

**VOLUNTARY REMEDIATION PROGRAM APPLICATION  
MERCER UNIVERSITY TRIANGLE  
COLEMAN AVENUE AND MONTPELIER AVENUE  
MACON, BIBB COUNTY, GEORGIA  
HSI #10779  
GEC JOB NO. 090698.340**

**PREPARED FOR**

**MERCER UNIVERSITY  
1400 COLEMAN AVENUE  
MACON, GEORGIA 31207**

**SUBMITTED TO**

**MR. JASON METZGER  
GEORGIA DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL PROTECTION DIVISION  
HAZARDOUS SITES RESPONSE PROGRAM  
2 MARTIN LUTHER KING, JR. DRIVE, SE  
SUITE 1462, EAST TOWER  
ATLANTA, GEORGIA 30334**

**PREPARED BY**

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.  
514 HILLCREST INDUSTRIAL BOULEVARD  
MACON, GEORGIA 31204**

**September 30, 2013**

**GEC**

# GEC

**GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC**

September 30, 2013

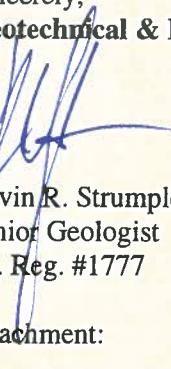
**Mr. Jason Metzger**  
Georgia Department of Natural Resources  
Environmental Protection Division  
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Atlanta, Georgia 30334

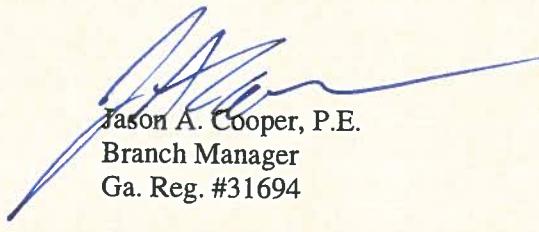
**Re:** Voluntary Remediation Program Application  
Mercer University Triangle  
HSI #10779  
Coleman Avenue and Montpelier Avenue  
Macon, Bibb County, Georgia

**Dear Mr. Metzger:**

Attached please find one paper copy and two CDs of the Voluntary Remediation Program Application for the above referenced site. A check for the \$5,000 application fee is also attached. If you have any questions, please call.

Sincerely,  
**Geotechnical & Environmental Consultants, Inc.**

  
Kevin R. Strumpler, P.G.  
Senior Geologist  
Ga. Reg. #1777

  
Jason A. Cooper, P.E.  
Branch Manager  
Ga. Reg. #31694

Attachment: Voluntary Remediation Program Application  
Check for Application Fee

Cc: w/out attachment      Mark Smith, EPD  
                                  Jim Brown, EPD

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## 1.0 INTRODUCTION

This Voluntary Remediation Program Application is being submitted on behalf of Mercer University for the Mercer University Triangle site (Property) located at the intersection of Montpelier Avenue and Coleman Avenue in Macon, Bibb County, Georgia. A Voluntary Remediation Program (VRP) Application and Checklist and a copy of the Application Fee check are included in Appendix A. Tax map and warranty deed information for the Property is attached in Appendix B.

Figure 1 of Appendix C is a topographic map of the surrounding area, and Figure 2 is an aerial photo that includes the Property. According to information obtained from city directories, Sanborn Maps, and aerial photographs, the subject property contained a drycleaner (Sno White Laundry) that operated from 1969 until 1996. The Property was formerly owned by Mercer University, and was originally legally described as “a triangular tract in Block 65 of the Southwest Commons, Macon, Bibb County, Georgia, and bounded by Coleman Avenue, Montpelier Avenue and Linden Avenue..,” Map P8-2, Parcel 0075 (SWC65-1A). However, this parcel, former address of 1535 Linden Avenue, Macon, Georgia, was absorbed into the City of Macon Right-of-Way for Coleman, Linden, and Montpelier Avenues in 2004 and no longer exists on City of Macon tax maps. Former parcel 0075 (SWC65-1A) encompasses the triangular area in which the former dry cleaner was located. It is now known that additional parcels have been impacted. The following parcels are believed to be located within the contaminant plume: P082- 0032, 0033, 0035, 0036, 0037, 0038, 0045, 0046, 0047, 0048, 0050, 0072, 0076, and 0420. Currently, the properties adjacent to the subject property consist of various commercial entities including a hair salon, restaurant, residential housing, and Mercer University offices. The site also includes a decorative water fountain with brick-paved and concrete sidewalks.

The site is located at 32°49'59" North Latitude and 83°39'00" West Longitude. The site's location is shown in Figure 1 and Figure 2, in Appendix C. The tax map is included in Appendix B.

### 1.1 Background

GEC initiated site investigation activities after two USTs were discovered during excavation for construction. One of the tanks was measured at 1,000 gallons and the other was measured at 550 gallons. The site was originally under construction to transform the abandoned commercial site into a landscaped area with a water fountain (at the split of Coleman Avenue and Montpelier Avenue), when the underground storage tanks were discovered. The triangle was formed when a new section of road was constructed between Coleman and Montpelier. The soil and groundwater sampling indicates that solvents were possibly stored in the USTs or released through surface spills. The quantity released is unknown.

GEC collected soil and groundwater samples, via temporary monitoring wells MW-1 and MW-2, during the UST removal activities. GEC installed four permanent groundwater monitoring wells, MWA-1 through MWA-3 and MWB-4, at the site in December 2002.

GEC re-sampled the on-site monitoring wells in March 2006, and the tetrachloroethene concentrations were very similar to those detected in the December 2002 sampling event.

GEC installed three additional groundwater monitoring wells, MWA-5, MWA-7, and MWA-8, on adjacent properties in August 2006. GEC also installed and sampled a vertical delineation well, MWD-6, on site at this time. Soil and groundwater samples were collected from the additional wells.

Since October 2007, seven additional groundwater monitoring wells, MW-9 through MW-15, were installed, in three separate mobilization events, on surrounding properties in an attempt to delineate the contamination plume. Soil and groundwater samples were collected from the additional wells. A full sampling event of all the installed groundwater monitoring wells was conducted in January 2008.

In February 2008, a two-day (16 hour) In-situ chemical oxidation/enhanced fluid recovery (ISCO/EFR) pilot test was performed at monitoring wells MWA-1, MWA-2, MWA-3, and MWB-4. The high vacuum extraction utilized dual/multi phase extraction to determine the permeability, radius of vacuum influence, transmissivity, and groundwater drawdown at the site. During the event, a calculated total of 39 pounds of chlorinated hydrocarbons and 456 gallons of groundwater were removed. Once the groundwater table recharged following the pilot test, MWA-1, MWA-2, and MWB-4 were resampled to determine whether or not there was a positive response to the EFR in the groundwater concentrations.

A total of twelve injection wells and one replacement monitoring well were installed during October and November 2009. A new monitoring well, MWR-3, replaced MWA-3, which is now being used as an injection well. Four of the injection wells were installed to remediate the soil in the former source area. These four injection wells, IWS-1, IWS-4, IWS-5, and IWS-8, were drilled to approximately 20 feet below surface elevation (bse) and screened to within 5 feet of the surface. The remaining "deep" injection wells were drilled below the shallow groundwater aquifer, with an average depth of 51 feet bse.

From December 14 through December 17, 2009, a pilot test was conducted by EcoVac Services, Inc. (ESI) on the newly installed wells. The pilot test combined dual-phase/multiphase extraction equipment to determine the radius of influence of the injection wells and the existing monitoring wells in the triangle area. The data collected during this event was also used to determine if additional Enhanced Fluid Recovery (EFR) events would be beneficial prior to In-Situ Chemical Oxidation (ISCO) being performed. The pilot study also achieved contaminant removal, reduction of the aerial and vertical extent of the plume, determination of the ISCO injection volumes/locations/sequences, and the required number and duration of the ISCO injection events.

ESI conducted the treatability study for the Mercer Triangle site in order to determine the mass of contaminant present in the treatment area and the amount of oxidant required to overcome the natural soil oxidant demand (SOD) in the soil in order to treat the mass of contaminant compounds present in the vadose and saturated zones. The study also provides the most effective oxidant formulation based on laboratory testing. During the installation of the injection wells, GEC collected three Shelby tubes, two from the source area and one from the saturated zone, that were

used in calculation of the site specific SOD. GEC also provided two gallons of groundwater from the site for laboratory use in the treatability study. The treatability study concluded that the injection volume would be divided into a series of three separate injection events. Also, the most effective oxidant formulation or design concentration for the site was determined to be 10,000 mg/l of sodium persulfate and 1,200 mg/l of FeEDTA.

As recommended by the treatability study, the ISCO-EFR injection events were divided into three separate events. During each event, EFR or dual-phase/multi-phase extraction was performed with vacuum trucks prior to any chemical injection. This process allowed for a depression or void in the saturated zone created by the removal of groundwater and contaminant. Once the depression is created, the oxidant is injected into the void. The vacuum pressure also mobilizes the oxidant throughout the contaminated area.

During the first ISCO-EFR event, conducted between February 22 and 25, 2010, ESI removed approximately 3,807 gallons of non-hazardous liquid through the use of the EFR technology. Also, a total of 1,800 gallons of activated sodium persulfate was injected in the 13 injection well locations at the site. The second and third injection events were done in consecutive weeks from March 15 through March 24, 2010. Combined, the second and performed events removed a calculated total of 8,870 gallons of non-hazardous liquid. A total of 3,000 gallons of activated sodium persulfate was injected during the last two injection events.

On November 7, 2011, GEC mobilized to the Mercer Triangle property to install two injection wells, IW-14 and IW-15. The monitoring wells were installed to a depth of approximately 62 feet each. The wells were installed utilizing 4<sup>1</sup>/<sub>4</sub>" hollow-stem augers. Both were screened 15 feet from the bottom of each well.

As a result of the elevated levels of contamination in the area of MWA-5, GEC contracted with EcoVac Services to perform ISCO on certain wells at the subject facility. EcoVac first arrived on site to perform an EFR pilot test on MWA-5, IWD-14, and IWD-15. EFR extraction was performed on the various wells to monitor drawdown on the other wells in order to gain better data for upcoming ISCO events.

EcoVac arrived on site on November 27, 2011 and performed an ISCO injection event through December 1, 2011. The first day consisted of performance of an 8-hour enhanced fluid recovery (EFR) event at the site, on wells MWA-1, MWA-2, MWR-3, and MWD-6. In conjunction with the EFR, approximately 300 gallons of sodium persulfate solution was gravity fed into wells IWD-2, IWD-5, IWD-6, IWD-7, IWD-9, IWD-10, IWD-11, IWD-12, IWD-13, IWS-1, IWS-3, IWS-4 and IWS-8. The second day consisted of another 8-hour EFR event on the same wells as the previous day, with MWA-4 added to the system. Injection of 300 gallons of sodium persulfate solution was again perform on the same wells as the first day. This process was repeated over the next two days, with the last day consisting of 8-hours of EFR on the same wells as previous days. Approximately 12 equivalent gallons of PCE were removed during these events.

EcoVac was on site from December 5-9, 2011 to perform a follow-up ISCO event at the site. The protocol for these events followed the same procedure as the previous events at the site, with

injection and extraction being performed on the same wells as in previous events. Approximately 13 equivalent gallons of PCE were removed during these events.

For the first event, EcoVac focused on wells MWA-5, IWD-14 and IWD-15 for extraction with a 7.5-hour EFR event. On the following days, EFR events were conducted on MWA-5 only. During these events, a total of approximately 1,200 gallons of sodium persulfate solution was gravity fed into wells IWD-14 and IWD-15. A total of approximately 2.5 equivalent gallons of PCE was removed during these events.

In September 2007, GEC performed soil sampling, utilizing direct push technology. Nine soil samples were collected from the borings, B-1 through B-9, placed in the area of the former dry cleaner building. The only constituent that was detected above risk reduction standards was tetrachloroethene, in borings B-2 and B-6. After a shallow ISCO injection event in the area of the borings, the soil was re-sampled in 2012 with eleven additional direct push sample locations. No VOCs were detected above risk reduction standards in the soil samples collected four feet below the ground surface.

## **1.2 Purpose**

The purpose of this document is to support application for enrollment into the VRP by presenting a current understanding of conditions at the Property based on existing Property data and a preliminary Conceptual Site Model (CSM), and potential remedial options for the Property.

## **1.3 Property Eligibility**

The Property meets the eligibility criteria for the VRP. A release of regulated substances on the Property has been confirmed. The Property is not listed on the National Priorities List, is not currently undergoing response activities required by an order of the Regional Administrator of the United States Environmental Protection Agency (EPA), and is not required to have a permit under Code Section 12-8-66. Qualifying the Property under this VRP would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or by similar authorization from the EPA. There are currently no, and never have been any, outstanding liens filed against the Property pursuant to Code Sections 12-8-96 and 12-13-12.

## **1.4 Participant Eligibility**

Mercer University is both the owner of the Property and the VRP applicant. Furthermore, Mercer University is not in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the Director of the EPD.

## **1.5 Document Organization**

This document is organized into three sections, following this introduction:

- Section 2.0 discusses the current site conditions, the delineation criteria, and soil and groundwater delineation activities conducted at the Property;

- Section 3.0 describes the preliminary Conceptual Site Model; and
- Section 4.0 reviews potential remedial options for the Property.

## 2.0 CURRENT SITE CONDITIONS

### 2.1 Geological Setting

#### 2.1.1 Regional Geology

The site is located in the Piedmont province of Georgia. The Piedmont is predominantly composed of igneous and metamorphic rocks, chiefly granite, granitic gneiss, and schist. These rocks have undergone extensive alterations, folding and faulting during the orogenic episodes that formed the Appalachian Mountains. Subsequent physical and chemical weathering during a long period of tectonic stability has contributed to the present topography. The depth of weathering can vary greatly. As the monitoring wells were drilled, the auger cuttings were examined for evidence of moisture, indicating the water table. For the wells installed at the site, this evidence was found between 30 and 75 feet below ground surface.

#### 2.1.2 Property Geology and Hydrogeology

A cross section location map is included as Figure 7, and cross sections are shown on Figures 7A and 7B in Appendix C. The soil profile at the Property consists of a layer of fill material ranging from near the surface to approximately six feet below the ground surface and consisting of sand with varying silt and clay content or clay with varying sand content. The fill at the site is underlain by residual soils extending to maximum depths explored. The residual soils consisted of sand with varying silt and clay content and silts with varying sand and clay content. Some borings encountered clay with varying sand content.

The water table at the Property occurs in residual soils at depths ranging between 30 and 75 feet below the ground surface. The water level in MW-7 is an exception, where the water level is usually encountered between 10 and 15 feet below the ground surface. The water levels in the wells surrounding MW-7 are all greater than 40 feet below the ground surface, which indicates that the water in MW-7 is perched water. While part of the shallow groundwater aquifer, this perched water is isolated from the surrounding (and probably underlying) groundwater, and does not appear to have been similarly impacted. The overall groundwater flow direction, based on groundwater levels measured at the site, appears to be generally to the south/southwest. Figure 3, in Appendix C, is a potentiometric surface map from the April 2013 sampling event.

### 2.2 Vadose Zone Soils

Soils were sampled utilizing split spoon sampling at five-foot intervals, at every well that was installed at the site. Soils were field screened utilizing a flame ionization detector (FID), with the sample exhibiting the highest field screening being submitted for analysis of volatile organic compounds (VOCs). None of the soil samples analyzed, from any of the monitoring wells, exhibited VOCs above Type 1 Risk Reduction Standards (RRSs).

On September 19, 2007, GEC sampled shallow soils at nine locations, utilizing direct-push technology. This technique allowed for the continuous sampling of soils. The probe locations were placed in the approximate location of the former dry cleaner, which was located in the area of the current triangle and new existing roadway. The samples were collected at four feet below the ground surface and analyzed for VOCs. The only constituent that was detected above Type 1 RRS, was tetrachloroethene (PCE), in probe holes B-2 and B-6.

Shallow injections wells were installed in the roadway around the former probe hole locations, and on November 27, 2011, a sodium persulfate solution was gravity fed into the injection wells to treat the area under the roadway and around the triangle, in the approximate location of the former drycleaner.

GEC returned to the site on February 8, 2012 to perform a follow-up sampling event in the area of the former drycleaner. GEC installed 11 new probe holes utilizing a skid-steer mounted Geoprobe rig. The probe holes were again installed in the approximate location of the former drycleaner, around the triangle and in the roadway, at the intersection of Linden Avenue, Coleman Avenue, and Montpelier Avenue. The probe holes were installed to a depth of four feet below the ground surface, where the four-foot samples were previously collected and submitted for VOC analysis. None of the samples from this event yielded detections of VOCs above Type 1 RRS. Based on the results of the Geoprobe samples from 2012, it appears that the sodium persulfate injection in the source area oxidized the existing soil contamination reducing the contamination concentrations to below Type 1 RRS in the soil at the source area. Figure 6 shows the sample locations. In Appendix D, Table 1 lists the soil delineation criteria (Type 1 RRS), and Table 2 summarizes the VOCs investigation of the soils between 2008 and 2010.

## 2.3 Groundwater

Groundwater monitoring has been ongoing since 2002, with additional groundwater wells being added to the monitoring network in subsequent years, up until 2008. Table 3 summarizes monitoring well information and includes groundwater depth and elevations for the most recent sampling event in April 2013. During the April 2013 sampling event, with the exception of dry wells, all of the wells in the monitoring network were sampled for VOCs and metals. Figure 4B and 4C, in Appendix C, and Table 3, in Appendix D of this application, summarize the results. Table 1 lists the groundwater delineation criteria (Type 1 RRS).

The most recent groundwater data indicated exceedances of Type 1 RRS by tetrachloroethene, trichloroethene, and methylene chloride at various wells, including: MWA-1, MWA-2, MWA-5, MWD-6, MW-12, MW-13, and MW-14. Results from this most recent sampling event indicates that PCE has been delineated to below Type 1 RRS to the north, east, and west with concentrations being below 5 ug/L in well MWA-8 located to the north, MW-9 located to the northeast, and MW-15 located to the southeast. The data indicates that further delineation will be needed to the south of the existing monitoring network, due to the presence of PCE above Type 1 RRS in wells MWA-5, MW-13, and MW-14. The groundwater delineation to the south will be completed according the Projected Milestone Schedule in Appendix G.

### **3.0 PRELIMINARY CONCEPTUAL SITE MODEL**

The Conceptual Site Model (CSM) is intended to establish a common knowledge base about the Property and its environmental condition, to facilitate the development of basic remedial action objectives appropriate for the Property, and to allow an informed decision regarding possible remedial action measures for the Property. This section discusses the CSM schematics depicted in Figures 7, 7A and 7B. More specifically, this section describes the surface and subsurface features at the Property, discusses the fate and transport of dissolved PCE in the groundwater, and discusses the potential receptors and exposure pathways associated with the TCE.

#### **3.1 Elements of the Conceptual Site Model**

Figures 7, 7A and 7B are plan view and profile diagrams depicting the approximate extent of VOCs in the subsurface and the potential exposure pathways and receptors. The subsurface is segregated into three zones – fill (to a depth ranging from approximately near ground surface to six ft bgs), vadose zone residual soils (to a depth of approximately 30 to 70 ft bgs), and saturated zone residual soils (approximately 35 to 80 ft bgs). The approximate extent of VOCs, as well as potential receptors and exposure pathways, is depicted in the figures. Based on the layout of the site and the source of the contamination, GEC does not feel that potential exposure to the contamination at the site is an issue. The source area soils, which are located under a median between Coleman Avenue and Montpelier Avenue, under paved roadways, and under paved sidewalks, have been treated with chemical oxidation. No detections above Type 1 RRS were made during GECs sampling of the soils in February 2012. Furthermore, the soils are in an area that is not typically accessed by people, and potential exposure to soils in this area is extremely limited.

#### **3.2 Ground Surface Features**

While the Mercer University Campus contains some hills and inclines, the overall slope of the campus is down towards the southeast. The university campus contains multiple administrative offices, classroom buildings, athletic buildings, dorms and apartments, and other buildings related to an academic setting. Multiple streets, both public and private, traverse around and through the campus. Much of the campus is grassed or unpaved, with walkways and sidewalks along roadways. There are also multiple parking lots on the campus.

The general slope of the school property appears to be to the southeast, towards an unnamed tributary of the Ocmulgee River, that runs from the downtown area to a swampy area located on the east side of downtown Macon, near the Ocmulgee River.

#### **3.3 Subsurface Features**

The upper portion of Figure 7A and 7B represents a layer of fill material ranging from the near surface to approximately six feet below the existing ground surface. The fill material appears to consist primarily of sand with varying silt and clay content or clay with varying sand content. The fill at the site is underlain by residual soils extending to maximum depths explored. The residual soils consisted of sand with varying silt and clay content and silts with varying sand and clay

content. Some borings encountered clay with varying sand content.

### **3.4 PCE Fate and Transport Summary**

The PCE appears to have been released from a mixture of surface dumping and from leaks from underground storage tanks that were used to store the PCE, at a drycleaner that operated in the Mercer Triangle, now located in a roadway and median. Based on reviewed historical information, it appears that the drycleaner operated between 1969 and 1996. Based on sampling, there is no indication that the PCE in the soil has migrated beyond the source area around the Mercer Triangle.

The PCE likely migrated downward through the subsurface environment over the years before reaching the groundwater table located between 30 and 75 feet below the ground surface, forming a dissolved-phase plume of PCE and certain daughter products, namely TCE. Sampling of the groundwater wells near the source area does not indicate significant vertical migration in the saturated zone, as the deeper wells in the area have less dissolved contamination when compared with the shallower wells in the source area. The horizontal migration of the PCE plume indicates that the plume has extended over 600 feet to well MW-14 located to the southeast of the source area. Lateral thickness of the plume, based on detections in groundwater wells, indicates the plume is between 200 and 300 feet wide.

GEC utilized the Biochlor Natural Attenuation Decision Support System to determine the viability of natural attenuation for this site. The Biochlor input sheet and center line result sheets are in Appendix E. Two different models were run, with the only difference between the two being the model length. In the first model, the model area length was input as 973 feet, which represents the extents of the current investigation. In the second model, the distance was extended to 2,500 feet, which is the distance that Mercer University's property extends down gradient from the source area. The model indicates that natural attenuation will effectively remediate the plume, which is still on Mercer University property.

### **3.5 Potential Receptors and Exposure Pathways**

The Property includes multiple lots owned by Mercer University. The adjacent properties include businesses located around the Mercer Triangle, loft apartments, offices, and the Mercer University campus. The campus includes multiple administrative offices, classroom buildings, athletic buildings, dorms and apartments, and other buildings related to an academic setting. The source area soils, which are located under a median between Coleman Avenue and Montpelier Avenue, under paved roadways, and under paved sidewalks, have been treated with chemical oxidation. No detections above Type 1 RRS were made during GECs sampling of the soils in February 2012. Furthermore, the soils are in an area that is not typically accessed by people, and potential exposure to soils in this area is extremely limited.

The adjoining properties are used for residential or commercial purposes and also include a public park, located to the east of the subject property. The majority of the area near the Mercer Triangle is zoned for residential or commercial. The nearest residential area is located near the Mercer Triangle, along Coleman Avenue, which runs past the triangle area. The Mercer University facility

and surrounding areas are serviced by public drinking water systems. The Macon Water Authority and the City of Macon are not aware of any drinking water wells in the vicinity of the subject property. GEC interviewed the Mercer University administration, which noted that one well is located on the subject property, at the medical school, and is used for supplying water to a cooling tower. However, the staff noted that the well could be taken out of commission, if needed. GEC has conducted multiple potential receptor surveys of the area through the years, and the well used for the medical school cooling towers is the nearest well to the source area and plume, and is located approximately 2,000 feet from the source area and approximately 1,200 feet from the edge of the dissolved PCE plume. The nearest surface water is located southeast of the subject property, approximately 3,100 feet from the Mercer Triangle.

The PCE release has impacted surface soil only in a small area (relative to the size of the Property), which is mostly covered by pavement and sidewalks. Sampling in this area has not indicated soil contamination above Type 1 RRS since remediation. The sampling indicates that any potential exposure and risk for current and potential future receptors from PCE in soils is significantly limited.

Several current and/or potential future human receptors have been identified. These potential receptors are listed below, along with a brief discussion of the rationale behind their identification and the pathways through which they could potentially be exposed to VOCs associated with the PCE release. Each of the human exposure scenarios are on-site scenarios. There are no potential groundwater receptors.

- Future Construction Worker: There are no current workers in the source area at the Mercer Triangle. However, should future roadwork or work in the median of Coleman Avenue and Montpelier Avenue be needed, workers could potentially be exposed to VOCs. It should be noted again that no VOCs were detected in the source area above Type 1 RRS during the sampling in February 2012. Vapor encroachment at the site is not considered to be a major concern due to the relatively low levels of soil contamination and depth of the groundwater plume at the site.
- Current/Future Groundskeeper: The median of the roadway, near the Triangle, is occasionally maintained by a grass cutting crew. The soils that are in the median of the roadway consist primarily of fill that was brought in for the landscaping. It is not anticipated that grounds crews will be exposed to significant levels of VOCs while cutting grass and weed eating.
- Future Adolescent Trespasser: Access to the source area is currently limited by the presence of roadways. Trespassing to the median is highly unlikely due to traffic in the area and constant surveillance by campus security and Macon police.

The source area is mostly covered by pavement, walkways, and a roadway median. The grass in this area is mowed on a regular basis. The area does not represent quality habitat for wildlife as it lacks natural vegetative cover, structure, and diversity and is unlikely to have substantial vegetative cover in the future, due to ongoing maintenance activities. Disturbance from vehicles, facility operations, and mowing likely have disturbed and will continue to disturb wildlife and

cause animals to seek less frequently disturbed areas.

#### **4.0 PROJECTED MILESTONE SCHEDULE**

A Projected Milestone Schedule, showing timelines for the following items, is included in Appendix F.

- Annual Progress Report Submittal-will continue current semi-annual sampling and annual reporting plan throughout the VRP process.
- Groundwater Delineation (on-site and off-site)-horizontal delineation will be completed within 12 months for properties that are accessible at the time of enrollment.
- Updated CSM Submittal and vertical delineation-completed within 30 months of enrollment.
- Compliance Status Report Submittal-submitted within 60 months of enrollment.

# **Appendix A**

# Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION					
<b>COMPANY NAME</b>	Mercer University				
<b>CONTACT PERSON/TITLE</b>	Dr. James S. Netherton, Executive Vice President for Administration and Finance				
<b>ADDRESS</b>	1400 Coleman Avenue, Macon, GA 31207				
<b>PHONE</b>	478-301-2710	FAX	478-301-4120	E-MAIL	Netherton_JS@Mercer.edu
<b>GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP</b>					
<b>NAME</b>	Jason A. Cooper	GA PE/PG NUMBER	031694		
<b>COMPANY</b>	Geotechnical & Environmental Consultants, Inc.				
<b>ADDRESS</b>	5031 Milgen Court, Columbus GA 31907				
<b>PHONE</b>	706-569-0008	FAX	706-569-0940	E-MAIL	jcooper@geconsultants.com
<b>APPLICANT'S CERTIFICATION</b>					
In order to be considered a qualifying property for the VRP:					
<p>(1) The property must have a release of regulated substances into the environment;</p> <p>(2) The property shall not be:</p> <ul style="list-style-type: none"> <li>(A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.</li> <li>(B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency, or</li> <li>(C) A facility required to have a permit under Code Section 12-8-66.</li> </ul> <p>(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.</p> <p>(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.</p>					
In order to be considered a participant under the VRP:					
<p>(1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.</p> <p>(2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.</p>					
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					
I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.					
<b>APPLICANT'S SIGNATURE</b>	WBS				
<b>APPLICANT'S NAME/TITLE (PRINT)</b>	Dr. James S. Netherton, Executive Vice President for Administration and Finance				
					DATE <i>9/25/13</i>

<b>QUALIFYING PROPERTY INFORMATION</b> (For additional qualifying properties, please refer to the last page of application form)					
<b>HAZARDOUS SITE INVENTORY INFORMATION</b> (If applicable)					
HSI Number	#10779	Date HSI Site listed	3/19/2004		
HSI Facility Name	Mercer University Triangle Site	NAICS CODE	611310-Colleges, Universities, and Professional Schools		
<b>PROPERTY INFORMATION</b>					
TAX PARCEL ID	P0620075 SWC65 1A	PROPERTY SIZE (ACRES)	0.18		
PROPERTY ADDRESS	1535 Montpelier Ave				
CITY	Macon	COUNTY	Bibb		
STATE	GA	ZIPCODE	31208		
LATITUDE (decimal format)	32.833044	LONGITUDE (decimal format)	-83.649748		
<b>PROPERTY OWNER INFORMATION</b>					
PROPERTY OWNER(S)	Mercer University	PHONE #	478-301-2710		
MAILING ADDRESS	1400 Coleman Avenue	STATE/ZIPCODE	GA 31207		
CITY	Macon				
ITEM #	DESCRIPTION OF REQUIREMENT		Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)	
1.	\$5,000 APPLICATION FEE IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)		Attached		
2.	WARRANTY DEED(S) FOR QUALIFYING PROPERTY.		Appendix B		
3.	TAX PLAT OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).		Appendix B		
4.	ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).		Attached		
5.	The VRP participant's initial plan and application must include, using all reasonably available current information to the extent known at the time of application, a graphic three-dimensional preliminary conceptual site model (CSM) including a preliminary remediation plan with a table of delineation standards, brief supporting text, charts, and figures (no more than 10 pages, total) that illustrates the site's surface and subsurface setting, the known or suspected source(s) of contamination, how contamination might move within the environment, the potential human health and ecological receptors, and the complete or incomplete exposure pathways that may exist at the site; the preliminary CSM must be updated as the investigation and remediation progresses and an up-to-date CSM must be included in each semi-annual status report submitted to the director by the participant; a <b>PROJECTED MILESTONE SCHEDULE</b> for investigation and remediation of the site, and after enrollment as a participant, must update the schedule in each semi-		Pgs 7 - 10		

	annual status report to the director describing implementation of the plan during the preceding period. A Gantt chart format is preferred for the milestone schedule.
	The following four (4) generic milestones are required in all initial plans with the results reported in the participant's next applicable semi-annual reports to the director. The director may extend the time for or waive these or other milestones in the participant's plan where the director determines, based on a showing by the participant, that a longer time period is reasonably necessary:
<b>5.a.</b>	Within the first 12 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern on property where access is available at the time of enrollment; Pg 18
<b>5.b.</b>	Within the first 24 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern extending onto property for which access was not available at the time of enrollment; Pg 18
<b>5.c.</b>	Within 30 months after enrollment, the participant must update the site CSM to include vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions; and Pg 18
<b>5.d.</b>	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications. Pg 16
<b>SIGNED AND SEALED PE/PG CERTIFICATION AND SUPPORTING DOCUMENTATION:</b>	
<p>I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.), I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.</p> <p>Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.</p> <p>The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."</p>	
<b>6.</b>	 <i>Jacob A. Cooper</i> Printed Name and GA PE/PG Number <i>03/01/13</i> Signature and Stamp <i>Jacob A. Cooper</i>

**ADDITIONAL QUALIFYING PROPERTIES (COPY THIS PAGE AS NEEDED)**

<b>PROPERTY INFORMATION</b>			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
<b>PROPERTY OWNER INFORMATION</b>			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

<b>PROPERTY INFORMATION</b>			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
<b>PROPERTY OWNER INFORMATION</b>			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

<b>PROPERTY INFORMATION</b>			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
<b>PROPERTY OWNER INFORMATION</b>			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

## **Appendix B**

RECEIVED  
CLERK'S OFFICE  
STATE OF GEORGIA  
BIBB COUNTY

74460

Return: Thomas L. Bass  
Anderson, Walker & Reichert  
P. O. Box 6497  
Macon, GA 31208-6497

WARRANTY DEED FORM

STATE OF GEORGIA  
COUNTY OF BIBB

BOOK 2989 PAGE 243

THIS INDENTURE, made this 1<sup>st</sup> day of January, 1997, between Edna Saloom Assad, GRANTOR, and The Corporation of Mercer University, GRANTEE, ("Grantor" and "Grantee" to be construed in the singular or plural, and to include their respective heirs, successors, executors, administrators, legal representatives and assigns where the context requires or permits).

WITNESSETH: That Grantor for and in consideration of One Thousand and No/100 Dollars (\$1,000.00), and other good and valuable consideration, in hand paid at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto Grantee the following described property, to-wit:

All that tract or parcel of land in the City of Macon, Bibb County, Georgia, and being a portion of Block 65 of the Southwest Commons in said City, being bounded entirely by public streets known as Linden Avenue, Coleman Avenue, and Montpelier Avenue.

