

Attachment IVa
ENVIRONMENTAL REPORTS

Phase I Environmental Site Assessment - 1110 to 1112 Race Street

Phase I Environmental Site Assessment

1110 and 1112 Race Street Property
1110 and 1112 Race Street
Baltimore, Maryland 21230



Prepared For:

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SUMMARY

Urban Green Environmental (Urban Green) has performed a Phase I Environmental Site Assessment (ESA) of the property located at 1110 and 1112 Race Street in Baltimore, Maryland 21230. This assessment was performed in general accordance with the ASTM E1527-05 standard. This study consisted of a review of current and historic activities and conditions at the property and surrounding properties, including a non-intrusive visual inspection of the property, interviews with Site personnel, review of local, state, and federal regulatory database records, review of historic records, and a survey of the adjacent land uses. Limitations, exceptions to, or deletions from, this practice are described in Sections 1.3 and 1.4 of this report.

The Site consists of two parcels of land totaling approximately 0.7-acres and is currently zoned commercial and industrial. The Site is vacant and was most recently occupied by Baltimore Tool Works, which vacated the Site circa 2008. The Site is improved with two adjoining concrete/masonry warehouse structures. The 1110 Race Street Site parcel building consists of an 8,955 square foot masonry structure which is one to two-stories and is underlain with a concrete slab-on-grade foundation. The 1112 Race Street Site parcel consists of a 14,081 square foot one-story masonry structure which is underlain by a partial basement foundation (western portion) and a concrete slab-on-grade foundation. The 1110 Race Street Site building occupies the entirety of the Site parcel. The 1112 Race Street Site building occupies approximately 60% of the respective Site parcel. Exterior portions of the 1112 Race Street Site parcel consist of two asphalt paved loading dock/parking areas. These paved parking areas are located in the eastern and southern portions of the Site.

The Site is serviced by municipal water and sewer and electric and natural gas-fired heating systems. Municipal water and sewer are provided by the City of Baltimore; electric and natural gas utilities are provided by Baltimore Gas and Electric (BGE).

Based on a review of historic records, the 1110 Race Street Site building appears to have been constructed by at least 1942. This building was occupied by Baltimore Tool Works from at least 1942 to 2008. Prior to that time, the Site parcel was occupied by Joseph Thomas and Sons Lumber (1914) and a cooper shop (1901).

The 1112 Race Street parcel appears to have been improved with the existing Site building since the 1960s and occupied by Baltimore Tool Works from the 1980s to 2008. Prior to that time, the central portion of the Site parcel was occupied by the Baltimore Motor Company (1975-1980), the American Transfer Company (1942-1964) and Joseph Thomas and Sons Lumber (1914). The southern portion of the 1112 Race Street property was historically addressed 100 to 122 West West Street. From at least 1914 to 1952, this southern portion of the Site was occupied by eight residential rowhome structures and three commercial buildings/horse stable buildings. Historic records indicate that in the 1950s the buildings located at 122 West West Street, 120 West West

Street, and 100 West West Street were occupied as a dry cleaner, paint storage warehouse and retail store, respectively.

Regulated materials and petroleum product storage was observed throughout the Site buildings and included eight 55-gallon drums which contained gear oil, tetrachloroethene, Metgrain steel abrasive, or were unlabeled, approximately 15 quart to five-gallon containers of hydraulic oil, one waste oil pan filled with used oil, one five-gallon container of snow and ice melt, paint and routine maintenance supplies. Drum storage was located throughout the warehouse portions of the Site buildings and in the basement storage area of the 1112 Race Street Site building. Oily staining was observed on the concrete floor surfaces throughout the warehouse portions of the Site, specifically in the vicinity of drum and machinery storage. The staining appeared to be a result of minor overfills and/or leaks and spills. The concrete flooring in the vicinity of the staining appeared to be in sound condition, exhibiting only minor cracks and weakness. Staining observed in the warehouse portion of the 1112 Race Street Site building was observed in proximity to a trench drain; however the concrete floor stained areas did not appear to extend to the floor trench drain.

No aboveground storage tanks (ASTs) were observed during the Site visit. Visual evidence of two suspect underground storage tanks (USTs) was observed at the Site. Specifically, one suspect set of vent/fill piping was observed entering the ground surface immediately south of the Site building in the concrete paved sidewalk along West West Street. In addition, one 2-inch steel pipe was observed entering the asphalt paved surface in the southern paved parking area. Urban Green personnel attempted to snake each of the observed pipes. The observed vent/fill piping could not be accessed; the 2-inch steel pipe within the paved parking area appeared to be filled. In addition to the above, historic and regulatory records indicate the potential presence of up to two USTs at the Site. Specifically,

- **Suspect Gasoline UST:** One gasoline UST is identified in the southern paved parking area portion of the 1112 Race Street property Site in the 1974 and 1967 Sanborn atlases. No visual evidence of a UST, such as vent or fill piping entering the ground surface, was observed in this area of the Site during the Site reconnaissance.
- **Former Diesel UST:** Available regulatory records indicate that one 8,000-gallon diesel UST was removed from the 1110 Race Street property in 1990. Information regarding this UST was provided by the current owner. Specifically, on May 11, 2004, the MDE OCP issued a Site Status Letter stating that "one 8,000-gallon steel diesel UST was removed from the Site and remediation of the tank pit was performed in accordance with MDE regulations". The MDE OCP did not require any additional actions regarding the UST removal and determined that the case file remains in the closed status.

Urban Green submitted a Public Information Act (PIA) request to the MDE and researched databases with the United States Environmental Protection Agency (USEPA) in an attempt to obtain information indicating any RECs in connection with the Site. USEPA records indicate the Site, listed as Baltimore Tool Works, is identified in the Resource Conservation and Recovery Act Information (RCRAInfo) database pertaining to hazardous waste generation permitting. A response was received from MDE stating that case files for the Site existed but were destroyed.

Recognized Environmental Conditions

Urban Green Environmental has performed a Phase I ESA of the property located at 1110 and 1112 Race Street in Baltimore, Maryland 21230. This assessment has revealed no evidence of *recognized environmental conditions* (RECs) or *historic recognized environmental conditions* in connection with the property with the exception of the following:

- **Historical Site Uses:** The Site parcels have been developed since the 1900s and have included industrial and commercial operations including a machine shop, a transportation company, a truck repair, and a dry cleaner.
- **Regulated Materials:** Several 55-gallon drums (gear oil, tetrachloroethylene, steel abrasive, unlabeled), one former trichloroethylene degreasing unit, and several quart to 5-gallon containers of hydraulic fluid, paint and routine maintenance supplies were observed throughout the interior portions of the Site. Oily staining was observed on the concrete floor surfaces through the areas of storage and historic use.
- **Historic Suspect USTs:** Visual evidence of one to two suspect USTs was observed at the Site. In addition, historic atlases indicate the potential presence of one gasoline UST on the 1112 Race Street property from at least 1967 to 1974. No information regarding the historic removal and/or closure of the historic gasoline UST was identified.
- **Historic Former UST:** One 8,000-gallon diesel UST was reportedly removed from the 1110 Race Street property in 1990. No information regarding the location of the former UST was identified during this investigation; however, a Site status letter has been issued by the MDE OCP for this UST indicating that remediation was performed following the removal of the UST and MDE OCP does not require any additional action or investigation.
- **Site Database Listings:** The 1110 Site address is listed in OCPCASES, Emergency Response Notification System (ERNS), and Resource Conservation and Recovery Act (RCRA) databases. Specifically, the Site address is listed with one MDE OCP case file which was opened in February 1990 and closed in March 1990, as a small quantity generator of hazardous waste, and is listed with one ERNS case from 1993 regarding a release of glue from a 55-gallon drum onto asphalt at the Site.

Additional action and investigation is recommended to further evaluate the potential for the historic Site use to have impacted the environmental integrity of the Site and to confirm or deny the potential presence of UST(s) at the Site. If a UST is confirmed to remain at the Site, the UST should be closed in accordance with state and federal requirements. In addition, it is recommended that prior to purchase and/or redevelopment of the Site, that the above mentioned regulated materials be removed in accordance with state and federal guidelines.

The additional findings noted below are not considered recognized environmental conditions at this time, but are considered *de minimus* conditions where no additional investigation or action is currently warranted; however preventive measures or future actions may be prudent as discussed below.

- ***Surrounding Property Database Listings:*** Several properties within the surrounding area were identified within the environmental databases, including the western and southern adjoining properties. Based on the current regulatory case statuses (closed), distance from the Site and/or topographically downgradient location, these properties are not anticipated to present an adverse environmental impact to the Site at this time.

1.0 INTRODUCTION

1.1 Purpose

Urban Green Environmental (Urban Green) has completed a Phase I Environmental Site Assessment (ESA) Report for the properties located at 1110 and 1112 Race Street, Baltimore, Maryland 21230 (Site).

The purpose of this investigation was to conduct an environmental site assessment of the Site with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products.

1.2 Detailed Scope of Services

This Phase I ESA was conducted in conformance with the scope of work and limitations defined in our proposal executed May 1, 2013, and in general accordance with the American Society for Testing and Materials (ASTM) standard E1527-05, "Environmental Site Assessments: Phase I Environmental Site Assessment Process" and the United States Environmental Protection Agency's All Appropriate Inquiries (AAI Rule) 40 CFR Part 312 dated November 1, 2005. This report is intended to satisfy one of the requirements to qualify for the *innocent landowner*, *contiguous property owner*, or *bona fide prospective purchaser* limitations on CERCLA liability (hereinafter, the "landowner liability protections"). In conjunction with the user responsibilities, identified in Section 1.2.3, this report satisfies "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice."

