBIT** 3
BORING LOCATIONS AND SUMMARIZED SOIL SAMPLE RESULTS



| Sample ID | Date Collected | GRO (C5 - C10) | DRO (C10 - C35) | TPH (C5 - C35) | Total Aromatics (C10-C35) |
|---------------------|----------------|----------------|-----------------|----------------|---------------------------|
| 23-SB-01 (4-6) | 2/2/2021 | <0.59 | 0.79 | 0.79 | 0.68 |
| 23-SB-02 (4-6) | 2/2/2021 | <0.27 | 0.51 | 0.51 | 0.24 |
| 23-SB-03 (2-4) | 2/2/2021 | <0.25 | <0.25 | 0.13 | 0.13 |
| 23-SB-04 (6-8) | 2/3/2021 | <0.50 | <0.50 | <0.50 | <0.10 |
| 23-SB-05 (2-4) | 2/3/2021 | <0.48 | <0.48 | <0.48 | <0.10 |
| 23-SB-06 (2-4) | 2/3/2021 | <0.27 | <0.27 | 0.24 | 0.24 |
| 23-SB-07 (6-8) | 2/3/2021 | <0.52 | <0.52 | <0.52 | <0.10 |
| 23-SB-08 (6-8) | 2/3/2021 | <0.49 | <0.49 | <0.49 | <0.10 |
| State Action Levels | | 50 | 100 | NE | NE |

Sample depth is provided in parentheses as part of the sample ID.
 All results are reported in milligrams per kilogram (mg/kg).
 <: Less than laboratory reporting limit.
 GRO - Gasoline Range Organics.
 DRO: Diesel Range Organics.
 TPH: Total Petroleum Hydrocarbons.
 NE: Not Established

TABLES

Table 1
 Summary of PID Field Screening Values
 Phase II Preliminary Site Assessment
 Parcel 23 - Nancy Myatt Property
 4660 NC 55, Angier, Harnett County, North Carolina
 Terracon Project No. 70207241

| Boring Depth (feet bls) | 23-SB-01 | 23-SB-02 | 23-SB-03 | 23-SB-04 | 23-SB-05 | 23-SB-06 | 23-SB-07 | 23-SB-08 |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| (0 - 2) | 0.3 | <0.1 | 0.4 | 0.4 | 0.9 | 1.2 | 0.5 | 0.2 |
| (2 - 4) | 0.9 | 0.4 | 0.4 | 0.7 | 1.4 | 1.8 | 0.8 | 0.6 |
| (4 - 6) | 1.0 | 0.6 | 0.5 | 0.7 | 1.0 | 1.5 | 1.4 | 0.9 |
| (6 - 8) | 0.9 | 0.3 | 0.1 | 1.0 | 0.6 | 1.6 | 1.2 | 0.9 |
| (8 - 10) | 0.6 | -- | -- | -- | -- | -- | -- | -- |

Notes:

Field screening was conducted on February 2 and 3, 2021.

Values shown are given in parts per million (ppm)

PID - Photo-ionization detector

PID was calibrated using 100 ppm isobutylene gas

feett bls - feet below land surface.

23-SB-02 through 23-SB-08 were advanced to 8 feet bls due to saturated soil observed at approximately 4 feet bls.

Table 2
 Summary of Soil Analytical Results
 Phase II Preliminary Site Assessment
 Parcel 23 - Nancy Myatt Property
 4660 NC 55, Angier, Harnett County, North Carolina
 Terracon Project No. 70207241

| Sample ID: Sample Depth (ft bls): | 23-SB-01 (4-6) | 23-SB-02 (4-6) | 23-SB-03 (2-4) | 23-SB-04 (6-8) | 23-SB-05 (2-4) | 23-SB-06 (2-4) | 23-SB-07 (6-8) | 23-SB-08 (6-8) | NCDEQ Action Level | MSCC Industrial / Commercial |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|---------------------------------|
| BTEX (C6 - C9) | <0.59 | <0.27 | <0.25 | <0.50 | <0.48 | <0.27 | <1.0 | <0.49 | NE | NE |
| GRO (C5 - C10) | <0.59 | <0.27 | <0.25 | <0.50 | <0.48 | <0.27 | <0.52 | <0.49 | 50 | NE |
| DRO (C10 - C35) | 0.79 | 0.51 | <0.25 | <0.50 | <0.48 | <0.27 | <0.52 | <0.49 | 100 | NE |
| TPH (C5 - C35) | 0.79 | 0.51 | 0.13 | <0.50 | <0.48 | 0.24 | <0.52 | <0.49 | NE | NE |
| Total Aromatics (C10-C35) | 0.68 | 0.24 | 0.13 | <0.10 | <0.10 | 0.24 | <0.10 | <0.10 | NE | NE |
| 16 EPA PAHs | <0.19 | <0.090 | <0.080 | <0.16 | <0.15 | <0.090 | <0.17 | <0.16 | NE | NE |
| BaP | <0.024 | <0.011 | <0.010 | <0.020 | <0.019 | <0.011 | <0.021 | <0.020 | NE | 0.78 |

Notes:

Soil samples were collected on February 2 and 3, 2021.

Detected compounds are shown in the table.

Concentrations are reported in milligrams per kilogram (mg/kg).

ft bls - feet below land surface.

GRO - Gasoline Range Organics.

DRO - Diesel Range Organics.

TPH - Total Petroleum Hydrocarbons.

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes.

16 EPA PAHs - Environmental Protection Agency Polycyclic Aromatic Hydrocarbons (acenaphthene, acenaphthylene, anthracene,

benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[g,h,i]perylene, benzo[a]pyrene,

chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-c,d]pyrene, naphthalene, phenanthrene, pyrene).

BaP - Benzo(a)pyrene

NE - Standard not established.

Detections shaded in gray exceed the North Carolina Department of Environmental Quality (NCDEQ) Action Level.

MSCC Industrial/Commercial - Maximum Soil Contaminant Concentration Levels Industrial/Commercial soil cleanup levels.

Bold: Constituent concentration reported above the method detection limit.

APPENDIX A
GEOPHYSICAL SURVEY REPORT



March 22, 2021

John Pilipchuk, L.G., P.E.
North Carolina Department of Transportation
GeoEnvironmental Engineering Unit
1589 Mail Service Center
Raleigh, NC 27699-1589

Re: Report for GeoEnvironmental Phase II Site Investigations
Locate USTs and Utilities using Geophysical Methods
Parcel #23 – Nancy Myatt Property
4660 NC 55 , Angier, Harnett County, North Carolina
TIP: R-5705A; WBS Element No. 46377.1.2
Terracon Project No.: 70207241

Dear Mr. Pilipchuk:

On January 21 and 22, 2021, a representative of Terracon Consultants, Inc. (Terracon) performed geophysical exploration services at the above referenced site in general accordance with Terracon Proposal No. P70207241 dated December 8, 2020. This report is presented as a summary of those geophysical services.