Said tract of land is more particularly shown on plat recorded in Plat Book 5, Page 85, Deed Records, Bibb County, Georgia, reference being made to said plat for a more particular description.

This is the same property described in deed to Mrs. Edna Saloom Assad dated October 19, 1960, and recorded in Deed Book 836, Page 5, Deed Records, Bibb County, Georgia.

BIBB COUNTY, GEORGIA  
REAL ESTATE TRANSFER TAX  
PAID \$ 95.00  
DATE 1-7-97  
Sherry Elbates  
DEPUTY, CLERK-SUPERIOR COURT

TO HAVE AND TO HOLD the said bargained premises, together with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in any wise appertaining, to the only proper use, benefit and behoof of Grantee, IN FEE SIMPLE.

And Grantor will warrant and forever defend the right and title to the above described property unto Grantee against the claims of all persons whomsoever.

IN WITNESS WHEREOF, Grantor has hereunto set Grantor's hand and seal, and delivered these presents, the day and year above written.

Signed, sealed and delivered in the presence of:

W. S. Johnson

Witness

Dickie Metteauer

Notary Public

My commission expires: July 10, 1999

PUB  
[Notarial Seal]

Edna Saloom Assad (Seal)  
EDNA SALOOM ASSAD

(Seal)

GEORGIA, Bibb County, Clerk's Office Superior Court (Seal)

Filed for Record JAN 7 1997 2:05 PM

Recorded JAN 8 1997 (Seal)

Vinian J. Conner *h* (Seal)  
Vinian J. Conner Dep. Clerk

## CLOSING STATEMENT

**SELLER:**

EDNA SALOOM ASSAD  
 836 Boulevard  
 Macon, GA 31211  
 Tax ID No. \_\_\_\_\_

**PURCHASER:**

THE CORPORATION OF MERCER  
 UNIVERSITY  
 1400 Coleman Avenue  
 Macon, GA 31207

**CLOSING STATEMENT PREPARED BY:**

Thomas L. Bass  
 Anderson, Walker & Reichert  
 P. O. Box 6497  
 Macon, Georgia 31208-6497

**PROPERTY DESCRIPTION:**

1535 Montpelier Avenue  
 Macon, GA Linden

**PLACE OF CLOSING:**

SunTrust Bank Building, Suite 404  
 Macon, Georgia 31201

**DATE OF CLOSING:**

1/ \_\_\_\_ /97

SUMMARY OF SELLER'S TRANSACTION		SUMMARY OF PURCHASER'S TRANSACTION	
CONTRACT SALES PRICE:	\$95,000.00	CONTRACT SALES PRICE:	\$95,000.00
LESS:		LESS: (Expenses)	
Binder	<u>5,000.00</u>	Binder	5,000.00
		PLUS:	
		Transfer Tax	95.00
		Recording Charges	100.00
		Attorneys' Fees	.00
		Document Preparation	<u>100.00</u>
NET TO SELLER:	\$90,000.00	NET FROM PURCHASER:	\$ ____ .00

The above closing statement was read and approved, and receipt of this closing statement is acknowledged.

SELLER:

PURCHASER:

THE CORPORATION OF MERCER UNIVERSITY

By: \_\_\_\_\_

Title: \_\_\_\_\_

NOTE: Purchaser to pay 1997 ad valorem taxes.

## PURCHASE AND SALE AGREEMENT

THIS AGREEMENT is made and entered into this 21st day of November, 1996 between MRS. EDNA SALOOM ASSAD (hereinafter referred to as "Seller") and THE CORPORATION OF MERCER UNIVERSITY (hereinafter referred to as "Purchaser").

### WITNESSETH:

WHEREAS, Seller is desirous of selling certain Property (as hereinafter defined) and Purchaser is desirous of purchasing said Property upon the terms and conditions hereinafter set forth;

NOW, THEREFORE, FOR AND IN CONSIDERATION OF the sum of Ten Dollars (\$10.00) and other good and valuable consideration in hand paid by Purchaser to Seller upon the execution of this Agreement, the receipt, adequacy, and sufficiency of which are hereby acknowledged by Seller, Purchaser and Seller hereby covenant and agree as follows:

1. ***Property.*** Seller agrees to sell and Purchaser agrees to buy that certain real property located at 1535 Linden Avenue, Macon, Georgia, more particularly described as follows, to wit:

All that tract or parcel of land lying and being in the City of Macon, Bibb County, Georgia, being a portion of Block 65 of the Southwest Commons (erroneously referred to in the chain of title as Northwest Commons) in said City bounded by Linden Avenue, Coleman Avenue and Montpelier Avenue. A plat of said property is recorded in Plat Book 5, folio 85, Clerk's Office of Bibb Superior Court, which is incorporated herein by reference thereto. Said property was conveyed by Nash Realty Company to John T. Baxter by deed recorded in Book 370, folio 614, said Clerk's Office.

This is the same property conveyed by John T. Baxter to Joseph Saloom by warranty deed dated June 25, 1943 and recorded in Book 512, folio 136, said Clerk's Office, and conveyed by Mrs. Sallie Saloom and The Citizens and Southern National Bank, as executrix and executor, respectively, of the will of Joseph Saloom to Mrs. Edna Saloom Assad by deed dated October 19, 1960 and recorded in Book 836, page 5, said Clerk's Office.

2. ***Purchase Price and Method of Payment.*** The purchase price that the Purchaser agrees to pay and that the Seller agrees to accept is Ninety-Five Thousand and No/100 Dollars (\$95,000.00), payable in full, net of all closing costs, on delivery of the deed to said property at closing.

3. ***Earnest Money.*** As security for Purchaser's performance of its obligations hereunder, Purchaser shall deposit, in cash, with Seller, simultaneously with Purchaser's execution and delivery of this Agreement, the sum of Five Thousand and No/100 Dollars (\$5,000.00) as earnest money.

In the event this transaction is closed pursuant to the terms hereof, Seller shall retain this earnest money at closing and Purchaser shall receive a credit against the purchase price at the time the sale is consummated.

4. ***Closing and Possession.*** The consummation and closing of the purchase and sale contemplated in this Agreement shall occur on or before January 10, 1997 at the offices of Purchaser or by mail. Seller and Purchaser agree that such papers as may be necessary to carry out the terms of this contract shall be executed and delivered by such parties at time the sale is consummated. Possession of the property shall be granted by the Seller to the Purchaser at closing.

5. ***Warranty of Title.*** Seller warrants that she presently has good and marketable fee simple title to said property, and at the time the sale is consummated, she agrees to convey good and marketable fee simple title to said property to Purchaser by general warranty deed. "Marketable title" as used herein shall mean title which a title insurance company licensed to do business in the State of Georgia will insure at its regular rates, subject only to standard exceptions unless otherwise specified herein.

6. ***Title Examination.*** Purchaser shall move promptly and in good faith after acceptance of this Agreement to examine title to the property and to furnish Seller with a written statement of objections affecting the marketability of said title. Seller shall have reasonable time after receipt of such objections to satisfy all valid objections, and if Seller fails to satisfy such valid objections within a reasonable time, then at the option of the Purchaser, evidenced by written notice to Seller, this Agreement shall be null and void, and all earnest money shall be promptly returned to Purchaser or Purchaser shall waive such objections and proceed to closing.

7. ***Warranties.*** Seller represents that to the best of Seller's knowledge: (a) there are no existing or proposed governmental orders or condemnation proceedings affecting the property and Seller has received no notice of any such orders or proceedings; (b) the property has never been used for the use, discharge, or storage of any hazardous material or any landfill for garbage or refuse; (c) the property is free of any underground storage tanks, petroleum product contamination, hazardous substance, asbestos, contaminants, oil, radioactive or other materials, the removal of which is required, or the maintenance of which is required, or the maintenance of which is prohibited, penalized, or regulated by any local, state, or federal agency, authority, or government unit.

8. ***Inspections.*** Commencing on the date of this Agreement, and subject to the rights of the tenants, if any, Purchaser, its agents, or representatives, at Purchaser's expense and at reasonable times during normal business hours, shall have the right to enter upon the property for the purpose of inspecting, examining (including soil boring), testing, and surveying the property. Purchaser assumes all responsibility for the acts of itself, its agents, or representatives in exercising its rights under this paragraph, and agrees to hold Seller harmless for any damages resulting therefrom.

9. ***Prorations and Credits at Closing.*** All property taxes, insurance, rents and mortgage interest, if applicable, shall be prorated as of the date of closing.

10. ***Time of Essence.*** Time is of the essence of the transaction of this Agreement.

11. ***Agreement Binding.*** This Agreement shall inure to the benefit of, and be binding upon, the parties hereto, their heirs, successors, administrators, executors, and assigns.

12. ***Entire Agreement.*** This contract constitutes the sole and entire agreement between the parties hereto, and no modification of this contract shall be binding unless attached hereto and signed by all parties to this agreement. No representation, promise, or inducement not included in this contract shall be binding upon any party hereto.

13. ***Merger.*** All covenants, agreements, indemnities, representations, and warranties contained herein shall be merged into the deed and other documents delivered at closing.

14. ***Further Assurances and Survival.*** Seller agrees to execute and deliver to Purchaser such further documents or instruments as may be reasonable and necessary in furtherance of the performance of the terms, covenants, and conditions of this Agreement.

15. ***Special Stipulations.*** The following special stipulations shall, if conflicting with the foregoing, control:

NONE

IN WITNESS WHEREOF, Seller and Purchaser have caused this Agreement to be executed the date and year first above written.

*Edna Saloom, assad*  
EDNA SALOOM ASSAD (SELLER)

THE CORPORATION OF MERCER UNIVERSITY

BY: *Thomas G. Estes*  
THOMAS G. ESTES  
SENIOR VICE-PRESIDENT FOR  
FINANCE AND ADMINISTRATION

## TITLE CERTIFICATE

**STATE OF GEORGIA  
COUNTY OF BIBB**

**THIS IS TO CERTIFY** that we have carefully examined the title to the property of Edna Saloom Assad known as a triangular tract in Block 65 of the Southwest Commons, Macon, Bibb County, Georgia, and bounded by Coleman Avenue, Montpelier Avenue and Linden Avenue, more particularly described in deed to Ms. Assad dated October 19, 1960, and recorded in Deed Book 836, Page 5, Deed Records, Bibb County, Georgia.

Our examination covers the period from the year 1929 to this date. So far as the indexed records of the Superior Court of said county show, within these dates, the title to said property goes back by an unbroken chain of deeds, other instruments or inheritances, the instruments being properly executed and recorded, for a sufficient length of time to indicate a good record title. During this period we found of record no liens, encumbrances or other objections which remain unsatisfied of record, except as follows:

1. All state, county and city taxes are paid through the year 1996.

We do not certify as to the acreage, the accuracy of adjoining boundary lines, the accuracy of any plat or survey, any rights or claims of parties in possession, any applicable zoning laws, any environmental matters, or any other matters not properly recorded and indexed in the Bibb County Courthouse. Otherwise, subject to the comments set out herein, it is our opinion that the fee simple title to said real estate is, as of the date of this report, vested in Edna Saloom Assad.

This certificate is made only for The Corporation of Mercer University for the purpose  
of a purchase.

This 19th day of December, 1996.

ANDERSON, WALKER & REICHERT

By: Thomas L. Bass (Seal)  
Thomas L. Bass

# Macon/Bibb County

## Board of Tax Assessors

[Recent Sales in Neighborhood](#)  
[Recent Sales in Area](#)
[Previous Parcel](#)
[Next Parcel](#)
[Field Definitions](#)
[Return to Main Search Page](#)
[Bibb Home](#)

### Owner and Parcel Information

Owner Name	CORP OF MERCER UNIVERSITY	Today's Date	August 16, 2013
Mailing Address	1400 COLEMAN AVE	Parcel Number	P0820075SWC65 1A
		Map Route	P082-0075
Location Address	MACON, GA 31207	Tax District	CITY (District 01)
Legal Description	1535 MONTPELIER AVE	2012 Millage Rate	
Property Class (NOTE: Not Zoning Info)	SWC HH1	Acres	0.23
Zoning	E6-Exempt	Neighborhood	Secondary Strip, 1300, SF
GAPIN	C-1	Homestead Exemption	No (SO)
	4053502847	Parcel Map	<a href="#">Show Parcel Map</a>

### 2013 Tax Year Value Information

Land Value	Improvement Value	Accessory Value	Total Value	Previous Value
\$ 35,755	\$ 0	\$ 2,017	\$ 37,772	\$ 37,772

### Land Information

Type	Description	Calculation Method	Square Footage	Acres	Photo
RES	1302	Square Feet	9932	0.23	NA

### Improvement Information

No improvement information associated with this parcel.

### Accessory Information

Description	Year Built	Dimensions/Units	Value
ASPH PAVING <a href="#">Show Photo</a>	1978	OxO 2300	\$ 2,017

### Sale Information

Sale Date	Deed Book	Plat Page	Price	Reason	Grantor	Grantee
03-22-2004	6142 179	91 166	\$ 8,948	CONVERSION OF PAST SALES	CITY OF MACON	CORP OF MERCER UNIVERSITY

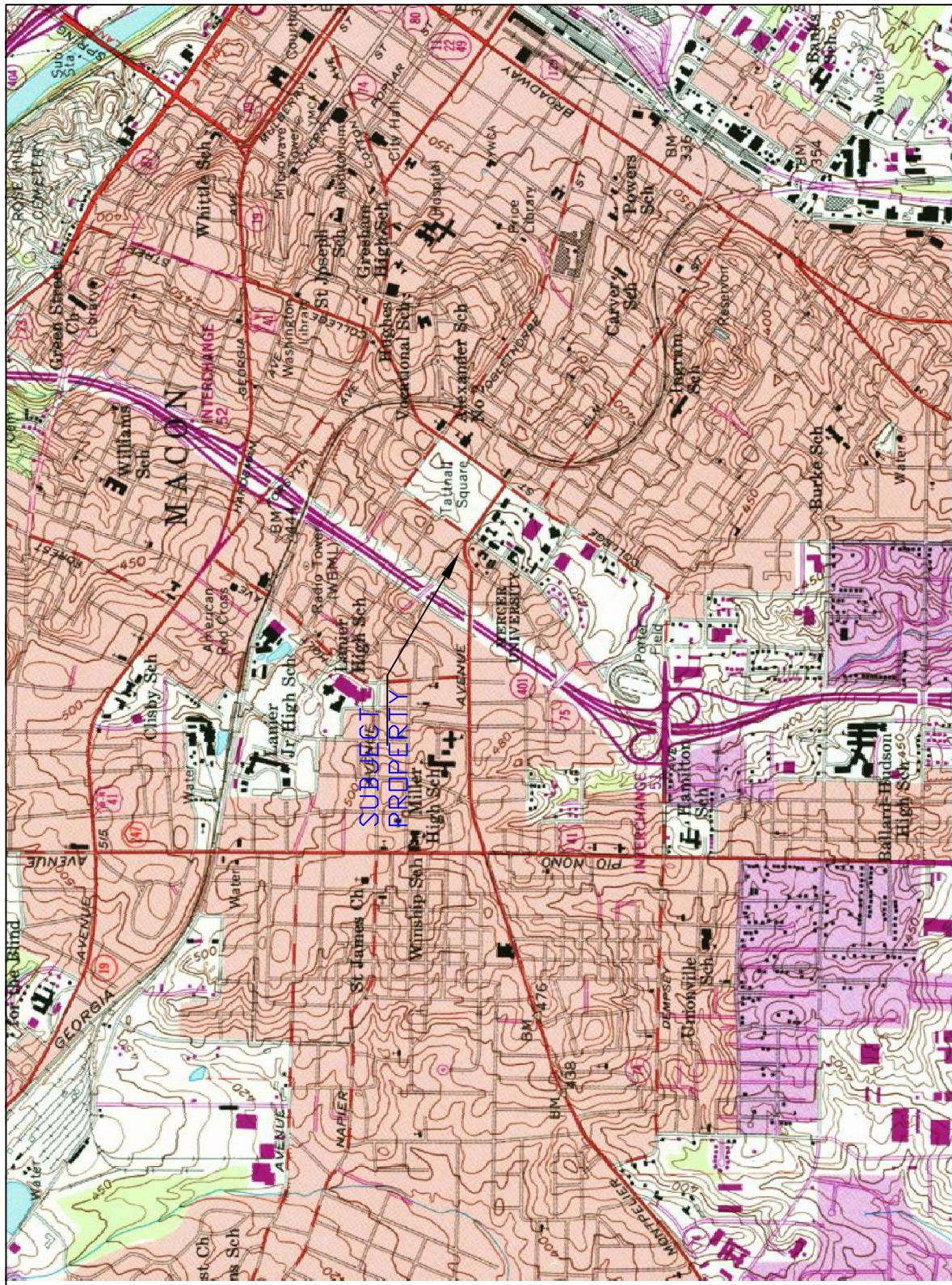
[Recent Sales in Neighborhood](#)  
[Recent Sales in Area](#)
[Previous Parcel](#)
[Next Parcel](#)
[Field Definitions](#)
[Return to Main Search Page](#)
[Bibb Home](#)

The Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. Website Updated: August 15, 2013



Bibb County makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data.

# **Appendix C**

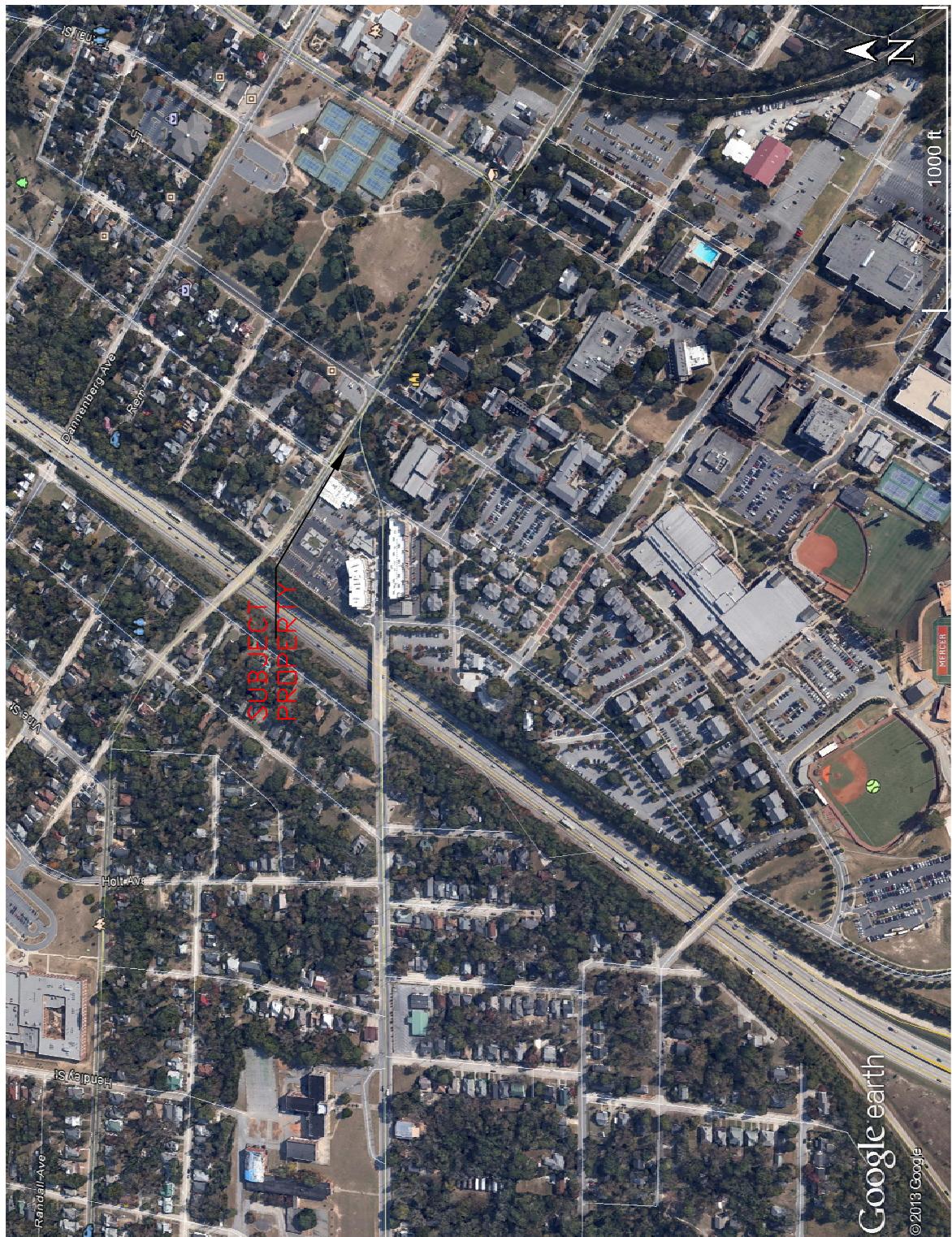


SOURCE: USGS

**GEC**  
GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

**FIGURE 1**  
**SITE LOCATION/TOPOGRAPHIC MAP**  
**MERCER TRIANGLE, HSRA #10779**  
**COLEMAN AVE AND LINDEN AVE**  
**MACON, BIBB COUNTY, GEORGIA**  
GEC JOB NO. 90698.340

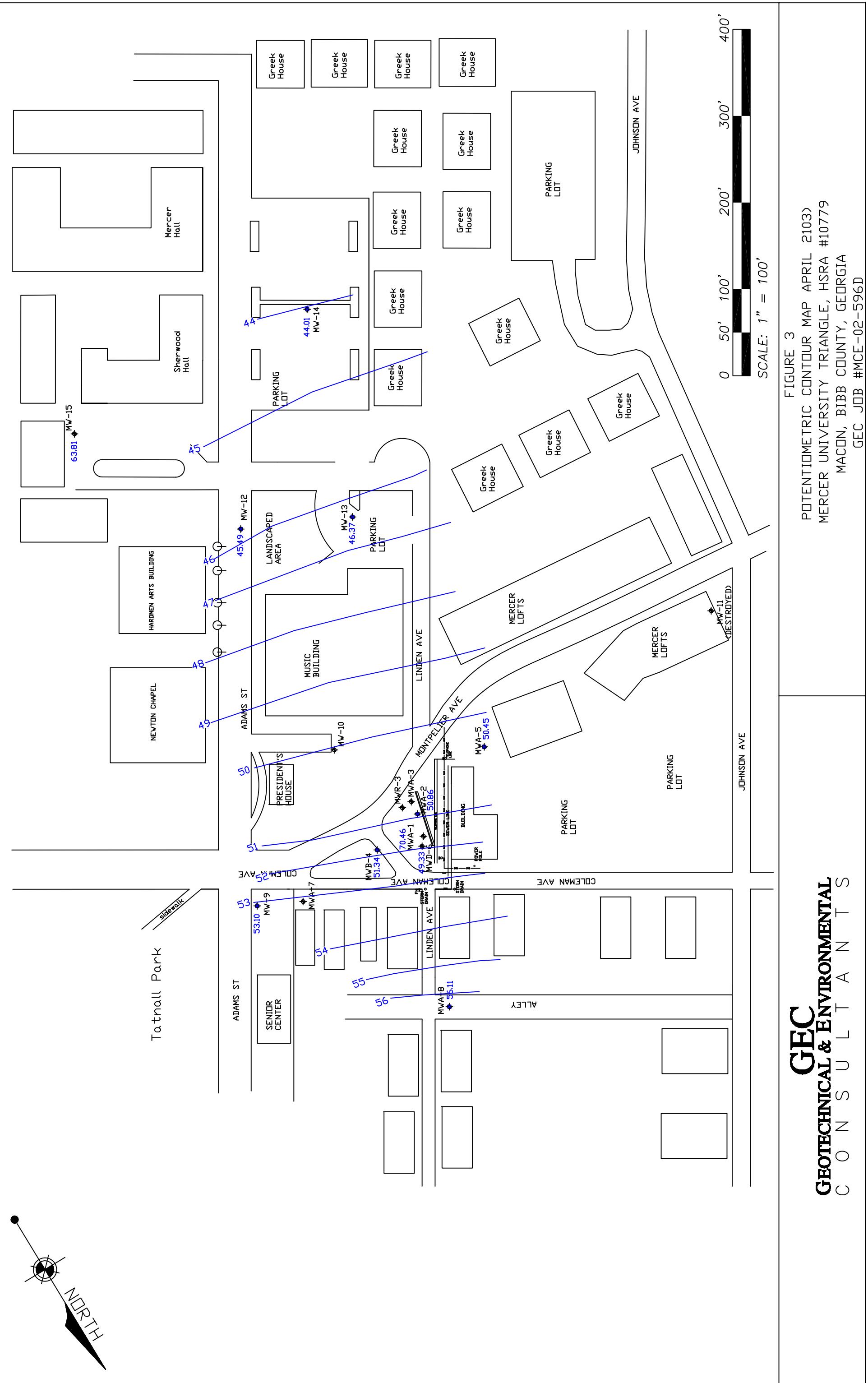
5031 MILGEN COURT  
COLUMBUS, GEORGIA 31907  
706-569-0008 (Fax) 706-569-0940  
WWW.GECONSULTANTS.COM

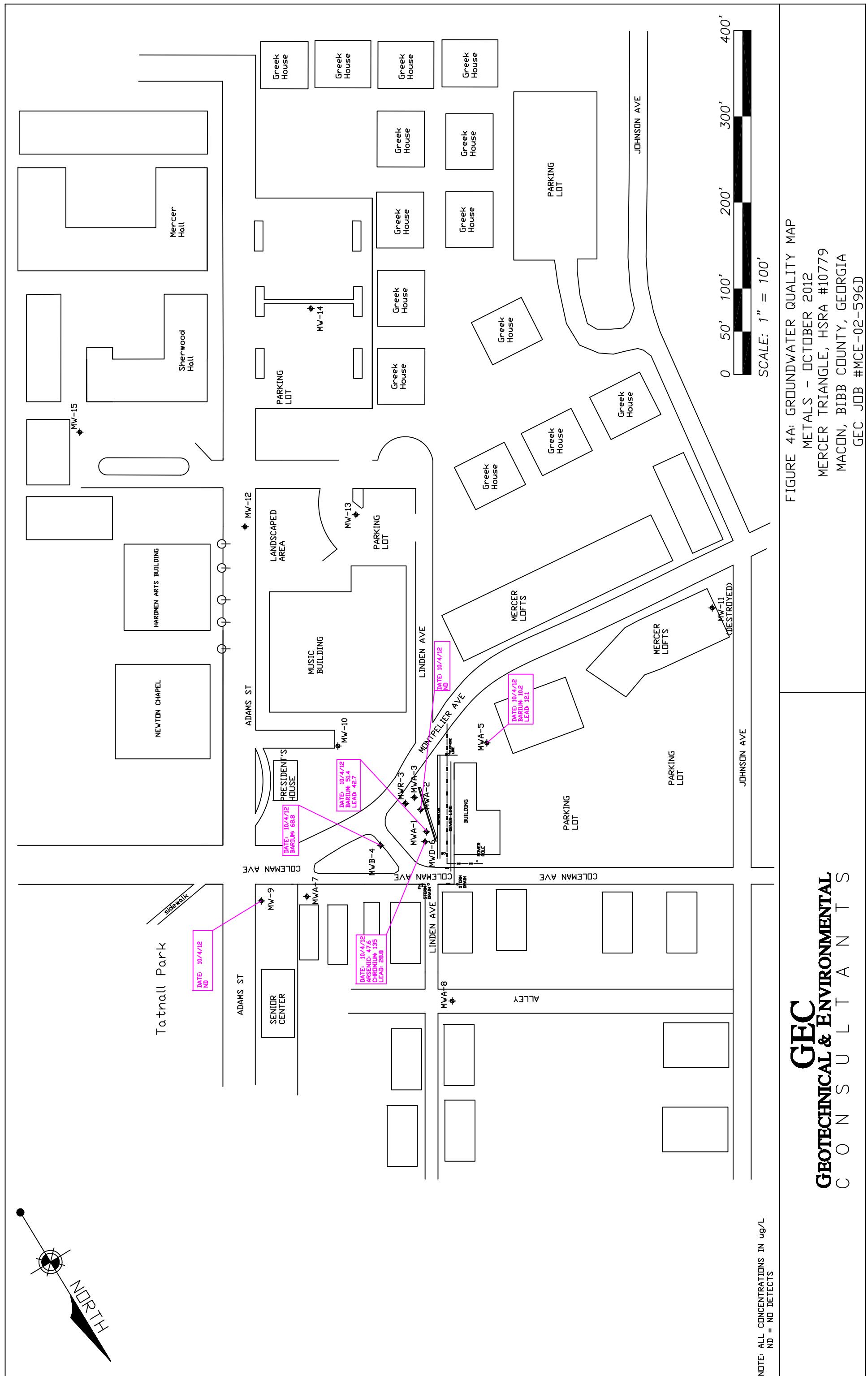


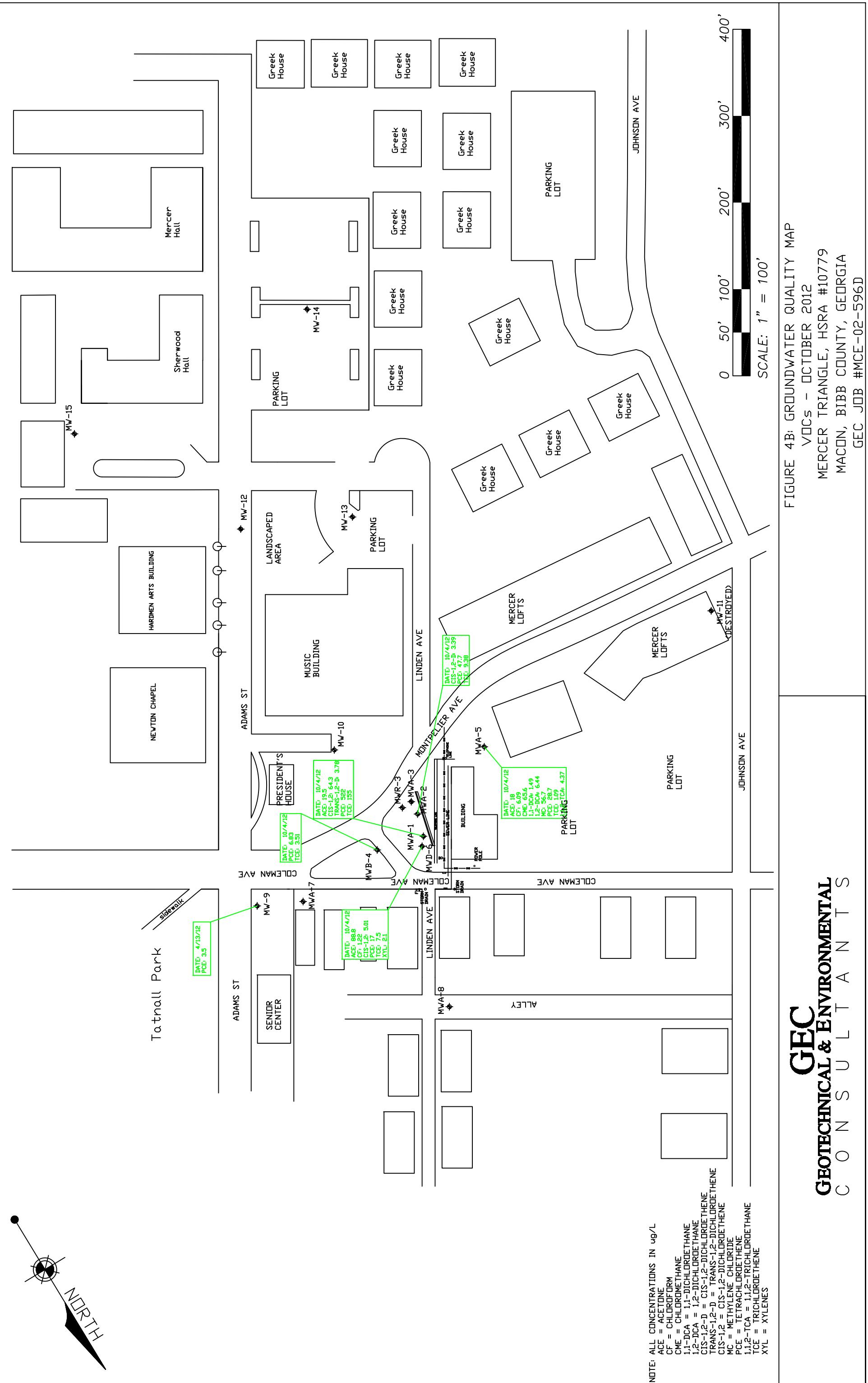
**GEC**  
GEOTECHNICAL & ENVIRONMENTAL  
CONSULTANTS, INC.