This assessment was performed by an Environmental Professional (as defined in AAI Rule) and/or conducted under the supervision or responsible charge of an Environmental Professional. The goal of the processes established by the ASTM Standard is to identify *recognized environmental conditions* (RECs), including *historical recognized environmental conditions* (HRECs) in connection with the property and to satisfy appropriate environmental due diligence. A REC is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. HRECs are defined as a condition which in the past would have been considered a REC, but which may or may not be considered a REC currently. HRECs generally include a past release of any hazardous substances or petroleum products at a property that has been remediated, and such remediation has been accepted by the responsible regulatory agency. The determination of a HREC is influenced by the current impact of the HREC on the property. The terms are not intended to include *de minimus* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

This Phase I ESA consisted of a non-intrusive visual inspection of the property, survey of adjacent land uses, interviews, and review of available records pertaining to the current and historic activities and conditions at the property and surrounding properties.

1.2.1 Site Reconnaissance and Interviews

The Site reconnaissance was conducted by Ms. Katherine Christensen and Ms. Katherine Johnson of Urban Green Environmental on May 3, 2013. At the time of the Site visit, the temperature was approximately 55°F with clear skies. Urban Green was accompanied by Mr. Gary Suskauer of Baltimore Development Corporation during the Site visit.

The Site reconnaissance consisted of a non-intrusive visual Site inspection of the property, which included a review of Site operations, hazardous materials and petroleum products handling, storage, and disposal practices, waste management practices, and evidence of hazardous material and petroleum product releases, such as stained soil or stressed vegetation. Containerized hazardous substances or petroleum products in quantities greater than or equal to 5-gallons or materials present on Site were noted, including those which are unidentified. In addition, the current and past uses of the Site and adjoining properties (from the Site property boundary) were observed and noted. Urban Green was allowed access to all interior and exterior portions of the Site, however visual observations of the entire floor surfaces within the western interior portion of the 1110 Race Street Site building were limited due to standing water. Further, visual observations throughout the Site buildings were partially limited due to the presence of stored materials.

Concurrent with the Site visit, on May 3, 2013, Ms. Katherine Johnson of Urban Green conducted an interview with Mr. Gary Suskauer of Baltimore Development Corporation. Also on May 3, 2013, Ms. Katherine Christensen conducted an interview with Mr. Arsh Mirmiran of Caves Valley Partners, potential purchaser of the Site. Records of communication are included in Appendix D.

1.2.2 Records Review

The purpose of the records review is to obtain and review records that will help identify RECs in connection with the Site. Records reviewed as part of this investigation included the following:

- *Standard Environmental Record Sources* (environmental database report), obtained via Environmental Data Resources, Inc. (EDR).
- *Physical Setting Sources*, including the current United States Geological Survey (USGS) 7.5-Minute Quadrangle topographic map and available geologic and hydrogeologic information for the Site vicinity.
- *Historic Use Information*, including, as applicable, aerial photographs, historic atlases, property tax files, recorded land title records, local street directories, building department records, and zoning/land use records.

In addition, Urban Green submitted a Public Information Act (PIA) request to the MDE and researched databases with the United States Environmental Protection Agency (USEPA) in an attempt to obtain information indicating any RECs in connection with the Site. USEPA records indicate the Site, listed as Baltimore Tool Works, is identified in the RCRAInfo database pertaining to hazardous waste generation permitting. On April 30, 2013, a response was received from MDE stating that case files for the Site existed but have been destroyed, however, MDE case file information was provided by the prospective purchaser of the Site. The EPA listings and MDE files are discussed in detail within this report and included in Appendix C.

A complete listing of record sources reviewed as part of this assessment is provided in Section 7 of this report. Section 7 also includes sources researched which resulted in no findings.

1.2.3 User-Provided Information

The ASTM Standard E1527-05 defines several tasks to be performed by the user/Client in order to assist the environmental professional to identify RECs in connection with the property. These tasks are outlined in Section 6 and include a.) review of the Title and Judicial Records for environmental liens or activity and use limitations, b.) communication to the environmental professional of any specialized knowledge, actual knowledge, or experience that is material to RECs at the property, c.) explanation for a lower purchase price (in comparison to the fair market value), and d.) commonly known or reasonable ascertainable community information that is material to RECs at the property. Under the AAI Standard, the above tasks are required by a potential purchaser to qualify for the landowner liability protections. Further, if applicable, in accordance with the ASTM E1527-05, the client must comply with activity and use limitations, to maintain the landowner liability protections.

The above information was requested by Urban Green Environmental of the user/Client to assist in preparing this report. In addition, MDE case file information was provided by the prospective purchaser of the Site and is included herein.

1.3 Significant Assumptions

The findings of this assessment are based solely on the data provided and reviewed as part of this investigation, including observations and conditions that existed at the time of the Site reconnaissance on May 3, 2013. Information provided by third parties is assumed to be accurate and complete.

Controlled substances are not included within the scope of this standard. Further, the scope of this assessment did not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the Landowner Liability Protections. Non-scope items that are beyond the scope of the ASTM E1527-05 practice and therefore were not addressed as part of this report include, but are not limited to: Asbestos-Containing Materials; Radon; Lead-

Based Paint; Mold; Lead in Drinking Water; Regulatory Compliance; Cultural and Historic Resources; Industrial Hygiene; Health and Safety; Ecological Resources; Endangered Species; Indoor Air Quality; Biological Agents, and High Voltage Power Lines. This list is not intended to be all-inclusive and no implication is intended regarding the importance of inquiry into non-scope considerations.

As defined by ASTM Standard E1527-05, a data gap is a lack of or inability to obtain information required by the practice, despite good faith efforts by the environmental professional. Data gaps can be significant or insignificant based on the manner in which they occur. A data gap is only significant if other information and/or professional experience raise reasonable concern involving the data gap, which would then warrant comment. After a review of the obtained historical information, no data gaps were identified.

1.4 Limitations, Exceptions, Deviations and Special Terms and Conditions

No environmental Site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and this practice recognizes reasonable limits of time and cost.

Urban Green Environmental, LLC does not warrant that there are no toxic or hazardous materials or contamination, nor does Urban Green Environmental, LLC accept any liability if such are found at some future time, or could have been found if sampling or additional studies were conducted. Urban Green Environmental, LLC does not assume responsibility for other environmental issues that may be associated with this Site.

In view of the rapidly changing status of environmental laws, regulations, and guidelines, Urban Green Environmental, LLC cannot be responsible for changes in laws, regulations, or guidelines, which occur after the study has been completed and which may affect the Site.

1.5 User Reliance

This report was prepared for Baltimore Development Corporation by Urban Green Environmental, LLC and is based in part on third party information not within the control of Baltimore Development Corporation or Urban Green Environmental, LLC. While it is believed that the third party information contained herein will be reliable under the conditions and subject to the limitations set forth herein, neither Baltimore Development Corporation nor Urban Green Environmental, LLC guarantee the accuracy thereof. This report has been completed solely for the use of Baltimore Development Corporation and is being provided as a confidential document. Any transfer of this report to third parties is the sole responsibility of Baltimore Development Corporation.

2.0 SITE DESCRIPTION

The Site reconnaissance was conducted by Ms. Katherine Christensen and Ms. Katherine Johnson of Urban Green Environmental on May 3, 2013. At the time of the Site visit, the temperature was approximately 55°F with clear skies. Urban Green was accompanied by Mr. Gary Suskauer of Baltimore Development Corporation during the Site visit.

2.1 Location and Legal Description

The Site is located at 1110 and 1112 Race Street in Baltimore, Maryland 21230. Information published online by the Maryland Department of Assessments and Taxation identifies the Site as Map 0023, Section 07, Block 0947 and Lots 043 (1110 Race Street) and 039 (1112 Race Street). The Site is currently owned by Harry D. McCarty and Michael Warlow.

The Site location is illustrated in Figure 1. A tax plat, illustrating the Site boundaries, is presented as Figure 2.

2.2 Site and Vicinity General Characteristics

The Site consists of two parcels of land totaling approximately 0.7-acres and is zoned commercial and industrial. The Site is located in the Sharp-Leadenhall neighborhood of Baltimore City. Properties immediately surrounding the Site consist of residential and commercial properties.

2.3 Current Use and Description of Site Improvements

The Site is vacant and was most recently occupied by Baltimore Tool Works until approximately 2008. The Site is improved with two adjoining concrete/masonry warehouse structures. The 1110 Race Street parcel building consists of an 8,955 square foot masonry structure which is two stories (eastern portion) and one-story (western portion) and is underlain with a concrete slab-on-grade foundation. The 1112 Race Street parcel consists of a 14,081 square foot one-story masonry structure which is underlain by a partial basement foundation (western portion) and a concrete slab-on-grade foundation. The 1110 Race Street Site building occupies the entirety of this Site parcel. The 1112 Race Street Site building occupies approximately 60% of the respective Site parcel. Exterior portions of the 1112 Race Street Site parcel consist of two asphalt paved loading dock/parking areas. These paved parking areas are located in the eastern and southern portions of the Site.

The Site is serviced by municipal water and sewer. The office portions of the Site buildings appeared to be heated and cooled by electric forced air systems and the loading dock portion of the 1112 Race Street Site building appeared to be heated by overhead natural gas-fired heaters. The remaining portions of the Site buildings did not appear to be heated or cooled. Municipal water and sewer are provided by the City of Baltimore; electric and natural gas utilities are provided by Baltimore Gas and Electric (BGE).