1.0 PROJECT DESCRIPTION

Based on the Request for Proposal (RFP) from the North Carolina Department of Transportation (NCDOT), a Phase II Preliminary Site Assessment (PSA) was requested for Parcel #23 – Nancy Myatt Property, 4660 NC-55, Angier, North Carolina. The project consisted of the exploration of an approximate 180-foot by 140-foot area along Highway 55 and Guy Road (entire area, not just along the roadways). The purpose of the geophysical exploration was to aid in identifying anomalies consistent with Underground Storage Tanks (USTs) utilizing non-intrusive geophysical methods. Additionally, we located utilities in the field prior to Terracon's drilling operations.



Terracon attempted to define the findings from this survey according to the following NCDOT standard terms:

Geophysical Surveys for Underground Storage Tanks on NCDOT Projects

| High Confidence | Intermediate Confidence | Low Confidence | No Confidence |
|--|--|---|---|
| Known UST Active tank - spatial location, orientation, and approximate depth determined by geophysics. | Probable UST Sufficient geophysical data from both magnetic and radar surveys that is characteristic of a tank. Interpretation may be supported by physical evidence such as fill/vent pipe, metal cover plate, asphalt/concrete patch, etc. | Possible UST Sufficient geophysical data from either magnetic or radar surveys that is characteristic of a tank. Additional data is not sufficient enough to confirm or deny the presence of a UST. | Anomaly noted but not characteristic of a UST. Should be noted in the text and may be called out in the figures at the geophysicist’s discretion. |

2.0 EXPLORATION METHODS

Terracon used a frequency domain electromagnetic profiler (EM) consisting of a Geonics EM-31-SH system with data logger to collect EM data. In general, field data collection followed the procedures referenced in ASTM D6639-18. More information on both the general method and collection procedures can be found in the referenced standard. EM collects soil conductivity in millisiemens per meter (mS/m) and magnetic susceptibility in parts per trillion (ppt).

Data was collected on a bi-directional grid at approximately 5-foot spacings in both directions. However, the EM-31 uses a sub-meter GPS system to accurately plot data points of collection, therefore the grid is approximate. Data was post-processed utilizing Trackmaker 31 software engineered by Geomar and Surfer software developed by Golden Software.

Additionally, a Ground Penetrating System (GPR) consisting of a 350 MHz antenna and SIR-4000 system made by Geophysical Survey Systems Inc. (GSSI), was utilized to collect GPR data. Data was collected on a bi-directional grid with spacings of approximately 5 feet in both directions. Following the completion of field data collection, data was post-processed utilizing RADAN software engineered by GSSI.

3.0 FINDINGS

Terracon reviewed the EM and GPR data collected. The EM data collected identified a large anomaly on the southern side of the existing building on the site. This anomaly was likely due to the presence of a surface and underground septic tank and piping. The EM data did not identify the possible USTs, this could be due to the material not being metal.

Report for GeoEnvironmental Phase II Site Investigations

Parcel #23 – Nancy Myatt Property ■ Angier, NC

March 22, 2021 ■ Terracon Project No. 70207241



In general, “background” soil conductivity measurements were determined to be between 0 to 20 mS/m and magnetic susceptibility “background” measurements were between -6 to 2 ppt. Measurements outside of these ranges were interpreted to be caused by above or below ground anomalies. The depth of EM signal penetration is approximately 9 feet below the existing grade, however, the actual depth is not produced from the data collected.

Upon review of the GPR data, three anomalies consistent with possible USTs were identified at the following locations:

| UST I.D. | Coordinates ¹ | Approximate Depth to Top of UST (ft) | Approximate UST Length (ft) ² |
|----------|--------------------------|--------------------------------------|--|
| 1 | 35.472032°, -78.708105° | 3 | 4 |
| 2 | 35.472020°, -78.708083° | 3 | 5 |
| 3 | 35.471984°, -78.708082° | 3 | 5 |

1. Coordinates are accurate to within ± 1.5 feet to the center of the UST.

2. The length is approximate, and a width cannot be determined utilizing geophysical methods.

The depth of GPR signal penetration across the site was approximately 5 feet below the existing grade. While EM did not identify anomalies consistent with USTs, GPR identified these three anomalies that appeared to have a “beginning” and “end”, consistent with a UST or similar object. Complete results of our findings can be found in the attached Exhibits.

4.0 LIMITATIONS

It should be noted that, as with any geophysical testing method, the processes rely on instrument signals to indicate physical conditions in the field. Signal information can be affected by on-site conditions beyond the control of the operator, such as, but not limited to, ground surface cover, concrete/soil types, concrete/soil moisture, groundwater table depth, and/or reinforcing steel spacing. The depth of penetration and quality of the GPR data cannot be determined until our arrival on site. Interpretation of those signals is based on a combination of known factors combined with the experience of the operator and geophysicist evaluating the results. Additionally, GPR may not be able to identify the diameter of an object such as a pipe or UST. Utilizing conventional observation, sampling, and testing (“truthing”) of select areas is recommended to confirm the results from the geophysical surveys. As with all geophysical methods, the geophysical results provide a level of confidence, but should not be considered absolute. We cannot be responsible for the interpretation of geophysical results by others.

Report for GeoEnvironmental Phase II Site Investigations

Parcel #23 – Nancy Myatt Property ■ Angier, NC

March 22, 2021 ■ Terracon Project No. 70207241



5.0 CLOSURE

We appreciate the opportunity to work with you on this project. Please do not hesitate to contact the undersigned if you have any questions regarding this information or if we can be of further service to you.

Sincerely,

Terracon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Joshua A. Lopez".

Joshua A. Lopez
Geophysicist

A handwritten signature in black ink, appearing to read "James D. Hoskins, III, P.E.". To the right of the signature is a date stamp that reads "3/24/2021".

James D. Hoskins, III, P.E.
Principal / Greensboro Office Manager

Attachments: Exhibits – Geophysical Exploration Results (6 pages)