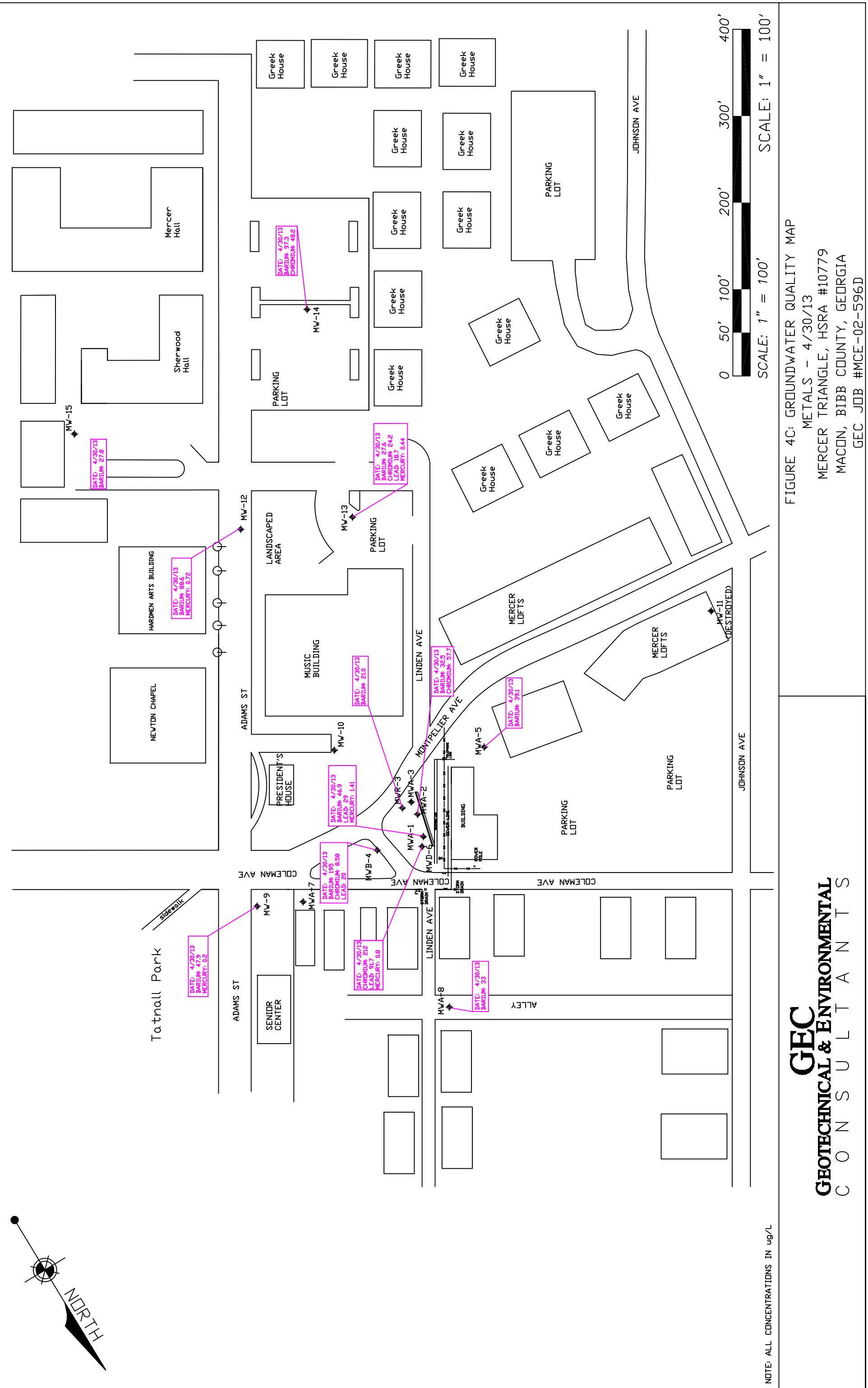
**FIGURE 2**  
**2012 AERIAL PHOTOGRAPH**  
**MERCER TRIANGLE, HSRA #10779**  
**COLEMAN AVE AND LINDEN AVE**  
**MACON, BIBB COUNTY, GEORGIA**  
GEC JOB NO. 90698.340

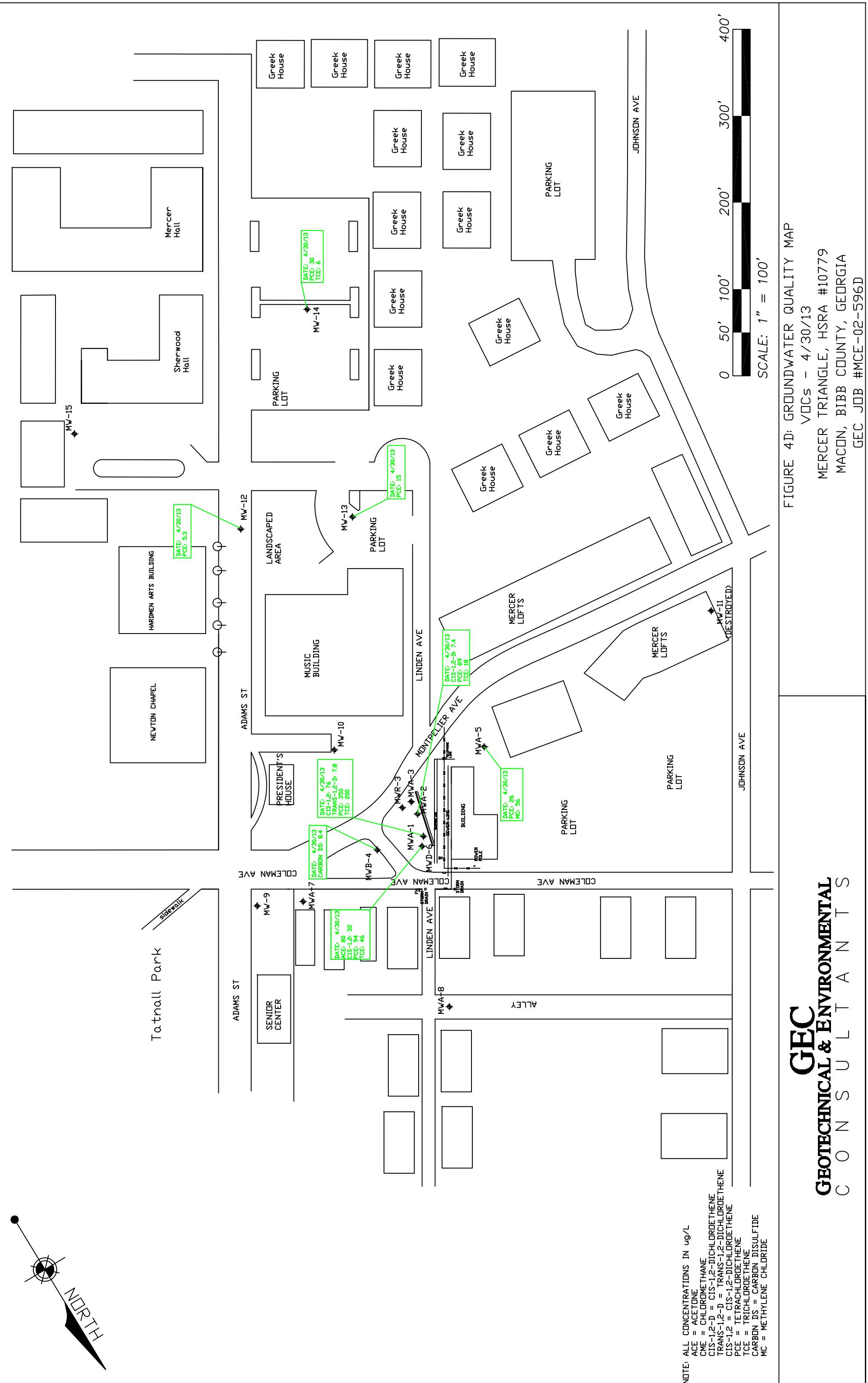
5031 MILGEN COURT  
COLUMBUS, GEORGIA 31907  
706-569-0008 (Fax) 706-569-0940  
WWW.GECONSULTANTS.COM

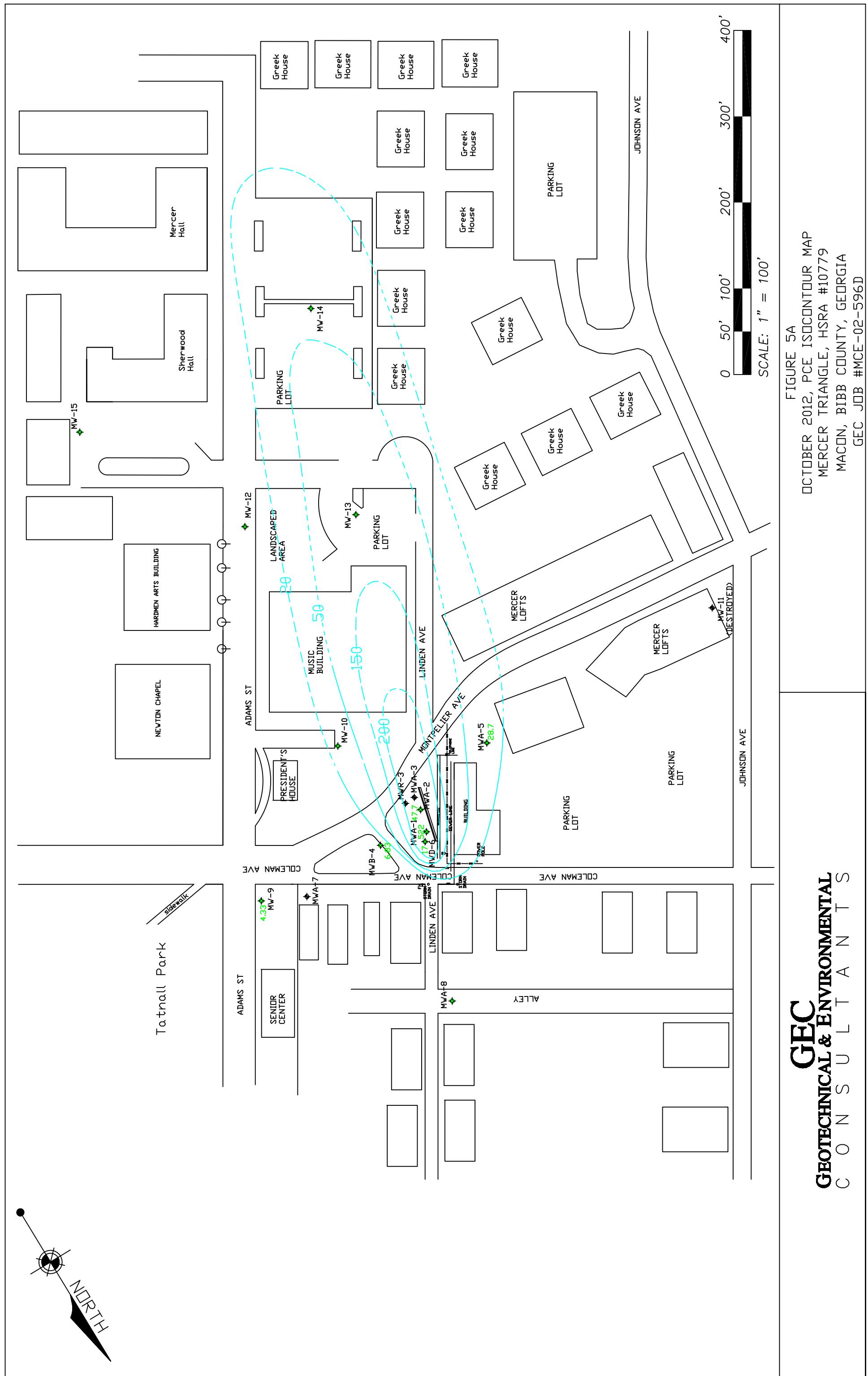












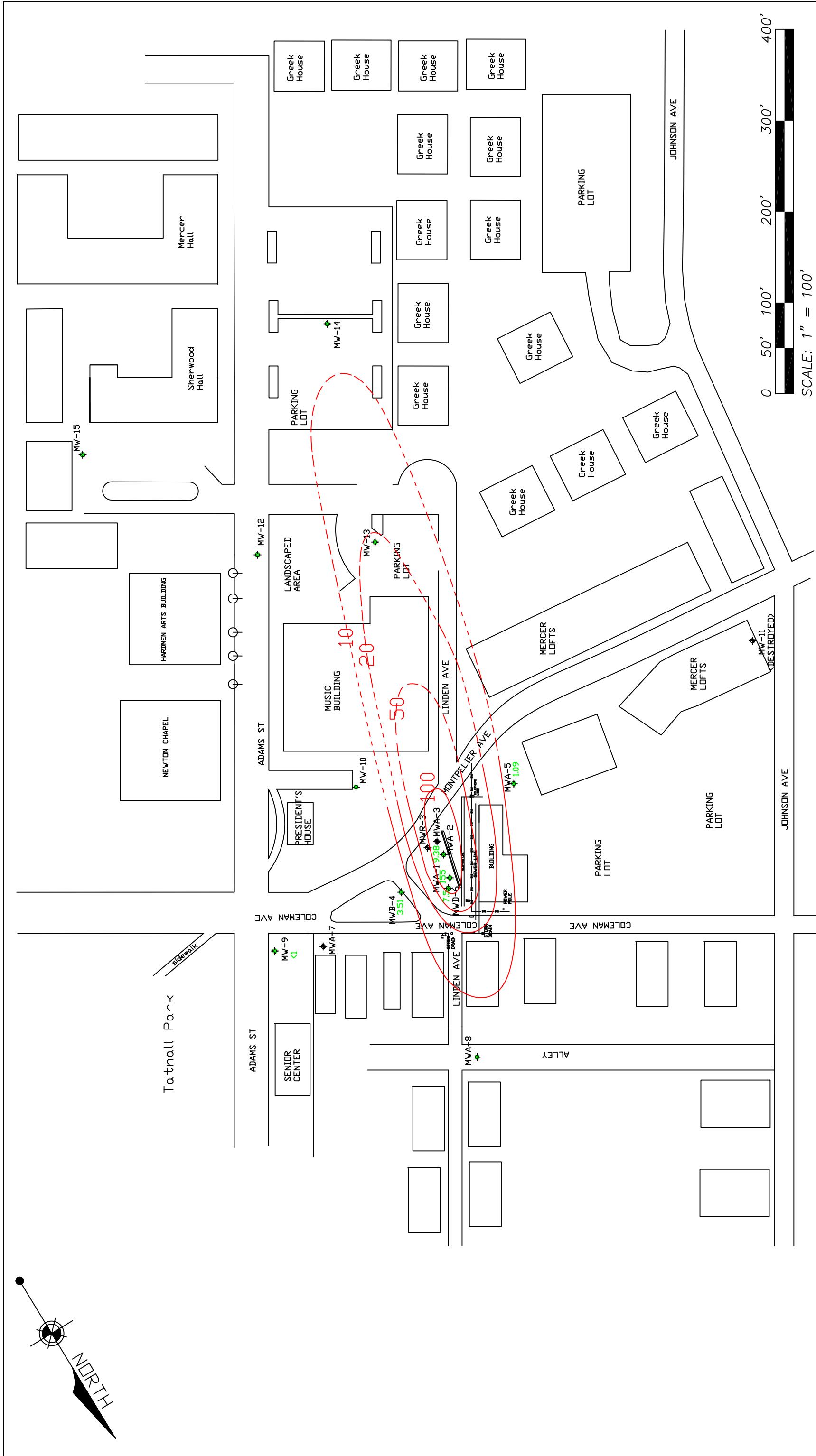
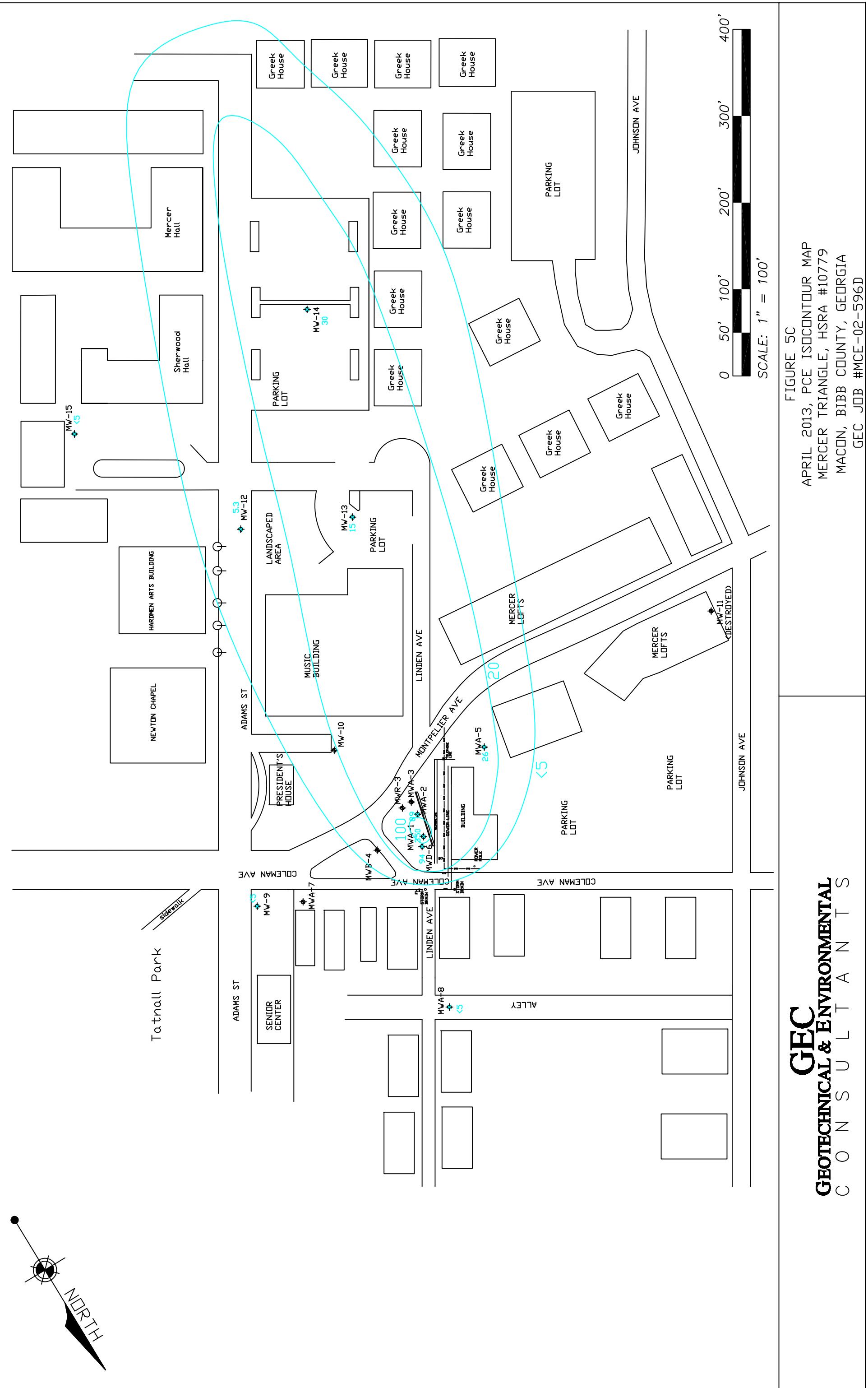


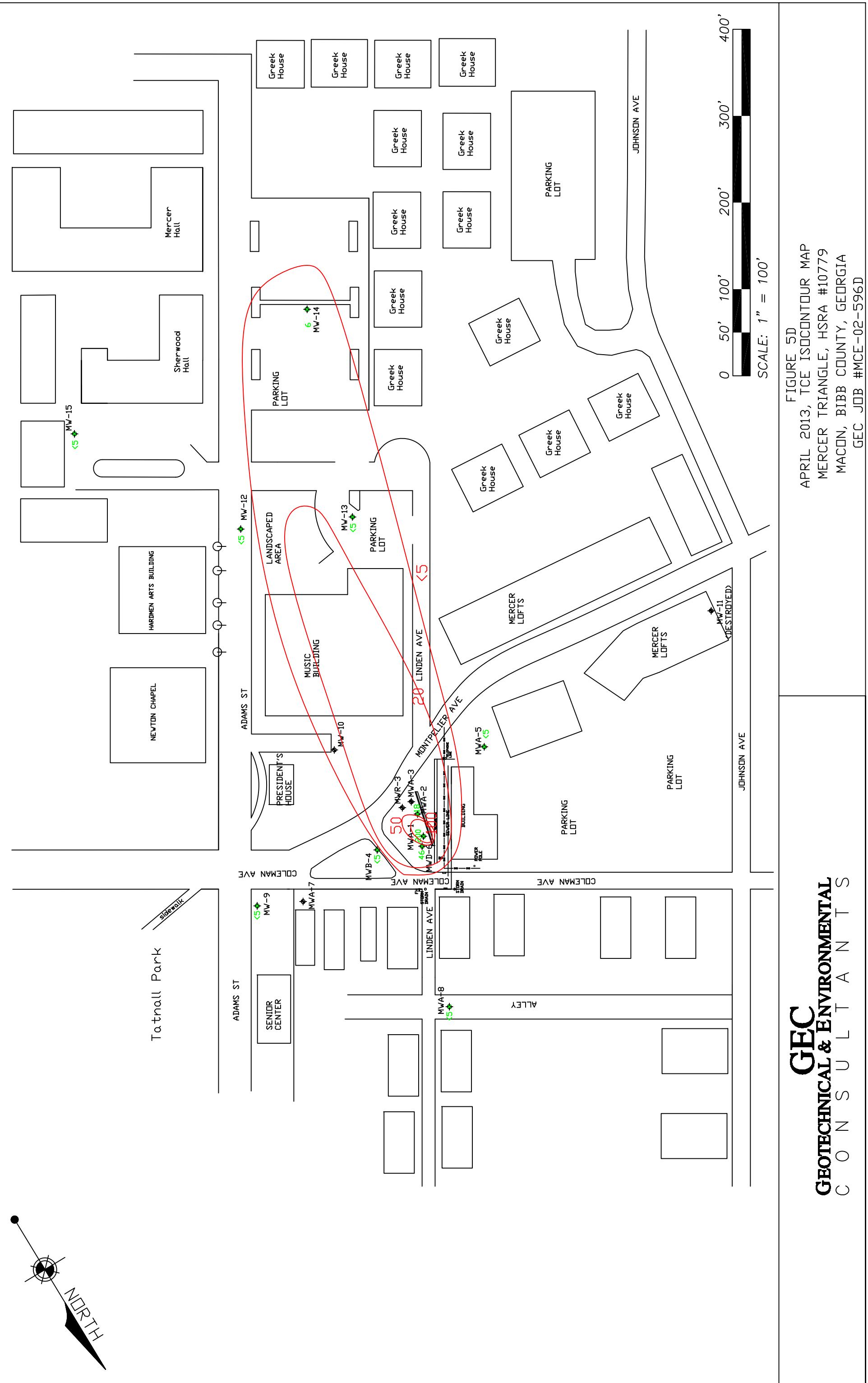
FIGURE 5B  
 OCTOBER 2012, TCE ISOCOUNTOUR MAP  
 MERCER TRIANGLE, HSRA #10779  
 MACON, BIBB COUNTY, GEORGIA  
 GEC JQB #MCE-02-596D

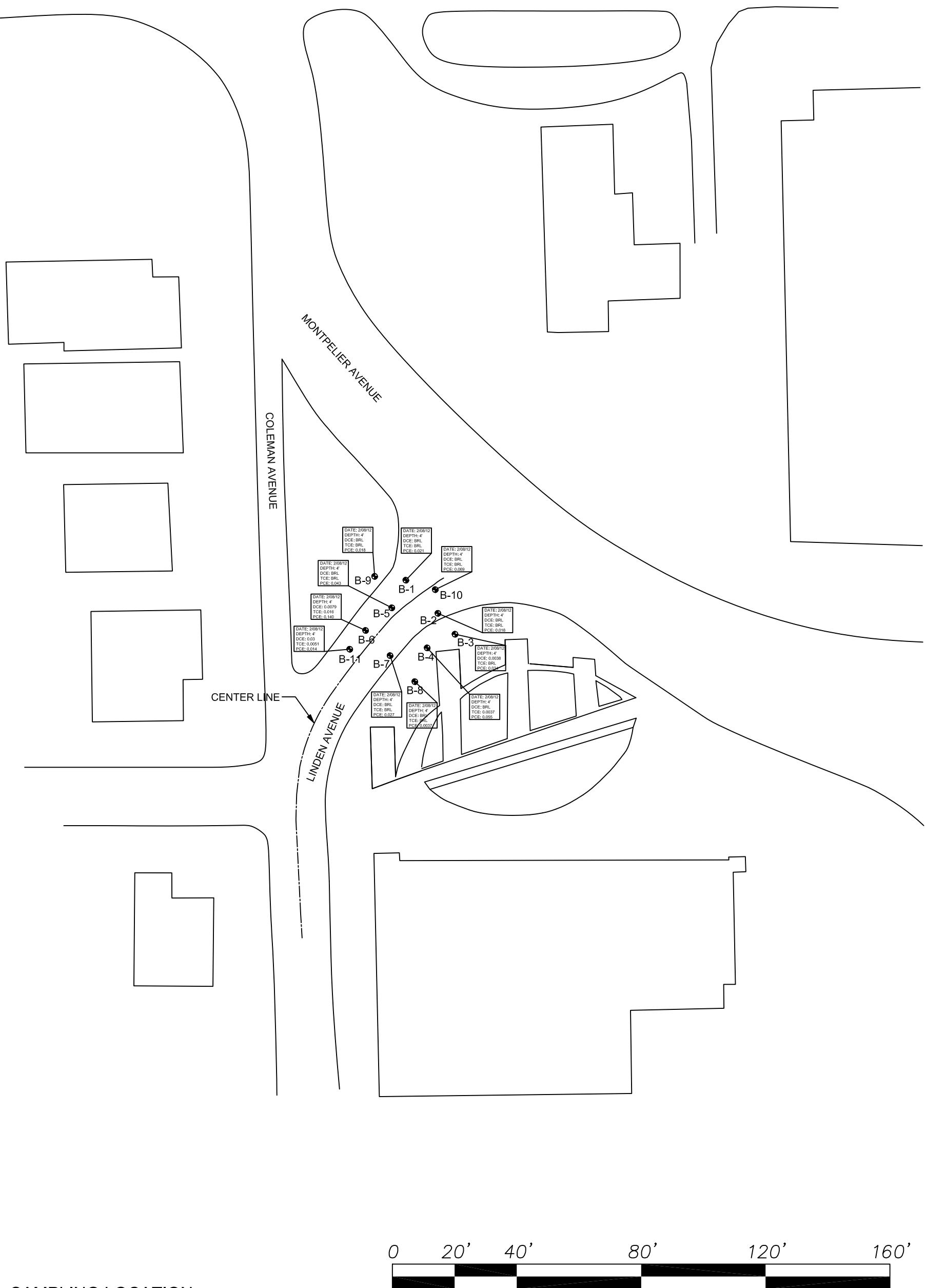
**GEC**  
**GEOTECHNICAL & ENVIRONMENTAL**  
CONSULTANTS



**GEC**  
GEOTECHNICAL & ENVIRONMENTAL  
CONSULTANT'S

FIGURE 5C  
APRIL 2013, PCE ISOCOUNTOUR MAP  
MERCER TRIANGLE, HSRA #10779  
MACON, BIBB COUNTY, GEORGIA  
GEC JOB #MCE-02-596D

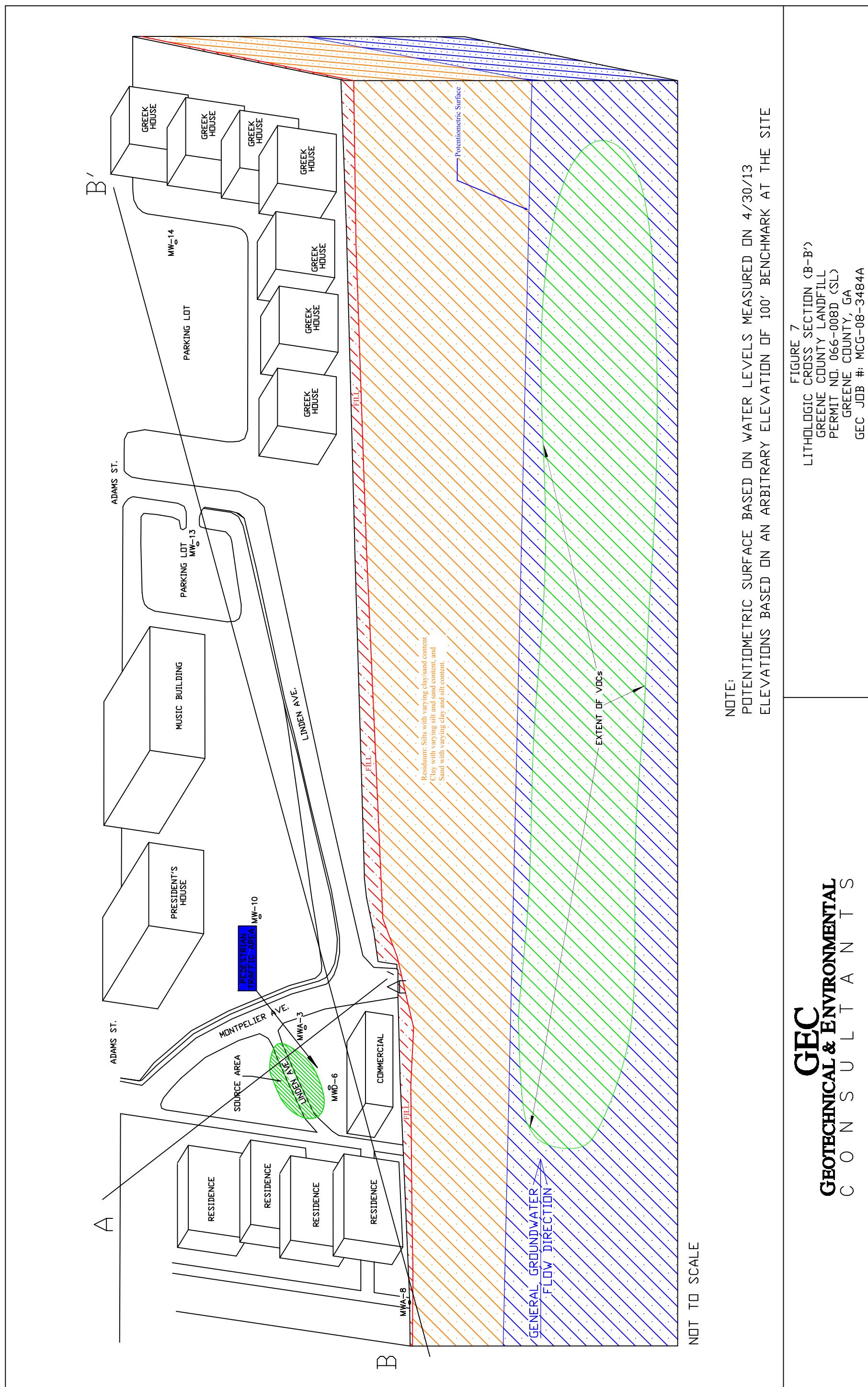




● 2012 SOIL SAMPLING LOCATION  
All results in mg/kg

FIGURE 6  
SOIL QUALITY MAP  
MERCER HSRA  
MACON, BIBB COUNTY, GA  
GEC JOB #: 090698.340

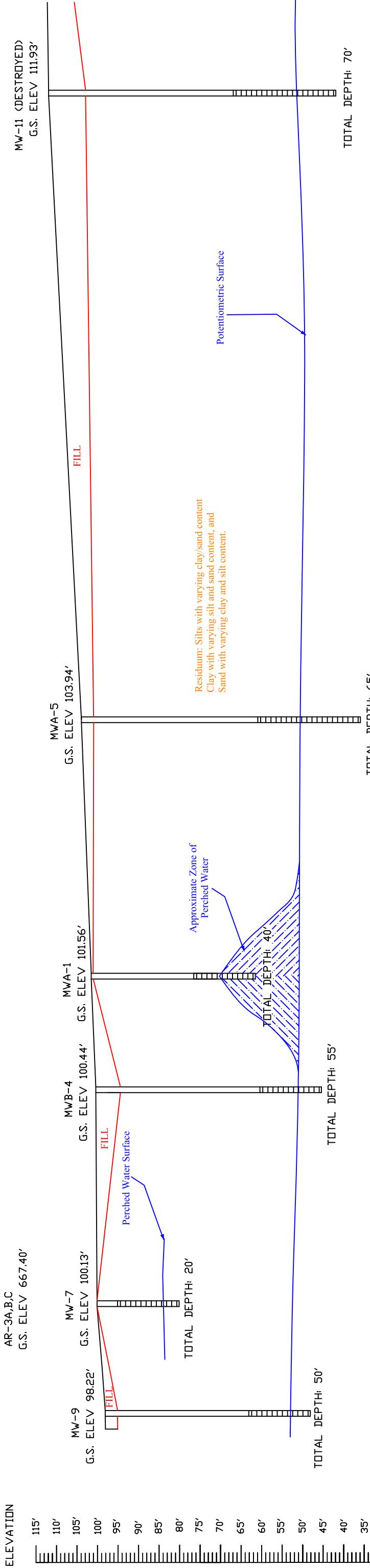
**GEC**  
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C O N S U L T A N T S