Urban Green conducted a well search for potable water supply wells located within 0.5 mile of the Site. The following source of information was researched as part of the well survey: EDR Geocheck Physical Setting Source Summary. The EDR Geocheck Physical Setting Source included all potable and non-potable water supply wells registered within a one half-mile radius of the Site (based on latitude and longitude). To evaluate potential potable water supply wells, well information was sorted based on use. Specifically, domestic wells, designated “D,” were separated from the well information provided. No domestic wells are identified as situated within a half-mile radius of the Site. A complete listing of all potable wells within a half mile radius can be found in the EDR report (Appendix C).

2.4 Current Use of the Adjoining Properties

The Site is located in a residential and commercial area of Baltimore City. The Site is bound to the east by Race Street beyond which are apartment buildings, bound to the south by West Street beyond which is Durapak Vacuum Packaging Company, bordered to the north by Hilgartner Natural Stone Company, and bound to the west by Creek Alley, beyond which is ABC Box Company.

2.5 Environmental Setting

2.5.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore East (1974), Site elevation is approximately 15 feet above mean sea level. In general, the subject property’s slope is relatively flat sloping slightly to the southwest. Overland stormwater flow appears to be directed to the surrounding thoroughfares. Site topography is also illustrated in Figure 1.

The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 1,800 feet southwest of the Site.

2.5.2 Lithology / Hydrogeology

According to the USDA’s Soil Conservation Service STATSGO Soil Map data, soil on Site is classified as Urban Land, which consists of variable soils from zero to 59 inches.

Based on a review of the USGS topographic map, groundwater is anticipated to flow in a general southwesterly direction across the Site.

2.5.3 Wetlands and Flood Plains

According to the EDR database report, the subject property is not located within a designated wetland area but is designated within the 100-year and 500-year flood zones. The nearest surface

water body, the Middle Branch of the Patapsco River, is located approximately 1,800 feet southwest of the Site.

3.0 SITE RECONNAISSANCE

The Site reconnaissance was conducted by Ms. Katherine Christensen and Ms. Katherine Johnson of Urban Green Environmental on May 3, 2013. At the time of the Site visit, the temperature was approximately 55°F with clear skies. Urban Green was accompanied by Mr. Gary Suskauer of Baltimore Development Corporation during the Site visit. Areas accessed included all interior and exterior areas of the Site and the property boundaries. Although Urban Green was provided access to all areas of the Site buildings, visual observations of floor surfaces within the western interior portion of the 1110 Race Street Site building were limited due to standing water. Further, visual observations throughout the Site buildings were partially limited due to the presence of stored materials.

3.1 Interior Observations

The Site is vacant but was most recently occupied by Baltimore Tool Works, which vacated the property circa 2008. The Site is improved with two adjoining concrete/masonry warehouse structures which were reportedly constructed in the 1940s. The 1110 Race Street parcel building consists of an 8,955 square foot, one to two-story masonry structure and is underlain with a concrete slab-on-grade foundation. The 1112 Race Street parcel consists of a 14,081 square foot one-story masonry structure which is underlain by a partial basement foundation (western portion) and a concrete slab-on-grade foundation.

Site photographs illustrating the interior building observations and exterior Site observations are presented in Appendix A. A Site plan is presented as Figure 3.

3.1.1 Heating and Cooling

The office portions of the Site buildings appeared to be heated and cooled by electric forced air systems; the loading dock portion of the 1112 Race Street Site building appeared to be heated by overhead natural gas-fired heaters. The remaining warehouse and basement portions of the Site buildings did not appear to be heated or cooled.

3.1.2 Stains or Corrosion

Oily staining was observed on the concrete floor surface throughout the warehouse portions of the Site, specifically in the vicinity of drum and machinery storage. The staining appeared to be a result of overfills and/or leaks and spills. The concrete flooring in the vicinity of the staining appeared to be in sound condition, exhibiting only minor cracks and weakness. Oily staining observed in the warehouse portion of the 1112 Race Street Site building was observed in proximity to a trench drain.

3.1.3 Drains and Sumps

One trench drain was observed in the southern portion of the 1112 Race Street warehouse. Maintenance and parts cleaner fluid storage and machinery was observed immediately south of the trench drain. Although minor oil staining was observed on the concrete floor surface in the area of the stored materials, the staining did not appear to extend to the trench drain.

No other drains or sumps were observed in the remaining portions of the Site structures at the time of the Site reconnaissance.

3.2 Exterior Observations

The Site is accessed by Race Street which runs along the eastern Site boundary, West Street which runs along the southern Site boundary, and Creek Alley which runs along the western Site boundary.

The 1110 Race Street Site building occupies the entirety of this Site parcel. The 1112 Race Street Site building occupies approximately 60% of the respective Site parcel. Exterior portions of the 1112 Race Street Site parcel consist of two asphalt paved loading dock/parking areas. These paved parking areas are located in the eastern and southern portions of the Site.

3.2.1 Pits, Ponds, and Lagoons, Surface Staining, Stressed Vegetation, and Solid Waste

No visual evidence of surface staining, stressed vegetation, pits, ponds, or lagoons were observed in the exterior portions of the Site.

3.2.2 Water, Sewerage, Stormwater, and Wastewater

The Site is serviced by municipal water, municipal sewer and municipal storm sewer. In addition, stormwater flow appears to be directed via overland flow to stormwater catch basins located in the surrounding thoroughfares.

3.3 Hazardous Substances and Petroleum Products

Small quantities of regulated substances and petroleum products were observed throughout the Site buildings. General areas of storage are presented on Figure 3. Table 1 provides a summary of the quantity, location and type of materials observed.

Table 1 Summary of Regulated, Hazardous Substances and Petroleum Products

Approximate Container Size	Quantity	Substance	Location
5 gallon	1	Snow and ice melt	Southern portion of 1112 Race Street warehouse
5 quarts	3	Hydraulic oil	Southern portion of 1112 Race Street warehouse
5 gallon	3	Hydraulic oil	Western and eastern portions of 1112 Race Street basement storage area
1 gallon	2	Circulating oil	Western portion of 1112 Race Street basement storage area
5 gallon	4	Paint	Western portion of 1112 Race Street basement storage area
1 gallon	1	Waste oil (observed in an open drip pan)	Central portion of the 1112 Race Street basement storage portion
5 gallon	4	Hydraulic oil	Southeastern portion of 1110 Race Street warehouse
5 gallon	1	Gasoline	Southern portion of 1110 Race Street warehouse

In addition to the above, one former, empty, trichloroethylene degreasing unit was observed in the northern portion of the Site building.

The containers were stored either on metal shelving or on the ground surface. As previously mentioned, staining was observed in the vicinity of the majority of the above mentioned materials; however the concrete flooring within the vicinity of the material storage appeared to be in sound condition and the staining appeared to be a result of overfills and/or leaks and spills.

3.4 Storage Tanks and Drums

Chemical storage at the Site was observed to include at least eight 55-gallon drums which contained gear oil, tetrachloroethene, Metgrain steel abrasive, or were unlabeled. Drums were observed in the warehouse portions of the Site buildings and the basement of the 1112 Race Street Site building. Several of the drums appeared rusted. Minor staining was observed on the concrete floor surface underlying several of the drums and appeared to be associated with historic handling practices. Table 2 provides a summary of the quantity, location and type of materials observed.

Table 2 Summary of Drum Storage

Approximate Container Size	Quantity	Substance	Location
55 gallon	2	Metgrain steel abrasive	Southern portion of 1112 Race Street warehouse
55 gallon	1	Tetrachloroethene	Southwestern portion of 1112 Race Street basement storage area
55 gallon	1	Waste oil	Southwestern portion of 1112 Race Street basement storage area

Approximate Container Size	Quantity	Substance	Location
55 gallon	3	Unlabeled (observed rusting)	Southeastern portion of 1110 Race Street warehouse
55 gallon	1	Gear oil	Southeastern portion of 1110 Race Street warehouse

No aboveground storage tanks (ASTs) were observed during the Site visit. Visual evidence of at least one underground storage tank (UST) was observed at the Site. Specifically, one suspect set of vent/fill piping was observed entering the ground surface immediately south of the Site building in the concrete paved sidewalk along West West Street. In addition, one 2-inch steel pipe was observed entering the asphalt paved surface in the southern paved parking area. Urban Green personnel attempted to snake each of the observed pipes. The observed vent/fill piping could not be accessed; the 2-inch steel pipe within the paved parking area appeared to be filled.

In addition, historic records indicate the potential present of a gasoline UST on the southern portion of the 1110 Race Street Site parcel; this same Site parcel is also identified in the Maryland Department of the Environment (MDE) Oil Control Program (OCP) case files for a diesel UST which was removed in 1990 and subsequently issued closure. Additional information regarding the historic diesel UST regulatory case files is included in Section 5.

3.5 Odors and Pools of Liquid

No evidence of pools of liquid (other than water) or chemical odors associated with potential chemical releases was observed at the time of the Site inspection.

However, the floor of the western portion of the 1110 Race Street Site building was observed to be covered with approximately four inches of standing water due to an observed roof leak.

3.6 Waste Generation

At the time of the Site reconnaissance, the structures were vacant and no solid or sanitary waste generation practices were observed.

3.7 Polychlorinated Biphenyls

No suspect polychlorinated biphenyl (PCB) containing equipment, such as electrical transformers, capacitors, or hydraulic equipment, was observed within the interior or exterior portions of the Site at the time of the Site reconnaissance.

3.8 Adjacent Property Use

The Site is bound to the east by Race Street beyond which are apartment buildings, bound to the south by West Street beyond which is Durapak Vacuum Packaging Company, bordered to the north

by Hilgartner Natural Stone Company, and bound to the west by Creek Alley, beyond which is ABC Box Company.

Adjacent properties were observed from the Site boundary line to assess potential environmental concerns at off-Site locations. No visual signs of off-Site contamination migrating onto the Site were observed.

