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**Fort Mill, South Carolina 29715**
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February 3, 2016

Alex Kelly
Tribek Properties, Inc
2820 Selwyn Avenue, Suite 425
Charlotte, NC 28209

Subject: **Limited Phase II Environmental Site Assessment**
**E. Innes Road Property**
**1517 E. Innes Street**
Salisbury, Rowan County, North Carolina
**SUMMIT** Project No. 3509.05

Dear Mr. Kelly:

SUMMIT ENGINEERING, LABRATORY & TESTING, INC. (**SUMMIT**) is pleased to submit the following report of our Limited Phase II Environmental Site Assessment (ESA) of the E. Innes Street Property, located at at 1517 E. Innes Street in Salisbury, Rowan County, North Carolina (Rowan County Tax IDs: 0700301, 070118 & 070002).

This report includes a description of the methodology of our investigation and a summary of our findings and conclusions. If you have any questions regarding our assessment of the subject property or our conclusions, please do not hesitate to call us at (704) 504-1717.

Sincerely,
**SUMMIT**

Patrick W. Lowery, LG
Senior Environmental Manager
NC LG No: 2421

Michael D. Zavislak, NRCC-EAC, CHMM, PE
Environmental Department Manager

NORTH CAROLINA PROFESSIONAL SEAL 038 ENGINEER MICHAEL D. ZAVISLAK

SUMMIT's NC Engineering Firm License No. C-2530

# LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

**E. INNES STREET PROPERTY**
**SALISBURG**
**ROWAN COUNTY**
**NORTH CAROLINA**
**SUMMIT PROJECT NO. 3509.05**

**Prepared For:**

**Tribek Properties**
**2820 Selwyn Avenue, Suite 425**
**Charlotte, NC 28209**

**Prepared By:**

**SUMMIT ENGINEERING, LABRATORY & TESTING, Inc.**
**3575 Centre Circle**
**Fort Mill, South Carolina 29715**
**704-504-1717**

**February 3, 2016**

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APPENDICES

# 1.0 EXECUTIVE SUMMARY

In summary, two (2) groundwater samples were collected from locations on-site identified to represent the highest potential for impact from the operation of a former auto repair facility and associated underground storage tank system. Three (3) sampling locations were planned for this assessment, however utility conflicts and current tenant conflicts limited the installation of to TMW-1 and TMW-3 only. This sampling scope of services was completed to determine if former site uses may have impacted the subject site. All groundwater samples were analyzed for the presence of Volatile Organic Compounds (VOCs) by EPA method 8260 and Semi-Volatile Organic Compounds (SVOCs) by EPA method 8270.

Tetrachloroethene (aka PCE) was detected in groundwater collected from sampling point TMW-3 at 16 ug/L, above the regulatory concentration of 0.7 ug/L. Tetrachloroethene is a chlorinated solvent commonly utilized in automotive degreasers, cleaners and dry cleaning chemicals.

Based on the results of this assessment, **SUMMIT** concludes that the site use as a former auto repair facility has impacted the site.

**SUMMIT** recommends the potential developer of the property consider entry into the North Carolina Department of Environmental Quality (DEQ) Brownfields Program. The program can be utilized to further assess the property and provide liability protections to the developer and future owners of the site. The Brownfields Program will require additional soil, groundwater and soil vapor sampling to be conducted at the site parcels in order to assess current environmental status.

A copy of the Limited Phase II ESA analysis and subsequent confirmation sampling should be submitted to North Carolina Department of Environment Quality.

# 2.0 INTRODUCTION

## 2.1. PURPOSE

**SUMMIT** was retained by Tribek Properties to perform a Limited Phase II ESA of the E. Innes Street Property in Salisbury, Rowan County, North Carolina (Rowan County Tax IDS: 0700301, 070118 & 070002). The Limited Phase II ESA was requested in order to assess environmental concerns identified in a Phase I ESA, performed by SUMMIT ELT, Inc, dated December 12, 2015. This report presents the results of our Limited Phase II ESA of the Pecan Avenue Site.

## 2.2. SITE DESCRIPTION

The property includes three (3) parcels of commercial land located at 1517, 1535 and 1541 E. Innes Street in Salisbury, Rowan County, North Carolina. There are two (2) commercial buildings on the site. The building on parcel 070002 was formerly utilized as an automobile repair operation. The parcels are irregular-shaped. Refer to the Site Plan shown in Figure 2 of Appendix I for the location of the subject property.

## 2.3. ASSESSMENT HISTORY

**SUMMIT** completed a Phase I ESA, dated December 12, 2015 for the subject site. The following Recognized Environmental Conditions (RECs) were identified in the Phase I ESA:

- The subject site previously contained one (1) Underground Storage Tank (UST) on the northern portion of the property. The EDR report indicates the UST was removed in 1979. Additionally, the property was previously used as an automobile maintenance facility. There are floor drains along the western portion of the building. SUMMIT recommends additional environmental assessment to determine if the previous activities have impacted the property.