**GEC**  
**GEOTECHNICAL & ENVIRONMENTAL**  
**CONSULTANTS**

FIGURE 7  
LITHOLOGIC CROSS SECTION (B-B')  
GREENE COUNTY LANDFILL  
PERMIT NO. 066-008D (SL)  
GREENE COUNTY, GA  
GEC JOB #. MCG-08-3484A

A'



0  
Horizontal Scale (ft.)  
0 100

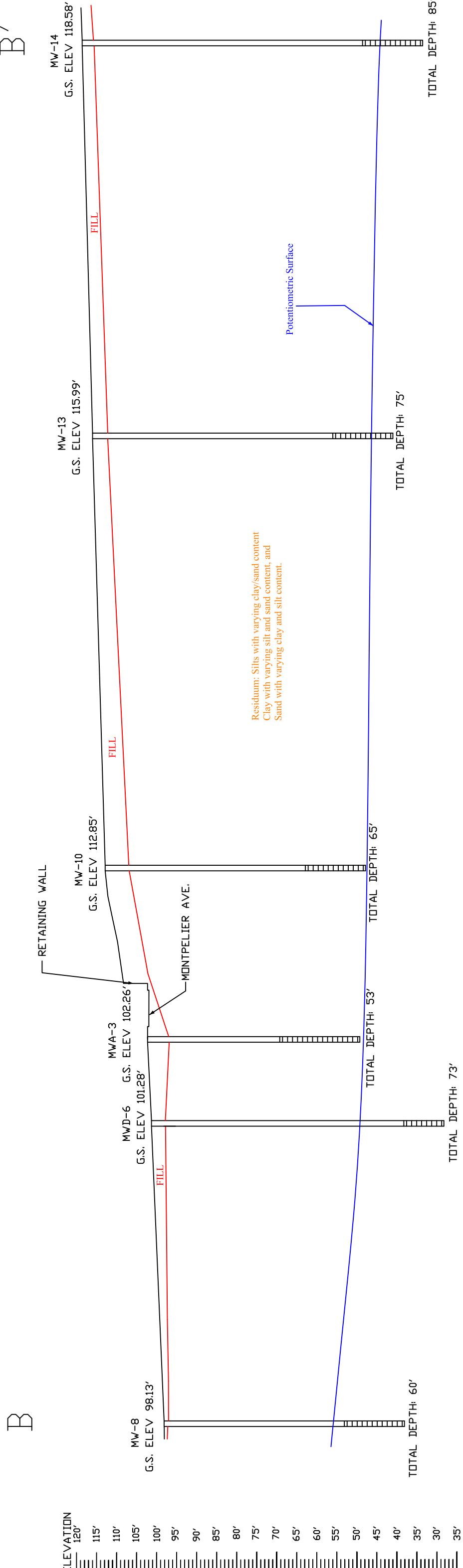
**GEC**  
**GEOTECHNICAL & ENVIRONMENTAL**  
**CONSULTANT**

FIGURE 7A  
LITHOLOGIC CROSS SECTION (A-A')  
GREENE COUNTY LANDFILL  
PERMIT NO. 066-008D (SL)  
GREENE COUNTY, GA  
GEC JOB #: MCG-08-3484A

7A

FIGURE 7A  
LITHOLOGIC CROSS SECTION (A-A')  
GREENE COUNTY LANDFILL  
PERMIT NO. 066-008D (SL)  
GREENE COUNTY, GA  
GEC JOB #: MCG-08-3484A

NOTE:  
POTENTIOMETRIC SURFACE BASED ON WATER LEVELS MEASURED ON 4/30/13  
POTENTIOMETRIC SURFACE AT MW-11 ESTIMATED FROM PAST EVENTS SINCE IT WAS DESTROYED  
ELEVATIONS BASED ON AN ARBITRARY ELEVATION OF 100' BENCHMARK AT THE SITE



NOTE:  
POTEN  
FI FVA

THE SITE

FIGURE 7B  
LITHOLOGIC CROSS SECTION (B-B')  
GREENE COUNTY LANDFILL  
PERMIT NO. 066-008D (SL)  
GREENE COUNTY, GA  
GEC JOB #: MCG-08-3484A

**GEC**  
**GEOTECHNICAL & ENVIRONMENTAL**  
CONSULTANTS

## **Appendix D**

**Table 1**  
**Risk Reduction Standards**

Soil	
<b>Constituent</b>	<b>Type 1 and/or 4 RRS (mg/kg)</b>
Tetrachloroethene	0.5
Trichloroethene	0.5
Cis 1,2-Dichloroethene	1.54
Trans 1,2-Dichloroethene	10
Acetone	2.74
Benzene	0.5
Toluene	100
Ethylbenzene	92.4
Xylenes	1000
Naphthalene	100
1,2 Dichlorobenzene	60
Vinyl Chloride	0.2

Groundwater	
<b>Constituent</b>	<b>Type 1 and/or 4 RRS (ug/L)</b>
Tetrachloroethene	5
Trichloroethene	34.5
Cis 1,2-Dichloroethene	161
Trans 1,2-Dichloroethene	100
Benzene	5
Toluene	1,000
Ethylbenzene	700
Xylenes	10,000
1,2-Dichlorobenzene	600
Naphthalene	11,450
Vinyl chloride	2

**Mercer Triangle**  
**1535 Montpelier Ave**  
**Macon, Bibb County, HSI # 10779**

**TABLE 2a: SOIL ANALYTICAL RESULTS**

Sample Location	Depth (ft)	Date Sampled	Acetone	Benzene	Toluene	Ethylbenzene	Xylenes	Cis-1,2-dichloroethene	Tetrachloroethene
MWA-1	30	12/09/02	<0.050	<0.0010	<0.0050	<0.0010	<0.0030	0.0013	0.0018
MWA-2	45	12/10/02	<0.050	<0.0010	<0.0050	<0.0010	<0.0030	<0.0010	<0.0010
MWA-3	40	12/09/02	<0.050	<0.0010	<0.0050	<0.0010	<0.0030	<0.0010	0.011
MWB-4	45	12/10/02	<0.050	<0.0010	<0.0050	<0.0010	<0.0030	<0.0010	<0.0010
MWA-5	5	8/8/06	<0.050	NR	NR	NR	NR	<0.0010	<0.0010
MWD-6	15	8/8/06	<0.050	NR	NR	NR	NR	<0.0010	<0.0010
MWA-7	5	8/9/06	<0.050	NR	NR	NR	NR	<0.0010	0.0056
MWA-8	5	8/10/06	<0.050	NR	NR	NR	NR	<0.0010	<0.0010
MW-9	3.5	10/15/07	<0.050	<0.0010	<0.0050	<0.0010	<0.0030	<0.0010	0.0031
MW-10	2	10/15/07	0.059	<0.0010	<0.0050	<0.0010	<0.0030	<0.0010	<0.0010
MW-11	2	10/15/07	<0.052	<0.0010	<0.0052	<0.0010	<0.0031	<0.0010	<0.0010
MW-12	3.5	11/19/07	<0.050	<0.0010	<0.0050	<0.0010	<0.0030	<0.0010	<0.0010
MW-13	3.5	11/19/07	<0.050	<0.0010	<0.0050	<0.0010	<0.0030	<0.0010	<0.0010
MW-14	NO SOIL SAMPLE COLLECTED								
MW-15	NO SOIL SAMPLE COLLECTED								
Type 1 Risk Reduction Standards		<b>2.74</b>	<b>0.5</b>	<b>100</b>	70	<b>1000</b>	0.53	<b>0.5</b>	
Type 4 Risk Reduction Standards		NC	0.023	56.7	<b>92.4</b>	481	<b>1.54</b>	0.035	

UNITS: all mg/kg

NR – NOT REPORTED

NOTE: The higher value between Type 1 and Type 4 RRS were used for determining whether or not the RRS had been exceeded.

**NOTE: QC QUALIFIERS**

MWA-1:	J4, J6	MWA-2:	J4
MWA-5:	J4, J6	MWA-6:	J4
MWA-9:	J3, J6	MWA-10:	J3, J4
MW-13	J4	MWA-11:	J4, J6
		MWB-4:	J4
		MWB-8:	J4
		MWB-12	J4

Please see laboratory results in Appendix D for full listing of QC Qualifiers

**Mercer Triangle**  
**1535 Montpelier Ave**  
**Macon, Bibb County, HSI # 10779**

**TABLE 2b: SOIL ANALYTICAL RESULTS – DIRECT PUSH LOCATIONS**

Sample Location	Depth (ft)	Date Sampled	Acetone	Benzene	Toluene	Ethylbenzene	Xylenes	Cis-1,2-dichloroethene	Tetrachloroethene	Trichloroethene	Naphthalene	n-Propylbenzene	1,2,4-Trimethylbenzene	1,2,3-Trimethylbenzene	1,3,5-Trimethylbenzene
B-1	4	9/19/07	<0.05	<0.001	0.0088	0.0016	0.0069	0.024	0.19	0.0038	0.0054	<0.001	0.0015	<0.001	<0.001
B-2	4	9/19/07	0.66	0.0011	0.0065	0.0013	0.0053	0.0024	1.7	0.0080	<0.005	<0.001	<0.001	<0.001	<0.001
B-3	2.5	9/19/07	<0.05	<0.001	0.013	0.0016	0.0057	<0.001	0.17	0.0017	<0.005	<0.001	<0.001	<0.001	<0.001
B-4	3	9/19/07	0.18	<0.001	0.0061	<0.001	<0.003	<0.001	0.052	0.0034	<0.005	<0.001	<0.001	<0.001	<0.001
B-5	5	9/19/07	<0.05	<0.001	0.76	0.31	1.7	<0.001	0.44	0.17	<0.41	0.14	0.88	0.22	0.23
B-6	4	9/19/07	0.052	0.0011	0.012	0.0021	0.0081	0.0079	0.65	0.024	<0.005	<0.001	0.0015	<0.001	<0.001
B-7	3	9/19/07	0.14	<0.001	0.0094	0.0026	0.011	<0.001	0.032	0.0016	<0.005	<0.001	0.0026	<0.001	<0.001
B-8	2	9/19/07	3.8	<0.001	<0.005	<0.001	<0.003	<0.001	<0.07 <sub>4</sub>	<0.074	<0.37	<0.074	<0.074	<0.074	<0.074
B-9	3	9/19/07	<0.05	<0.001	<0.005	<0.001	<0.003	<0.001	0.46	<0.074	<0.37	<0.074	<0.074	<0.074	<0.074
<hr/>															
B-1	4	2/08/12	<0.068	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	0.021	<0.003 <sub>4</sub>	NT	NT	NT	NT	NT
B-2	4	2/08/12	<0.075	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	0.018	<0.003 <sub>7</sub>	NT	NT	NT	NT	NT
B-3	4	2/08/12	<0.075	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	0.0038	0.034	<0.003 <sub>7</sub>	NT	NT	NT	NT
B-4	4	2/08/12	<0.071	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035	0.055	0.0037	NT	NT	NT	NT
B-5	4	2/08/12	<0.07	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035	0.043	<0.003 <sub>5</sub>	NT	NT	NT	NT
B-6	4	2/08/12	<0.07	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035	0.0079	0.14	0.016	NT	NT	NT	NT
B-7	4	2/08/12	<0.065	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	0.027	<0.003 <sub>2</sub>	NT	NT	NT	NT
B-8	4	2/08/12	<0.072	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	0.003 <sub>7</sub>	<0.003 <sub>6</sub>	NT	NT	NT	NT
B-9	4	2/08/12	<0.065	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	0.018	<0.003 <sub>2</sub>	NT	NT	NT	NT	NT
B-10	4	2/08/12	<0.066	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.069	<0.003 <sub>3</sub>	NT	NT	NT	NT	NT
B-11	4	2/08/12	<0.07	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035	0.03	0.014	0.0051	NT	NT	NT	NT
Type 1 Risk Reduction Standards			<b>2.74</b>	<b>0.5</b>	<b>100</b>	70	<b>1000</b>	0.53	<b>0.5</b>	<b>0.5</b>	<b>2</b>	<b>3,400</b>	<b>62</b>	<b>53</b>	<b>780</b>
Type 4 Risk Reduction Standards		NC	0.023	56.7	<b>92.4</b>	481	<b>1.54</b>	0.03 <sub>5</sub>							

Mercer Triangle  
 1535 Montpelier Ave  
 Macon, Bibb County, HSI # 10779

**TABLE 2c: UST SYSTEM CLOSURE – SOIL ANALYTICAL RESULTS  
 (POLYNUCLEAR AROMATIC HYDROCARBON)**

Well Number	Date Sampled	Depth (ft)	Benz(a)anthracene (mg/kg)	Benz(a)pyrene (mg/kg)	Benz(b)fluoranthene (mg/kg)	Benz(c)perylene (g, h, i) (mg/kg)	Benz(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Fluoranthene (mg/kg)	Indeno(1,2,3-cd)pyrene (mg/kg)	Phenanthrene (mg/kg)	Pyrrene (mg/kg)
Tank 1	11/01/02	9	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Tank 2	11/01/02	9	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Stockpile 1	11/01/02	NA	<0.033	0.042	0.052	0.042	<0.033	0.035	0.043	<0.033	0.034	0.064
Stockpile 2	11/01/02	NA	0.074	0.076	0.11	0.058	0.036	0.074	0.12	0.039	0.073	0.16
Product line	11/01/02	2	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Applicable Standards (mg/kg)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTE: QC QUALIFIERS

Tank-1: J3, J4  
 Product line: J3, J4

Tank-2: J3, J4 Stockpile 1: J3, J4

Stockpile 2: J3, J4

Please see laboratory results in Appendix D for full listing of QC Qualifiers

Mercer Triangle  
 1535 Montpelier Ave  
 Macon, Bibb County, HSI # 10779

**TABLE 2d: INITIAL INVESTIGATION – SOIL ANALYTICAL RESULTS  
 (VOLATILE ORGANIC COMPOUNDS)**

Well Number	Date Sampled	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Isopropylbenzene (mg/kg)	Naphthalene (mg/kg)	n-Propylbenzene (mg/kg)	1,2,4-trimethylbenzene (mg/kg)	1,3,5-trimethylbenzene (mg/kg)	TPH Low Fraction (mg/kg)	TPH High Fraction (mg/kg)	Chloroethane (mg/kg)	Tetrachloroethylene (mg/kg)
MW-1	10/11/02	13.5-15	<4.0	50	34	170	9.4	37	15	92	33	3500	450	<4.0	<4.0
MW-1	10/11/02	23.5-25	0.0065	0.031	0.004	0.016	<0.0010	<0.0033	<0.0010	0.0014	<0.0010	0.39	<4.0	<0.0010	<0.0010
MW-1	10/11/02	28.5-30	<0.036	<0.018	<0.036	<0.11	<0.036	<0.18	<0.036	<0.036	<0.036	0.15	32	0.097	0.054
MW-2	10/11/02	8.5-10	<0.0050	<0.025	<0.0050	<0.015	<0.0050	<0.025	<0.0050	0.0058	<0.0050	9.7	<4.0	<0.0050	<0.0050
MW-2	10/11/02	18.5-20	<0.0050	<0.025	<0.0050	<0.015	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.10	<4.0	<0.0050	<0.0050
Applicable Standards (mg/kg)		0.5	100	92.4	1000	NC	100	NC	NC	NC	NC	NC	NC	NC	0.5

NOTE: NC= Not Calculated  
 NOTE: Only boring and sample locations, no wells were set at MW-1 or MW-2

NOTE: QC QUALIFIERS

MW-1: (13.5-1.5 ft) J4, E (23.5-25 ft) J4 (28.5-30 ft) J4 MW-2: (8.5-10 ft) J4, J5, J6 (18.5-20 ft) J4  
 Please see laboratory results in Appendix D for full listing of QC Qualifiers

**Mercer UST**  
**1535 Montpelier Ave**  
**Macon, Bibb County, HSI # 10779**

**TABLE 2e: INITIAL INVESTIGATION – SOIL ANALYTICAL RESULTS  
(POLYNUCLEAR AROMATIC HYDROCARBON)**

Sample Location	Depth (ft)	Date Sampled	Detected PAH Compounds (mg/kg)						Total PAHs (mg/kg)
			Naphthalene (mg/kg)						
MW-1	13.5-15	10/11/02	6.4						6.4
MW-1	23.5-25	10/11/02	BDL						BDL
MW-1	28.5-30	10/11/02	0.047						0.047
MW-2	8.5-10	10/11/02	BDL						BDL
MW-2	18.5-20	10/11/02	BDL						BDL
Applicable Standards			100						

NOTE: BDL = Below Detection Limit

NOTE: Only boring and sample locations, no wells were set at MW-1 or MW-2

**TABLE 2f: UST SYSTEM- TANK SLUDGE ANALYTICAL RESULTS**

Well Number	Date Sampled	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	1,2,4 Trimethylbenzene (mg/kg)	1,3,5 Trimethylbenzene (mg/kg)
Tank 1 Small	10/24/02	BDL	BDL	1.1	8.1	2.7	1.2
Applicable Standards		NA	NA	NA	NA	NA	NA

NOTE: QC QUALIFIERS

Tank 1 Small: J4

Please see laboratory results in Appendix D for full listing of QC Qualifiers

**Mercer Triangle**  
**1535 Montpelier Ave**  
**Macon, Bibb County, HSI # 10779**

**TABLE 2g: SOIL ANALYTICAL RESULTS  
DIRECT PUSH EVENT**

Sample Location	Depth (ft)	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylenes, Total	Cis-1,2-dichloroethene	Tetrachloroethylene	Trichloroethylene
B-1	4	9/19/07	<0.0010	0.0088	0.0016	0.0069	0.024	0.19	0.0038
B-2	4	9/19/07	0.0011	0.0065	0.0013	0.0053	0.0024	<b>1.7</b>	0.0080
B-3	2.5	9/19/07	<0.0010	0.013	0.0016	0.0057	<0.0010	0.17	0.0017
B-4	3	9/19/07	<0.0010	0.0061	<0.0010	<0.0030	0.0017	0.052	0.0034
B-5	5	9/19/07	<0.082	0.76	0.31	1.7	<0.082	0.44	0.17
B-6	4	9/19/07	0.0011	0.012	0.0021	0.0081	0.0079	<b>0.65</b>	0.024
B-7	3	9/19/07	<0.0010	0.0094	0.0026	0.011	<0.0010	0.032	0.0016
B-8	2	9/19/07	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074
B-9	3	9/19/07	<0.083	<0.083	<0.083	<0.083	<0.083	0.46	<0.083
Risk Reduction Standards			0.5	100	92.4	1000	60	0.5	0.5

All quantities reported in mg/kg

NOTE: QC QUALIFIERS

B-1: J3, J4    B-2: J3, J4    B-3: J3, J4  
B-7: J3, J4    B-8: J3, J4    B-9: J3, J4

B-4: J3, J4    B-5: J3, J4    B-6: J3, J4

Please see laboratory results in Appendix D for full listing of QC Qualifiers

**Mercer Triangle  
1535 Montpelier Ave  
Macon, Bibb County, HSI # 10779**

**TABLE 3: GROUNDWATER ANALYTICAL RESULTS  
(VOLATILE ORGANIC COMPOUNDS)**

Well Number	Date Sampled	Methylene Chloride												
		Acetone			Benzene			Toluene			Xylenes			
cis-1,2-Dichloroethene		Trans-1,2-Dichloroethene		Naphthalene		Tetrachloroethene		Trichloroethene		1,2-Dichloroethane		1,1,2-Trichloroethane		
		Chloromethane	Chloroform	Carbon Disulfide	1,1-Dichloroethane	P-isopropyltoluene	Di-isopropyl ether	1,2-Dichloroethane	1,1,2-Trichloroethane	Chloromethane	Chloroform	Carbon Disulfide	Methylene Chloride	
MWB-4	12/18/2002	<10.0	<1.0	<5.0	<1.0	<3.0	<1.0	<5.0	11	<1.0	<1.0	<5.0	<1.0	<1.0
	3/28/2006	<10.0	<1.0	<5.0	<1.0	<3.0	<1.0	<5.0	31	3.4	<1.0	<5.0	<1.0	<1.0
	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	4.1	<1.0	69	15	<1.0	<5.0	<1.0	<1.0
	2/21/2008	<10.0	<1.0	<5.0	<1.0	<3.0	4.9	<1.0	45	14	<1.0	<5.0	<1.0	<1.0
	9/14/2009	<10.0	<1.0	<5.0	<1.0	<3.0	3	<1.0	50	13	<1.0	<5.0	<1.0	<1.0
	7/29/2010	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	7.9	2.8	<1.0	<5.0	<1.0
	4/11/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	1.5	<1.0	<5.0	<1.0	<1.0
	10/4/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	6.83	3.51	<1.0	<5.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	NT	<5	5	NT	<5	<5	NT	<5
	8/24/2006	NT	NT	NT	NT	NT	NT	NT	27	<1.0	<1.0	NT	NT	NT
MWA-5	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	20	1.4	<1.0	<5.0	<1.0	<1.0
	9/15/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.2	16	8.6	<1.0	<5.0	<1.0
	7/30/2010	<10.0	12	81	5.2	3	<1.0	<5.0	66	26	1.0	<1.0	<5.0	<1.0
	9/16/2011	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	9	<1.0	<1.0	490	16
	4/13/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	28.7	1.09	<1.0	65.6	28
	10/4/2012	18	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	26	<5	NT	1.49	11
	4/30/2013	<50	<5	<5	<5	<5	NT	<5	5	NT	19	<5	6.44	16
	8/24/2006	NT	NT	NT	NT	NT	NT	NT	5	<1.0	<1.0	NT	NT	NT
	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	11	<1.0	47	16	<1.0	<1.0	<5.0	<1.0
	9/14/2009	<10.0	<1.0	<5.0	<1.0	<3.0	28	1.2	150	74	<1.0	<1.0	<5.0	<1.0
MWD-6	7/30/2010	<10.0	<1.0	<5.0	<1.0	<3.0	2.1	<1.0	5.0	17	5.3	<1.0	8.9	28
	9/16/2011	<10.0	<1.0	<5.0	<1.0	<3.0	1.6	<1.0	5.0	5	1.7	<1.0	25	35
	4/11/2012	<10.0	<1.0	<5.0	<1.0	<3.0	4.8	<1.0	5.0	13	6.9	<1.0	<5.0	<1.0
	10/4/2012	88.8	<1.0	<1.0	<1.0	<1.0	2.1	5.01	<1.0	NT	17	7.5	<1.0	1.22
	4/30/2013	80	<5	<5	<5	<5	NT	94	46	<5	NT	NT	<10	<5
	8/24/2006	NT	NT	NT	NT	NT	7.6	<1.0	NT	14	16	<1.0	NT	NT
	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	2	<1.0	5.0	7.7	3.1	<1.0	<1.0	<5.0
MWA-7	9/14/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.8	<1.0	5.0	8.7	2	<1.0	<1.0	<5.0
	4/11/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/22/2006	NT	NT	NT	NT	NT	NT	NT	<1.0	<1.0	NT	NT	NT	NT
	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	1.1	<1.0	5.0	<5.0	<1.0	<1.0	<1.0	<1.0
	9/16/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5	NT	NT	<10	<5
MWA-8	4/16/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<1.0	<1.0	<5.0	<1.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	NT	<5	5	NT	<5	<5	<5	<5
	10/17/2007	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	5.1	1	<1.0	<5.0	<1.0
	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	4	<1.0	<1.0	<5.0	<1.0
MW-9	9/15/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	6.2	1.1	<1.0	<5.0	<1.0
	7/30/2010	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5	NT	<10	<5	<5
	9/15/2011	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	3.5	<1.0	<1.0	<5.0	<1.0
	4/13/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	3.5	<1.0	<1.0	<5.0	<1.0
MW-10	4/14/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	NT	<5	5	NT	<5	<5	<5	<5
	9/22/2006	NT	NT	NT	NT	NT	NT	NT	<1.0	<1.0	NT	NT	NT	NT
	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
MW-11	9/14/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
	4/11/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	NT	<5	5	NT	<5	<5	<5	<5
	10/17/2007	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	5.1	1	<1.0	<5.0	<1.0
MW-12	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	4	<1.0	<1.0	<5.0	<1.0
	9/15/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	6.2	1.1	<1.0	<5.0	<1.0
	7/30/2010	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	5.6	<1.0	<1.0	<5.0	<1.0
	9/15/2011	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	3.5	<1.0	<1.0	<5.0	<1.0
MW-13	4/13/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	NT	<5	5	NT	<5	<5	<5	<5
	9/22/2006	NT	NT	NT	NT	NT	NT	NT	<1.0	<1.0	NT	NT	NT	NT
	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
MW-14	9/14/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
	4/11/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	NT	<5	5	NT	<5	<5	<5	<5
	10/17/2007	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	5.1	1	<1.0	<5.0	<1.0
MW-15	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	4	<1.0	<1.0	<5.0	<1.0
	9/15/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	6.2	1.1	<1.0	<5.0	<1.0
	7/30/2010	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	5.6	<1.0	<1.0	<5.0	<1.0
	9/15/2011	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	3.5	<1.0	<1.0	<5.0	<1.0
MW-16	4/13/2012	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	NT	<5	5	NT	<5	<5	<5	<5
	9/22/2006	NT	NT	NT	NT	NT	NT	NT	<1.0	<1.0	NT	NT	NT	NT
	1/18/2008	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
MW-17	9/14/2009	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	<5.0	<1.0	<1.0	<5.0	<1.0
	4/11/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/30/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/17/2007	<10.0	<1.0	<5.0	<1.0	<3.0	1.0	<1.0	5.0	5.1	1	<1.0	<5.0	<1.0
MW-18	1/18/2008	<10.0	<1.0	<5.0	<1.0	&								

Well Number	Date Sampled	Acetone	Benzene	Toluene	Ethylbenzene	Xylenes	cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	Naphthalene	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	1,1,2-Trichloroethane	Methylene Chloride	Chloroform					
															Carbon Disulfide	p-Isopropyltoluene	dry	dry	dry	dry
MW-10	10/17/2007	<1.0	<5.0	<1.0	<3.0	<b>12</b>	<1.0	<5.0	<b>71</b>	<b>11</b>	<1.0	NT	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/18/2008	<1.0	<5.0	<1.0	<3.0	<b>88</b>	<1.0	<5.0	<1.0	<1.0	<1.0	47	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/16/2009	<1.0	<5.0	<1.0	<3.0	<b>2.5</b>	<1.0	<5.0	<b>50</b>	<b>6.5</b>	<1.0	<b>1.1</b>	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/19/2011	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<b>25</b>	<b>3.7</b>	<1.0	<b>1.1</b>	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/13/2012	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<b>11</b>	<b>1.9</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/4/2012	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
	10/17/2007	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<1.0	<1.0	NT	NT	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/18/2008	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/15/2009	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/13/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	11/19/2007	<1.0	<5.0	<1.0	<3.0	<b>21</b>	<1.0	<5.0	<b>180</b>	<b>43</b>	<1.0	NT	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/18/2008	<1.0	<5.0	<1.0	<3.0	<b>4.4</b>	<1.0	<5.0	<b>46</b>	<b>9.4</b>	<1.0	1.0	<b>54</b>	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/15/2009	<1.0	<5.0	<1.0	<3.0	<b>1.5</b>	<1.0	<5.0	<b>37</b>	<b>5.1</b>	<1.0	1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/13/2012	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<b>6.5</b>	<b>&lt;1.0</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	<5	<5	NT	<b>5.3</b>	<5	<5	<5	NT	NT	<10	<5	<5	<5	<5
	11/19/2007	<1.0	<5.0	<1.0	<3.0	<b>3.1</b>	<1.0	<5.0	<b>41</b>	<b>6.5</b>	<1.0	NT	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/18/2008	<1.0	<5.0	<1.0	<3.0	<b>19</b>	<1.0	<5.0	<b>150</b>	<b>47</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/14/2009	<1.0	<5.0	<1.0	<3.0	<b>10</b>	<1.0	<5.0	<b>82</b>	<b>26</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/13/2012	<1.0	<5.0	<1.0	<3.0	<b>7.9</b>	<b>1.3</b>	<5.0	<b>83</b>	<b>22</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	<5	<5	NT	<b>15</b>	<5	<5	<5	NT	NT	<10	<5	<5	<5	<5
MW-12	1/18/2008	<1.0	<5.0	<1.0	<3.0	<b>2.1</b>	<1.0	<5.0	<b>71</b>	<b>40</b>	<1.0	2	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/16/2009	<1.0	<5.0	<1.0	<3.0	9.5	<1.0	<5.0	<b>79</b>	<b>25</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/11/2012	<1.0	<5.0	<1.0	<3.0	1.4	<1.0	<5.0	<b>40</b>	<b>5.7</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	<5	<5	NT	<b>30</b>	<b>6</b>	<5	<5	NT	NT	<10	<5	<5	<5	<5
	1/18/2008	<1.0	<5.0	<1.0	<3.0	2.1	<1.0	<5.0	<b>71</b>	<b>40</b>	<1.0	2	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/15/2009	<1.0	<5.0	<1.0	<3.0	9.5	<1.0	<5.0	<b>79</b>	<b>25</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/11/2012	<1.0	<5.0	<1.0	<3.0	1.4	<1.0	<5.0	<b>40</b>	<b>5.7</b>	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	<5	<5	NT	<b>30</b>	<b>6</b>	<5	<5	NT	NT	<10	<5	<5	<5	<5
	1/18/2008	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/15/2009	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-15	4/11/2012	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/30/2013	<50	<5	<5	<5	<5	<5	<5	NT	<5	<5	<5	<5	NT	NT	<10	<5	<5	<5	<5
	Type 1 Risk Reduction	4000	--	--	700	10,000	--	20	5	5	600	--	--	100	--	5	5	5	5	5
	Type 4 Risk Reduction	--	8.8	5241	--	--	1020	161	--	--	34.5	--	--	861	--	29000	--	--	--	--

NOTE: All units reported in ug/l (ppb)

NOTE: NS = Not Sampled due to insufficient recharge; NT = Not Tested.

NOTE: \* Only initial boring and sample locations, only temporary wells were used at MW-1 or MW-2

NOTE: The higher value between Type 1 and Type 4 RRS were used for determining whether or not the RRS had been exceeded.