4.0 HISTORIC RECORDS REVIEW

Based on a review of historic atlases, aerial photographs, topographic maps, and municipal records, the 1110 Race Street Site building appears to have been constructed by at least 1942. The 1110 Race Street Site building appears to have been constructed by at least 1942. This building was occupied by Baltimore Tool Works from at least 1942 to 2008. Prior to that time, the Site parcel was occupied by Joseph Thomas and Sons Lumber (1914) and a cooper shop (1901).

The 1112 Race Street parcel appears to have been improved with the existing Site building since the 1960s and occupied by Baltimore Tool Works from the 1980s to 2008. Prior to that time, the central portion of the Site parcel was occupied by the Baltimore Motor Company (1975-1980), the American Transfer Company (1942-1964) and Joseph Thomas and Sons Lumber (1914). The southern portion of the 1112 Race Street property was historically addressed 100 to 122 West West Street. From at least 1914 to 1952, this southern portion of the Site was occupied by eight residential rowhome structures and three commercial buildings/horse stable buildings. Historic records indicate that in the 1950s the buildings located at 122 West West Street, 120 West West Street, and 100 West West Street were occupied as a dry cleaner, paint storage warehouse and retail store, respectively. A summary of select historic Site uses are presented on Figures 4a and 4b.

The following sections provide additional details regarding historic information reviewed for the Site.

4.1 Property Tax Files and Ownership Information

Current and historic Site ownership information was obtained from the Maryland Department of Assessments and Taxation website. The Site consists of two parcels of land totaling 0.7 acres in size; the 1110 Race Street parcel is approximately 0.16 acres and the 1112 Race Street parcel is approximately 0.54 acres. The 1110 Race Street Site parcel is currently owned by Harry McCarty and Michael Warlow; the 1112 Race Street Site parcel is currently owned by Harry McCarty. No additional information regarding the individual Site-parcel ownership history was available from the Maryland Department of Assessments and Taxation website. In addition, no title information was provided to Urban Green by the Client.

4.2 Aerial Photographs

Aerial photographs of the Site dated 2011, 2009, 2007, 2005, 1998, 1994, 1988, 1980, 1971, 1966, 1964 and 1957 were provided by EDR, Inc. for review. A summary of the aerial photograph review is presented in Table 3. Copies of the aerial photographs are included in Appendix B.

Table 3 Aerial Photograph Review

Year	Observations
2007 to 1988 Scale 1 in = 500 ft; and 1 in = 750 ft	<p>The Site appears to be developed as it is presently with the existing building footprint which encompasses the majority of the Site and paved parking areas in the eastern and southern portions of the Site.</p> <p>Surrounding properties include:</p> <p>North: Commercial property South: West Street beyond which is a commercial property East: Race Street beyond which is apartments West: Creek Alley beyond which is a commercial property</p>
1980 to 1957 Scale 1 in = 500 ft; and 1 in = 750 ft	<p>The Site appears to be developed as it is presently with the exception that the footprint of the 1112 Race Street building does not appear to include the warehouse building located on the southeastern portion of the Site.</p>

4.3 Historic Atlases

Historic atlases dated 1974, 1973, 1967, 1952, 1950, 1914, 1901 and 1890 were obtained from EDR as part of this investigation. The 1973 historic atlas provided no coverage of the Site. A summary of the historic atlas review is presented in Table 4. Copies of the historical atlases are included in Appendix B.

Table 4 Historic Atlas Review

Year	Observations
1974, 1973 and 1967 Sanborns	<p>The Site is not shown on the 1973 atlas, however, the 1974 and 1967 atlases depict the Site as developed with the existing building footprints, excluding the warehouse located on the southeastern corner of the 1112 Race Street Site parcel.</p> <p>The Site is identified as follows:</p> <ul style="list-style-type: none"> • Northern portion (1110 Race Street): Machine shop • Eastern portion (1112 Race Street): Paved parking area • Western portion (1112 Race Street): Motor freight station and office • Southeastern portion (108-112 West West Street) Paved parking area; an underground gasoline storage tank is depicted on the southeast corner of the paved parking area • Southwestern portion (118-122 West West Street): Truck repair and storage area <p>Surrounding properties are identified as the following:</p> <p>North: Truck parking and motor freight station South: West Street beyond which are dwellings and an undeveloped parcel of land East: Race Street beyond which area residential dwellings, vacant lots and Seldner Place West: Creek Alley beyond which is truck sales and service, an undeveloped parcel of land and an upholstery service</p>
1952 and 1950 Sanborn	<p>The northern portion of the Site appears developed as it is in the 1967 Sanborn atlas with a machine shop addressed as 1110 Race Street. The central portion of the Site is developed with a motor freight station addressed as 1112 Race Street which extends throughout the entire central portion of the Site; the parking lot denoted in the eastern portion of the Site in the 1967 Sanborn atlas is not present.</p>

Table 4 Historic Atlas Review

Year	Observations
	<p>The southern portion of the Site along West West Street is developed with two-story residential dwellings, a paint shop and a dry cleaner addressed as 100 to 122 West Street. The underground storage tank that was observed in the prior atlases is no longer present.</p> <p>Surrounding properties are identified as the following:</p> <p>North: Motor freight station and ice depot South: West Street beyond which are dwellings East: Race Street beyond which area residential dwellings, vacant lots and Seldner Place West: Creek Alley beyond which is truck sales and service, an undeveloped parcel of land and an upholstery service</p>
1914 Sanborn	<p>The northern and central portions of the Site appear to be occupied by Jos. Thomas and Sons Lumber and contain lumber piles and a lumber shed. The southern portion of the Site is developed as two story dwellings, a store and horse stables.</p> <p>Surrounding properties are identified as the following:</p> <p>North: Fleming and Co. Canning Factory South: West Street beyond which are dwellings East: Race Street beyond which are residential dwellings and Seldner Place West: Creek Alley beyond which is western portion of Jos. Thomas and Sons Lumber and residential rowhomes</p>
1901 Sanborn	<p>The northern portion of the Site is developed as a cooper shop and the central portion is undeveloped. The southern portion of the Site is developed as residential dwellings, a store, stables, a livery and an undertaker.</p> <p>Surrounding properties are identified as the following:</p> <p>North: A.W. Kriet Fruit Packers South: West Street beyond which are dwellings East: Race Street beyond which area residential dwellings and Seldner Place West: Creek Alley beyond which is Radecke and Louis' Box Factory, a shed and residential rowhomes.</p>
1890 Sanborn	<p>The northern portion of the Site is developed as Lime of Tiel Storage. The central portion of the Site is undeveloped and the southern portion of the Site is developed as residential dwellings and a carriage maker.</p> <p>Surrounding properties are identified as the following:</p> <p>North: A.W. Kriet Fruit Packers and tin can factory South: West Street beyond which are dwellings East: Dwellings and Seldner Place West: Baltimore Lime of Tiel Works and undeveloped land. Creek Alley terminates along the northwestern boundary of the Site and residential rowhomes adjoin the Site to the southwest.</p>

4.4 Historic Topographic Maps

Historic topographic maps dated 1974, 1966, 1953, 1946, 1908, 1904, and 1899 were obtained from EDR as part of this investigation. A summary of the historic topographic map review is presented in Table 5. Copies of the historic topographic maps are provided in Appendix B.

Table 5 Historic Topographic Map Review

Year	Observations
1974, 1966, 1953 and 1946 USGS 7.5 min. quadrangle "Baltimore East"	The Site and surrounding area are shaded to depict dense development and specific details are not shown. Roadways adjoin the Site to the east and south, a church is visible farther north of the Site and the Middle Branch of the Patapsco River is visible farther southeast.
1908 USGS 30 min. quadrangle "Patapsco", 1904 and 1899 USGS 15 min. quadrangle "Baltimore"	The Site appears to be densely developed within Baltimore City and specific details are not shown.

4.5 Historic City Directories

City directory listings, dated 2005, 2002, 1993, 1990, 1984, 1980, 1975, 1971, 1964, 1960, 1959, 1958, 1955, 1952, 1946, 1942, 1930, 1925 and 1920 were obtained from EDR, Inc. A summary of the city directory review is presented in Table 6. Copies of the city directory listings are provided in Appendix B.

Table 6 City Directory Review

Site Address	Year/Source	Occupant Listing
1110 Race Street	2007 Cole Information Services and 2005 Hill Donnelly Directories	Baltimore Tool Works Inc. Partsmaster
	2002 Stewart Directory	Balto Tool Works nc Mccarty HD 2ndlc
	1993-1975 Chesapeake and Potomac Telephone Co of Baltimore City	Baltimore Tool Works MCCARTY H Downman II ofc
	1964-1958 R.L. Polk & Co.	Balto Tool Works mfrs phone Williams Naomi
	1952 The Chesapeake and Potomac Telephone Co of Baltimore City	Ofc
	1946 Chesapeake and Potomac Telephone Co of Baltimore City	Baltimore Tool Works Hakes Jesse F office Mc Carty H Downman Ofc
	1942 R.L. Polk & Co.	Baltimore Tool Works

Site Address	Year/Source	Occupant Listing
1112 Race Street	1980 and 1975 Chesapeake and Potomac Telephone Co. of Maryland	Baltimore Motor Co
	1971 Chesapeake and Potomac Telephone Co. of Maryland	Martins Jno A ofc Colonial Bank bg Annapolis Penn Mar Va Transportation Corp Ofc Wash Blvd & Dorsy Rd Res Stevnsn Md
	1964 R.L. Polk & Co.	American Transfer Co the Phone
	1958 R.L. Polk & Co.	Am Transfer Cs the 4 PL
	1952 Chesapeake and Potomac Telephone Co. of Baltimore City	Ofc Amer Bg Res Overbrook Rd Plksvle 3145 Watner Lloyd ofc AMERICAN TRANSFER GO
	1946 Chesapeake and Potomac Telephone Co. of Baltimore City	Griggs TG Trucking Co Hall Howard Co Inc ofc Consolidated Motor Freight Service Watner Lloyd ofc Smith & Soloman ofc Diamond Match Co Watner Abraham ofc Kilgo Transfer Co Inc American Transfer Co
	1942 R.L. Polk & Co.	American Transfer Co

4.6 Prior Environmental Reports and Investigations

Urban Green Environmental was not provided with any prior environmental assessment reports prepared for the Site.