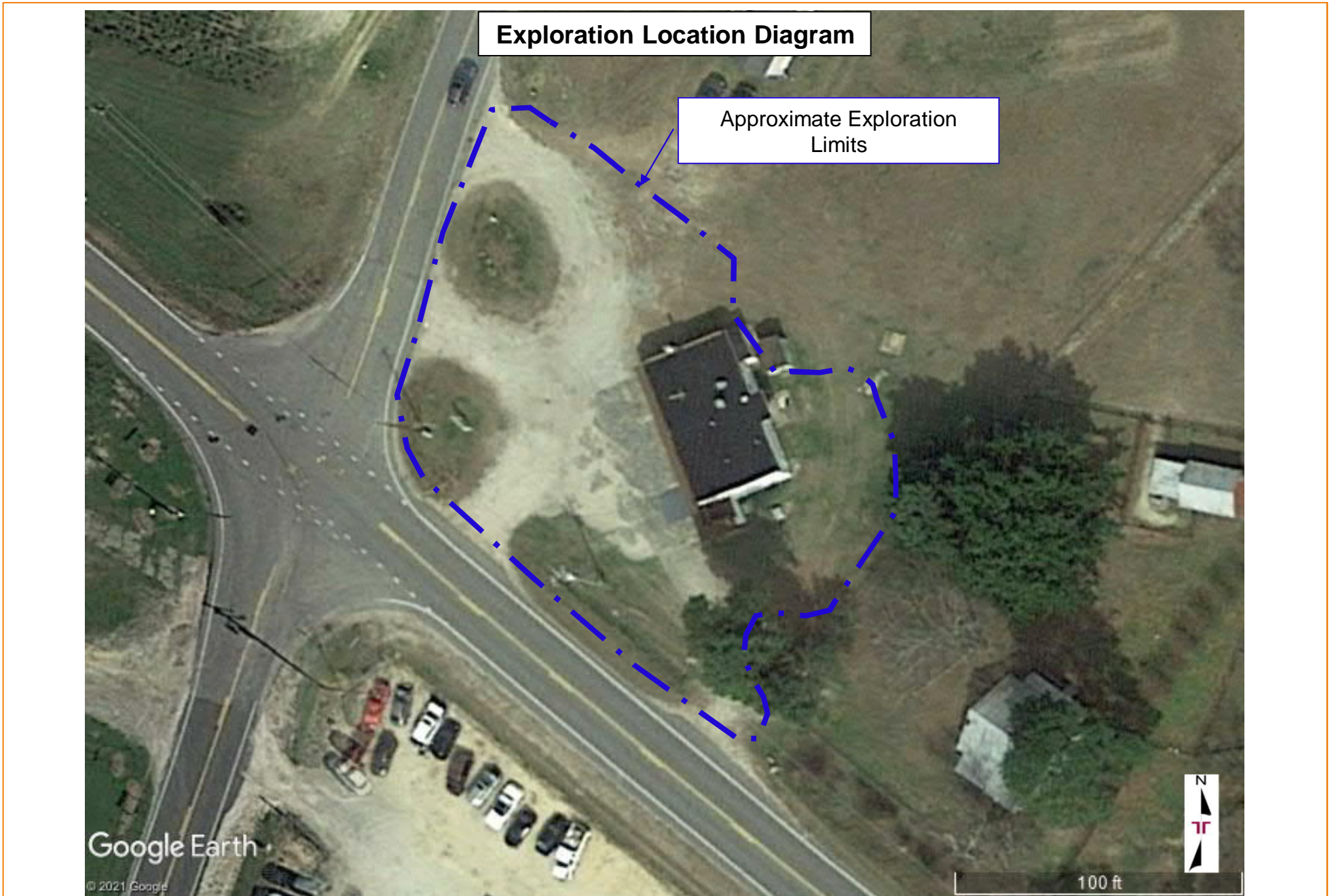
SITE LOCATION

Parcel #23 – Nancy Myatt Property ■ Harnett County, NC
March 22, 2021 ■ Terracon Project No. 70207241



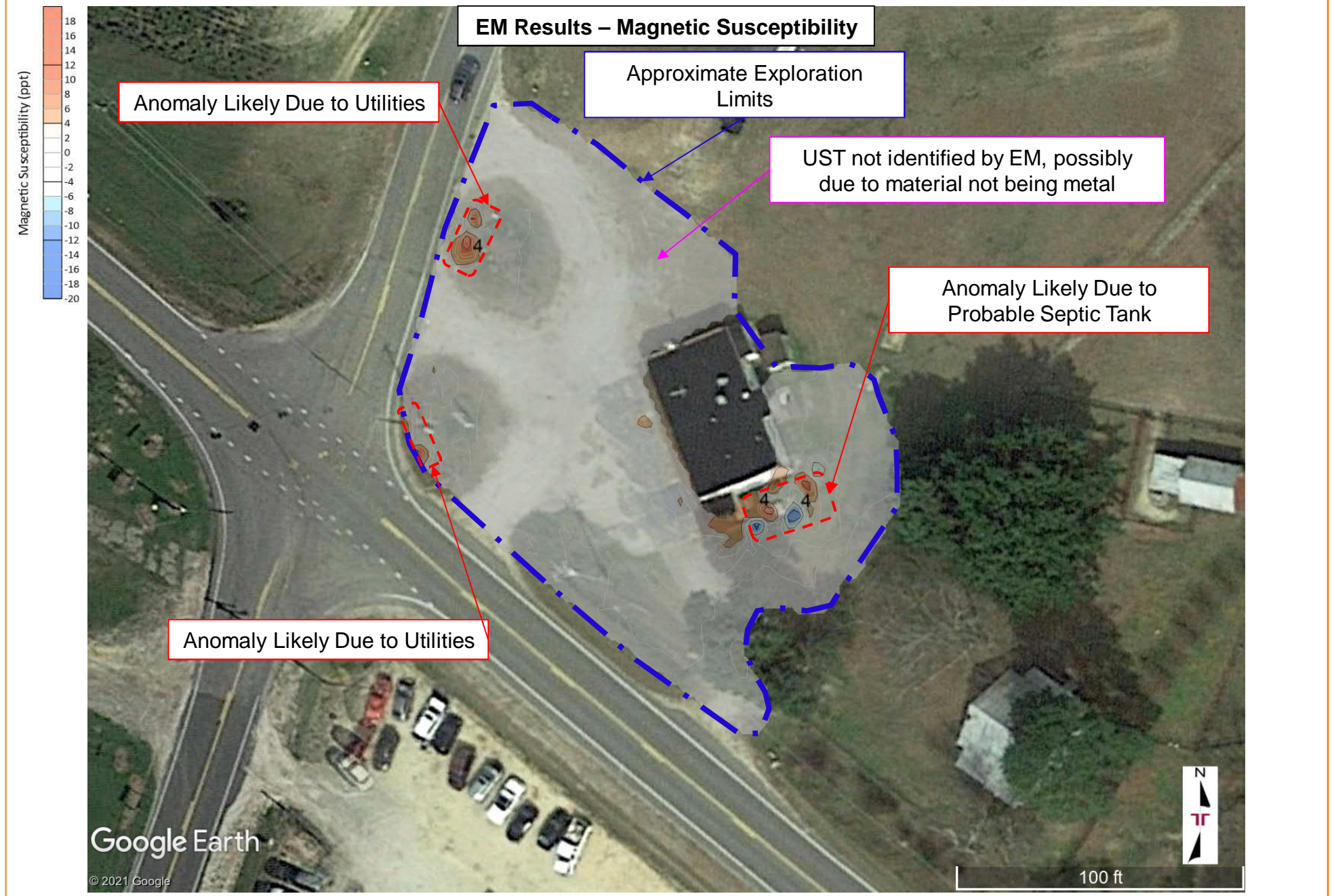
EXPLORATION LOCATION

Parcel #23 – Nancy Myatt Property ■ Harnett County, NC
March 22, 2021 ■ Terracon Project No. 70207241