Indicates exceedance of Type 1 RRS

7/30/2010 indicates dates after ISCO treatment

Please see laboratory results in Appendix D for full listing of QC Qualifiers

**Mercer Triangle**  
**1535 Montpelier Ave**  
**Macon, Bibb County, HSI # 10779**

**TABLE 4: GROUNDWATER ELEVATIONS**

Well Number	Date Measured	Ground Surface Elev. (ft)	Top of Casing Elev. (ft)	Depth of Screen Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MWA-1	5/9/2003	101.41	101.56	25-40'	31.26	70.30
	10/25/2006				32.49	68.92
	11/19/2007				32.73	68.83
	1/18/2008				33.32	68.24
	4/11/2012				33.20	68.36
	10/4/2012				31.45	70.11
	4/30/2013				31.10	70.46
MWA-2	5/9/2003	101.74	101.89	35-60'	49.61	52.28
	10/25/2006				50.09	51.80
	11/19/2007				51.64	50.25
	1/18/2008				50.85	51.04
	4/11/2012				51.05	50.84
	10/4/2012				51.29	50.60
	4/30/2013				51.03	50.86
MWA-3	5/9/2003	102.1	102.26	33-53'	50.40	51.86
	10/25/2006				DRY	-
	11/19/2007				DRY	-
	1/18/2008				50.20	52.06
MWB-4	5/9/2003	100.44	100.59	40-55'	47.55	53.04
	10/25/2006				48.43	52.16
	11/19/2007				49.38	51.21
	1/18/2008				49.60	50.99
	4/11/2012				49.30	51.29
	10/4/2012				49.56	51.03
	4/30/2013				49.25	51.34
MWA-5	8/12/2006	103.94	103.65	40-65'	42.36	61.29
	10/25/2006				51.98	51.67
	11/19/2007				52.45	51.20
	1/18/2008				52.68	50.97
	4/11/2012				52.77	50.88
	10/4/2012				53.22	50.43
	4/30/2013				53.20	50.45
MWD-6	8/12/2006	101.28	101.13	63-73'	68.32	32.81
	10/25/2006				51.48	49.65
	11/19/2007				49.41	51.72
	1/18/2008				49.52	51.61
	4/11/2012				49.81	51.32
	10/4/2012				49.90	51.23
	4/30/2013				51.80	49.33

	8/12/2006				8.47	91.43
	10/25/2006				10.88	89.02
	11/19/2007				18.78	81.12
MW-7	1/18/2008	100.13	99.9	5-20'	13.28	86.62
	9/20/2006				51.63	46.33
	10/25/2006				42.76	55.20
	11/19/2007				42.3	55.66
MW-8	1/18/2008				42.48	55.48
	4/11/2012				42.49	55.47
	4/30/2013	98.13	97.96	45-60'	41.85	56.11
	10/26/2007				44.96	52.85
	11/19/2007				44.83	52.98
	1/18/2008				45.10	52.71
MW-9	4/11/2012				45.13	52.68
	10/4/2012				45.27	52.54
	4/30/2013	98.22	97.81	35-50'	44.71	53.10
	10/26/2007				61.43	51.24
	11/19/2007				62.05	50.62
	1/18/2008				62.19	50.48
MW-10	4/11/2012				63.10	49.57
	10/4/2012	112.85	112.67	50-65'	DRY	DRY
	10/26/2007				58.89	52.81
	11/19/2007				58.88	52.82
MW-11	1/18/2008	111.93	111.7	55-70'	59.60	52.10
	11/19/2007				71.30	46.79
	1/18/2008				71.49	46.60
MW-12	4/11/2012				71.17	46.92
	4/30/2013	118.32	118.09	68-83'	72.60	45.49
	11/19/2007				67.72	48.00
	1/18/2008				68.00	47.72
MW-13	4/11/2012				67.97	47.75
	4/30/2013	115.99	115.72	60-75'	69.35	46.37
	1/18/2008				72.80	45.59
MW-14	4/11/2012				72.40	45.99
	4/30/2013	118.58	118.39	70-85'	74.38	44.01
	1/18/2008				57.02	57.62
MW-15	4/11/2012				53.25	61.39
	4/30/2013	115.04	114.64	50-65'	50.83	63.81

Table 5. Field Parameters  
 Mercer Triangle, HSRA #10779  
 Macon, Bibb County, Georgia  
 GEC Project No. 090698.210

Well / Boring ID	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	ORP (mV)	Purge Volume (gal)	Collection Time
MWA-1	4.0	0.319	104	4.5	22.59	349	7.5	4/30/2013 10:45
MWA-2	4.0	0.138	113	4.7	22.59	265	8	4/30/2013 11:50
MWA-3	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MWR-3	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MWB-4	6.0	0.190	588	1.7	24.13	-104	4	4/30/2013 14:05
MWA-5	3.5	0.536	246	2.8	22.64	469	3	5/3/2013 19:20
MWD-6	3.7	4.100	28	5.3	24.98	354	2.5	4/30/2013 15:50
MW-8	4.3	0.091	44.1	6.5	20.9	364.0	9.0	5/3/2013 18:30
MW-9	4.3	0.139	11	4.9	23.16	4.77	2.8	4/30/2013 15:25
MW-10	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-12	4.1	0.656	162	1.7	22.02	395	8.0	5/3/2013 17:25
MW-13	3.5	0.871	75	4.2	23.81	376	3.0	5/2/2013 14:05
MW-14	4.3	0.326	281	2.1	23.26	114	20.0	5/2/2013 15:30
MW-15	4.0	0.108	9	5.4	22.68	364	11.3	5/3/2013 15:30

# **Appendix E**



## ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 21, 2012

Jason Cooper  
GeoTechnical & Env. Consultants, Inc.  
514 Hillcrest Industrial Blvd.  
Macon GA 31204

TEL: (478) 757-1606  
FAX: (478) 757-1608

RE: Mercer HSRA

Dear Jason Cooper: Order No: 1202874

Analytical Environmental Services, Inc. received 11 samples on 2/10/2012 10:30:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/11-06/30/12.
- AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in black ink that appears to read "CKK Kanhai".

Chantelle Kanhai  
Project Manager



## ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

## CHAIN OF CUSTODY



COMPANY: <b>SEC</b>		ADDRESS: <b>5144 14th West Industrial Macon, GA 31207</b>		ANALYSIS REQUESTED		Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> to check on the status of your results, place bottle orders, etc.	
PHONE SAMPLED BY: <b>Chip Brook</b>		FAX SIGNATURE: <b>Ch Bk</b>				No. # of Containers	
#	SAMPLE ID	SAMPLED	COMPOSITE	MATRIX (See codes)	PRESERVATION (See codes)	REMARKS	
		DATE	TIME	GRAB			
1	B-7 - 8'	2/8/12	1130	✓	Soil	Analyze only	
2	B-7 4'	2/8/12	1125	✓	✓	4' samples	
3	B-3 8'	2/8/12	1110	✓	✓	and hold 8'	
4	B-3 4'	2/8/12	1105	✓	✓	samples until further notice	
5	B-4 8'	2/8/12	1055	✓	✓		
6	B-4 4'	2/8/12	1050	✓	✓		
7	B-8 8'	2/8/12	1030	✓	✓		
8	B-8 4'	2/8/12	1025	✓	✓		
9							
10							
11							
12							
13							
14							
RELINQUISHED BY: <b>Karen</b>		DATE/TIME	RECEIVED BY <b>Mark A</b>	PROJECT INFORMATION		RECEIPT	
1:		2/10/12 10:30	1:	PROJECT NAME: <b>Never 1/5/12</b>		Total # of Containers	
2:				PROJECT #: <b>Jason Cooper</b>		Turnaround Time Request:	
3:				SITE ADDRESS:		Standard 5 Business Days	
4:				SEND REPORT TO: <b>Never 1/5/12</b>		2 Business Day Rush	
5:				INVOICE TO: (IF DIFFERENT FROM ABOVE)		Next Business Day Rush	
SPECIAL INSTRUCTIONS/COMMENTS: Page 3 of 26				SHIPMENT METHOD		Same Day Rush (auth req.)	
				OUT / /	VIA: IN / / CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER	Other _____	
				QUOTE #: PO#:		STATE PROGRAM (if any): E-mail? Y / N, Fax? Y / N	
						DATA PACKAGE: I II III IV	
SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NOT THIS IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT. SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.							

MATRIX CODES: A = Air      GW = Groundwater      SE = Sediment      SO = Soil      SW = Water (Blanks)      DW = Drinking Water (Blanks)      O = Other (specify)  
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice      I = Ice only      N = Nitric acid      S+I = Sulfuric acid + ice      O = Other (specify)      NA = None  
 White Copy - Original; Yellow Copy - Client

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-9 4'					
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 2:35:00 PM					
<b>Lab ID:</b>	1202874-003	<b>Matrix:</b>	Soil					
<hr/>								
<b>Analyses</b>	<b>Result</b>	<b>Reporting Limit</b>	<b>Qual</b>	<b>Units</b>	<b>BatchID</b>	<b>Dilution Factor</b>	<b>Date Analyzed</b>	<b>Analyst</b>
<b>TCL VOLATILE ORGANICS SW8260B</b>				<b>(SW5035)</b>				
1,1,1-Trichloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,1,2,2-Tetrachloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,1,2-Trichloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,1-Dichloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,1-Dichloroethene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,2,4-Trichlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,2-Dibromo-3-chloropropane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,2-Dibromoethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,2-Dichlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,2-Dichloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,2-Dichloropropane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,3-Dichlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
1,4-Dichlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
2-Butanone	BRL	32		ug/Kg	157965	1	02/17/2012 06:23	JE
2-Hexanone	BRL	6.5		ug/Kg	157965	1	02/17/2012 06:23	JE
4-Methyl-2-pentanone	BRL	6.5		ug/Kg	157965	1	02/17/2012 06:23	JE
Acetone	BRL	65		ug/Kg	157965	1	02/17/2012 06:23	JE
Benzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Bromodichloromethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Bromoform	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Bromomethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Carbon disulfide	BRL	6.5		ug/Kg	157965	1	02/17/2012 06:23	JE
Carbon tetrachloride	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Chlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Chloroethane	BRL	6.5		ug/Kg	157965	1	02/17/2012 06:23	JE
Chloroform	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Chloromethane	BRL	6.5		ug/Kg	157965	1	02/17/2012 06:23	JE
cis-1,2-Dichloroethene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
cis-1,3-Dichloropropene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Cyclohexane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Dibromochloromethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Dichlorodifluoromethane	BRL	6.5		ug/Kg	157965	1	02/17/2012 06:23	JE
Ethylbenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Freon-113	BRL	6.5		ug/Kg	157965	1	02/17/2012 06:23	JE
Isopropylbenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
m,p-Xylene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Methyl acetate	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Methyl tert-butyl ether	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Methylcyclohexane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Methylene chloride	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
o-Xylene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-9 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 2:35:00 PM
<b>Lab ID:</b>	1202874-003	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Tetrachloroethene	18	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Toluene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
trans-1,2-Dichloroethene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
trans-1,3-Dichloropropene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Trichloroethene	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Trichlorofluoromethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 06:23	JE
Vinyl chloride	BRL	6.5		ug/Kg	157965	1	02/17/2012 06:23	JE
Surr: 4-Bromofluorobenzene	91.5	56.5-134		%REC	157965	1	02/17/2012 06:23	JE
Surr: Dibromofluoromethane	112	71.8-135		%REC	157965	1	02/17/2012 06:23	JE
Surr: Toluene-d8	96.3	77.1-117		%REC	157965	1	02/17/2012 06:23	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-11 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 2:55:00 PM
<b>Lab ID:</b>	1202874-005	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								
							<b>(SW5035)</b>	
1,1,1-Trichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,1,2,2-Tetrachloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,1,2-Trichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,1-Dichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,1-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,2,4-Trichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,2-Dibromo-3-chloropropane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,2-Dibromoethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,2-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,2-Dichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,2-Dichloropropane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,3-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
1,4-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
2-Butanone	BRL	35		ug/Kg	157965	1	02/17/2012 06:48	JE
2-Hexanone	BRL	7.0		ug/Kg	157965	1	02/17/2012 06:48	JE
4-Methyl-2-pentanone	BRL	7.0		ug/Kg	157965	1	02/17/2012 06:48	JE
Acetone	BRL	70		ug/Kg	157965	1	02/17/2012 06:48	JE
Benzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Bromodichloromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Bromoform	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Bromomethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Carbon disulfide	BRL	7.0		ug/Kg	157965	1	02/17/2012 06:48	JE
Carbon tetrachloride	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Chlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Chloroethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 06:48	JE
Chloroform	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Chloromethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 06:48	JE
cis-1,2-Dichloroethene	30	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
cis-1,3-Dichloropropene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Cyclohexane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Dibromochloromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Dichlorodifluoromethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 06:48	JE
Ethylbenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Freon-113	BRL	7.0		ug/Kg	157965	1	02/17/2012 06:48	JE
Isopropylbenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
m,p-Xylene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Methyl acetate	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Methyl tert-butyl ether	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Methylcyclohexane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Methylene chloride	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
o-Xylene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-11 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 2:55:00 PM
<b>Lab ID:</b>	1202874-005	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Tetrachloroethene	14	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Toluene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
trans-1,2-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
trans-1,3-Dichloropropene	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Trichloroethene	5.1	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Trichlorofluoromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 06:48	JE
Vinyl chloride	BRL	7.0		ug/Kg	157965	1	02/17/2012 06:48	JE
Surr: 4-Bromofluorobenzene	94.1	56.5-134		%REC	157965	1	02/17/2012 06:48	JE
Surr: Dibromofluoromethane	115	71.8-135		%REC	157965	1	02/17/2012 06:48	JE
Surr: Toluene-d8	96.8	77.1-117		%REC	157965	1	02/17/2012 06:48	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-6 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 2:15:00 PM
<b>Lab ID:</b>	1202874-006	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								
							<b>(SW5035)</b>	
1,1,1-Trichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,1,2,2-Tetrachloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,1,2-Trichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,1-Dichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,1-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,2,4-Trichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,2-Dibromo-3-chloropropane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,2-Dibromoethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,2-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,2-Dichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,2-Dichloropropane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,3-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
1,4-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
2-Butanone	BRL	35		ug/Kg	157965	1	02/17/2012 02:37	JE
2-Hexanone	BRL	7.0		ug/Kg	157965	1	02/17/2012 02:37	JE
4-Methyl-2-pentanone	BRL	7.0		ug/Kg	157965	1	02/17/2012 02:37	JE
Acetone	BRL	70		ug/Kg	157965	1	02/17/2012 02:37	JE
Benzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Bromodichloromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Bromoform	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Bromomethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Carbon disulfide	BRL	7.0		ug/Kg	157965	1	02/17/2012 02:37	JE
Carbon tetrachloride	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Chlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Chloroethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 02:37	JE
Chloroform	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Chloromethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 02:37	JE
cis-1,2-Dichloroethene		7.9	3.5	ug/Kg	157965	1	02/17/2012 02:37	JE
cis-1,3-Dichloropropene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Cyclohexane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Dibromochloromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Dichlorodifluoromethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 02:37	JE
Ethylbenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Freon-113	BRL	7.0		ug/Kg	157965	1	02/17/2012 02:37	JE
Isopropylbenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
m,p-Xylene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Methyl acetate	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Methyl tert-butyl ether	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Methylcyclohexane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Methylene chloride	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
o-Xylene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-6 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 2:15:00 PM
<b>Lab ID:</b>	1202874-006	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Tetrachloroethene	140	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Toluene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
trans-1,2-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
trans-1,3-Dichloropropene	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Trichloroethene	16	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Trichlorofluoromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 02:37	JE
Vinyl chloride	BRL	7.0		ug/Kg	157965	1	02/17/2012 02:37	JE
Surr: 4-Bromofluorobenzene	93.6	56.5-134		%REC	157965	1	02/17/2012 02:37	JE
Surr: Dibromofluoromethane	111	71.8-135		%REC	157965	1	02/17/2012 02:37	JE
Surr: Toluene-d8	96.5	77.1-117		%REC	157965	1	02/17/2012 02:37	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-5 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 1:55:00 PM
<b>Lab ID:</b>	1202874-008	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								<b>(SW5035)</b>
1,1,1-Trichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,1,2,2-Tetrachloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,1,2-Trichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,1-Dichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,1-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,2,4-Trichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,2-Dibromo-3-chloropropane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,2-Dibromoethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,2-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,2-Dichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,2-Dichloropropane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,3-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
1,4-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
2-Butanone	BRL	35		ug/Kg	157965	1	02/17/2012 03:02	JE
2-Hexanone	BRL	7.0		ug/Kg	157965	1	02/17/2012 03:02	JE
4-Methyl-2-pentanone	BRL	7.0		ug/Kg	157965	1	02/17/2012 03:02	JE
Acetone	BRL	70		ug/Kg	157965	1	02/17/2012 03:02	JE
Benzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Bromodichloromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Bromoform	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Bromomethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Carbon disulfide	BRL	7.0		ug/Kg	157965	1	02/17/2012 03:02	JE
Carbon tetrachloride	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Chlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Chloroethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 03:02	JE
Chloroform	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Chloromethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 03:02	JE
cis-1,2-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
cis-1,3-Dichloropropene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Cyclohexane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Dibromochloromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Dichlorodifluoromethane	BRL	7.0		ug/Kg	157965	1	02/17/2012 03:02	JE
Ethylbenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Freon-113	BRL	7.0		ug/Kg	157965	1	02/17/2012 03:02	JE
Isopropylbenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
m,p-Xylene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Methyl acetate	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Methyl tert-butyl ether	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Methylcyclohexane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Methylene chloride	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
o-Xylene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-5 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 1:55:00 PM
<b>Lab ID:</b>	1202874-008	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								
							<b>(SW5035)</b>	
Styrene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Tetrachloroethene	43	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Toluene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
trans-1,2-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
trans-1,3-Dichloropropene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Trichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Trichlorofluoromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 03:02	JE
Vinyl chloride	BRL	7.0		ug/Kg	157965	1	02/17/2012 03:02	JE
Surr: 4-Bromofluorobenzene	88.8	56.5-134		%REC	157965	1	02/17/2012 03:02	JE
Surr: Dibromofluoromethane	106	71.8-135		%REC	157965	1	02/17/2012 03:02	JE
Surr: Toluene-d8	93.6	77.1-117		%REC	157965	1	02/17/2012 03:02	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-1 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 1:35:00 PM
<b>Lab ID:</b>	1202874-010	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								<b>(SW5035)</b>
1,1,1-Trichloroethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,1,2,2-Tetrachloroethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,1,2-Trichloroethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,1-Dichloroethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,1-Dichloroethene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,2,4-Trichlorobenzene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,2-Dibromo-3-chloropropane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,2-Dibromoethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,2-Dichlorobenzene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,2-Dichloroethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,2-Dichloropropane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,3-Dichlorobenzene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
1,4-Dichlorobenzene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
2-Butanone	BRL	34		ug/Kg	157965	1	02/17/2012 03:27	JE
2-Hexanone	BRL	6.8		ug/Kg	157965	1	02/17/2012 03:27	JE
4-Methyl-2-pentanone	BRL	6.8		ug/Kg	157965	1	02/17/2012 03:27	JE
Acetone	BRL	68		ug/Kg	157965	1	02/17/2012 03:27	JE
Benzene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Bromodichloromethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Bromoform	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Bromomethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Carbon disulfide	BRL	6.8		ug/Kg	157965	1	02/17/2012 03:27	JE
Carbon tetrachloride	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Chlorobenzene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Chloroethane	BRL	6.8		ug/Kg	157965	1	02/17/2012 03:27	JE
Chloroform	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Chloromethane	BRL	6.8		ug/Kg	157965	1	02/17/2012 03:27	JE
cis-1,2-Dichloroethene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
cis-1,3-Dichloropropene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Cyclohexane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Dibromochloromethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Dichlorodifluoromethane	BRL	6.8		ug/Kg	157965	1	02/17/2012 03:27	JE
Ethylbenzene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Freon-113	BRL	6.8		ug/Kg	157965	1	02/17/2012 03:27	JE
Isopropylbenzene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
m,p-Xylene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Methyl acetate	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Methyl tert-butyl ether	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Methylcyclohexane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Methylene chloride	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
o-Xylene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-1 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 1:35:00 PM
<b>Lab ID:</b>	1202874-010	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Tetrachloroethene	21	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Toluene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
trans-1,2-Dichloroethene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
trans-1,3-Dichloropropene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Trichloroethene	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Trichlorofluoromethane	BRL	3.4		ug/Kg	157965	1	02/17/2012 03:27	JE
Vinyl chloride	BRL	6.8		ug/Kg	157965	1	02/17/2012 03:27	JE
Surr: 4-Bromofluorobenzene	89.1	56.5-134		%REC	157965	1	02/17/2012 03:27	JE
Surr: Dibromofluoromethane	107	71.8-135		%REC	157965	1	02/17/2012 03:27	JE
Surr: Toluene-d8	95.1	77.1-117		%REC	157965	1	02/17/2012 03:27	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-10 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 1:15:00 PM
<b>Lab ID:</b>	1202874-012	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								<b>(SW5035)</b>
1,1,1-Trichloroethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,1,2,2-Tetrachloroethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,1,2-Trichloroethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,1-Dichloroethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,1-Dichloroethene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,2,4-Trichlorobenzene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,2-Dibromo-3-chloropropane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,2-Dibromoethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,2-Dichlorobenzene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,2-Dichloroethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,2-Dichloropropane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,3-Dichlorobenzene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
1,4-Dichlorobenzene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
2-Butanone	BRL	33		ug/Kg	157965	1	02/17/2012 11:36	JE
2-Hexanone	BRL	6.6		ug/Kg	157965	1	02/17/2012 11:36	JE
4-Methyl-2-pentanone	BRL	6.6		ug/Kg	157965	1	02/17/2012 11:36	JE
Acetone	BRL	66		ug/Kg	157965	1	02/17/2012 11:36	JE
Benzene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Bromodichloromethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Bromoform	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Bromomethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Carbon disulfide	BRL	6.6		ug/Kg	157965	1	02/17/2012 11:36	JE
Carbon tetrachloride	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Chlorobenzene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Chloroethane	BRL	6.6		ug/Kg	157965	1	02/17/2012 11:36	JE
Chloroform	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Chloromethane	BRL	6.6		ug/Kg	157965	1	02/17/2012 11:36	JE
cis-1,2-Dichloroethene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
cis-1,3-Dichloropropene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Cyclohexane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Dibromochloromethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Dichlorodifluoromethane	BRL	6.6		ug/Kg	157965	1	02/17/2012 11:36	JE
Ethylbenzene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Freon-113	BRL	6.6		ug/Kg	157965	1	02/17/2012 11:36	JE
Isopropylbenzene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
m,p-Xylene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Methyl acetate	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Methyl tert-butyl ether	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Methylcyclohexane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Methylene chloride	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
o-Xylene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-10 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 1:15:00 PM
<b>Lab ID:</b>	1202874-012	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Tetrachloroethene	69	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Toluene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
trans-1,2-Dichloroethene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
trans-1,3-Dichloropropene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Trichloroethene	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Trichlorofluoromethane	BRL	3.3		ug/Kg	157965	1	02/17/2012 11:36	JE
Vinyl chloride	BRL	6.6		ug/Kg	157965	1	02/17/2012 11:36	JE
Surr: 4-Bromofluorobenzene	79.1	56.5-134		%REC	157965	1	02/17/2012 11:36	JE
Surr: Dibromofluoromethane	131	71.8-135		%REC	157965	1	02/17/2012 11:36	JE
Surr: Toluene-d8	90	77.1-117		%REC	157965	1	02/17/2012 11:36	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-2 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 12:55:00 PM
<b>Lab ID:</b>	1202874-014	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								
							<b>(SW5035)</b>	
1,1,1-Trichloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,1,2,2-Tetrachloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,1,2-Trichloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,1-Dichloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,1-Dichloroethene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,2,4-Trichlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,2-Dibromo-3-chloropropane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,2-Dibromoethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,2-Dichlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,2-Dichloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,2-Dichloropropane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,3-Dichlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
1,4-Dichlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
2-Butanone	BRL	37		ug/Kg	157965	1	02/17/2012 04:18	JE
2-Hexanone	BRL	7.5		ug/Kg	157965	1	02/17/2012 04:18	JE
4-Methyl-2-pentanone	BRL	7.5		ug/Kg	157965	1	02/17/2012 04:18	JE
Acetone	BRL	75		ug/Kg	157965	1	02/17/2012 04:18	JE
Benzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Bromodichloromethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Bromoform	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Bromomethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Carbon disulfide	BRL	7.5		ug/Kg	157965	1	02/17/2012 04:18	JE
Carbon tetrachloride	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Chlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Chloroethane	BRL	7.5		ug/Kg	157965	1	02/17/2012 04:18	JE
Chloroform	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Chloromethane	BRL	7.5		ug/Kg	157965	1	02/17/2012 04:18	JE
cis-1,2-Dichloroethene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
cis-1,3-Dichloropropene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Cyclohexane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Dibromochloromethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Dichlorodifluoromethane	BRL	7.5		ug/Kg	157965	1	02/17/2012 04:18	JE
Ethylbenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Freon-113	BRL	7.5		ug/Kg	157965	1	02/17/2012 04:18	JE
Isopropylbenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
m,p-Xylene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Methyl acetate	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Methyl tert-butyl ether	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Methylcyclohexane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Methylene chloride	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
o-Xylene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-2 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 12:55:00 PM
<b>Lab ID:</b>	1202874-014	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Tetrachloroethene	18	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Toluene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
trans-1,2-Dichloroethene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
trans-1,3-Dichloropropene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Trichloroethene	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Trichlorofluoromethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 04:18	JE
Vinyl chloride	BRL	7.5		ug/Kg	157965	1	02/17/2012 04:18	JE
Surr: 4-Bromofluorobenzene	95.2	56.5-134		%REC	157965	1	02/17/2012 04:18	JE
Surr: Dibromofluoromethane	111	71.8-135		%REC	157965	1	02/17/2012 04:18	JE
Surr: Toluene-d8	95.2	77.1-117		%REC	157965	1	02/17/2012 04:18	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-7 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 11:25:00 AM
<b>Lab ID:</b>	1202874-016	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								<b>(SW5035)</b>
1,1,1-Trichloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,1,2,2-Tetrachloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,1,2-Trichloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,1-Dichloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,1-Dichloroethene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,2,4-Trichlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,2-Dibromo-3-chloropropane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,2-Dibromoethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,2-Dichlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,2-Dichloroethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,2-Dichloropropane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,3-Dichlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
1,4-Dichlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
2-Butanone	BRL	32		ug/Kg	157965	1	02/17/2012 04:43	JE
2-Hexanone	BRL	6.5		ug/Kg	157965	1	02/17/2012 04:43	JE
4-Methyl-2-pentanone	BRL	6.5		ug/Kg	157965	1	02/17/2012 04:43	JE
Acetone	BRL	65		ug/Kg	157965	1	02/17/2012 04:43	JE
Benzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Bromodichloromethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Bromoform	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Bromomethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Carbon disulfide	BRL	6.5		ug/Kg	157965	1	02/17/2012 04:43	JE
Carbon tetrachloride	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Chlorobenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Chloroethane	BRL	6.5		ug/Kg	157965	1	02/17/2012 04:43	JE
Chloroform	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Chloromethane	BRL	6.5		ug/Kg	157965	1	02/17/2012 04:43	JE
cis-1,2-Dichloroethene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
cis-1,3-Dichloropropene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Cyclohexane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Dibromochloromethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Dichlorodifluoromethane	BRL	6.5		ug/Kg	157965	1	02/17/2012 04:43	JE
Ethylbenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Freon-113	BRL	6.5		ug/Kg	157965	1	02/17/2012 04:43	JE
Isopropylbenzene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
m,p-Xylene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Methyl acetate	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Methyl tert-butyl ether	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Methylcyclohexane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Methylene chloride	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
o-Xylene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-7 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 11:25:00 AM
<b>Lab ID:</b>	1202874-016	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								
							<b>(SW5035)</b>	
Styrene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Tetrachloroethene	27	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Toluene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
trans-1,2-Dichloroethene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
trans-1,3-Dichloropropene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Trichloroethene	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Trichlorofluoromethane	BRL	3.2		ug/Kg	157965	1	02/17/2012 04:43	JE
Vinyl chloride	BRL	6.5		ug/Kg	157965	1	02/17/2012 04:43	JE
Surr: 4-Bromofluorobenzene	97.4	56.5-134		%REC	157965	1	02/17/2012 04:43	JE
Surr: Dibromofluoromethane	114	71.8-135		%REC	157965	1	02/17/2012 04:43	JE
Surr: Toluene-d8	93.6	77.1-117		%REC	157965	1	02/17/2012 04:43	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-3 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 11:05:00 AM
<b>Lab ID:</b>	1202874-018	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>								
							<b>(SW5035)</b>	
1,1,1-Trichloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,1,2,2-Tetrachloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,1,2-Trichloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,1-Dichloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,1-Dichloroethene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,2,4-Trichlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,2-Dibromo-3-chloropropane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,2-Dibromoethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,2-Dichlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,2-Dichloroethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,2-Dichloropropane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,3-Dichlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
1,4-Dichlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
2-Butanone	BRL	37		ug/Kg	157965	1	02/17/2012 05:08	JE
2-Hexanone	BRL	7.4		ug/Kg	157965	1	02/17/2012 05:08	JE
4-Methyl-2-pentanone	BRL	7.4		ug/Kg	157965	1	02/17/2012 05:08	JE
Acetone	BRL	74		ug/Kg	157965	1	02/17/2012 05:08	JE
Benzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Bromodichloromethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Bromoform	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Bromomethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Carbon disulfide	BRL	7.4		ug/Kg	157965	1	02/17/2012 05:08	JE
Carbon tetrachloride	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Chlorobenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Chloroethane	BRL	7.4		ug/Kg	157965	1	02/17/2012 05:08	JE
Chloroform	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Chloromethane	BRL	7.4		ug/Kg	157965	1	02/17/2012 05:08	JE
cis-1,2-Dichloroethene		3.8	3.7	ug/Kg	157965	1	02/17/2012 05:08	JE
cis-1,3-Dichloropropene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Cyclohexane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Dibromochloromethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Dichlorodifluoromethane	BRL	7.4		ug/Kg	157965	1	02/17/2012 05:08	JE
Ethylbenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Freon-113	BRL	7.4		ug/Kg	157965	1	02/17/2012 05:08	JE
Isopropylbenzene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
m,p-Xylene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Methyl acetate	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Methyl tert-butyl ether	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Methylcyclohexane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Methylene chloride	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
o-Xylene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-3 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 11:05:00 AM
<b>Lab ID:</b>	1202874-018	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Tetrachloroethene	34	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Toluene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
trans-1,2-Dichloroethene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
trans-1,3-Dichloropropene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Trichloroethene	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Trichlorofluoromethane	BRL	3.7		ug/Kg	157965	1	02/17/2012 05:08	JE
Vinyl chloride	BRL	7.4		ug/Kg	157965	1	02/17/2012 05:08	JE
Surr: 4-Bromofluorobenzene	97.3	56.5-134		%REC	157965	1	02/17/2012 05:08	JE
Surr: Dibromofluoromethane	116	71.8-135		%REC	157965	1	02/17/2012 05:08	JE
Surr: Toluene-d8	95.4	77.1-117		%REC	157965	1	02/17/2012 05:08	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-4 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 10:50:00 AM
<b>Lab ID:</b>	1202874-020	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>							<b>(SW5035)</b>	
1,1,1-Trichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,1,2,2-Tetrachloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,1,2-Trichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,1-Dichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,1-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,2,4-Trichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,2-Dibromo-3-chloropropane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,2-Dibromoethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,2-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,2-Dichloroethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,2-Dichloropropane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,3-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
1,4-Dichlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
2-Butanone	BRL	35		ug/Kg	157965	1	02/17/2012 05:33	JE
2-Hexanone	BRL	7.1		ug/Kg	157965	1	02/17/2012 05:33	JE
4-Methyl-2-pentanone	BRL	7.1		ug/Kg	157965	1	02/17/2012 05:33	JE
Acetone	BRL	71		ug/Kg	157965	1	02/17/2012 05:33	JE
Benzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Bromodichloromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Bromoform	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Bromomethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Carbon disulfide	BRL	7.1		ug/Kg	157965	1	02/17/2012 05:33	JE
Carbon tetrachloride	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Chlorobenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Chloroethane	BRL	7.1		ug/Kg	157965	1	02/17/2012 05:33	JE
Chloroform	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Chloromethane	BRL	7.1		ug/Kg	157965	1	02/17/2012 05:33	JE
cis-1,2-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
cis-1,3-Dichloropropene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Cyclohexane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Dibromochloromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Dichlorodifluoromethane	BRL	7.1		ug/Kg	157965	1	02/17/2012 05:33	JE
Ethylbenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Freon-113	BRL	7.1		ug/Kg	157965	1	02/17/2012 05:33	JE
Isopropylbenzene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
m,p-Xylene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Methyl acetate	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Methyl tert-butyl ether	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Methylcyclohexane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Methylene chloride	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
o-Xylene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-4 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 10:50:00 AM
<b>Lab ID:</b>	1202874-020	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Tetrachloroethene	55	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Toluene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
trans-1,2-Dichloroethene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
trans-1,3-Dichloropropene	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Trichloroethene	3.7	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Trichlorofluoromethane	BRL	3.5		ug/Kg	157965	1	02/17/2012 05:33	JE
Vinyl chloride	BRL	7.1		ug/Kg	157965	1	02/17/2012 05:33	JE
Surr: 4-Bromofluorobenzene	95.2	56.5-134		%REC	157965	1	02/17/2012 05:33	JE
Surr: Dibromofluoromethane	112	71.8-135		%REC	157965	1	02/17/2012 05:33	JE
Surr: Toluene-d8	98.8	77.1-117		%REC	157965	1	02/17/2012 05:33	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
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**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-8 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 10:25:00 AM
<b>Lab ID:</b>	1202874-022	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B</b>							<b>(SW5035)</b>	
1,1,1-Trichloroethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,1,2,2-Tetrachloroethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,1,2-Trichloroethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,1-Dichloroethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,1-Dichloroethene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,2,4-Trichlorobenzene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,2-Dibromo-3-chloropropane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,2-Dibromoethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,2-Dichlorobenzene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,2-Dichloroethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,2-Dichloropropane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,3-Dichlorobenzene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
1,4-Dichlorobenzene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
2-Butanone	BRL	36		ug/Kg	157965	1	02/17/2012 05:58	JE
2-Hexanone	BRL	7.2		ug/Kg	157965	1	02/17/2012 05:58	JE
4-Methyl-2-pentanone	BRL	7.2		ug/Kg	157965	1	02/17/2012 05:58	JE
Acetone	BRL	72		ug/Kg	157965	1	02/17/2012 05:58	JE
Benzene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Bromodichloromethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Bromoform	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Bromomethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Carbon disulfide	BRL	7.2		ug/Kg	157965	1	02/17/2012 05:58	JE
Carbon tetrachloride	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
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Chloroethane	BRL	7.2		ug/Kg	157965	1	02/17/2012 05:58	JE
Chloroform	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Chloromethane	BRL	7.2		ug/Kg	157965	1	02/17/2012 05:58	JE
cis-1,2-Dichloroethene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
cis-1,3-Dichloropropene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Cyclohexane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Dibromochloromethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Dichlorodifluoromethane	BRL	7.2		ug/Kg	157965	1	02/17/2012 05:58	JE
Ethylbenzene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Freon-113	BRL	7.2		ug/Kg	157965	1	02/17/2012 05:58	JE
Isopropylbenzene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
m,p-Xylene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Methyl acetate	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Methyl tert-butyl ether	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Methylcyclohexane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Methylene chloride	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
o-Xylene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE

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S Spike Recovery outside limits due to matrix

Narr See case narrative

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&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 21-Feb-12

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	B-8 4'
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	2/8/2012 10:25:00 AM
<b>Lab ID:</b>	1202874-022	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260B (SW5035)</b>								
Styrene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Tetrachloroethene	3.7	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Toluene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
trans-1,2-Dichloroethene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
trans-1,3-Dichloropropene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Trichloroethene	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Trichlorofluoromethane	BRL	3.6		ug/Kg	157965	1	02/17/2012 05:58	JE
Vinyl chloride	BRL	7.2		ug/Kg	157965	1	02/17/2012 05:58	JE
Surr: 4-Bromofluorobenzene	96.1	56.5-134		%REC	157965	1	02/17/2012 05:58	JE
Surr: Dibromofluoromethane	113	71.8-135		%REC	157965	1	02/17/2012 05:58	JE
Surr: Toluene-d8	96.3	77.1-117		%REC	157965	1	02/17/2012 05:58	JE

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
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- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

# Analytical Environmental Services, Inc.

## Sample/Cooler Receipt Checklist

Client GEC

Work Order Number 1202874

Checklist completed by Mark 7-10-12  
Signature Date

Carrier name: FedEx  Courier  Client  US Mail  Other

Shipping container/cooler in good condition? Yes  No  Not Present

Custody seals intact on shipping container/cooler? Yes  No  Not Present

Custody seals intact on sample bottles? Yes  No  Not Present

Container/Temp Blank temperature in compliance? (4°C±2)\* Yes  No

Cooler #1 4.1° Cooler #2  Cooler #3  Cooler #4  Cooler#5  Cooler #6

Chain of custody present? Yes  No

Chain of custody signed when relinquished and received? Yes  No

Chain of custody agrees with sample labels? Yes  No

Samples in proper container/bottle? Yes  No

Sample containers intact? Yes  No

Sufficient sample volume for indicated test? Yes  No

All samples received within holding time? Yes  No

Was TAT marked on the COC? Yes  No

Proceed with Standard TAT as per project history? Yes  No  Not Applicable

Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No

Water - pH acceptable upon receipt? Yes  No  Not Applicable

Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Sample Condition: Good  Other(Explain) \_\_\_\_\_

(For diffusive samples or AIHA lead) Is a known blank included? Yes  No

See Case Narrative for resolution of the Non-Conformance.