5.0 ENVIRONMENTAL RECORDS REVIEW

5.1 Local Government Records

On April 30, 2013, Urban Green Environmental submitted a PIA request to the MDE and researched USEPA databases for information regarding petroleum storage and releases of hazardous materials and/or petroleum products at the Site. USEPA records indicate the Site, listed as Baltimore Tool Works, is identified in the RCRAInfo database pertaining to hazardous waste generation permitting. On April 30, 2013, a response was received from MDE stating that case files for the Site existed but were destroyed. However, MDE case file information was provided by the prospective purchaser of the Site and is discussed below.

5.2 Standard State Environmental Record Sources

In accordance with the ASTM standard, specific State published databases were reviewed as part of this investigation within designated search radii. In addition, supplemental databases were provided for the Site and surrounding properties by the database provider, EDR. These supplemental databases include local database listings (i.e. brownfields, solid waste disposal sites, and land records). As part of this report, the additional supplemental databases were also reviewed for the Site address. Unless identified in the following section, the Site address was not identified on the supplemental database findings. A report containing the database information was prepared by EDR and is included as Appendix C.

One Site address (1110 Race Street) was identified on two state environmental agency databases (MDE OCPCASES and RCRA Manifest) as discussed below. Database findings reported several facilities located within the ASTM standard radii of the Site, as listed in the state database findings. A summary of the standard state environmental agency database findings is provided in Table 7.

Table 7 State Environmental Database Summary

Database	Approximate Minimum Search Distance	Subject Property Results	Adjoining Property Results	Total Radius Search Results
State HWS <i>State Hazardous Waste Sites</i>	1.0 mile	0	0	10
State Landfill <i>Solid Waste Landfills</i>	0.5 mile	0	0	0
OCPCASE <i>Leaking Underground Storage Tank (LUST) Sites and Historic LUSTs</i>	0.5 mile	1	1	68
UST <i>UST and Historic UST Registry</i>	Site and Adjoining	0	1	28
ENG/INST Controls <i>Engineering/Institutional Controls Database</i>	Site	0	NA	5
Brownfields/VCP <i>Brownfields and Voluntary Cleanup Sites</i>	0.5 mile	0	1	8

Baltimore Tool Works (1110 Race Street) OCPCASES 90-1710BC-1: The Site address is listed in the MDE OCPCASES database with one case which was opened in February 1990 and issued closure by the MDE OCP in March 1990. Urban Green attempted to obtain information regarding this case file from the MDE OCP; however according to the MDE, the case files have been destroyed. However, information regarding this listing was provided by the current owner. Specifically, on May 11, 2004, the MDE OCP issued a Site Status Letter regarding OCP case number 90-1710BC. The letter states that “one 8,000-gallon steel diesel UST was removed from the Site and remediation of the tank pit was performed in accordance with MDE regulations”. The MDE OCP did not require any additional actions regarding the UST removal and determined that the case file remains in the closed status. The Site is also listed in the Manifest database with several manifests which list fiberboard, plastic, metal drums, barrels or kegs being transported to Cycle Chem Inc. of Lewisberry Pennsylvania in 2005.

ABC Box Company (1135 Leadenhall Street) OCPCASES 90-1709BC1: The ABC Box Company property adjoins the Site to the west beyond Creek Alley. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with one case that was opened in February 1990 and issued closure by the MDE OCP in May 2004. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Kleiman Property/Johns Auto Service (69 West Street) OCPCASES 98-0834BC1: The Kleiman Property/Johns Auto Service is located approximately 197 feet southeast of the Site. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with one case that was opened in October 1997 and issued closure by the MDE OCP in August 1998 with “tank closure-motor/lube oil” status and a release and subsequent cleanup listed. This facility is also listed in the UST database with two 1,000-gallon gasoline USTs which are listed as permanently out of use. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Engine House #26 (140 W. West Street) OCPCASES 02-0175BC3: The Engine House #26 property is located approximately 217 feet west of the Site. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with one case that was opened in July 2001 and issued closure by the MDE OCP in October 2001 with a “tank closure-motor/lube oil” status. Additionally, this facility is listed in the Historic UST database with one 285-gallon gasoline UST which is listed as permanently out of use. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Plymouth Wallpaper Co Inc (1120 S. Hanover Street) 92-2505BC1: The Plymouth Wallpaper Co Inc property is located approximately 388 feet east/northeast of the Site. Available regulatory database records indicate this facility is listed in the MDE OCPCASES database with one case which was opened and closed in June 1990. Additionally, this facility is listed in the UST and Historic UST

databases with one 550-gallon gasoline UST which is listed as permanently out of use/removed. Based on the case file status (closed), this facility is not anticipated to impact the Site at this time.

The remaining state-listed facilities are located at distances greater than 400 feet from the Site. Based on the dense urban Site setting, current case status (closed), the distance from the Site and/or a review of the Site topography which indicates that these facilities are located downgradient and/or crossgradient of the Site, these state-listed facilities represent a limited potential to impact the subject Site.

5.3 Standard Federal Environmental Record Sources

In accordance with the ASTM standard, specific federal published databases were reviewed as part of this investigation within designated search radii. As noted in Section 5.2, supplemental federal databases were also provided for the Site and surrounding properties by the database provider, EDR. These supplemental databases included additional federal database listings (i.e. FUDS, DOT, PCB database listings). As part of this report, the additional supplemental databases were reviewed for the Site address. Unless identified in the following section, the Site address was not identified on the supplemental database findings. A report containing the database information was prepared by EDR and is provided in Appendix C.

The Site addresses were identified on several federal environmental agency databases (ERNS, RCRA-GEN and FINDS) and are discussed below. In addition, database findings reported several facilities located within the ASTM standard radii of the Site. A summary of the federal environmental agency database findings is provided in Table 8.

Table 8 Federal Environmental Database Summary

Database	Approximate Minimum Search Distance	Subject Property Results	Adjoining Property Results	Total Radius Search Results
NPL <i>Superfund Sites</i>	1.0 mile	0	0	0
Delisted NPL <i>Removed Superfund Sites</i>	0.5 mile	0	0	0
CERCLIS <i>Potential Superfund Sites</i>	0.5 mile	0	0	1
CERCLIS NFRAP <i>Sites with No Further Remedial Action Planned</i>	0.5 mile	0	0	3
RCRA CORRACTS <i>Corrective Action Report</i>	1.0 mile	0	0	2
RCRA-TSD <i>Treatment, Storage and Disposal Sites</i>	0.5 mile	0	0	0
RCRA-GEN <i>Hazardous Waste Generators</i>	Site and Adjoining Properties	1	0	12
ENG/INST Controls <i>Engineering/Institutional Controls Database</i>	Site	0	0	0

Table 8 Federal Environmental Database Summary

Database	Approximate Minimum Search Distance	Subject Property Results	Adjoining Property Results	Total Radius Search Results
ERNS <i>Emergency Response Notification System Database</i>	Site	1	0	1

Baltimore Tool Works (1110 Race Street): The Site address is listed in the ERNS database with one emergency response condition reported to ERNS on September 21, 1993. The case pertained to a release of 30 gallons of glue from a 55-gallon drum that broke open inside the rear of a truck. A dike was reportedly constructed to contain the release from impacting the storm sewer and absorbents were used to recover the glue. No additional action or investigation was identified as required by a regulatory agency to address the spill condition. The Site is listed in the RCRA-GEN database as a Small Quantity Generator (SQG) which means the facility generates between 100 and 1,000 kilograms (kg) of hazardous waste per month; no violations are listed. The Site is also listed in the FINDS (Facility Index System) database with MD-RCRA and RCRAInfo listings which related to hazardous waste generation; the Site is also listed in the EPA databases with similar information.

Durapak Co Inc (150 W. Ostend Street): The Durapak Co Inc property adjoins the Site to the south beyond West Street. Available regulatory database records indicate this facility is currently listed in the RCRA-SQG database, which means the facility generates between 100 and 1,000 kilograms (kg) of hazardous waste per calendar month. Based on the groundwater flow (southwest) and current regulatory case status, this facility is not anticipated to impact the Site at this time.

Johns Auto Service (69 West Street): The Johns Auto Service property is located approximately 197 feet southeast of the Site. Available regulatory database records indicate this facility is currently listed in the RCRA-CESQG database, which means the facility generates less than 100 kg of hazardous waste per calendar month; no violations are listed. Based on the groundwater flow (southwest) and current regulatory case status, this facility is not anticipated to impact the Site at this time.

Furst Brothers Co (1215 Leadenhall Street): The Furst Brothers Co property is located approximately 227 feet west of the Site. Available regulatory database records indicate this facility is currently listed in the RCRA-CESQG database with several violations issued between 1986 and 1996. Based on the groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Baltimore Woodworks Inc (1234 Leadenhall Street): The Baltimore Woodworks Property is located approximately 272 feet west/southwest of the Site. Available regulatory database findings indicate that this facility is currently listed in the RCRA-SQG; no violations are listed. Based on the

groundwater flow (southwest) and current regulatory case status, this facility is not anticipated to impact the Site at this time.