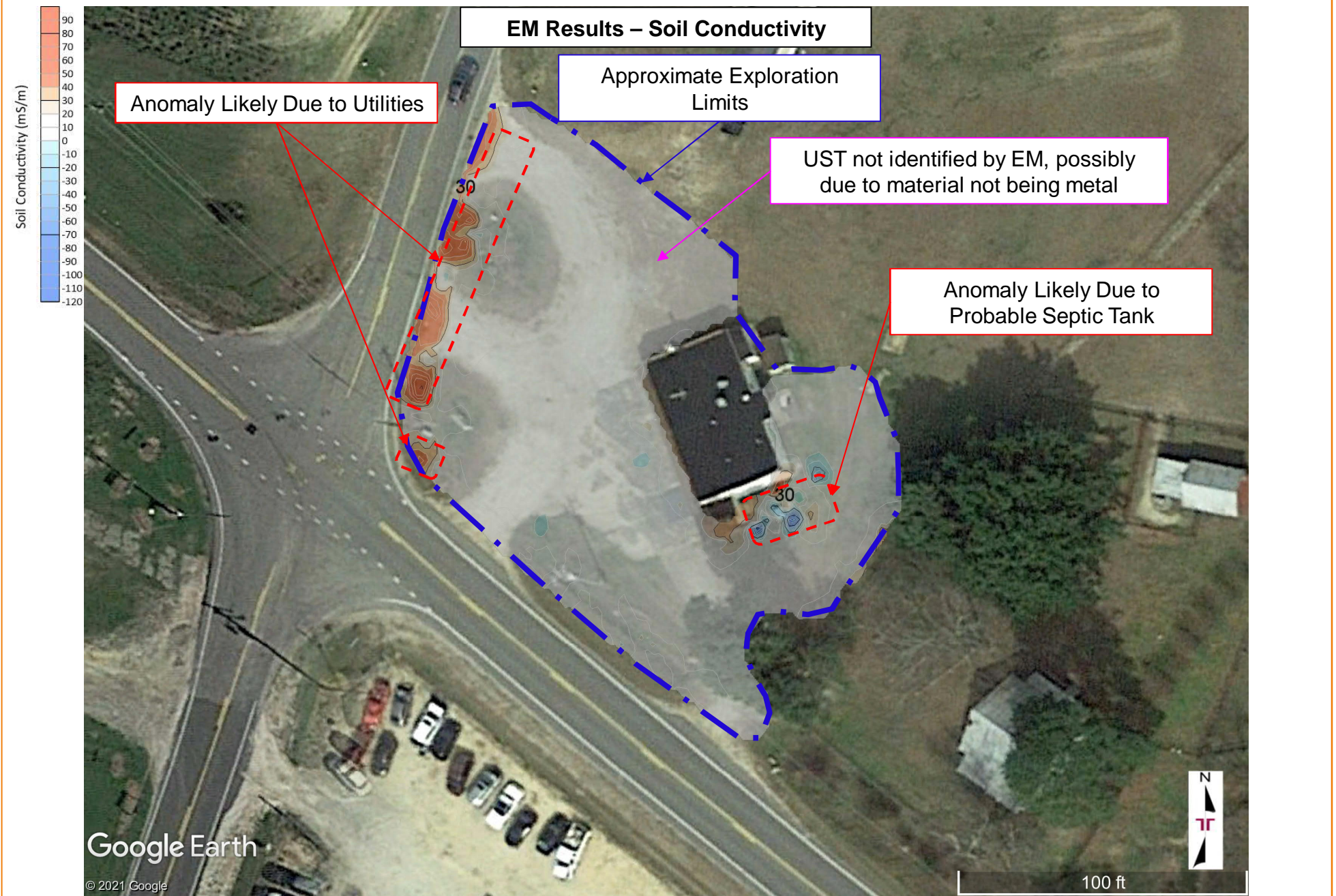
EXPLORATION RESULTS

Parcel #23 – Nancy Myatt Property ■ Harnett County, NC
March 22, 2021 ■ Terracon Project No. 70207241



EXPLORATION RESULTS

Parcel #23 – Nancy Myatt Property ■ Harnett County, NC
March 22, 2021 ■ Terracon Project No. 70207241



EXPLORATION RESULTS

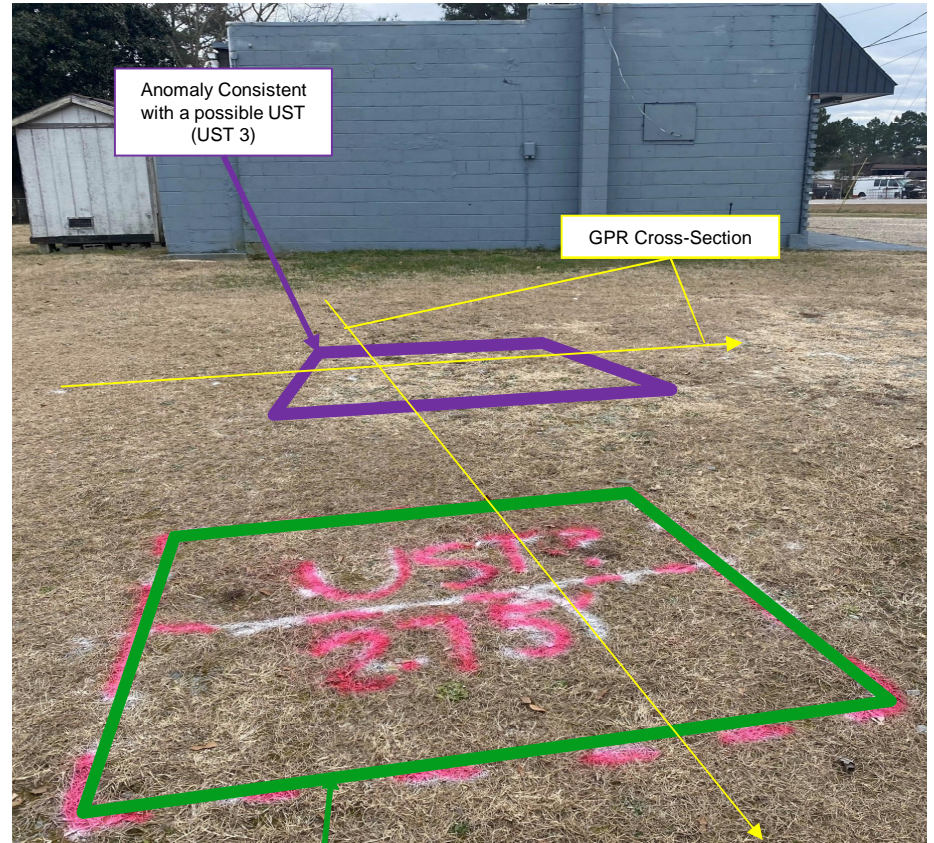
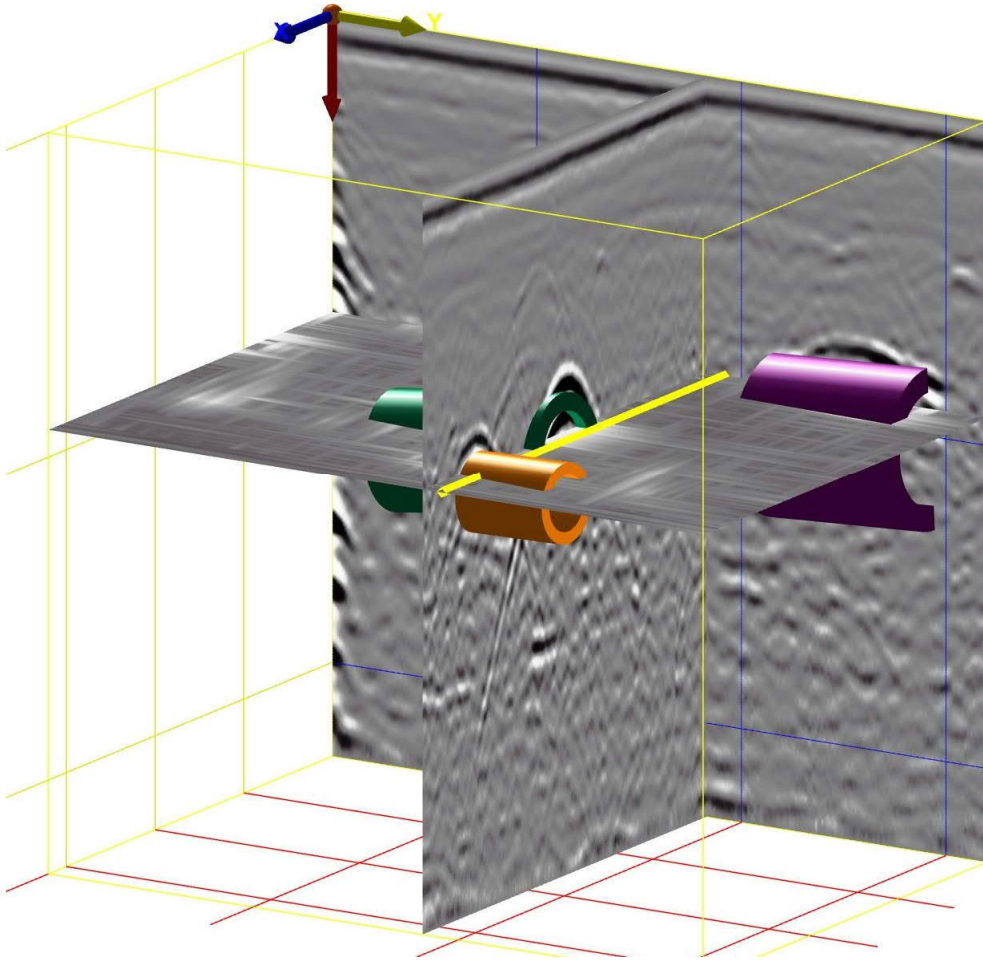
Parcel #23 – Nancy Myatt Property ■ Harnett County, NC
March 22, 2021 ■ Terracon Project No. 70207241