\* Samples do not have to comply with the given range for certain parameters.

## **Appendix F**

## BIOCHLOR Natural Attenuation Decision Support System

Version 2.2  
Excel 2000

Data Input Instructions:	
Run Name	115 or 0.02
1. Enter value directly....or 2. Calculate by filling in gray cells. Press Enter, then <b>C</b> (To restore formulas, hit "Restore Formulas" button)	
<b>5. GENERAL</b> Simulation Time* Modeled Area Width* Zone 1 Length* Zone 2 Length*	
33 (yr) 265 (ft) 973 (ft) 973 (ft) 0 (ft)	
<b>6. SOURCE DATA</b> TYPE: Decaying Single Planar	
Source Thickness in Sat. Zone* Y1 70 (ft)	
Source Options Width* (ft) Conc. (mg/L)* C1 PCE .35 TCE 15.8 DCE 98.5 VC 3.08 ETH 0.03	
<b>7. FIELD DATA FOR COMPARISON</b>	
PCE Conc. (mg/L) TCE Conc. (mg/L) DCE Conc. (mg/L) VC Conc. (mg/L) ETH Conc. (mg/L)	
Distance from Source (ft) Date Data Collected 2013	
<b>8. CHOOSE TYPE OF OUTPUT TO SEE:</b>	
<b>Help</b> <b>RUN ARRAY</b> <b>RUN CENTERLINE</b> <b>HELP</b>	
<b>SEE OUTPUT</b> <b>RESET</b> <b>Restore Formulas</b> <b>Paste Example</b>	

Mercer University Triangle

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations

View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

Common R (used in model)\* = **2.04**

-1st Order Decay Coefficient\*

lambda (1/yr)

half-life (yrs)

Yield

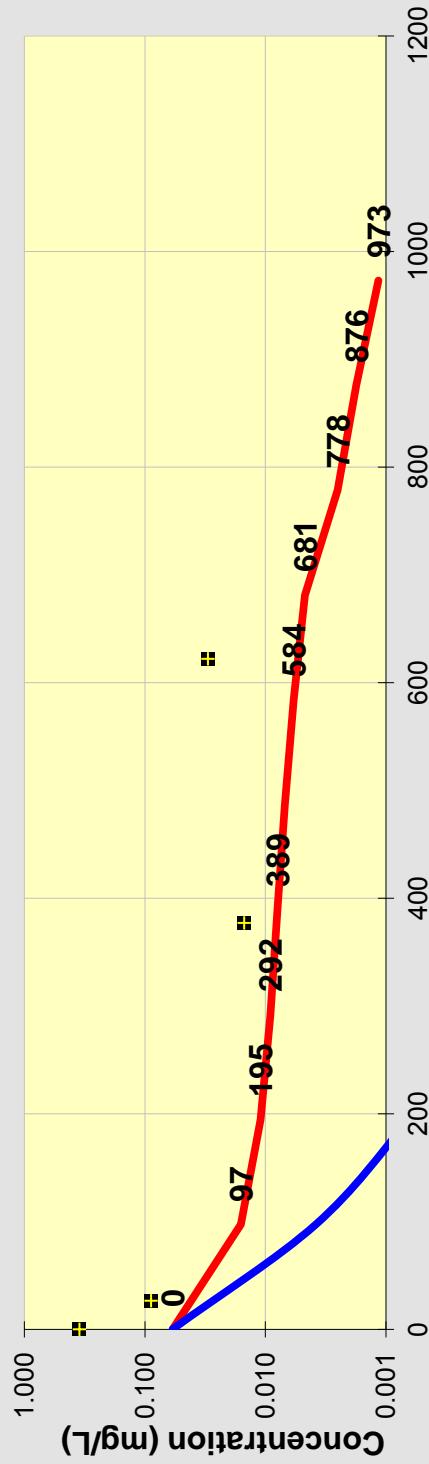
PCE ↑ TCE 1.100  
TCE ↑ DCE 0.380  
DCE ↑ VC 1.200  
VC ↑ ETH 0.400

PCE ↑ TCE 0.000  
TCE ↑ DCE 0.000  
DCE ↑ VC 0.000  
VC ↑ ETH 0.000

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

		Distance from Source (ft)										
		0	97	195	292	389	487	584	681	778	876	973
<b>PCE</b>		0	97	195	292	389	487	584	681	778	876	973
<b>No Degradation</b>	0.059	0.016	0.011	0.009	0.008	0.007	0.006	0.005	0.003	0.002	0.001	0.001
<b>Biotransformation</b>	0.0589	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		<b>Monitoring Well Locations (ft)</b>										
		0	26.5	377	622							
<b>Field Data from Site</b>	0.350	0.089	0.015	0.030								

— No Degradation/Production    — Sequential 1st Order Decay    ■ Field Data from Site



Distance From Source (ft.)

Time:

33.0 Years

Log ⇔ Linear

Prepare Animation

Return to  
Input

To All

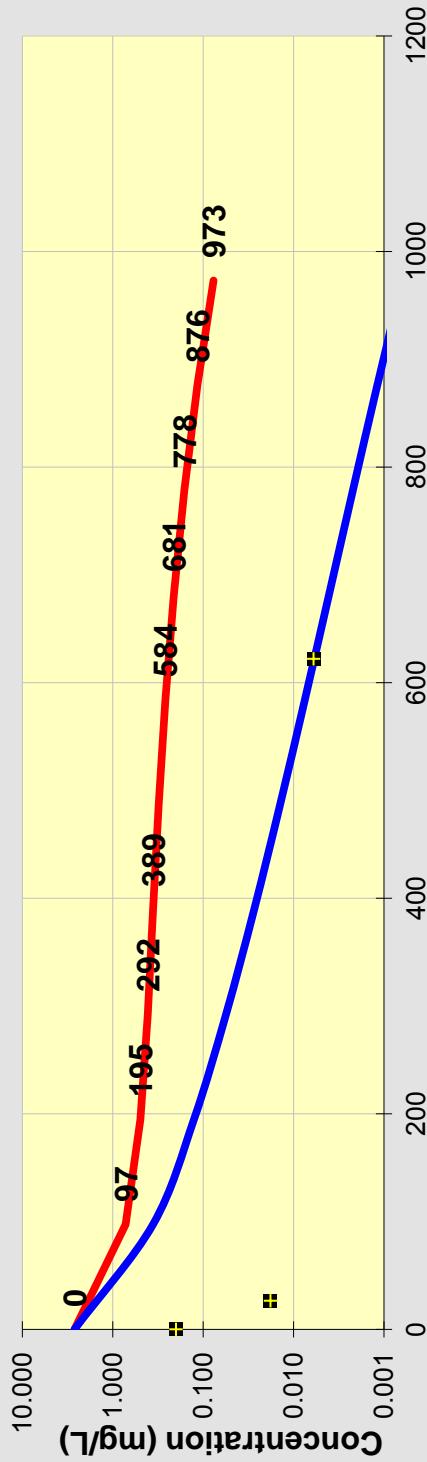
To Array

See PCE  
See TCE  
See DCE  
See VC  
See ETH

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)							
	0	97	195	292	389	487	584	681
No Degradation	2.659	0.721	0.497	0.412	0.358	0.311	0.263	0.212
Biotransformation	2.6592	0.360	0.127	0.056	0.027	0.014	0.008	0.004
Monitoring Well Locations (ft)								
	0	26.5	377	622				
Field Data from Site	0.200	0.018		0.006				

— No Degradation/Production    — Sequential 1st Order Decay    ■ Field Data from Site



Distance From Source (ft.)

Time:

33.0 Years

Log ⇔ Linear

Prepare Animation

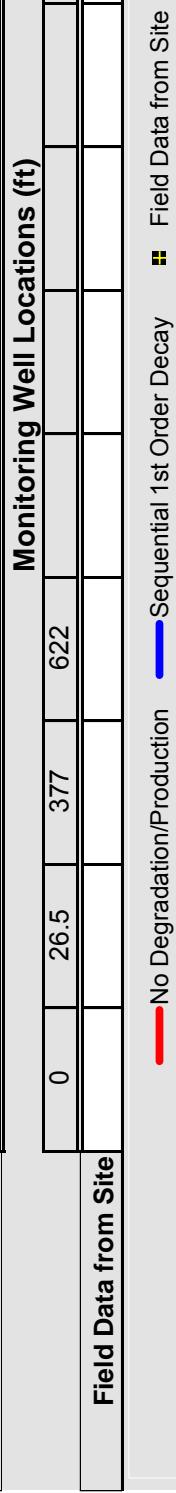
To All

To Array

Return to Input

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

DCE	Distance from Source (ft)										
	0	97	195	292	389	487	584	681	778	876	973
No Degradation	16.578	4.495	3.096	2.565	2.234	1.941	1.638	1.321	1.007	0.720	0.480
Biotransformation	16.5777	1.057	0.190	0.048	0.016	0.006	0.003	0.001	0.001	0.000	0.000
Field Data from Site	0	26.5	377	622							



**Prepare Animation**

Time:

Log ⇔ Linear

**To All**

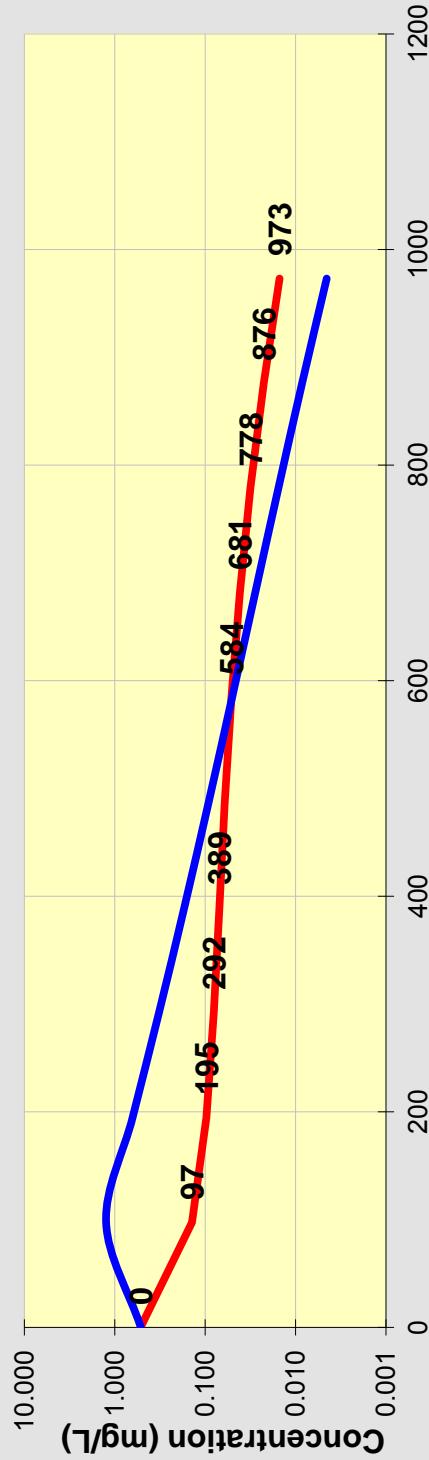
**To Array**

**Return to Input**

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

VC	Distance from Source (ft)							
	0	97	195	292	389	487	584	681
No Degradation	0.518	0.141	0.097	0.080	0.070	0.061	0.051	0.041
Biotransformation	0.5184	1.255	0.638	0.326	0.171	0.092	0.051	0.028
Monitoring Well Locations (ft)								
Field Data from Site	0	26.5	377	622				

— No Degradation/Production    — Sequential 1st Order Decay    ■ Field Data from Site



Distance From Source (ft.)

Time:

33.0 Years

Log ⇔ Linear

Prepare Animation

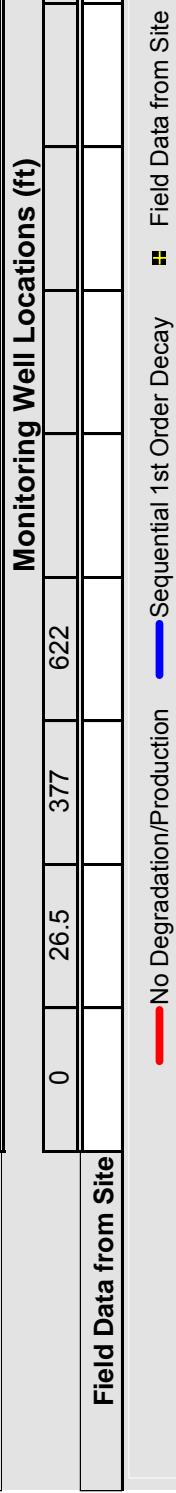
To All

To Array

See PCE  
See TCE  
See DCE  
See VC  
See ETH

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

ETH	Distance from Source (ft)							
	0	97	195	292	389	487	584	681
No Degradation	0.005	0.001	0.001	0.001	0.001	0.001	0.000	0.000
Biotransformation	0.0050	0.577	0.681	0.698	0.671	0.612	0.531	0.434
Field Data from Site	0	26.5	377	622				



[See PCE](#)   [See TCE](#)   [See DCE](#)   [See VC](#)   [See ETH](#)

[To Array](#)

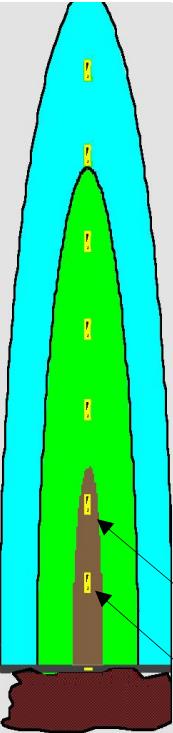
[To All](#)

[Return to Input](#)

[Prepare Animation](#)

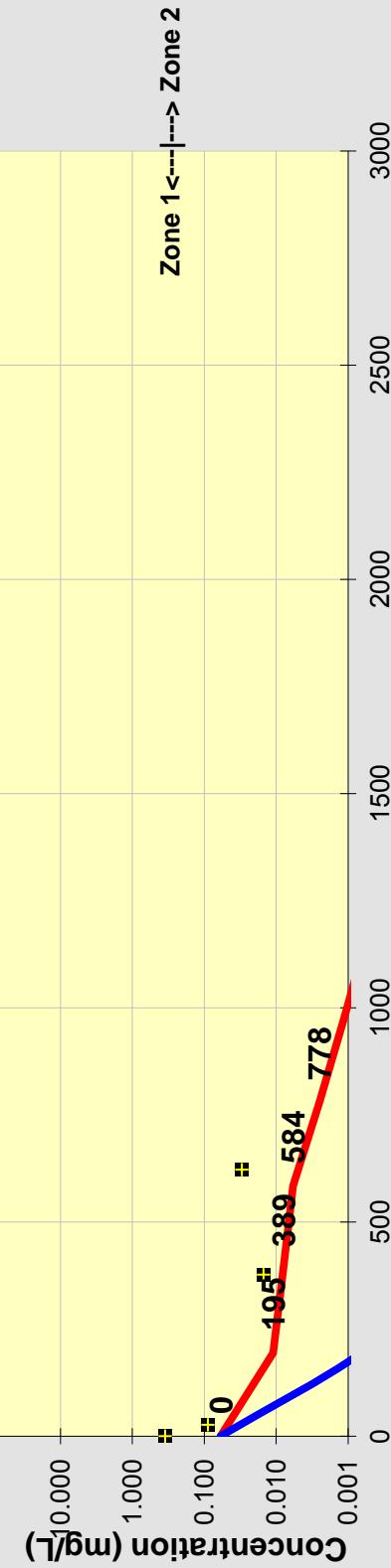
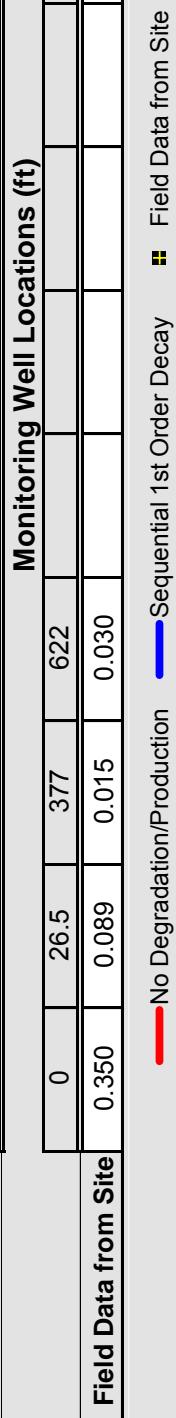
## BIOCHLOR Natural Attenuation Decision Support System

Version 2.2  
Excel 2000

Data Input Instructions:	
115	1. Enter value directly....or or 0.02
2. Calculate by filling in gray cells. Press Enter, then <b>C</b> (To restore formulas, hit "Restore Formulas" button)	
Variable* Data used directly in model.	
Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol	
	
Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations	
<b>5. GENERAL</b> Simulation Time* 33 (yr) Modeled Area Width* 265 (ft) Zone 1 Length* 2500 (ft) Zone 2 Length* 973 (ft) Zone 2= 1527 (ft)	
<b>6. SOURCE DATA</b> TYPE: Decaying Single Planar Source Options Source Thickness in Sat. Zone* 65 (ft) Y1 70 Width* (ft) 35 Conc. (mg/L)* C1 PCE .35 TCE 15.8 DCE 98.5 VC 3.08 ETH 0.03	
<b>7. FIELD DATA FOR COMPARISON</b> PCE Conc. (mg/L) .35 .089 .015 .03 TCE Conc. (mg/L) .2 .018 <5 .006 DCE Conc. (mg/L) VC Conc. (mg/L) ETH Conc. (mg/L) Distance from Source (ft) Date Data Collected 2013	
<b>8. CHOOSE TYPE OF OUTPUT TO SEE:</b> <b>Help</b> <b>RESET</b> <b>SEE OUTPUT</b> <b>Paste Example</b> <b>RUN ARRAY</b> <b>RUN CENTERLINE</b>	
<b>1. ADVECTION</b> Seepage Velocity* <b>Vs</b> 44.7 (ft/yr) <i>or</i> Hydraulic Conductivity <b>K</b> 7.2E-04 (cm/sec) Hydraulic Gradient <b>i</b> 0.015 (ft/ft) Effective Porosity <b>n</b> 0.25 (-)	
<b>2. DISPERSION</b> Alpha <b>x</b> 70 (ft) (Alpha <b>y</b> ) / (Alpha <b>x</b> ) <sup>*</sup> 0.6 (-) (Alpha <b>z</b> ) / (Alpha <b>x</b> ) <sup>*</sup> 3.E-01 (-)	
<b>3. ADSORPTION</b> Retardation Factor* <b>R</b> Calc. Alpha <b>x</b>	
Soil Bulk Density, rho 2 (kg/L) FractionOrganicCarbon, foc 1.0E-3 (-) <b>or</b> Partition Coefficient PCE 426 (L/kg) TCE 130 (L/kg) DCE 125 (L/kg) VC 30 (L/kg) ETH 302 (L/kg)	
<b>4. BIOTRANSFORMATION</b> <b>Zone 1</b> PCE ↑ TCE 1.100 ↓ TCE ↑ DCE 0.380 ↓ DCE ↑ VC 1.200 ↓ VC ↑ ETH 0.400 ↓ <b>Zone 2</b> PCE ↑ TCE 0.000 ↓ TCE ↑ DCE 0.000 ↓ DCE ↑ VC 0.000 ↓ VC ↑ ETH 0.000 ↓	

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

PCE	Distance from Source (ft)							
	0	195	389	584	778	973	1278	1584
No Degradation	0.059	0.011	0.008	0.006	0.003	0.001	0.000	0.000
Biotransformation	0.0589	0.001	0.000	0.000	0.000	0.000	0.000	0.000
Field Data from Site	0.350	0.089	0.015	0.030				



Distance From Source (ft.)

Time:

33.0 Years

Log  $\leftrightarrow$  Linear

Return to  
Input

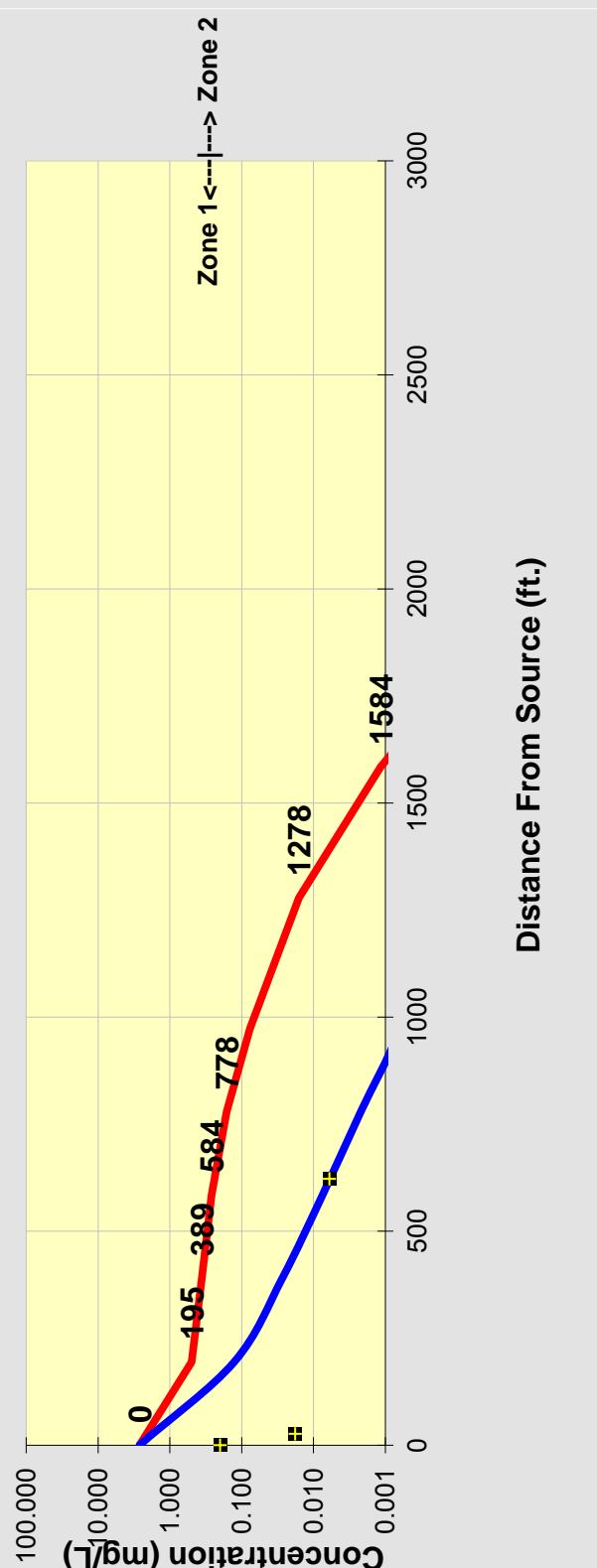
To All

To Array

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

		Distance from Source (ft)										
		0	195	389	584	778	973	1278	1584	1889	2195	2500
<b>No Degradation</b>	2.659	0.497	0.358	0.263	0.162	0.077	0.016	0.001	0.000	0.000	0.000	0.000
<b>Biotransformation</b>	2.6592	0.127	0.027	0.008	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000
Monitoring Well Locations (ft)												
	0	26.5	377	622								
Field Data from Site	0.200	0.018		0.006								

— No Degradation/Production    — Sequential 1st Order Decay    ■ Field Data from Site



Time:

33.0 Years

Log  $\leftrightarrow$  Linear

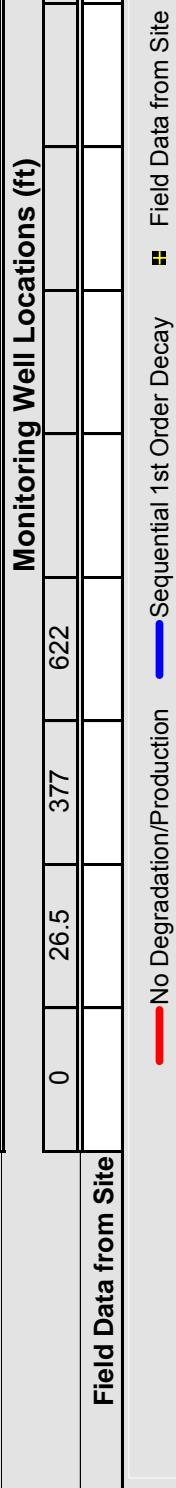
Distance From Source (ft.)

Return to Input    To All    To Array

See PCE    See TCE    See DCE    See VC    See ETH

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

		Distance from Source (ft)										
		0	195	389	584	778	973	1278	1584	1889	2195	2500
<b>No Degradation</b>	16.578	3.096	2.234	1.638	1.007	0.480	0.100	0.007	0.000	0.000	0.000	0.000
<b>Biotransformation</b>	16.5777	0.190	0.016	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Field Data from Site</b>												



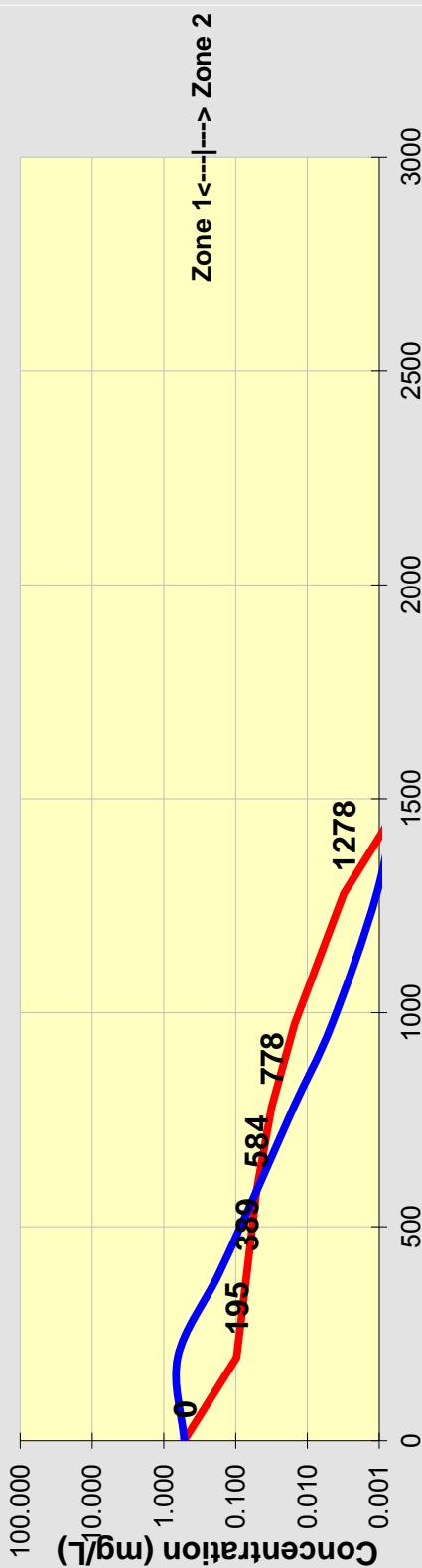
### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

VC	Distance from Source (ft)										
	0	195	389	584	778	973	1278	1584	1889	2195	2500
No Degradation	0.518	0.097	0.070	0.051	0.031	0.015	0.003	0.000	0.000	0.000	0.000
Biotransformation	0.5184	0.638	0.171	0.051	0.016	0.005	0.001	0.000	0.000	0.000	0.000

#### Monitoring Well Locations (ft)

Field Data from Site	0	26.5	377	622						

— No Degradation/Production    — Sequential 1st Order Decay    ■ Field Data from Site



**Distance From Source (ft.)**

Time:

33.0 Years

Log ⇔ Linear

Return to  
Input

To All

To Array

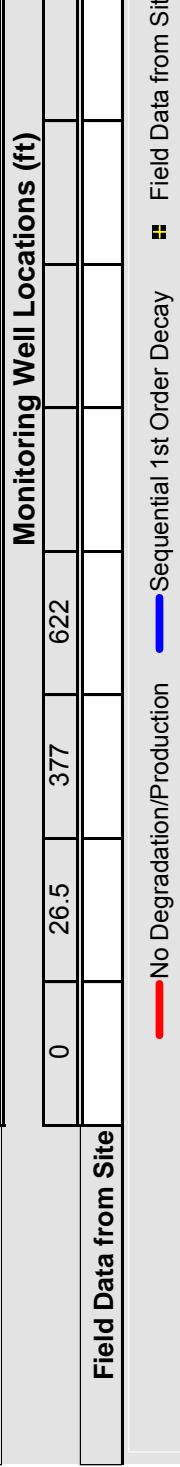
**Distance From Source (ft.)**

**Distance From Source (ft.)**

See PCE	See TCE	See DCE	See VC	See ETH
---------	---------	---------	--------	---------

### DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

ETH	Distance from Source (ft)										
	0	195	389	584	778	973	1278	1584	1889	2195	2500
No Degradation	0.005	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0050	0.681	0.671	0.531	0.334	0.161	0.038	0.016	0.005	0.001	0.000
Field Data from Site											



Time:  
33.0 Years  
Log ↔ Linear

To All  
To Array

Return to Input

# **Appendix G**

# Mercer University Triangle Milestone Schedule

Task Name	2014				2015				2016				2017				2018				2019			
	Q1	Q2	Q3	Q4																				
Semi Annual Sampling																								
Horizontal Delineation (available property)																								
Horizontal Delineation (non-available property)																								
Updated CSM and Vertical Delineation																								
CSR Submittal																								

Semi Annual Sampling

Horizontal Delineation (available property)

Horizontal Delineation (non-available property)

Updated CSM and Vertical Delineation

CSR Submittal

**April 2013  
Labortory Data**



## ANALYTICAL ENVIRONMENTAL SERVICES, INC.

May 15, 2013

Chip Brooks  
GeoTechnical & Env. Consultants, Inc.  
514 Hillcrest Industrial Blvd.  
Macon GA 31204

TEL: (478) 757-1606  
FAX: (478) 757-1608

RE: Mercer HSRA

Dear Chip Brooks: Order No: 1305520

Analytical Environmental Services, Inc. received 11 samples on 5/7/2013 10:15:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.  
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in black ink that appears to read "CKKanhai".