The remaining federal-listed facilities are located at distances greater than 400 feet from the Site. Based on the dense urban Site setting, the distance from the Site and a review of the Site topography which indicates that these facilities are all located downgradient and/or crossgradient of the Site, these federal-listed facilities represent a limited potential to impact the subject Site.

6.0 FINDINGS, OPINIONS, AND CONCLUSIONS

6.1 Findings

The Site consists of two parcels of land totaling approximately 0.7-acres and is currently zoned commercial and industrial. The Site is vacant and was most recently occupied by Baltimore Tool Works, which vacated the Site circa 2008. The Site is improved with two adjoining concrete/masonry warehouse structures. The 1110 Race Street Site parcel building consists of an 8,955 square foot masonry structure which is one to two-stories and is underlain with a concrete slab-on-grade foundation. The 1112 Race Street Site parcel consists of a 14,081 square foot one-story masonry structure which is underlain by a partial basement foundation (western portion) and a concrete slab-on-grade foundation. The 1110 Race Street Site building occupies the entirety of the Site parcel. The 1112 Race Street Site building occupies approximately 60% of the respective Site parcel. Exterior portions of the 1112 Race Street Site parcel consist of two asphalt paved loading dock/parking areas. These paved parking areas are located in the eastern and southern portions of the Site.

The Site is serviced by municipal water and sewer and electric and natural gas-fired heating systems. Municipal water and sewer are provided by the City of Baltimore; electric and natural gas utilities are provided by BGE.

Based on a review of historic records, the 1110 Race Street Site building appears to have been constructed by at least 1942. This building was occupied by Baltimore Tool Works from at least 1942 to 2008. Prior to that time, the Site parcel was occupied by Joseph Thomas and Sons Lumber (1914) and a cooper shop (1901).

The 1112 Race Street parcel appears to have been improved with the existing Site building since the 1960s and occupied by Baltimore Tool Works from the 1980s to 2008. Prior to that time, the central portion of the Site parcel was occupied by the Baltimore Motor Company (1975-1980), the American Transfer Company (1942-1964) and Joseph Thomas and Sons Lumber (1914). The southern portion of the 1112 Race Street property was historically addressed 100 to 122 West West Street. From at least 1914 to 1952, this southern portion of the Site was occupied by eight residential rowhome structures and three commercial buildings/horse stable buildings. Historic records indicate that in the 1950s the buildings located at 122 West West Street, 120 West West Street, and 100 West West Street were occupied as a dry cleaner, paint storage warehouse and retail store, respectively.

Regulated materials and petroleum product storage was observed throughout the Site buildings and included eight 55-gallon drums which contained gear oil, tetrachloroethene, Metgrain steel abrasive, or were unlabeled, approximately 15 quart to five-gallon containers of hydraulic oil, one waste oil pan filled with used oil, one five-gallon container of snow and ice melt, paint and routine

maintenance supplies. Drum storage was located throughout the warehouse portions of the Site buildings and in the basement storage area of the 1112 Race Street Site building.

Oily staining was observed on the concrete floor surfaces throughout the warehouse portions of the Site, specifically in the vicinity of drum and machinery storage. The staining appeared to be a result of minor overfills and/or leaks and spills. The concrete flooring in the vicinity of the staining appeared to be in sound condition, exhibiting only minor cracks and weakness. Staining observed in the warehouse portion of the 1112 Race Street Site building was observed in proximity to a trench drain; however the concrete floor stained areas did not appear to extend to the floor trench drain.

No ASTs were observed during the Site visit. Visual evidence of at least one UST was observed at the Site. Specifically, one suspect set of vent/fill piping was observed entering the ground surface immediately south of the Site building in the concrete paved sidewalk along West West Street. In addition, one 2-inch steel pipe was observed entering the asphalt paved surface in the southern paved parking area. Urban Green personnel attempted to snake each of the observed pipes. The observed vent/fill piping could not be accessed; the 2-inch steel pipe within the paved parking area appeared to be filled. In addition to the above, historic and regulatory records indicate the potential presence of up to two USTs at the Site. Specifically,

- **Suspect Gasoline UST:** One gasoline UST is identified in the southern paved parking area portion of the 1112 Race Street property Site in the 1974 and 1967 Sanborn atlases. No visual evidence of a UST, such as vent or fill piping entering the ground surface, was observed in this area of the Site during the Site reconnaissance.
- **Former Diesel UST:** Available regulatory records indicate that one 8,000-gallon diesel UST was removed from the 1110 Race Street property in 1990. Information regarding this listing was provided by the current owner. Specifically, on May 11, 2004, the MDE OCP issued a Site Status Letter stating that “one 8,000-gallon steel diesel UST was removed from the Site and remediation of the tank pit was performed in accordance with MDE regulations”. The MDE OCP did not require any additional actions regarding the UST removal and determined that the case file remains in the closed status.

Urban Green submitted a PIA request to the MDE and researched databases with the USEPA in an attempt to obtain information indicating any RECs in connection with the Site. USEPA records indicate the Site, listed as Baltimore Tool Works, is identified in the RCRAInfo database pertaining to hazardous waste generation permitting. A response was received from MDE stating that case files for the Site existed but were destroyed.

6.2 Opinions and Conclusions

Urban Green Environmental has performed a Phase I ESA of the property located at 1110 and 1112 Race Street in Baltimore, Maryland 21230. This assessment has revealed no evidence of *RECs* or *historic recognized environmental conditions* in connection with the property with the exception of the following:

- **Historical Site Uses:** The Site parcels have been developed since the 1900s and have included various industrial and commercial operations including a machine shop, a transportation company, a truck repair, a dry cleaner and paint storage.
- **Regulated Materials:** Several 55-gallon drums (gear oil, tetrachloroethene, steel abrasive, unlabeled) , one former trichloroethylene degreasing unit, and several quart to 5-gallon containers of hydraulic fluid, paint and routine maintenance supplies were observed throughout the interior portions of the Site. Oily staining was observed on the concrete floor surfaces through the areas of storage and historic use.
- **Historic Suspect USTs:** Visual evidence of one to two suspect USTs was observed at the Site. In addition, historic atlases indicate the potential presence of one gasoline UST on the 1112 Race Street property from at least 1967 to 1974. No information regarding the historic removal and/or closure of the historic gasoline UST was identified.**Historic Former UST:** One 8,000-gallon diesel UST was reportedly removed from the 1110 Race Street property in 1990. No information regarding the location of the former UST was identified during this investigation; however, a Site status letter has been issued by the MDE OCP for this UST indicating that remediation was performed following the removal of the UST and MDE OCP does not require any additional action or investigation.
- **Site Database Listings:** The 1110 Site address is listed in OCPCASES, ERNS, and RCRA databases. Specifically, the Site address is listed with one MDE OCP case file which was opened in February 1990 and closed in March 1990, as a small quantity generator of hazardous waste, and is listed with one ERNS case from 1993 regarding a release of glue from a 55-gallon drum onto asphalt at the Site.

Additional action and investigation is recommended to further evaluate the potential for the historic Site use to have impacted the environmental integrity of the Site and to confirm or deny the potential presence of USTs at the Site. If a UST is confirmed to remain at the Site, the UST should be closed in accordance with state and federal requirements. In addition, it is recommended that prior to purchase and/or redevelopment of the Site, that the above mentioned regulated materials be removed in accordance with state and federal guidelines.

The additional findings noted below are not considered recognized environmental conditions at this time, but are considered *de minimus* conditions where no additional investigation or action is currently warranted; however preventive measures or future actions may be prudent as discussed below.

- **Surrounding Property Database Listings:** Several properties within the surrounding area were identified within the environmental databases, including the western and southern adjoining properties. Based on the current regulatory case statuses (closed), distance from the Site and/or topographically downgradient location, these properties are not anticipated to present an adverse environmental impact to the Site at this time.

7.0 REFERENCES

Site reconnaissance by Urban Green Environmental, May 3, 2013.

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EDR. The EDR-City Directory Abstract, Inquiry No. 3590719.6. April 30, 2013.

EDR. The EDR Historical Topographic Map Report, Inquiry Number: 3590719.4. April 30, 2013.

State of Maryland Department of Assessment and Taxation. Assessment information and current tax map. April 30, 2013.

USEPA. My Property Info. <http://www.epa.gov/enviro/html/fii/myproperty.html>. April 30, 2012.