EXPLORATION RESULTS

Parcel #23 – Nancy Myatt Property ■ Harnett County, NC
March 22, 2021 ■ Terracon Project No. 70207241

GPR Results



Anomaly Consistent with a possible UST (UST 3)

GPR Cross-Section

Anomaly Consistent with a possible UST (UST 2)

**APPENDIX B
PHOTOGRAPHS**

Phase II Preliminary Site Assessment

Parcel 23 – Nancy Myatt Property ■ Angier, North Carolina

Photos Taken: January 22, 2021 ■ Terracon Project No. 70207241



Photo #1 View of the site; facing southeast.



Photo #2 View of the on-site building; facing northeast.

Phase II Preliminary Site Assessment

Parcel 23 – Nancy Myatt Property ■ Angier, North Carolina

Photos Taken: January 22, 2021 ■ Terracon Project No. 70207241



Photo #3 View of the western portion of the site; facing northeast.



Photo #4 View of the locations of the possible underground store tanks identified in the geophysical investigation and the locations of the hand auger boring attempts to verify existence; facing northwest.

Phase II Preliminary Site Assessment

Parcel 23 – Nancy Myatt Property ■ Angier, North Carolina

Photos Taken: January 22, 2021 ■ Terracon Project No. 70207241



Photo #5 View of the eastern side of the on-site building and the underground sanitary sewer line located using a radiodetection pipe locator and marked with pink dots; facing north.



Photo #6 View of a vent pipe attached to eastern wall of the on-site building; facing west.

Phase II Preliminary Site Assessment

Parcel 23 – Nancy Myatt Property ■ Angier, North Carolina

Photos Taken: January 22, 2021 ■ Terracon Project No. 70207241



Photo #7 View of two vent pipes attached to eastern wall of the on-site building; facing south.



Photo #8 View of the apparent direction of vent pipes located using a radiodetection pipe locator; facing south.

Phase II Preliminary Site Assessment

Parcel 23 – Nancy Myatt Property ■ Angier, North Carolina

Photos Taken: January 22, 2021 ■ Terracon Project No. 70207241



Photo #9 View of the confirmed grease trap and the apparent sanitary sewer line exit location from the building (in between the window and electricity meter) located on the south side of the on-site building; facing west.

APPENDIX C
SOIL BORING LOGS

BORING LOG NO. 23-SB-01

PROJECT: Phase II Preliminary Site Assessment - Parcel 23

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: Nancy Myatt Property - 4660 NC 55
Angier, North Carolina**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|--|------------|--------------------------|-------------|----------------|---------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | | |
| 2.0 | SILTY SAND (SM) , trace organics, fine to medium grained, dark brown, odor and staining not observed, moist | | | | | 0.3 | 23-SB-01 TPH via QED UVF |
| 2.0 | | | | 36 | | | |
| 5.0 | SAND (SP) , trace fines, fine to medium grained, light brown and orangish brown, odor and staining not observed, moist to saturated at 5 feet bls | 5 | | Grab | | 0.9 | |
| 5.0 | | | | 36 | | 1.0 | |
| 10.0 | | | | | | 0.9 | |
| 10.0 | | | | | | 36 | |
| 10.0 | | | | | | 0.6 | |
| 10.0 | Boring Terminated at 10 Feet | 10 | | | | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with bentonite chips upon completion.

Notes:
ft bls: feet below land surface
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS



Boring Started: 02-02-2021

Boring Completed: 02-02-2021

Drill Rig: Geoprobe 5410

Driller: Regional Probing Services

Project No.: 70207241

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_BORING LOGS.GPJ TERRACON_DATATEMPLATE.GDT 3/2/21

BORING LOG NO. 23-SB-02

PROJECT: Phase II Preliminary Site Assessment - Parcel 23

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: Nancy Myatt Property - 4660 NC 55
Angier, North Carolina**

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_BORING LOGS.GPJ TERRACON DATATEMPLATE.GDT 3/2/21

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|------------------------------------|--|------------|--------------------------|-------------|----------------|---------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | | |
| 2.0 | SILTY SAND (SM) , trace organics, fine to coarse grained, dark brown, odor and staining not observed, moist | | | | | <0.1 | 23-SB-02 TPH via QED UVF |
| 4.0 | SAND (SW) , with pea gravel, trace fines, fine to coarse grained, light brown, odor and staining not observed, moist to saturated at 5 feet bls | | | 36 | 0.4 | | |
| 6.0 | SILTY SAND (SM) , fine to coarse grained, light brown, odor and staining not observed, moist to saturated at 5 feet bls | 5 | | Grab | 0.6 | | |
| 8.0 | SILTY CLAY (SM) , with fines, fine to coarse grained, orangish brown and reddish brown, odor and staining not observed, saturated | | | 36 | 0.3 | | |
| Boring Terminated at 8 Feet | | | | | | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with bentonite chips upon completion.