Chantelle Kanhai  
Project Manager

## ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

## CHAIN OF CUSTODY

Work Order: 1305520

COMPANY: <b>SEC</b>		ADDRESS: <b>544 Hillkroft Industrial Blvd Macon GA 31204</b>		ANALYSIS REQUESTED		Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> to check on the status of your results, place bottle orders, etc.		
PHONE: <b>478-757-1606</b>		FAX: <b>478-757-1608</b>				No. # of Containers		
SAMPLED BY: <b>Anthony Whipple</b>		SIGNATURE: 						
#	SAMPLE ID	SAMPLE ID	DATE	TIME	GRAD	COMPOSITE (See codes)	MATRIX (See codes)	REMARKS
1	MWA-1		4/30	1045	X	GW	X X	
2	MWA-2			1150				
3	MWB-4			1445				
4	MWQ-9			1525				
5	MWD-6			1550				
6	MWJ-3			1405				
7	MWN-14			1530				
8	MWU-15		5/3	1550				
9	MWU-12			1735				
10	MWA-8			1830				
11	MWA-5			1920				
12								
13								
14								
RELINQUISHED BY		DATE/TIME RECEIVED BY		DATE/TIME		PROJECT INFORMATION		RECEIPT
1: 		1: <b>5/11/13 10:15</b>				PROJECT NAME: <b>Mercer HSPA</b>		Total # of Containers
2:						PROJECT #: <b>0901698-210</b>		Turnaround Time Request
3:						SITE ADDRESS: <b>Ship Books</b>		Standard 5 Business Days
SPECIAL INSTRUCTIONS/COMMENTS:						INVOICE TO: (IF DIFFERENT FROM ABOVE)		2 Business Day Rush
1: 		2: <b>5/6/13 9:10</b>				3: <b>5/11/13 10:15</b>		Next Business Day Rush
3: 						QUOTE #: <b>PO#:</b>		Same Day Rush (auth req.)
								Other _____
								STATE PROGRAM (if any): <b>      </b>
								E-mail? Y / N: <b>      </b> Fax? Y / N: <b>      </b>
								DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.  
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air      GW = Groundwater      SE = Sediment      SO = Soil      SW = Surface Water      W = Water (Blanks)      DW = Drinking Water (Blanks)      O = Other (specify)      WW = Waste Water  
 PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice      I = Ice only      N = Nitric acid      S+1 = Sulfuric acid + ice      S/M+1 = Sodium Bisulfate/Methanol + ice      O = Other (specify)      NA = None  
 White Copy - Original; Yellow Copy - Client

**Client:** GeoTechnical & Env. Consultants, Inc.  
**Project:** Mercer HSRA  
**Lab ID:** 1305520

**Case Narrative**

## Sample Receiving Nonconformance:

Only one vial was labeled with the sample ID for sample MWA-1. Since the vials for each set of samples were received packaged together as sets, both vials for MWA-1 were identified based on the one vial that was labeled. Further, the collection date and time on the vials matched the collection date and time on the COC for MWA-1. Samples were logged in as listed on the COC.

## Metals Analysis by Method 6020:

Due to sample matrix, sample 1305520-003B required dilution during analysis resulting in an elevated reporting limit for vanadium. Due to sample matrix, sample 1305520-005B required dilution during analysis resulting in elevated reporting limits for beryllium and zinc.

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWA-1					
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 10:45:00 AM					
<b>Lab ID:</b>	1305520-001	<b>Matrix:</b>	Groundwater					
<b>Analyses</b>	<b>Result</b>	<b>Reporting Limit</b>	<b>Qual</b>	<b>Units</b>	<b>BatchID</b>	<b>Dilution Factor</b>	<b>Date Analyzed</b>	<b>Analyst</b>
<b>Mercury, Total SW7470A</b>								<b>(SW7470A)</b>
Mercury	0.00141	0.00020		mg/L	175871	1	05/09/2013 14:51	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>								<b>(SW5030B)</b>
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
2-Butanone	BRL	50		ug/L	175818	1	05/08/2013 17:07	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/08/2013 17:07	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/08/2013 17:07	GK
Acetone	BRL	50		ug/L	175818	1	05/08/2013 17:07	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Benzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Chloroethane	BRL	10		ug/L	175818	1	05/08/2013 17:07	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Chloromethane	BRL	10		ug/L	175818	1	05/08/2013 17:07	GK
cis-1,2-Dichloroethene	BRL	76		ug/L	175818	1	05/08/2013 17:07	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Iodomethane	BRL	10		ug/L	175818	1	05/08/2013 17:07	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 17:07	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWA-1
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 10:45:00 AM
<b>Lab ID:</b>	1305520-001	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
----------	--------	-----------------	------	-------	---------	-----------------	---------------	---------

**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/08/2013 17:07	GK
Tetrachloroethene	350	50	ug/L	175818	10	05/09/2013 12:27	GK
Toluene	BRL	5.0	ug/L	175818	1	05/08/2013 17:07	GK
trans-1,2-Dichloroethene	7.8	5.0	ug/L	175818	1	05/08/2013 17:07	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/08/2013 17:07	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/08/2013 17:07	GK
Trichloroethene	200	5.0	ug/L	175818	1	05/08/2013 17:07	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/08/2013 17:07	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/08/2013 17:07	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/08/2013 17:07	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/08/2013 17:07	GK
Surr: 4-Bromofluorobenzene	94.5	64.6-123	%REC	175818	10	05/09/2013 12:27	GK
Surr: 4-Bromofluorobenzene	97.5	64.6-123	%REC	175818	1	05/08/2013 17:07	GK
Surr: Dibromofluoromethane	96.1	76.6-133	%REC	175818	1	05/08/2013 17:07	GK
Surr: Dibromofluoromethane	97.4	76.6-133	%REC	175818	10	05/09/2013 12:27	GK
Surr: Toluene-d8	98.1	77.8-120	%REC	175818	1	05/08/2013 17:07	GK
Surr: Toluene-d8	99.1	77.8-120	%REC	175818	10	05/09/2013 12:27	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	1	05/10/2013 11:07	JY
Arsenic	BRL	0.0100	mg/L	175876	1	05/10/2013 11:07	JY
Barium	0.0469	0.0200	mg/L	175876	1	05/10/2013 11:07	JY
Beryllium	BRL	0.00400	mg/L	175876	1	05/10/2013 11:07	JY
Cadmium	BRL	0.00500	mg/L	175876	1	05/10/2013 11:07	JY
Chromium	BRL	0.0200	mg/L	175876	1	05/10/2013 11:07	JY
Cobalt	BRL	0.0500	mg/L	175876	1	05/10/2013 11:07	JY
Copper	BRL	0.0200	mg/L	175876	1	05/10/2013 11:07	JY
Lead	0.0290	0.0100	mg/L	175876	1	05/10/2013 11:07	JY
Nickel	BRL	0.0400	mg/L	175876	1	05/10/2013 11:07	JY
Selenium	BRL	0.0500	mg/L	175876	1	05/10/2013 11:07	JY
Silver	BRL	0.00500	mg/L	175876	1	05/10/2013 11:07	JY
Thallium	BRL	0.00200	mg/L	175876	1	05/10/2013 11:07	JY
Vanadium	BRL	0.0500	mg/L	175876	1	05/10/2013 11:07	JY
Zinc	0.0243	0.0200	mg/L	175876	1	05/10/2013 11:07	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWA-2
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 11:50:00 AM
<b>Lab ID:</b>	1305520-002	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>	<b>(SW7470A)</b>							
Mercury	BRL	0.00020		mg/L	175871	1	05/09/2013 14:57	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>	<b>(SW5030B)</b>							
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
2-Butanone	BRL	50		ug/L	175818	1	05/08/2013 17:36	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/08/2013 17:36	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/08/2013 17:36	GK
Acetone	BRL	50		ug/L	175818	1	05/08/2013 17:36	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Benzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Chloroethane	BRL	10		ug/L	175818	1	05/08/2013 17:36	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Chloromethane	BRL	10		ug/L	175818	1	05/08/2013 17:36	GK
cis-1,2-Dichloroethene		7.4	5.0	ug/L	175818	1	05/08/2013 17:36	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Iodomethane	BRL	10		ug/L	175818	1	05/08/2013 17:36	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWA-2
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 11:50:00 AM
<b>Lab ID:</b>	1305520-002	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>								
Styrene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Tetrachloroethene	89	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Toluene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
trans-1,4-Dichloro-2-butene	BRL	10		ug/L	175818	1	05/08/2013 17:36	GK
Trichloroethene	18	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Trichlorofluoromethane	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Vinyl acetate	BRL	10		ug/L	175818	1	05/08/2013 17:36	GK
Vinyl chloride	BRL	2.0		ug/L	175818	1	05/08/2013 17:36	GK
Xylenes, Total	BRL	5.0		ug/L	175818	1	05/08/2013 17:36	GK
Surr: 4-Bromofluorobenzene	97.5	64.6-123	%REC		175818	1	05/08/2013 17:36	GK
Surr: Dibromofluoromethane	96.6	76.6-133	%REC		175818	1	05/08/2013 17:36	GK
Surr: Toluene-d8	99.8	77.8-120	%REC		175818	1	05/08/2013 17:36	GK
<b>APPENDIX I METALS SW6020A</b>								
							<b>(SW3005A)</b>	
Antimony	BRL	0.00600		mg/L	175876	1	05/10/2013 11:13	JY
Arsenic	BRL	0.0100		mg/L	175876	1	05/10/2013 11:13	JY
Barium	0.0325	0.0200		mg/L	175876	1	05/10/2013 11:13	JY
Beryllium	BRL	0.00400		mg/L	175876	1	05/10/2013 11:13	JY
Cadmium	BRL	0.00500		mg/L	175876	1	05/10/2013 11:13	JY
Chromium	0.0577	0.0200		mg/L	175876	1	05/10/2013 11:13	JY
Cobalt	BRL	0.0500		mg/L	175876	1	05/10/2013 11:13	JY
Copper	BRL	0.0200		mg/L	175876	1	05/10/2013 11:13	JY
Lead	BRL	0.0100		mg/L	175876	1	05/10/2013 11:13	JY
Nickel	BRL	0.0400		mg/L	175876	1	05/10/2013 11:13	JY
Selenium	BRL	0.0500		mg/L	175876	1	05/10/2013 11:13	JY
Silver	BRL	0.00500		mg/L	175876	1	05/10/2013 11:13	JY
Thallium	BRL	0.00200		mg/L	175876	1	05/10/2013 11:13	JY
Vanadium	BRL	0.0500		mg/L	175876	1	05/10/2013 11:13	JY
Zinc	BRL	0.0200		mg/L	175876	1	05/10/2013 11:13	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWB-4
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 2:05:00 PM
<b>Lab ID:</b>	1305520-003	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>	<b>(SW7470A)</b>							
Mercury	BRL	0.00020		mg/L	175871	1	05/09/2013 14:59	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>	<b>(SW5030B)</b>							
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
2-Butanone	BRL	50		ug/L	175818	1	05/09/2013 12:56	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/09/2013 12:56	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/09/2013 12:56	GK
Acetone	BRL	50		ug/L	175818	1	05/09/2013 12:56	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Benzene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Carbon disulfide		8.4	5.0	ug/L	175818	1	05/09/2013 12:56	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Chloroethane	BRL	10		ug/L	175818	1	05/09/2013 12:56	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Chloromethane	BRL	10		ug/L	175818	1	05/09/2013 12:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Iodomethane	BRL	10		ug/L	175818	1	05/09/2013 12:56	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/09/2013 12:56	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWB-4
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 2:05:00 PM
<b>Lab ID:</b>	1305520-003	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
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**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/09/2013 12:56	GK
Tetrachloroethene	BRL	5.0	ug/L	175818	1	05/09/2013 12:56	GK
Toluene	BRL	5.0	ug/L	175818	1	05/09/2013 12:56	GK
trans-1,2-Dichloroethene	BRL	5.0	ug/L	175818	1	05/09/2013 12:56	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/09/2013 12:56	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/09/2013 12:56	GK
Trichloroethene	BRL	5.0	ug/L	175818	1	05/09/2013 12:56	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/09/2013 12:56	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/09/2013 12:56	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/09/2013 12:56	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/09/2013 12:56	GK
Surr: 4-Bromofluorobenzene	95.4	64.6-123	%REC	175818	1	05/09/2013 12:56	GK
Surr: Dibromofluoromethane	96.1	76.6-133	%REC	175818	1	05/09/2013 12:56	GK
Surr: Toluene-d8	98.3	77.8-120	%REC	175818	1	05/09/2013 12:56	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	1	05/10/2013 11:35	JY
Arsenic	BRL	0.0100	mg/L	175876	1	05/10/2013 11:35	JY
Barium	0.195	0.0200	mg/L	175876	1	05/10/2013 11:35	JY
Beryllium	BRL	0.00400	mg/L	175876	1	05/10/2013 11:35	JY
Cadmium	BRL	0.00500	mg/L	175876	1	05/10/2013 11:35	JY
Chromium	8.58	0.0200	mg/L	175876	1	05/10/2013 11:35	JY
Cobalt	BRL	0.0500	mg/L	175876	1	05/10/2013 11:35	JY
Copper	0.184	0.0200	mg/L	175876	1	05/10/2013 11:35	JY
Lead	0.0200	0.0100	mg/L	175876	1	05/10/2013 11:35	JY
Nickel	3.79	0.0400	mg/L	175876	1	05/10/2013 11:35	JY
Selenium	BRL	0.0500	mg/L	175876	1	05/10/2013 11:35	JY
Silver	BRL	0.00500	mg/L	175876	1	05/10/2013 11:35	JY
Thallium	BRL	0.00200	mg/L	175876	1	05/10/2013 11:35	JY
Vanadium	BRL	0.200	mg/L	175876	4	05/13/2013 13:51	JY
Zinc	0.716	0.0200	mg/L	175876	1	05/10/2013 11:35	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-9
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 3:25:00 PM
<b>Lab ID:</b>	1305520-004	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>								
<b>(SW7470A)</b>								
Mercury	BRL	0.00020		mg/L	175871	1	05/09/2013 15:01	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>								
<b>(SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
2-Butanone	BRL	50		ug/L	175818	1	05/08/2013 18:35	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/08/2013 18:35	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/08/2013 18:35	GK
Acetone	BRL	50		ug/L	175818	1	05/08/2013 18:35	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Benzene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Chloroethane	BRL	10		ug/L	175818	1	05/08/2013 18:35	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Chloromethane	BRL	10		ug/L	175818	1	05/08/2013 18:35	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Iodomethane	BRL	10		ug/L	175818	1	05/08/2013 18:35	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-9
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 3:25:00 PM
<b>Lab ID:</b>	1305520-004	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>								
Styrene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Tetrachloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Toluene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
trans-1,4-Dichloro-2-butene	BRL	10		ug/L	175818	1	05/08/2013 18:35	GK
Trichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Trichlorofluoromethane	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Vinyl acetate	BRL	10		ug/L	175818	1	05/08/2013 18:35	GK
Vinyl chloride	BRL	2.0		ug/L	175818	1	05/08/2013 18:35	GK
Xylenes, Total	BRL	5.0		ug/L	175818	1	05/08/2013 18:35	GK
Surr: 4-Bromofluorobenzene	96.6	64.6-123	%REC		175818	1	05/08/2013 18:35	GK
Surr: Dibromofluoromethane	97	76.6-133	%REC		175818	1	05/08/2013 18:35	GK
Surr: Toluene-d8	100	77.8-120	%REC		175818	1	05/08/2013 18:35	GK
<b>APPENDIX I METALS SW6020A</b>								
							<b>(SW3005A)</b>	
Antimony	BRL	0.00600		mg/L	175876	1	05/10/2013 11:41	JY
Arsenic	BRL	0.0100		mg/L	175876	1	05/10/2013 11:41	JY
Barium	0.0479	0.0200		mg/L	175876	1	05/10/2013 11:41	JY
Beryllium	BRL	0.00400		mg/L	175876	1	05/10/2013 11:41	JY
Cadmium	BRL	0.00500		mg/L	175876	1	05/10/2013 11:41	JY
Chromium	BRL	0.0200		mg/L	175876	1	05/10/2013 11:41	JY
Cobalt	BRL	0.0500		mg/L	175876	1	05/10/2013 11:41	JY
Copper	BRL	0.0200		mg/L	175876	1	05/10/2013 11:41	JY
Lead	BRL	0.0100		mg/L	175876	1	05/10/2013 11:41	JY
Nickel	BRL	0.0400		mg/L	175876	1	05/10/2013 11:41	JY
Selenium	BRL	0.0500		mg/L	175876	1	05/10/2013 11:41	JY
Silver	BRL	0.00500		mg/L	175876	1	05/10/2013 11:41	JY
Thallium	BRL	0.00200		mg/L	175876	1	05/10/2013 11:41	JY
Vanadium	BRL	0.0500		mg/L	175876	1	05/10/2013 11:41	JY
Zinc	BRL	0.0200		mg/L	175876	1	05/10/2013 11:41	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWD-6
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 3:50:00 PM
<b>Lab ID:</b>	1305520-005	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>								
<b>(SW7470A)</b>								
Mercury	0.00080	0.00020		mg/L	175871	1	05/09/2013 14:44	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>								
<b>(SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
2-Butanone	BRL	50		ug/L	175818	1	05/09/2013 13:26	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/09/2013 13:26	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/09/2013 13:26	GK
Acetone	80	50		ug/L	175818	1	05/09/2013 13:26	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Benzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Chloroethane	BRL	10		ug/L	175818	1	05/09/2013 13:26	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Chloromethane	BRL	10		ug/L	175818	1	05/09/2013 13:26	GK
cis-1,2-Dichloroethene	32	5.0		ug/L	175818	1	05/09/2013 13:26	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Iodomethane	BRL	10		ug/L	175818	1	05/09/2013 13:26	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/09/2013 13:26	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWD-6
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	4/30/2013 3:50:00 PM
<b>Lab ID:</b>	1305520-005	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
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**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/09/2013 13:26	GK
Tetrachloroethene	94	5.0	ug/L	175818	1	05/09/2013 13:26	GK
Toluene	BRL	5.0	ug/L	175818	1	05/09/2013 13:26	GK
trans-1,2-Dichloroethene	BRL	5.0	ug/L	175818	1	05/09/2013 13:26	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/09/2013 13:26	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/09/2013 13:26	GK
Trichloroethene	46	5.0	ug/L	175818	1	05/09/2013 13:26	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/09/2013 13:26	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/09/2013 13:26	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/09/2013 13:26	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/09/2013 13:26	GK
Surr: 4-Bromofluorobenzene	96.1	64.6-123	%REC	175818	1	05/09/2013 13:26	GK
Surr: Dibromofluoromethane	98	76.6-133	%REC	175818	1	05/09/2013 13:26	GK
Surr: Toluene-d8	96.1	77.8-120	%REC	175818	1	05/09/2013 13:26	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	5	05/10/2013 12:23	JY
Arsenic	BRL	0.0100	mg/L	175876	5	05/10/2013 12:23	JY
Barium	BRL	0.0200	mg/L	175876	5	05/10/2013 12:23	JY
Beryllium	0.0121	0.00500	mg/L	175876	5	05/10/2013 12:23	JY
Cadmium	BRL	0.00500	mg/L	175876	5	05/10/2013 12:23	JY
Chromium	0.212	0.0200	mg/L	175876	5	05/10/2013 12:23	JY
Cobalt	BRL	0.0500	mg/L	175876	5	05/10/2013 12:23	JY
Copper	0.0538	0.0200	mg/L	175876	5	05/10/2013 12:23	JY
Lead	0.0917	0.0100	mg/L	175876	5	05/10/2013 12:23	JY
Nickel	BRL	0.0400	mg/L	175876	5	05/10/2013 12:23	JY
Selenium	BRL	0.0500	mg/L	175876	5	05/10/2013 12:23	JY
Silver	BRL	0.00500	mg/L	175876	5	05/10/2013 12:23	JY
Thallium	BRL	0.00200	mg/L	175876	5	05/10/2013 12:23	JY
Vanadium	BRL	0.0500	mg/L	175876	5	05/10/2013 12:23	JY
Zinc	0.111	0.0250	mg/L	175876	5	05/10/2013 12:23	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-13
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/2/2013 2:05:00 PM
<b>Lab ID:</b>	1305520-006	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>	<b>(SW7470A)</b>							
Mercury	0.00044	0.00020		mg/L	175871	1	05/09/2013 15:03	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>	<b>(SW5030B)</b>							
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
2-Butanone	BRL	50		ug/L	175818	1	05/08/2013 19:33	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/08/2013 19:33	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/08/2013 19:33	GK
Acetone	BRL	50		ug/L	175818	1	05/08/2013 19:33	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Benzene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Chloroethane	BRL	10		ug/L	175818	1	05/08/2013 19:33	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Chloromethane	BRL	10		ug/L	175818	1	05/08/2013 19:33	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Iodomethane	BRL	10		ug/L	175818	1	05/08/2013 19:33	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 19:33	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-13
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/2/2013 2:05:00 PM
<b>Lab ID:</b>	1305520-006	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
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**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/08/2013 19:33	GK
Tetrachloroethene		15	ug/L	175818	1	05/08/2013 19:33	GK
Toluene	BRL	5.0	ug/L	175818	1	05/08/2013 19:33	GK
trans-1,2-Dichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 19:33	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/08/2013 19:33	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/08/2013 19:33	GK
Trichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 19:33	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/08/2013 19:33	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/08/2013 19:33	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/08/2013 19:33	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/08/2013 19:33	GK
Surr: 4-Bromofluorobenzene	94.5	64.6-123	%REC	175818	1	05/08/2013 19:33	GK
Surr: Dibromofluoromethane	97.3	76.6-133	%REC	175818	1	05/08/2013 19:33	GK
Surr: Toluene-d8	98.3	77.8-120	%REC	175818	1	05/08/2013 19:33	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	1	05/10/2013 11:53	JY
Arsenic	BRL	0.0100	mg/L	175876	1	05/10/2013 11:53	JY
Barium	0.0276	0.0200	mg/L	175876	1	05/10/2013 11:53	JY
Beryllium	BRL	0.00400	mg/L	175876	1	05/10/2013 11:53	JY
Cadmium	BRL	0.00500	mg/L	175876	1	05/10/2013 11:53	JY
Chromium	0.0242	0.0200	mg/L	175876	1	05/10/2013 11:53	JY
Cobalt	BRL	0.0500	mg/L	175876	1	05/10/2013 11:53	JY
Copper	BRL	0.0200	mg/L	175876	1	05/10/2013 11:53	JY
Lead	0.0187	0.0100	mg/L	175876	1	05/10/2013 11:53	JY
Nickel	BRL	0.0400	mg/L	175876	1	05/10/2013 11:53	JY
Selenium	BRL	0.0500	mg/L	175876	1	05/10/2013 11:53	JY
Silver	BRL	0.00500	mg/L	175876	1	05/10/2013 11:53	JY
Thallium	BRL	0.00200	mg/L	175876	1	05/10/2013 11:53	JY
Vanadium	BRL	0.0500	mg/L	175876	1	05/10/2013 11:53	JY
Zinc	0.0324	0.0200	mg/L	175876	1	05/10/2013 11:53	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-14
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/2/2013 3:30:00 PM
<b>Lab ID:</b>	1305520-007	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>	<b>(SW7470A)</b>							
Mercury	BRL	0.00020		mg/L	175871	1	05/09/2013 15:05	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>	<b>(SW5030B)</b>							
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
2-Butanone	BRL	50		ug/L	175818	1	05/08/2013 20:03	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/08/2013 20:03	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/08/2013 20:03	GK
Acetone	BRL	50		ug/L	175818	1	05/08/2013 20:03	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Benzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Chloroethane	BRL	10		ug/L	175818	1	05/08/2013 20:03	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Chloromethane	BRL	10		ug/L	175818	1	05/08/2013 20:03	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Iodomethane	BRL	10		ug/L	175818	1	05/08/2013 20:03	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 20:03	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-14
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/2/2013 3:30:00 PM
<b>Lab ID:</b>	1305520-007	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
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**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/08/2013 20:03	GK
Tetrachloroethene	30	5.0	ug/L	175818	1	05/08/2013 20:03	GK
Toluene	BRL	5.0	ug/L	175818	1	05/08/2013 20:03	GK
trans-1,2-Dichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 20:03	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/08/2013 20:03	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/08/2013 20:03	GK
Trichloroethene	6.0	5.0	ug/L	175818	1	05/08/2013 20:03	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/08/2013 20:03	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/08/2013 20:03	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/08/2013 20:03	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/08/2013 20:03	GK
Surr: 4-Bromofluorobenzene	95.3	64.6-123	%REC	175818	1	05/08/2013 20:03	GK
Surr: Dibromofluoromethane	97.4	76.6-133	%REC	175818	1	05/08/2013 20:03	GK
Surr: Toluene-d8	99.4	77.8-120	%REC	175818	1	05/08/2013 20:03	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	1	05/10/2013 11:59	JY
Arsenic	BRL	0.0100	mg/L	175876	1	05/10/2013 11:59	JY
Barium	0.0973	0.0200	mg/L	175876	1	05/10/2013 11:59	JY
Beryllium	BRL	0.00400	mg/L	175876	1	05/10/2013 11:59	JY
Cadmium	BRL	0.00500	mg/L	175876	1	05/10/2013 11:59	JY
Chromium	0.0482	0.0200	mg/L	175876	1	05/10/2013 11:59	JY
Cobalt	BRL	0.0500	mg/L	175876	1	05/10/2013 11:59	JY
Copper	BRL	0.0200	mg/L	175876	1	05/10/2013 11:59	JY
Lead	BRL	0.0100	mg/L	175876	1	05/10/2013 11:59	JY
Nickel	BRL	0.0400	mg/L	175876	1	05/10/2013 11:59	JY
Selenium	BRL	0.0500	mg/L	175876	1	05/10/2013 11:59	JY
Silver	BRL	0.00500	mg/L	175876	1	05/10/2013 11:59	JY
Thallium	BRL	0.00200	mg/L	175876	1	05/10/2013 11:59	JY
Vanadium	BRL	0.0500	mg/L	175876	1	05/10/2013 11:59	JY
Zinc	0.0203	0.0200	mg/L	175876	1	05/10/2013 11:59	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-15
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/3/2013 3:50:00 PM
<b>Lab ID:</b>	1305520-008	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>	<b>(SW7470A)</b>							
Mercury	BRL	0.00020		mg/L	175871	1	05/09/2013 15:07	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>	<b>(SW5030B)</b>							
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
2-Butanone	BRL	50		ug/L	175818	1	05/08/2013 20:32	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/08/2013 20:32	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/08/2013 20:32	GK
Acetone	BRL	50		ug/L	175818	1	05/08/2013 20:32	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Benzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Chloroethane	BRL	10		ug/L	175818	1	05/08/2013 20:32	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Chloromethane	BRL	10		ug/L	175818	1	05/08/2013 20:32	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Iodomethane	BRL	10		ug/L	175818	1	05/08/2013 20:32	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 20:32	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-15
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/3/2013 3:50:00 PM
<b>Lab ID:</b>	1305520-008	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
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**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/08/2013 20:32	GK
Tetrachloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 20:32	GK
Toluene	BRL	5.0	ug/L	175818	1	05/08/2013 20:32	GK
trans-1,2-Dichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 20:32	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/08/2013 20:32	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/08/2013 20:32	GK
Trichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 20:32	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/08/2013 20:32	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/08/2013 20:32	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/08/2013 20:32	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/08/2013 20:32	GK
Surr: 4-Bromofluorobenzene	95.1	64.6-123	%REC	175818	1	05/08/2013 20:32	GK
Surr: Dibromofluoromethane	96.5	76.6-133	%REC	175818	1	05/08/2013 20:32	GK
Surr: Toluene-d8	99.9	77.8-120	%REC	175818	1	05/08/2013 20:32	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	1	05/10/2013 12:05	JY
Arsenic	BRL	0.0100	mg/L	175876	1	05/10/2013 12:05	JY
Barium	0.0278	0.0200	mg/L	175876	1	05/10/2013 12:05	JY
Beryllium	BRL	0.00400	mg/L	175876	1	05/10/2013 12:05	JY
Cadmium	BRL	0.00500	mg/L	175876	1	05/10/2013 12:05	JY
Chromium	BRL	0.0200	mg/L	175876	1	05/10/2013 12:05	JY
Cobalt	BRL	0.0500	mg/L	175876	1	05/10/2013 12:05	JY
Copper	BRL	0.0200	mg/L	175876	1	05/10/2013 12:05	JY
Lead	BRL	0.0100	mg/L	175876	1	05/10/2013 12:05	JY
Nickel	BRL	0.0400	mg/L	175876	1	05/10/2013 12:05	JY
Selenium	BRL	0.0500	mg/L	175876	1	05/10/2013 12:05	JY
Silver	BRL	0.00500	mg/L	175876	1	05/10/2013 12:05	JY
Thallium	BRL	0.00200	mg/L	175876	1	05/10/2013 12:05	JY
Vanadium	BRL	0.0500	mg/L	175876	1	05/10/2013 12:05	JY
Zinc	BRL	0.0200	mg/L	175876	1	05/10/2013 12:05	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-12
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/3/2013 5:35:00 PM
<b>Lab ID:</b>	1305520-009	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>								
<b>(SW7470A)</b>								
Mercury	0.00072	0.00020		mg/L	175871	1	05/09/2013 15:09	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>								
<b>(SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
2-Butanone	BRL	50		ug/L	175818	1	05/08/2013 21:01	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/08/2013 21:01	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/08/2013 21:01	GK
Acetone	BRL	50		ug/L	175818	1	05/08/2013 21:01	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Benzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Chloroethane	BRL	10		ug/L	175818	1	05/08/2013 21:01	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Chloromethane	BRL	10		ug/L	175818	1	05/08/2013 21:01	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Iodomethane	BRL	10		ug/L	175818	1	05/08/2013 21:01	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 21:01	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MW-12
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/3/2013 5:35:00 PM
<b>Lab ID:</b>	1305520-009	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
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**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/08/2013 21:01	GK
Tetrachloroethene	BRL	5.3	ug/L	175818	1	05/08/2013 21:01	GK
Toluene	BRL	5.0	ug/L	175818	1	05/08/2013 21:01	GK
trans-1,2-Dichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 21:01	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/08/2013 21:01	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/08/2013 21:01	GK
Trichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 21:01	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/08/2013 21:01	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/08/2013 21:01	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/08/2013 21:01	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/08/2013 21:01	GK
Surr: 4-Bromofluorobenzene	97.4	64.6-123	%REC	175818	1	05/08/2013 21:01	GK
Surr: Dibromofluoromethane	96.9	76.6-133	%REC	175818	1	05/08/2013 21:01	GK
Surr: Toluene-d8	99.5	77.8-120	%REC	175818	1	05/08/2013 21:01	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	1	05/10/2013 10:31	JY
Arsenic	BRL	0.0100	mg/L	175876	1	05/10/2013 10:31	JY
Barium	0.0886	0.0200	mg/L	175876	1	05/10/2013 10:31	JY
Beryllium	BRL	0.00400	mg/L	175876	1	05/10/2013 10:31	JY
Cadmium	BRL	0.00500	mg/L	175876	1	05/10/2013 10:31	JY
Chromium	BRL	0.0200	mg/L	175876	1	05/10/2013 10:31	JY
Cobalt	BRL	0.0500	mg/L	175876	1	05/10/2013 10:31	JY
Copper	BRL	0.0200	mg/L	175876	1	05/10/2013 10:31	JY
Lead	BRL	0.0100	mg/L	175876	1	05/10/2013 10:31	JY
Nickel	BRL	0.0400	mg/L	175876	1	05/10/2013 10:31	JY
Selenium	BRL	0.0500	mg/L	175876	1	05/10/2013 10:31	JY
Silver	BRL	0.00500	mg/L	175876	1	05/10/2013 10:31	JY
Thallium	BRL	0.00200	mg/L	175876	1	05/10/2013 10:31	JY
Vanadium	BRL	0.0500	mg/L	175876	1	05/10/2013 10:31	JY
Zinc	BRL	0.0200	mg/L	175876	1	05/10/2013 10:31	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWA-8
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/3/2013 6:30:00 PM
<b>Lab ID:</b>	1305520-010	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>								
Mercury	BRL	0.00020		mg/L	175871	1	05/09/2013 15:11	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>								
(SW7470A)	<b>(SW5030B)</b>							
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
2-Butanone	BRL	50		ug/L	175818	1	05/08/2013 21:30	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/08/2013 21:30	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/08/2013 21:30	GK
Acetone	BRL	50		ug/L	175818	1	05/08/2013 21:30	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Benzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Chloroethane	BRL	10		ug/L	175818	1	05/08/2013 21:30	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Chloromethane	BRL	10		ug/L	175818	1	05/08/2013 21:30	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Iodomethane	BRL	10		ug/L	175818	1	05/08/2013 21:30	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
Methylene chloride	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/08/2013 21:30	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWA-8
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/3/2013 6:30:00 PM
<b>Lab ID:</b>	1305520-010	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
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**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/08/2013 21:30	GK
Tetrachloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 21:30	GK
Toluene	BRL	5.0	ug/L	175818	1	05/08/2013 21:30	GK
trans-1,2-Dichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 21:30	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/08/2013 21:30	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/08/2013 21:30	GK
Trichloroethene	BRL	5.0	ug/L	175818	1	05/08/2013 21:30	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/08/2013 21:30	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/08/2013 21:30	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/08/2013 21:30	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/08/2013 21:30	GK
Surr: 4-Bromofluorobenzene	98	64.6-123	%REC	175818	1	05/08/2013 21:30	GK
Surr: Dibromofluoromethane	97.6	76.6-133	%REC	175818	1	05/08/2013 21:30	GK
Surr: Toluene-d8	98.9	77.8-120	%REC	175818	1	05/08/2013 21:30	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	1	05/10/2013 12:11	JY
Arsenic	BRL	0.0100	mg/L	175876	1	05/10/2013 12:11	JY
Barium	0.0330	0.0200	mg/L	175876	1	05/10/2013 12:11	JY
Beryllium	BRL	0.00400	mg/L	175876	1	05/10/2013 12:11	JY
Cadmium	BRL	0.00500	mg/L	175876	1	05/10/2013 12:11	JY
Chromium	BRL	0.0200	mg/L	175876	1	05/10/2013 12:11	JY
Cobalt	BRL	0.0500	mg/L	175876	1	05/10/2013 12:11	JY
Copper	BRL	0.0200	mg/L	175876	1	05/10/2013 12:11	JY
Lead	BRL	0.0100	mg/L	175876	1	05/10/2013 12:11	JY
Nickel	BRL	0.0400	mg/L	175876	1	05/10/2013 12:11	JY
Selenium	BRL	0.0500	mg/L	175876	1	05/10/2013 12:11	JY
Silver	BRL	0.00500	mg/L	175876	1	05/10/2013 12:11	JY
Thallium	BRL	0.00200	mg/L	175876	1	05/10/2013 12:11	JY
Vanadium	BRL	0.0500	mg/L	175876	1	05/10/2013 12:11	JY
Zinc	0.0379	0.0200	mg/L	175876	1	05/10/2013 12:11	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWA-5
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/3/2013 7:20:00 PM
<b>Lab ID:</b>	1305520-011	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Mercury, Total SW7470A</b>	<b>(SW7470A)</b>							
Mercury	BRL	0.00020		mg/L	175871	1	05/09/2013 15:13	TA
<b>APPENDIX I VOLATILE ORGANICS SW8260B</b>	<b>(SW5030B)</b>							
1,1,1,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,1-Dichloroethene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,2,3-Trichloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,2-Dibromoethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,2-Dichloropropane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
2-Butanone	BRL	50		ug/L	175818	1	05/09/2013 13:55	GK
2-Hexanone	BRL	10		ug/L	175818	1	05/09/2013 13:55	GK
4-Methyl-2-pentanone	BRL	10		ug/L	175818	1	05/09/2013 13:55	GK
Acetone	BRL	50		ug/L	175818	1	05/09/2013 13:55	GK
Acrylonitrile	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Benzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Bromochloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Bromodichloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Bromoform	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Bromomethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Carbon disulfide	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Chlorobenzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Chloroethane	BRL	10		ug/L	175818	1	05/09/2013 13:55	GK
Chloroform	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Chloromethane		19	10	ug/L	175818	1	05/09/2013 13:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Dibromochloromethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Dibromomethane	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Ethylbenzene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Iodomethane	BRL	10		ug/L	175818	1	05/09/2013 13:55	GK
m,p-Xylene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK
Methylene chloride		56	5.0	ug/L	175818	1	05/09/2013 13:55	GK
o-Xylene	BRL	5.0		ug/L	175818	1	05/09/2013 13:55	GK