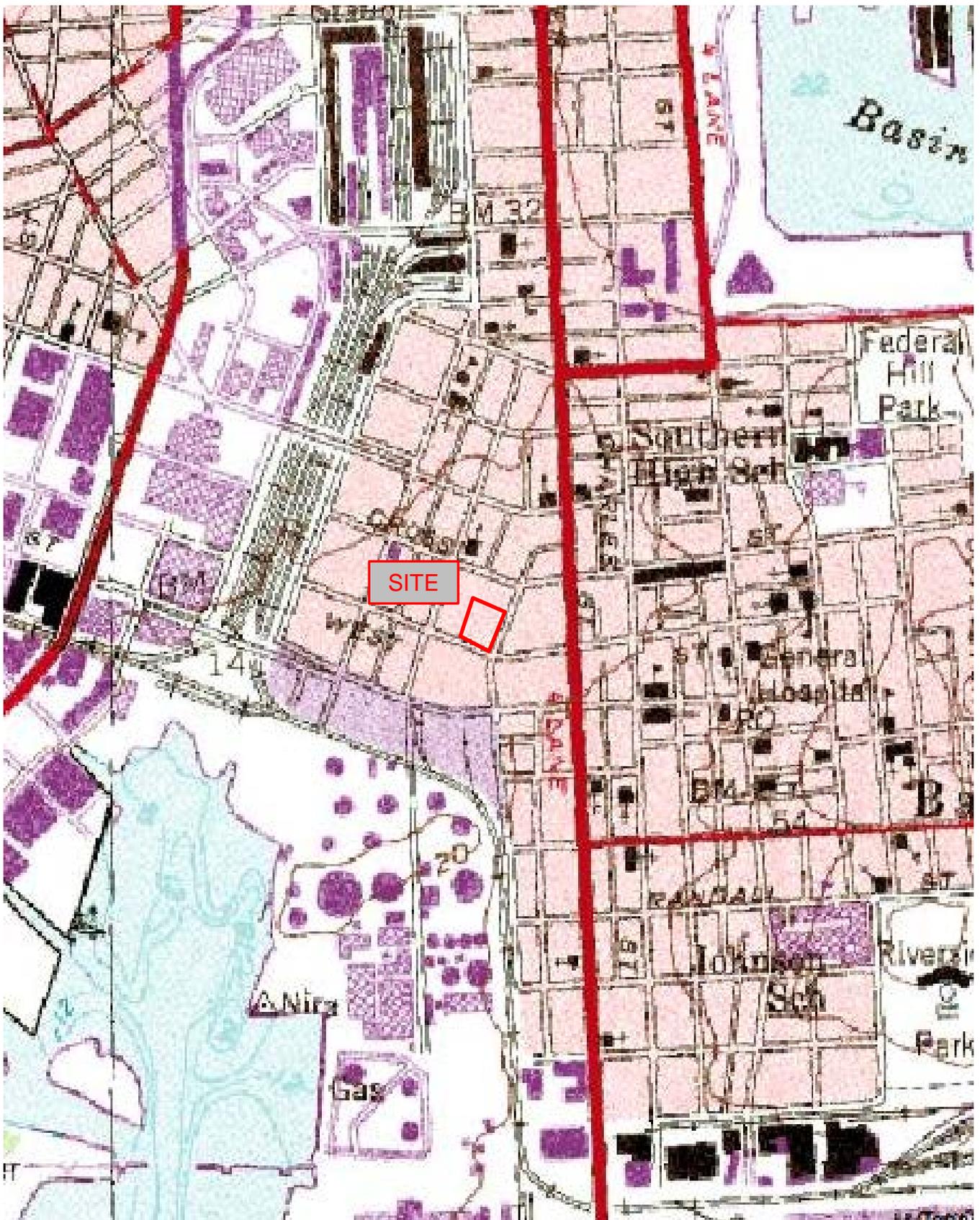
8.0 SIGNATURE OF THE ENVIRONMENTAL PROFESSIONAL

8.1 Signature

I declare that, to the best of my professional knowledge and belief, I meet the definition of and Environmental Professional as defined in §312.10 of 40 CFR 312” and have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



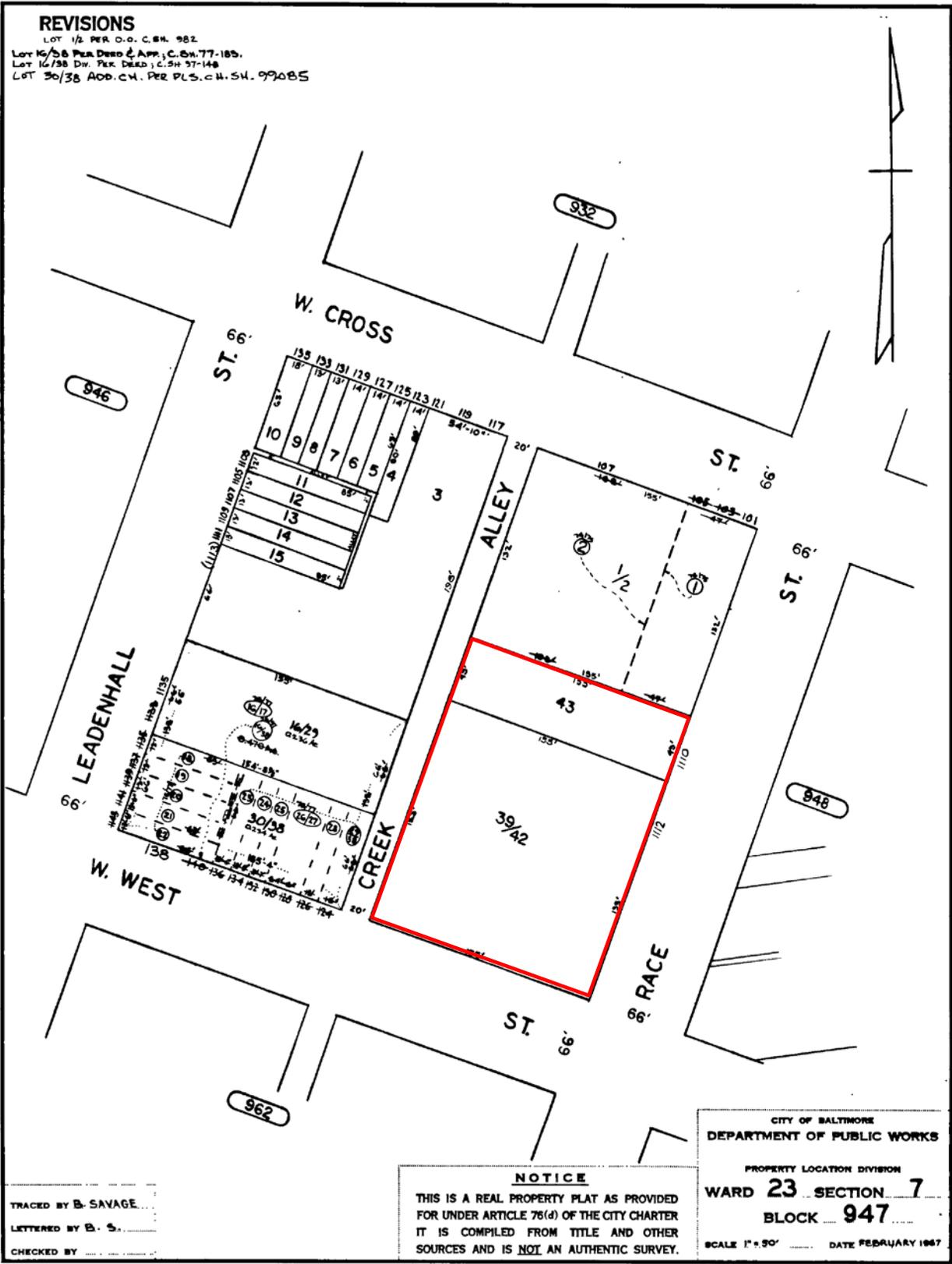
Katherine Christensen
Environmental Scientist/Project Manager



Basemap Source: Topozone.com

REVISIONS

LOT 1/2 PER D.O. C. 84. 982
 LOT 16/38 PER DEED & APP.; C. 84. 77-185.
 LOT 16/38 D.V. PER DEED; C. 84 97-148
 LOT 30/38 ADD. CH. PER PLS. C. H. 54. 99085