Notes:
ft bls: feet below land surface
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS



| | |
|----------------------------|------------------------------------|
| Boring Started: 02-02-2021 | Boring Completed: 02-02-2021 |
| Drill Rig: Geoprobe 5410 | Driller: Regional Probing Services |
| Project No.: 70207241 | Appendix B |

BORING LOG NO. 23-SB-03

PROJECT: Phase II Preliminary Site Assessment - Parcel 23

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: Nancy Myatt Property - 4660 NC 55
Angier, North Carolina**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|---|------------|--------------------------|-------------|----------------|---------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | | |
| 4.0 | SILTY SAND (SM) , trace asphalt at 0.25 feet bls, trace clay between 3 to 4 feet bls, fine to coarse grained, light brown, odor and staining not observed, moist | 3 | | 36 | | 0.4 | 23-SB-03 TPH via QED UVF |
| 4.0 | SILTY SAND (SM) , trace fines, fine to coarse grained, orangish brown and reddish brown, odor and staining not observed, moist to saturated at 5 feet bls | 5 | | 48 | | 0.4 | |
| 8.0 | | | | | | 0.5 | |
| 8.0 | | | | | | 0.1 | |
| | Boring Terminated at 8 Feet | | | | | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with bentonite chips upon completion.

Notes:
ft bls: feet below land surface
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS



| | |
|----------------------------|------------------------------------|
| Boring Started: 02-02-2021 | Boring Completed: 02-02-2021 |
| Drill Rig: Geoprobe 5410 | Driller: Regional Probing Services |
| Project No.: 70207241 | Appendix B |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241 BORING LOGS.GPJ TERRACON DATATEMPLATE.GDT 3/2/21

BORING LOG NO. 23-SB-04

PROJECT: Phase II Preliminary Site Assessment - Parcel 23

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: Nancy Myatt Property - 4660 NC 55
Angier, North Carolina**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|---|------------|--------------------------|-------------|----------------|---------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | | |
| 4.0 | SILTY SAND (SM) , some clay, fine to medium grained, light brown, odor and staining not observed, moist to saturated at 2 feet bls | 4.0 | | | | 0.4 | |
| 4.0 | SILTY SAND (SM) , some clay, fine to medium grained, orangish brown and reddish brown, odor and staining not observed, saturated | 4.0 | | | | 0.7 | |
| 5.0 | | 5.0 | | | | 0.7 | |
| 8.0 | | 8.0 | | Grab | 36 | 1.0 | 23-SB-04 TPH via QED UVF |
| | Boring Terminated at 8 Feet | | | | | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with bentonite chips upon completion.

Notes:
ft bls: feet below land surface
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS



| | |
|----------------------------|------------------------------------|
| Boring Started: 02-03-2021 | Boring Completed: 02-03-2021 |
| Drill Rig: Geoprobe 5410 | Driller: Regional Probing Services |
| Project No.: 70207241 | Appendix B |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241 BORING LOGS.GPJ TERRACON DATATEMPLATE.GDT 3/2/21

BORING LOG NO. 23-SB-05

PROJECT: Phase II Preliminary Site Assessment - Parcel 23

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: Nancy Myatt Property - 4660 NC 55
Angier, North Carolina**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|---|------------|--------------------------|-------------|----------------|---------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | | |
| 0.3 | AGGREGATE BASE COURSE | | | | | | |
| | SAND (SP) , light brown and dark brown, odor and staining not observed, moist to saturated at 2 feet bls | | | 36 | | 0.9 | 23-SB-05 TPH via QED UVF |
| | | | Grab | | 1.4 | | |
| 4.0 | SAND (SP) , some clay, orange and tan, odor and staining not observed, saturated | 5 | | | 1.0 | | |
| | | | | 48 | | 0.6 | |
| 8.0 | Boring Terminated at 8 Feet | | | | | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with bentonite chips upon completion.

Notes:
ft bls: feet below land surface
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS



| | |
|----------------------------|------------------------------------|
| Boring Started: 02-03-2021 | Boring Completed: 02-03-2021 |
| Drill Rig: Geoprobe 5410 | Driller: Regional Probing Services |
| Project No.: 70207241 | Appendix B |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_BORING LOGS.GPJ TERRACON DATATEMPLATE.GDT 3/2/21

BORING LOG NO. 23-SB-06

PROJECT: Phase II Preliminary Site Assessment - Parcel 23

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: Nancy Myatt Property - 4660 NC 55
Angier, North Carolina**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|--|------------|--------------------------|-------------|----------------|--------------------------------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | | |
| 0.3 | ASPHALT | | | | | | |
| 8.0 | SAND (SP) , some clay, orange and tan, odor and staining not observed, moist to saturated at 4 feet bls | 5 | | 48 Grab | | 1.2 1.8 1.5 1.6 | 23-SB-06 TPH via QED UVF |
| | Boring Terminated at 8 Feet | | | | | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with bentonite chips upon completion.

Notes:
ft bls: feet below land surface
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS



| | |
|----------------------------|------------------------------------|
| Boring Started: 02-03-2021 | Boring Completed: 02-03-2021 |
| Drill Rig: Geoprobe 5410 | Driller: Regional Probing Services |
| Project No.: 70207241 | Appendix B |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_BORING LOGS.GPJ TERRACON_DATATEMPLATE.GDT 3/2/21

BORING LOG NO. 23-SB-07

PROJECT: Phase II Preliminary Site Assessment - Parcel 23

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: Nancy Myatt Property - 4660 NC 55
Angier, North Carolina**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|--|------------|--------------------------|-------------|----------------|---------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | | |
| 1.0 | SAND (SP) , dark brown and light brown, odor and staining not observed, dry | | | | | | |
| | SAND (SP) , some clay, orange and tan, odor and staining not observed, moist to saturated at 2 feet bls | 5 | | 48 | 0.5 | | |
| 8.0 | | | | 48 | 0.8 | | |
| | | | | 48 | 1.4 | | |
| | Boring Terminated at 8 Feet | | | Grab | 1.2 | | 23-SB-07 TPH via QED UVF |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with bentonite chips upon completion.

Notes:
ft bls: feet below land surface
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS



Boring Started: 02-03-2021

Boring Completed: 02-03-2021

Drill Rig: Geoprobe 5410

Driller: Regional Probing Services

Project No.: 70207241

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_BORING LOGS.GPJ TERRACON_DATATEMPLATE.GDT 3/2/21

BORING LOG NO. 23-SB-08

PROJECT: Phase II Preliminary Site Assessment - Parcel 23

**CLIENT: NCDOT
Raleigh, North Carolina**

**SITE: Nancy Myatt Property - 4660 NC 55
Angier, North Carolina**

| GRAPHIC LOG | LOCATION See Exhibit 3 | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | OVA/PID (ppm) | SAMPLE SENT TO LAB (ID NUMBER) |
|-------------|--|------------|--------------------------|-------------|----------------|---------------|--------------------------------|
| | DEPTH MATERIAL DESCRIPTION | | | | | | |
| 1.0 | SAND (SP) , dark brown and light brown, odor and staining not observed, dry | | | | | | |
| | SAND (SP) , some clay, orange and tan, odor and staining not observed, moist to saturated at 2 feet bls | | | | | 0.2 | |
| 5 | | | | | | 36 | |
| | | | | | | 0.6 | |
| | | | | | | 0.9 | |
| 8.0 | | | | | | 48 | |
| | | | | Grab | | 0.9 | 23-SB-08 TPH via QED UVF |
| | Boring Terminated at 8 Feet | | | | | | |

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with bentonite chips upon completion.