**Qualifiers:** \* Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

&lt; Less than Result value

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**
**Date:** 15-May-13

<b>Client:</b>	GeoTechnical & Env. Consultants, Inc.	<b>Client Sample ID:</b>	MWA-5
<b>Project Name:</b>	Mercer HSRA	<b>Collection Date:</b>	5/3/2013 7:20:00 PM
<b>Lab ID:</b>	1305520-011	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
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**APPENDIX I VOLATILE ORGANICS SW8260B**
**(SW5030B)**

Styrene	BRL	5.0	ug/L	175818	1	05/09/2013 13:55	GK
Tetrachloroethene	26	5.0	ug/L	175818	1	05/09/2013 13:55	GK
Toluene	BRL	5.0	ug/L	175818	1	05/09/2013 13:55	GK
trans-1,2-Dichloroethene	BRL	5.0	ug/L	175818	1	05/09/2013 13:55	GK
trans-1,3-Dichloropropene	BRL	5.0	ug/L	175818	1	05/09/2013 13:55	GK
trans-1,4-Dichloro-2-butene	BRL	10	ug/L	175818	1	05/09/2013 13:55	GK
Trichloroethene	BRL	5.0	ug/L	175818	1	05/09/2013 13:55	GK
Trichlorofluoromethane	BRL	5.0	ug/L	175818	1	05/09/2013 13:55	GK
Vinyl acetate	BRL	10	ug/L	175818	1	05/09/2013 13:55	GK
Vinyl chloride	BRL	2.0	ug/L	175818	1	05/09/2013 13:55	GK
Xylenes, Total	BRL	5.0	ug/L	175818	1	05/09/2013 13:55	GK
Surr: 4-Bromofluorobenzene	96.4	64.6-123	%REC	175818	1	05/09/2013 13:55	GK
Surr: Dibromofluoromethane	98.1	76.6-133	%REC	175818	1	05/09/2013 13:55	GK
Surr: Toluene-d8	98.5	77.8-120	%REC	175818	1	05/09/2013 13:55	GK

**APPENDIX I METALS SW6020A**
**(SW3005A)**

Antimony	BRL	0.00600	mg/L	175876	1	05/10/2013 12:17	JY
Arsenic	BRL	0.0100	mg/L	175876	1	05/10/2013 12:17	JY
Barium	0.0391	0.0200	mg/L	175876	1	05/10/2013 12:17	JY
Beryllium	BRL	0.00400	mg/L	175876	1	05/10/2013 12:17	JY
Cadmium	BRL	0.00500	mg/L	175876	1	05/10/2013 12:17	JY
Chromium	BRL	0.0200	mg/L	175876	1	05/10/2013 12:17	JY
Cobalt	BRL	0.0500	mg/L	175876	1	05/10/2013 12:17	JY
Copper	BRL	0.0200	mg/L	175876	1	05/10/2013 12:17	JY
Lead	BRL	0.0100	mg/L	175876	1	05/10/2013 12:17	JY
Nickel	BRL	0.0400	mg/L	175876	1	05/10/2013 12:17	JY
Selenium	BRL	0.0500	mg/L	175876	1	05/10/2013 12:17	JY
Silver	BRL	0.00500	mg/L	175876	1	05/10/2013 12:17	JY
Thallium	BRL	0.00200	mg/L	175876	1	05/10/2013 12:17	JY
Vanadium	BRL	0.0500	mg/L	175876	1	05/10/2013 12:17	JY
Zinc	BRL	0.0200	mg/L	175876	1	05/10/2013 12:17	JY

**Qualifiers:** \* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

&gt; Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

&lt; Less than Result value

J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc.**

## Sample/Cooler Receipt Checklist

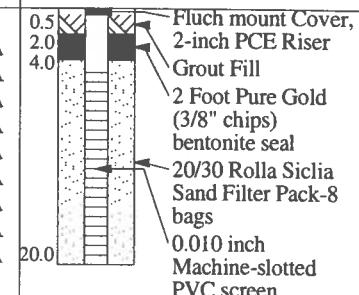
Client GECWork Order Number 1305520Checklist completed by MJ Date 5/1/13Carrier name: FedEx  UPS  Courier  Client  US Mail  Other \_\_\_\_\_Shipping container/cooler in good condition? Yes  No  Not Present Custody seals intact on shipping container/cooler? Yes  No  Not Present Custody seals intact on sample bottles? Yes  No  Not Present Container/Temp Blank temperature in compliance? (4°C±2)\* Yes  No Cooler #1 31° Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_ Cooler #4 \_\_\_\_\_ Cooler#5 \_\_\_\_\_ Cooler #6 \_\_\_\_\_Chain of custody present? Yes  No Chain of custody signed when relinquished and received? Yes  No Chain of custody agrees with sample labels? Yes  No Samples in proper container/bottle? Yes  No Sample containers intact? Yes  No Sufficient sample volume for indicated test? Yes  No All samples received within holding time? Yes  No Was TAT marked on the COC? Yes  No Proceed with Standard TAT as per project history? Yes  No  Not Applicable Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No Water - pH acceptable upon receipt? Yes  No  Not Applicable Adjusted? \_\_\_\_\_ Checked by MJSample Condition: Good  Other(Explain) \_\_\_\_\_(For diffusive samples or AIHA lead) Is a known blank included? Yes  No **See Case Narrative for resolution of the Non-Conformance.**

\* Samples do not have to comply with the given range for certain parameters.

# **Boring Logs/ Well Diagrams**

# MONITORING WELL RECORD

Page 1 of 1

Project: Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207		Well No: <b>IWS-1</b>				
Location: Macon, GA Supervised by Jason Cooper		Project No: MCE-02-596D				
Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers		GS Elevation:				
Water Level: DRY at time of boring		Drilling Date: November 11, 2009				
Water Level: DRY at time of boring		Engineer/Geologist: <i>[Signature]</i>				
Depth (ft)	Soil Symbol	Soil Description	Sample Type	N-Value	PID (ppm)	Well Diagram
		<b>PAVEMENT</b>	SS	37	N/A	
		<b>GAB</b>	SS	23	N/A	
		<b>RESIDUUM</b>	SS	20	N/A	
		loose to firm, yellowish-brown, sandy CLAY (SC)	SS	18	N/A	
		<b>RESIDUUM</b>	SS	13	N/A	
		loose to firm, reddish-brown, sandy CLAY (SC)	SS	19	N/A	
		<b>RESIDUUM</b>	SS	30	N/A	
20		stiff, light brownish-white, sandy CLAY (SC)	SS	20	N/A	
		<b>BORING TERMINATED AT 20.0ft</b>	SS	21	N/A	
						
40						
60						
80						
<ul style="list-style-type: none"> <li>· Boring and sampling performed in accordance with ASTM D 1586.</li> <li>· Depths are measured from existing ground surface at time of drilling.</li> <li>· Depths are shown to illustrate general arrangements of the strata encountered at the boring location.</li> <li>· Do not use depths for determinations of quantities or distances.</li> </ul>		NOTES: Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping				

## **MONITORING WELL RECORD**

Page 1 of 1

- Boring and sampling performed in accordance with ASTM D 1586.
  - Depths are measured from existing ground surface at time of drilling.
  - Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
  - Do not use depths for determinations of quantities or distances.

**NOTES:** Type II well installed as outlined in EPA  
160014-891034; Wells developed using hand  
bailers and mechanical pumping

## **MONITORING WELL RECORD**

Page 1 of 1

- Boring and sampling performed in accordance with ASTM D 1586.
  - Depths are measured from existing ground surface at time of drilling.
  - Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
  - Do not use depths for determinations of quantities or distances.

**NOTES:** Type II well installed as outlined in EPA  
160014-891034; Wells developed using hand  
bailers and mechanical pumping

## **MONITORING WELL RECORD**

Page 1 of 1

<p><b>Project: Mercer Triangle UST</b> 1535 Montpelier Ave Macon GA 31207</p> <p><b>Location: Macon, GA Supervised by Jason Cooper</b></p> <p><b>Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers</b></p> <p><b>Water Level: DRY at time of boring</b></p>				<b>Well No:</b> IWS-4
				<b>Project No:</b> MCE-02-596D
				<b>GS Elevation:</b>
				<b>Drilling Date:</b> November 12, 2009
				<b>Engineer/Geologist:</b> <i>JC</i>
Depth (ft)	Soil Symbol	Soil Description	Sample Type	Well Diagram
20		<b>TOPSOIL</b> <b>FILL</b> <b>RESIDUUM</b> loose to firm, yellowish-brown, sandy CLAY (SC) <b>RESIDUUM</b> loose to firm, reddish-brown, sandy CLAY (SC) <b>RESIDUUM</b> stiff, light brownish-white, sandy CLAY (SC) <b>BORING TERMINATED AT 20.0ft</b>	SS SS SS SS	N-Value PID (ppm)
40				
60				
80				
<ul style="list-style-type: none"> <li>Boring and sampling performed in accordance with ASTM D 1586.</li> <li>Depths are measured from existing ground surface at time of drilling.</li> <li>Depths are shown to illustrate general arrangements of the strata encountered at the boring location.</li> <li>Do not use depths for determinations of quantities or distances.</li> </ul>		<p><b>NOTES:</b> Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping</p>		

- Boring and sampling performed in accordance with ASTM D 1586.
- Depths are measured from existing ground surface at time of drilling.
- Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
- Do not use depths for determinations of quantities or distances.

**NOTES:** Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping

# MONITORING WELL RECORD

Page 1 of 1

Project: Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207		Well No: <b>IWS-5</b>				
Location: Macon, GA Supervised by Jason Cooper		Project No: MCE-02-596D				
Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers		GS Elevation:				
Water Level: DRY at time of boring		Drilling Date: November 12, 2009				
Water Level: DRY at time of boring		Engineer/Geologist: <i>J.C.</i>				
Depth (ft)	Soil Symbol	Soil Description	Sample Type	N-Value	PID (ppm)	Well Diagram
0		PAVEMENT				
~1.5		GAB	SS	17	N/A	Fluch mount Cover, 2-inch PCE Riser
~2.0		RESIDUUM	SS	17	N/A	Grout Fill
~2.5		loose to firm, yellowish-brown, sandy CLAY (SC)	SS	19	N/A	2 Foot Pure Gold (3/8" chips)
~3.0		RESIDUUM	SS	19	N/A	bentonite seal
~3.5		loose to firm, reddish-brown, sandy CLAY (SC)	SS	29	N/A	20/30 Rolla Siclia Sand Filter Pack-8 bags
~4.0		RESIDUUM	SS	29	N/A	0.010 inch
~4.5		stiff, light brownish-white, sandy CLAY (SC)	SS	29	N/A	Machine-slotted PVC screen
20		BORING TERMINATED AT 19.0ft				
40						
60						
80						
<ul style="list-style-type: none"> <li>· Boring and sampling performed in accordance with ASTM D 1586.</li> <li>· Depths are measured from existing ground surface at time of drilling.</li> <li>· Depths are shown to illustrate general arrangements of the strata encountered at the boring location.</li> <li>· Do not use depths for determinations of quantities or distances.</li> </ul>		<b>NOTES:</b> Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping				

## **MONITORING WELL RECORD**

Page 1 of 1

- Boring and sampling performed in accordance with ASTM D 1586.
  - Depths are measured from existing ground surface at time of drilling.
  - Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
  - Do not use depths for determinations of quantities or distances.

**NOTES:** Type II well installed as outlined in EPA  
160014-891034; Wells developed using hand  
bailers and mechanical pumping

## **MONITORING WELL RECORD**

Page 1 of 1

- Boring and sampling performed in accordance with ASTM D 1586.
  - Depths are measured from existing ground surface at time of drilling.
  - Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
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**NOTES:** Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping

## **MONITORING WELL RECORD**

Page 1 of 1

Project: Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207				Well No: <b>IWS-8</b>
Location: Macon, GA Supervised by Jason Cooper				Project No: MCE-02-596D
Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers				GS Elevation:
Water Level: DRY at time of boring				Drilling Date: November 14, 2009
Depth (ft)	Soil Symbol	Soil Description	Sample Type	Well Diagram
		<b>PAVEMENT</b>		
		<b>GAB</b>	SS	
		<b>RESIDUUM</b> loose to firm, yellowish-brown, sandy CLAY (SC)	SS	0.5 2.0 4.0
		<b>RESIDUUM</b> loose to firm, reddish-brown, sandy CLAY (SC)	SS	2.0 Foot Pure Gold (3/8" chips) bentonite seal
		<b>RESIDUUM</b> stiff, light brownish-white, sandy CLAY (SC)	SS	20/30 Rolla Siclia Sand Filter Pack-8 bags
		<b>BORING TERMINATED AT 20.0ft</b>	SS	0.010 inch Machine-slotted PVC screen
			N-Value	PID (ppm)
			15	N/A
			20	N/A
			19	N/A
			20	N/A
20				20.0
40				
60				
80				

514 Hillcrest Industrial Blvd., Macon, GA 31204  
5031 Milgen Court, Columbus, GA 31907

# GEC

GEOTECHNICAL & ENVIRONMENTAL  
C O N S U L T A N T S

## **MONITORING WELL RECORD**

Page 1 of 1

Project: Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207					Well No: <b>IWD-9</b>
Location: Macon, GA Supervised by Jason Cooper					Project No: MCE-02-596D
Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers					GS Elevation:
Water Level: 50.0 ft at time of boring					Drilling Date: November 13, 2009
Water Level (ft)	Depth (ft)	Soil Symbol	Soil Description	Sample Type	N-Value PID (ppm)
			CONCRETE		
			GAB		
			hard, red, medium to fine CLAY (CL)	SS	5 N/A
			firm, light whitish-brown, medium to fine sandy CLAY (SC)	SS	7 N/A
			firm, white, medium to fine silty SAND (SM)	SS	18 N/A
20				SS	14 N/A
			firm, whitish-yellow, medium SAND (SW)	SS	14 N/A
				SS	16 N/A
			firm, white, medium silty SAND (SM)	SS	16 N/A
40			very firm, whitish-brown, medium to fine silty SAND (SM)	SS	15 N/A
				SS	7 N/A
▽			firm, white, medium to fine SAND (SW)	SS	8 N/A
			BORING TERMINATED AT 53.0ft		
60					
80					
<ul style="list-style-type: none"> <li>Boring and sampling performed in accordance with ASTM D 1586.</li> <li>Depths are measured from existing ground surface at time of drilling.</li> <li>Depths are shown to illustrate general arrangements of the strata</li> </ul>			<p>NOTES: Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping</p>		

- Boring and sampling performed in accordance with ASTM D 1586.
  - Depths are measured from existing ground surface at time of drilling.
  - Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
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**NOTES:** Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping

# MONITORING WELL RECORD

Page 1 of 1

Project: Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207				Well No:	IWD-10
				Project No:	MCE-02-596D
Location: Macon, GA Supervised by Jason Cooper				GS Elevation:	
Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers				Drilling Date: November 13, 2009	
Water Level: 47.0 ft at time of boring				Engineer/Geologist: <i>JL</i>	
Water Level (ft)	Depth (ft)	Soil Symbol	Soil Description	Sample Type	Well Diagram
			FILL		
			dark brown, medium clayey SAND (SC)	SS	0.5
			light whitish-brown, medium to fine clayey SAND (SC)	SS	5
			reddish-brown, medium to fine clayey SAND (SC)	SS	10
			light pinkish-white, medium to fine clayey SAND (SC)	SS	17
			white, fine clayey SAND (SC)	SS	15
20					
			pinkish-white, medium SILT (SW)	SS	16
			light whitish-brown, medium SAND (SW)	SS	16
40				SS	16
			brown, medium to fine clayey SAND (SC)	SS	17
▽			BORING TERMINATED AT 51.0ft	SS	13
60					
80					
<ul style="list-style-type: none"> <li>• Boring and sampling performed in accordance with ASTM D 1586.</li> <li>• Depths are measured from existing ground surface at time of drilling.</li> <li>• Depths are shown to illustrate general arrangements of the strata encountered at the boring location.</li> <li>• Do not use depths for determinations of quantities or distances.</li> </ul>				<b>NOTES:</b> Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping	

## **MONITORING WELL RECORD**

Page 1 of 1

Project: Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207				Well No: IWD-11
Location: Macon, GA Supervised by Jason Cooper				Project No: MCE-02-596D
Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers				GS Elevation:
Water Level: 52.0 ft at time of boring				Drilling Date: November 13, 2009
Water Level (ft)	Depth (ft)	Soil Symbol	Soil Description	Sample Type
			FILL	
			dark brown, medium clayey SAND (SC)	SS
			light whitish-brown, medium to fine clayey SAND (SC)	6
			reddish-brown, medium to fine clayey SAND (SC)	9
			light pinkish-white, medium to fine clayey SAND (SC)	16
	20		white, fine clayey SAND (SC)	16
			pinkish-white, medium SILT (SW)	19
			light whitish-brown, medium SAND (SW)	17
	40		brown, medium to fine clayey SAND (SC)	18
▽			BORING TERMINATED AT 55.0ft	13
	60			12
	80			9
				8
<ul style="list-style-type: none"> <li>Boring and sampling performed in accordance with ASTM D 1586.</li> <li>Depths are measured from existing ground surface at time of drilling.</li> <li>Depths are shown to illustrate general arrangements of the strata encountered at the boring location.</li> <li>Do not use depths for determinations of quantities or distances.</li> </ul>				NOTES: Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping
				Well Diagram

- Boring and sampling performed in accordance with ASTM D 1586.
- Depths are measured from existing ground surface at time of drilling.
- Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
- Do not use depths for determinations of quantities or distances.

**NOTES:** Type II well installed as outlined in EPA  
160014-891034; Wells developed using hand  
bailers and mechanical pumping

# MONITORING WELL RECORD

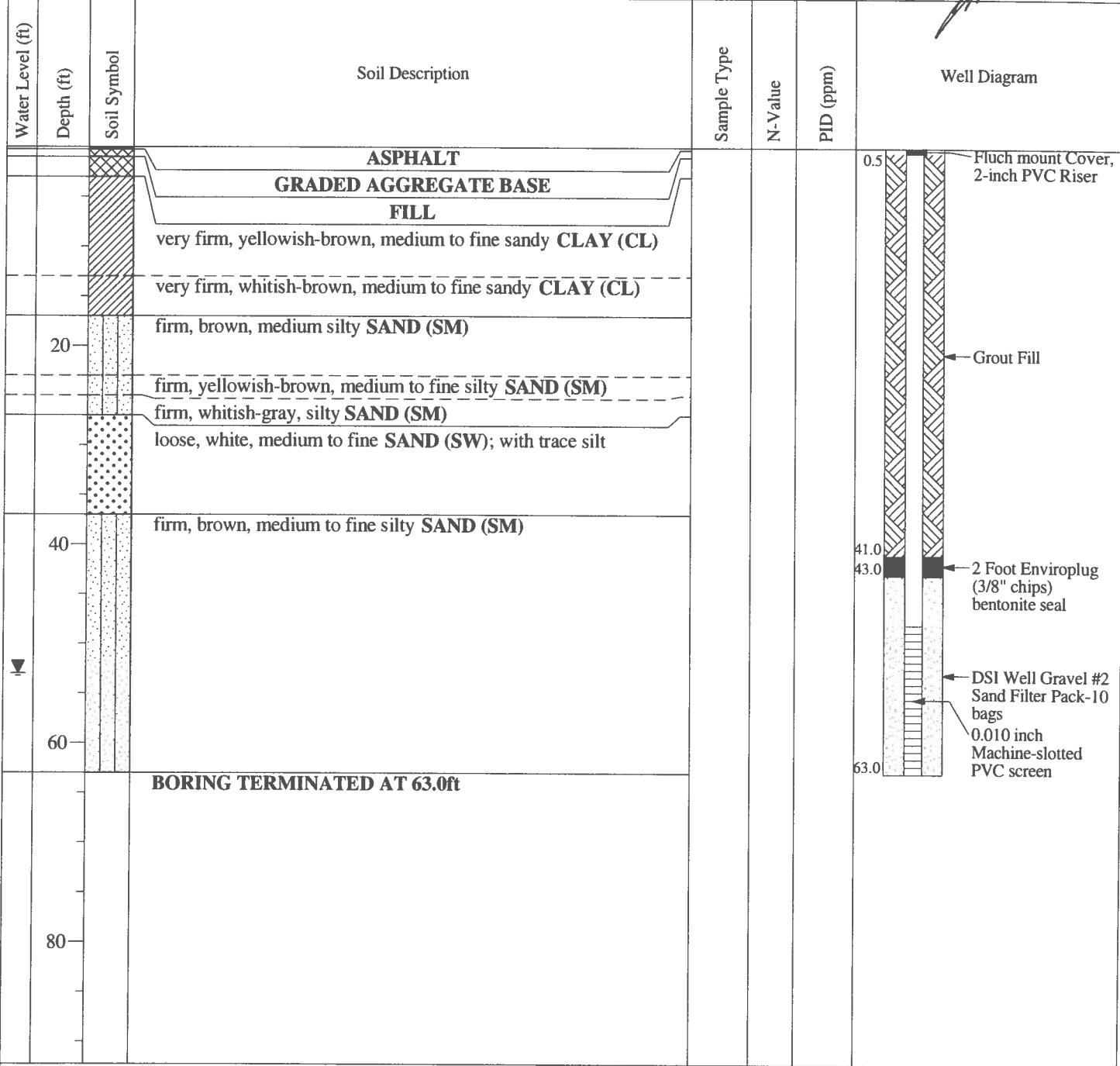
Page 1 of 1

Project: Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207				Well No: IWD-12			
				Project No: MCE-02-596D			
Location: Macon, GA Supervised by Jason Cooper				GS Elevation:			
Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers				Drilling Date: November 14, 2009			
Water Level: 53.0 ft at time of boring				Engineer/Geologist: <i>J. Cooper</i>			
Water Level (ft)	Depth (ft)	Soil Symbol	Soil Description	Sample Type	N-Value	PID (ppm)	Well Diagram
			FILL				
			dark brown, medium clayey SAND (SC)	SS	4	N/A	Fluch mount Cover, 2-inch PCE Riser
			light whitish-brown, medium to fine clayey SAND (SC)	SS	6	N/A	
			reddish-brown, medium to fine clayey SAND (SC)	SS	11	N/A	
			light pinkish-white, medium to fine clayey SAND (SC)	SS	14	N/A	
	20		white, fine clayey SAND (SC)	SS	17	N/A	Grout Fill
			pinkish-white, medium SILT (SW)	SS	18	N/A	
			light whitish-brown, medium SAND (SW)	SS	17	N/A	
	40		brown, medium to fine clayey SAND (SC)	SS	15	N/A	36.0
				SS	15	N/A	38.0
				SS	7	N/A	2 Foot Pure Gold (3/8" chips) bentonite seal
			BORING TERMINATED AT 55.0ft	SS	10	N/A	20/30 Rolla Siclia Sand Filter Pack-8 bags 0.010 inch Machine-slotted PVC screen
	60						
	80						
<ul style="list-style-type: none"> <li>• Boring and sampling performed in accordance with ASTM D 1586.</li> <li>• Depths are measured from existing ground surface at time of drilling.</li> <li>• Depths are shown to illustrate general arrangements of the strata encountered at the boring location.</li> <li>• Do not use depths for determinations of quantities or distances.</li> </ul>				NOTES: Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping			

## **MONITORING WELL RECORD**

Page 1 of 1

<b>Project:</b> Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207	<b>Well No:</b> IWD-14
	<b>Project No:</b> MCE-02-596D
<b>Location:</b> Macon, GA Supervised by Jason Cooper	<b>GS Elevation:</b>
<b>Driller/Equipment:</b> GEC/ GT-8 CME 55 with 4.25 H.S. Augers	<b>Drilling Date:</b> November 7, 2011
<b>Water Level:</b> 53.0 ft after hours	<b>Engineer/Geologist:</b> [Signature]



- Boring and sampling performed in accordance with ASTM D 1586.
  - Depths are measured from existing ground surface at time of drilling.
  - Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
  - Do not use depths for determinations of quantities or distances.

**NOTES:** Type II well installed as outlined in EPA  
160014-891034; Wells developed using hand  
bailers and mechanical pumping

## **MONITORING WELL RECORD**

Page 1 of 1

- Boring and sampling performed in accordance with ASTM D 1586.
- Depths are measured from existing ground surface at time of drilling.
- Depths are shown to illustrate general arrangements of the strata encountered at the boring location.
- Do not use depths for determinations of quantities or distances.

**NOTES:** Type II well installed as outlined in EPA  
160014-891034; Wells developed using hand  
bailers and mechanical pumping

# MONITORING WELL RECORD

Page 1 of 1

Project: Mercer Triangle UST 1535 Montpelier Ave Macon GA 31207				Well No:	<b>MWR-3</b>	
Location: Macon, GA Supervised by Jason Cooper				Project No:	MCE-02-596D	
Driller/Equipment: GEC/ GT-8 CME 55 with 4.25 H.S. Augers				GS Elevation:		
Water Level: 42.0 ft at time of boring				Drilling Date:	November 14, 2009	
				Engineer/Geologist:	<i>J.C.</i>	
Water Level (ft)	Depth (ft)	Soil Symbol	Soil Description	Sample Type	N-Value	PID (ppm)
			very loose			
			hard, brown, CLAY (CL)			
			firm, red, sandy CLAY (SC)			
20			loose, light whitish-brown, medium sandy CLAY (SC)			
			loose, light whitish-brown, medium SAND (SW)			
			firm, white, fine silty SAND (SM)			
			loose, light whitish-brown, medium silty SAND (SM)			
40			firm, white, silty SAND (SM)			
			firm, whitish-gray, silty SAND (SM)			
			BORING TERMINATED AT 45.0ft			
60						
80						
<ul style="list-style-type: none"> <li>• Boring and sampling performed in accordance with ASTM D 1586.</li> <li>• Depths are measured from existing ground surface at time of drilling.</li> <li>• Depths are shown to illustrate general arrangements of the strata encountered at the boring location.</li> <li>• Do not use depths for determinations of quantities or distances.</li> </ul>				NOTES: Type II well installed as outlined in EPA 160014-891034; Wells developed using hand bailers and mechanical pumping		