No other site specific or surrounding area assessment history is known at the time of this report.

## 2.4. WORK PLAN OBJECTIVES

**SUMMIT** proposed to perform a Limited Phase II ESA according to our understanding of the most likely potential for impact, in general accordance with ASTM E1903, and in accordance with the USEPA Field Branches Quality System and Technical Procedures Manual. The proposed scope of services included the installation of three (3) temporary monitoring wells (TMW) in order to assess the groundwater quality at the subject site. The proposed sampling locations were placed in accessible locations and in areas that represented the highest potential for on-site impacts. All samples collected f were scheduled to be relinquished to a NC certified laboratory for analysis of Volatile Organic Compounds by EPA method 8260 and Semi-Volatile Organic Compounds by EPA method 8270.

# 3.0 PROPERTY SETTING

## 3.1. TOPOGRAPHIC SETTING

The United States Geological Survey (USGS) Salisbury topographic quadrangle map was reviewed for this report. According to the contour lines on the topographic maps, the elevation of the subject property ranges from approximately 770 feet (along southern property boundaries) to approximately 740 feet (along northern property boundaries) above Mean Sea Level (MSL). The contour lines indicate the general direction of downward slope is to the north towards Town Creek. Town Creek flows into High Rock Lake (Tadkin River). Refer to Figure 1 in Appendix I of this report.

## 3.2. GEOLOGIC SETTING

The property is located in Rowan County, North Carolina, which is located in the central Piedmont Physiographic Province. The Piedmont Province generally consists of well-rounded hills and ridges which are dissected by a well-developed system of draws and streams. The Piedmont Province is predominantly underlain by metamorphic rock (formed by heat, pressure and/or chemical action) and igneous rock (formed directly from molten material) which were initially formed during the Precambrian and Paleozoic eras. The volcanic and sedimentary rocks deposited in the Piedmont Province during the Precambrian era were the host from the metamorphism and were changed to gneiss and schist. The more recent Paleozoic era had periods of igneous emplacement, with at least episodes of regional metamorphism resulting in the majority of the rock types seen today.

The topography and relief of the Piedmont Province has developed from differential weathering of the igneous and metamorphic rock. Ridges and hills have been developed on the more easily weathered and erodible rock. Because of the continued chemical and physical weathering, the rocks in the Piedmont Province are now generally covered with a mantle of soil that has weathered in place from the parent bedrock. These soils vary in thickness and are referred to as residuum or residual soils. The residuum is typically finer grained and has higher clay content near the surface

because of the advanced weathering. Similarly, the soils typically become coarser grained with increasing depth because of decreased weathering. As the weathering decreases, the residual soils generally retain the overall appearance, texture, gradation and foliations of the parent rock.

## 3.3. HYDROLOGIC SETTING

Based on a review of the United States Geological Survey (USGS) "Salisbury, North Carolina, United States" quadrangle topographic map, the inferred groundwater flow direction based on topography appears to be to the north towards Town Creek. Refer to Figure 1 in Appendix I for a topographic map for the subject property.

# 4.0 SUMMARY OF PHASE II ACTIVITIES

## 4.1. DRILLING ACTIVITES AND METHODS

On January 20, 2016, **SUMMIT** personnel conducted the field activities scope of the Limited Phase II ESA. The three (3) proposed temporary monitoring well (TMW) locations were placed in accessible locations along the northern, eastern and southern elevations of the former auto repair facility. The sampling locations were chosen to determine if on-site operations may have impacted the groundwater beneath the facility. The sampling locations can be viewed on the attached Sampling Location Map, Figure 3, in appendix I.

**SUMMIT** utilized a hollow stem auger (HSA) drill rig to install the temporary monitoring wells. At each sampling location the boring was advanced with HSA into the groundwater table for collection of groundwater samples. New 1 inch slotted well screen was inserted into the borehole with filter pack sand added through the HSA drill string. The HSA drill string was removed and the temporary well sampled utilizing a new disposable groundwater bailer. TMW-1 and TMW-3 were completed to a depth of 30 ft bgs. TMW-2 was not installed due to overhead and underground utility conflicts along the eastern side of the building. Additional locations along the eastern portion of the building were considered, however the current tenant would not allow access due to potential impact on the current restaurant business. DTW was measured in each well prior to sampling. Each boring generally encountered six (6) inches of surface material and subgrade followed by tan/orange fine to medium grained clayey sand with mica to termination depths.

Upon completion of the drilling activities, the drilling equipment was decontaminated by the well driller by use of a steam cleaner or Alconox and tap water wash, tap water rinse, isopropanol rinse (sampling equipment), and deionized water rinse. Decontamination of the drilling equipment was performed prior to starting drilling activities, and upon the completion of drilling activities at each boring/well location.