Notes:
ft bls: feet below land surface
PID: Photoionization detector
TPH: Total petroleum hydrocarbons
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS



| | |
|----------------------------|------------------------------------|
| Boring Started: 02-03-2021 | Boring Completed: 02-03-2021 |
| Drill Rig: Geoprobe 5410 | Driller: Regional Probing Services |
| Project No.: 70207241 | Appendix B |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 70207241_BORING LOGS.GPJ TERRACON_DATATEMPLATE.GDT 3/2/21

APPENDIX D
LABORATORY ANALYTICAL REPORTS AND
CHAIN-OF-CUSTODY RECORDS



Hydrocarbon Analysis Results

Client: Terracon Consultants
Address: 2401 Brentwood Rd. Suite 107
 Raleigh, NC 27604

Samples taken Tuesday, February 2, 2021
Samples extracted Tuesday, February 2, 2021
Samples analysed Wednesday, February 3, 2021

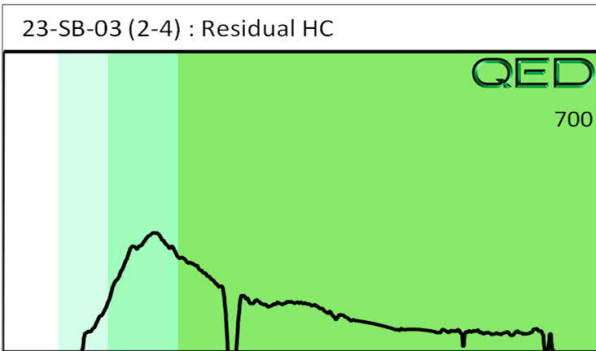
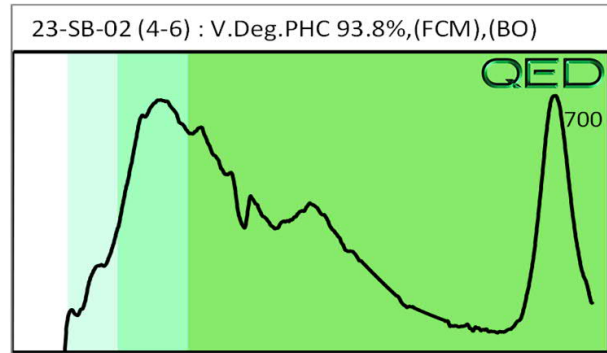
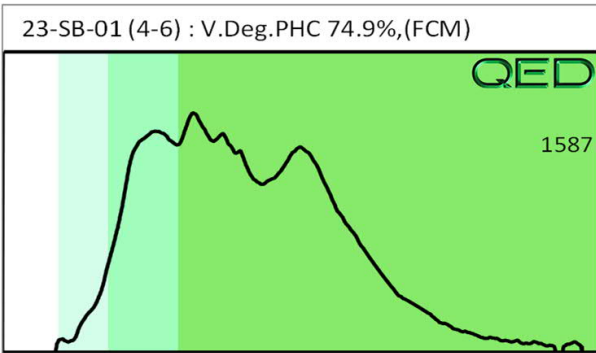
Contact: Ethan Dinwiddie

Operator Tori Kelly

Project: #70207241

| | | | | | | | | | | U04049 | | | |
|-----------------------------|----------------|---------------|----------------|----------------|-----------------|----------------|---------------------------|-------------|--------|--------------------|-------|---------|----------------------------|
| 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 | 23-SB-01 (4-6) | 23.6 | <0.59 | <0.59 | 0.79 | 0.79 | 0.68 | <0.19 | <0.024 | 0 | 60.4 | 39.6 | V.Deg.PHC 74.9%,(FCM) |
| s | 23-SB-02 (4-6) | 10.7 | <0.27 | <0.27 | 0.51 | 0.51 | 0.24 | <0.09 | <0.011 | 0 | 70.2 | 29.8 | V.Deg.PHC 93.8%,(FCM),(BO) |
| s | 23-SB-03 (2-4) | 10.1 | <0.25 | <0.25 | <0.25 | 0.13 | 0.13 | <0.08 | <0.01 | 0 | 100 | 0 | Residual HC |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Initial Calibrator QC check | | | | | | | | | | OK | | | |
| | | | | | | | | | | Final FCM QC Check | | | OK |
| | | | | | | | | | | | | | 99.6 % |

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
 (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: TERRACON
Address: 2401 BRENTWOODRD SUITE 107
 RALEIGH, NC 27604

Samples taken Wednesday, February 3, 2021
Samples extracted Wednesday, February 3, 2021
Samples analysed Thursday, February 4, 2021

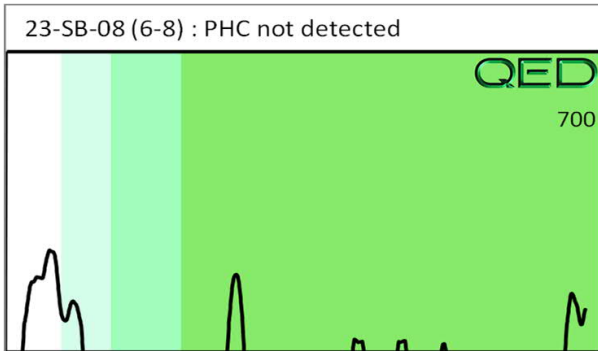
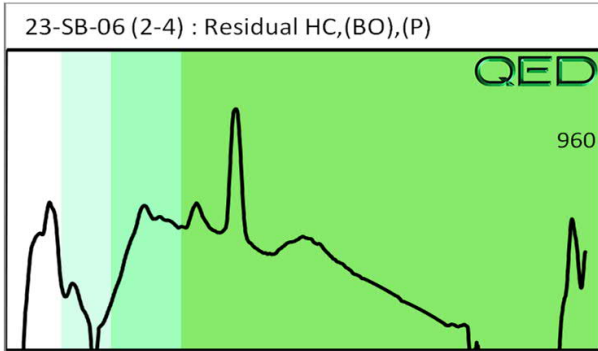
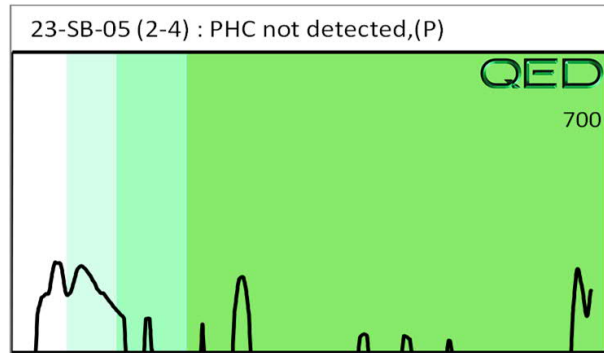
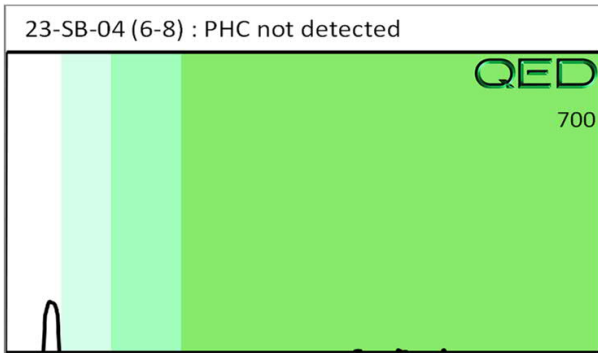
Contact: ETHAN DIWIDDIE