## 4.2. SAMPLING

Groundwater was encountered in all installed temporary monitoring wells. The following depth to water measurements were recorded prior to sampling.

| TMW ID | DTW FT |
|---|---|
| TMW-1 | 26 |
| TMW-2 | N/A |
| TMW-3 | 24 |

Groundwater samples were collected utilizing new disposable bailers. Grab samples were collected in the laboratory provided vials and jars and submitted for analysis of Volatile Organic Compounds by EPA Method 8260B Polycyclic Aromatic Hydrocarbons by EPA Method 8270. A copy of the analysis and chains of custody are included in Appendix III of this report.

## 4.3. PACKING AND SHIPMENT

Upon securing the samples in laboratory provided containers, the vial and jar lids were tightly fastened, and the jars encapsulated in shock-resistant plastic bags. The samples and ice were double-bagged in large plastic bags, tied off with rubber bands, and packed into a cooler. The samples were delivered to Shealy Environmental Services, Inc, in West Columbia, SC. The vials and jars used for the collection of the samples at this site were prepared by Shealy, and were pre-labeled and contained analyte-appropriate preservatives. A listing of the preservatives in the sample containers utilized for the collection of the samples at this site are cataloged in the *Chain-Of-Custody* record, attached in Appendix III of this report. The secured samples were relinquished to laboratory on January 21, 2016 for laboratory analysis.

## 4.4. SAMPLING POINT ABANDONMENT

All boreholes were abandoned the same day by the certified well driller.

## 5.0 SUMMARY OF LABORATORY ANALYSIS

All samples were relinquished to Shealy Environmental Services on January 21, 2016 for the prescribe analysis. Table 1 in Appendix II of this report summarizes all detections. The analytical detections are summarized below:

- Tetrachloroethene was identified in the groundwater sample collected from TMW-3 at 16.0 ug/L above the NC2L regulatory standard of 0.7 ug/L.

No other detections were reported in the laboratory analysis.

## 6.0 FINDINGS & CONCLUSIONS

In summary, two (2) groundwater samples were collected from locations on-site identified to represent the highest potential for impact from the operation of a former auto repair facility and associated underground storage tank system. Three (3) sampling locations were planned for this assessment, however utility conflicts and current tenant conflicts limited the installation of to TMW-1 and TMW-3 only. This sampling scope of services was completed to determine if former site uses may have impacted the subject site. All groundwater samples were analyzed for the presence of Volatile Organic Compounds (VOCs) by EPA method 8260 and Semi-Volatile Organic Compounds (SVOCs) by EPA method 8270.

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Based on the results of this assessment, **SUMMIT** concludes that the site use as a former auto repair facility has impacted the site.

# 7.0 RECOMMENDATIONS

**SUMMIT** recommends the potential developer of the property consider entry into the North Carolina Department of Environmental Quality (DEQ) Brownfields Program. The program can be utilized to further assess the property and provide liability protections to the developer and future owners of the site. The Brownfields Program will require additional soil, groundwater and soil vapor sampling to be conducted at the site parcels in order to assess current environmental status.

A copy of the Limited Phase II ESA analysis and subsequent confirmation sampling should be submitted to North Carolina Department of Environment Quality.

## 8.0 QUALIFICATION OF REPORT

The Limited Phase II ESA was performed in general accordance with ASTM E1903, and in accordance with the USEPA Field Branches Quality System and Technical Procedures Manual. The findings detailed in this report are specific to the conditions in the immediate vicinity of the sample locations for this particular project.

## 9.0 ADDITIONAL SERVICES

This report does not include any environmental assessment of surface water, the determination of wetlands, the determination of noise impact, the assessment of air quality, the identification of cultural resources, or the identification of endangered species. These services are beyond the scope of services of this limited sampling and analysis.

No additional services were provided.

## 10.0 REFERENCES

Phase I ESA Report, E. Innes Street Project, by SUMMIT ELT, Inc, dated December 12, 2015.

United States Geological Survey (USGS) 7.5 minute Topographic Map of the Salisbury topographic Quadrangle, Delorme 2002.

United States Department of Agriculture (USDA) Soil Conservation Service, Web Soil Survey http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

EPA National Primary Drinking Water Regulations - http://water.epa.gov/drink/contaminants/index.cfm

15A NCAC 2L Standards – http://portal.ncdenr.org/web/wq/ps/csu/gwstandards

EPA Regional Screening Levels – http://www.epa.gov/region9/superfund/prg/

North Carolina Maximum Soil Contaminant Concentrations – http://portal.ncdenr.org/web/wm/ust/guidance

# APPENDIX I

# FIGURES