Operator TORI KELLY

Project: #70207241

| | | | | | | | | | | 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 | 23-SB-04 (6-8) | 19.8 | <0.5 | <0.5 | <0.5 | <0.5 | <0.1 | <0.16 | <0.02 | 0 | 0 | 0 | PHC not detected |
| s | 23-SB-05 (2-4) | 19.1 | <0.48 | <0.48 | <0.48 | <0.48 | <0.1 | <0.15 | <0.019 | 0 | 0 | 0 | PHC not detected,(P) |
| s | 23-SB-06 (2-4) | 10.7 | <0.27 | <0.27 | <0.27 | 0.24 | 0.24 | <0.09 | <0.011 | 0 | 66.1 | 33.9 | Residual HC,(BO),(P) |
| s | 23-SB-07 (6-8) | 20.6 | <1 | <0.52 | <0.52 | <0.52 | <0.1 | <0.17 | <0.021 | 0 | 0 | 0 | PHC not detected |
| s | 23-SB-08 (6-8) | 19.5 | <0.49 | <0.49 | <0.49 | <0.49 | <0.1 | <0.16 | <0.02 | 0 | 0 | 0 | PHC not detected |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Initial Calibrator QC check | | | OK | | Final FCM QC Check | | | OK | | 99.2 % | | | |

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



Client Name: Terracon Consultants
 Address: 2401 Brentwood Rd, Suite 107
 State 107 Raleigh, NC 27604
 Contact: Ethan Dinwiddie
 Project Ref.: 7020721
 Email: Ethan.Dinwiddie@Terracon.com
 Phone #: 828-550-5502
 Collected by: Ethan Dinwiddie



RAPID ENVIRONMENTAL DIAGNOSTICS

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 | | | | | |
| 2/2/21/915 | | X | X | | ED | 29-SB-01 (2-4) | 52.5 | 40.5 | 12 |
| 2/2/21/945 | | X | X | | ED | 29-SB-02 (4-6) | 52.5 | 40.6 | 11.9 |
| 2/2/21/1015 | | X | X | | ED | 29-SB-03 (2-4) | 52.3 | 40.4 | 11.9 |
| 2/2/21/1030 | | X | X | | ED | 29-SB-04 (6-8) | 52.2 | 40.5 | 11.7 |
| 2/2/21/1045 | | X | X | | ED | 29-SB-05 (8-10) | 51.8 | 40.5 | 11.3 |
| 2/2/21/1115 | | X | X | | ED | 29-SB-06 (6-8) | 52.9 | 40.4 | 12.5 |
| 2/2/21/1200 | | X | X | | ED | 29-SB-07 (4-6) | 51.2 | 40.2 | 11 |
| 2/2/21/1500 | | X | X | | ED | 23-SB-01 (4-6) | 53.4 | 40.3 | 13.1 |
| 2/2/21/1515 | | X | X | | ED | 23-SB-02 (4-6) | 53.6 | 40.5 | 13.1 |
| 2/2/21/1545 | | X | X | | ED | 23-SB-03 (2-4) | 54.2 | 40.3 | 13.9 |
| 2/2/21 | ON HOLD | | X | | ED | TB-01 | | | |

COMMENTS/REQUESTS:
 Sample (TB-01) contained no soil

TARGET GC/UVF ANALYTES:

| | | | |
|---------------------|----------|-------------------------------|---------------------------|
| Relinquished by | 2/2/1830 | Accepted by Victoria Kelly | Date/Time 2/3/21 12:30 |
| Relinquished by | | Accepted by | Date/Time |

RED Lab USE ONLY
 10
 Ref. No

Client Name: Terracon
 Address: 2401 Brentwood Rd, Suite 107
 Raleigh, NC 27604
 Contact: Ethan Dinwiddie
 Project Ref.: 70207241
 Email: Ethan.Dinwiddie@Terracon.com
 Phone #: 828-550-5502
 Collected by: Ethan Dinwiddie



RAPID ENVIRONMENTAL DIAGNOSTICS

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 Date/Time | TAT Requested | | Analysis Type | | Initials | Sample ID | Total Wt. | Tare Wt. | Sample Wt. |
|--------------------------------|---------------|---------|---------------|----|----------|-----------------|-----------|----------|------------|
| | 24 Hour | 48 Hour | UVF | GC | | | | | |
| 2/3/21 / 945 | | X | X | | ED | 23-SB-04 (6-8) | 53.1 | 40.0 | 13.1 |
| 2/3 / 1015 | | X | X | | ED | 23-SB-05 (2-4) | 53.9 | 40.3 | 13.6 |
| 2/3 / 1020 | | X | X | | ED | 23-SB-06 (2-4) | 53.3 | 40.2 | 13.1 |
| 2/3 / 1045 | | X | X | | ED | 23-SB-07 (6-8) | 52.9 | 40.3 | 12.6 |
| 2/3 / 1100 | | X | X | | ES | 23-SB-08 (6-8) | 53.6 | 46.3 | 13.3 |
| 2/3 / 1240 | | X | X | | ED | 244-SB-01 (4-6) | 53.9 | 46.3 | 13.6 |
| 2/3 / 1315 | | X | X | | ED | 244-SB-02 (6-8) | 53.2 | 40.2 | 13 |
| 2/3 / 1320 | | X | X | | ES | 244-SB-03 (6-8) | 54.2 | 40.2 | 14 |
| 2/3 / 1330 | | X | X | | ES | 244-SB-04 (4-6) | 54.0 | 46.3 | 13.7 |
| 2/3 / 1350 | | X | X | | ED | 244-SB-05 (4-6) | 54.5 | 40.4 | 14.1 |
| 2/3 / 1420 | | X | X | | ES | 244-SB-06 (6-8) | 54.0 | 39.9 | 14.5 |
| 2/3 / - | | X | ON HOLD | | | TB-02 | | | |

COMMENTS/REQUESTS:

TARGET GC/UVF ANALYTES:

| | | | |
|--------------------|-----------|-------------|-----------|
| Relinquished by | Date/Time | Accepted by | Date/Time |
| <i>[Signature]</i> | 2/3/1800 | WIK | 11am |
| Relinquished by | | Accepted by | |
| | | | |

RED Lab USE ONLY

 Ref. No 2-2021-1