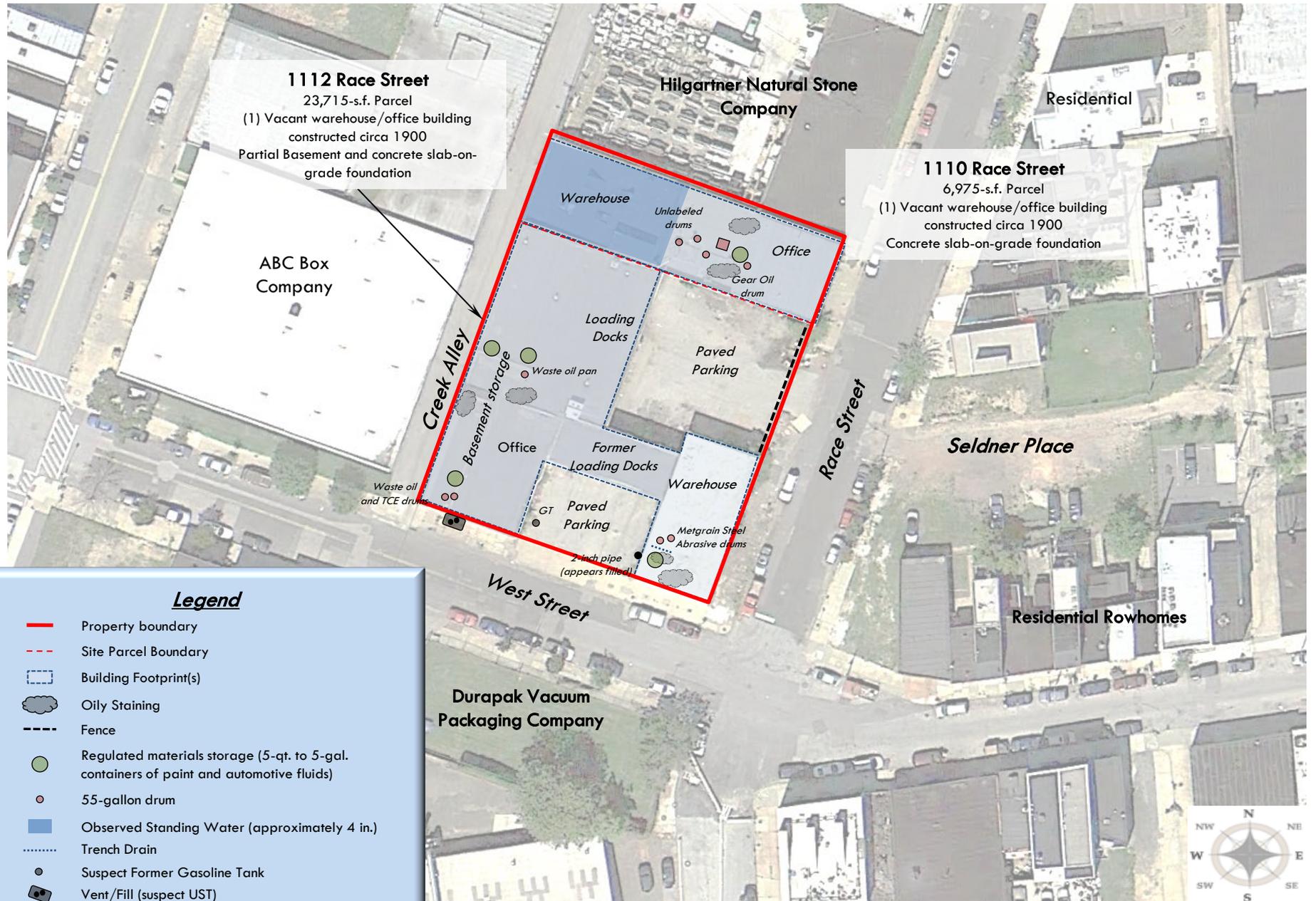


TRACED BY B. SAVAGE
 LETTERED BY B. S.
 CHECKED BY

NOTICE
 THIS IS A REAL PROPERTY PLAT AS PROVIDED FOR UNDER ARTICLE 76(d) OF THE CITY CHARTER IT IS COMPILED FROM TITLE AND OTHER SOURCES AND IS NOT AN AUTHENTIC SURVEY.

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 PROPERTY LOCATION DIVISION
WARD 23 SECTION 7
BLOCK 947
 SCALE 1" = 30' DATE FEBRUARY 1987

Basemap Source: Maryland Departments of Assessments and Taxation

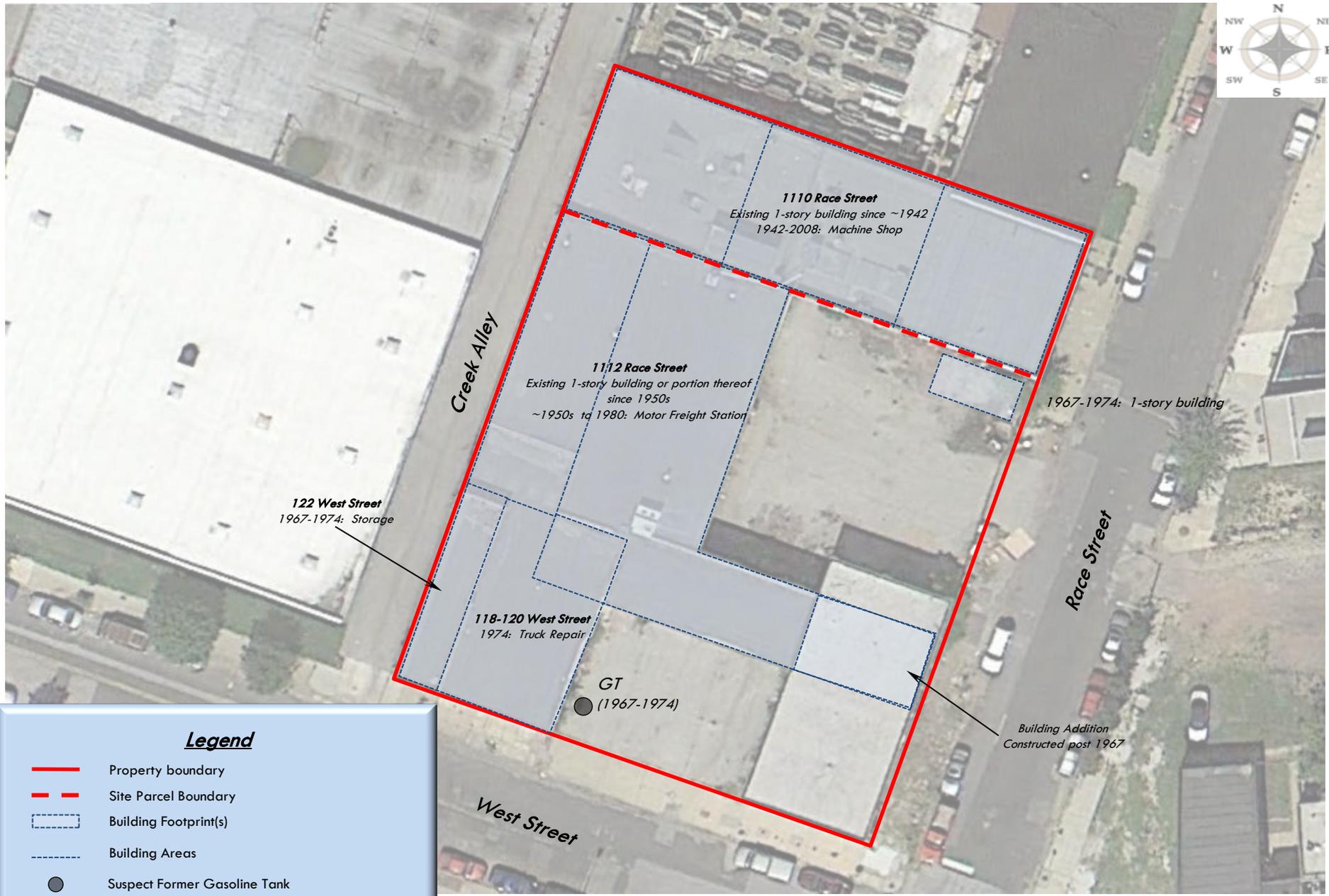


Legend

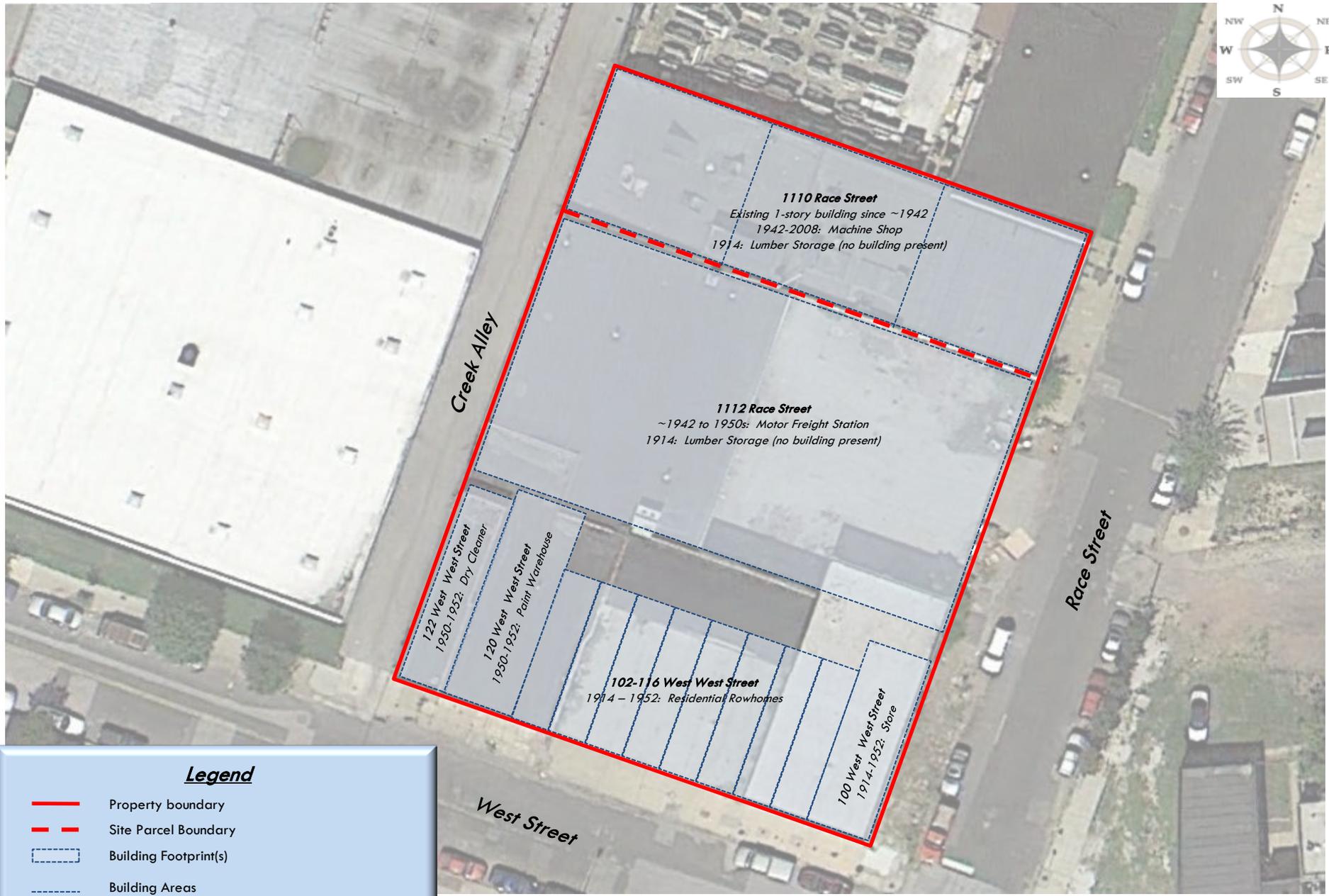
- Property boundary
- - - Site Parcel Boundary
- Building Footprint(s)
- Oily Staining
- Fence
- Regulated materials storage (5-qt. to 5-gal. containers of paint and automotive fluids)
- 55-gallon drum
- Observed Standing Water (approximately 4 in.)
- Trench Drain
- Suspect Former Gasoline Tank
- Vent/Fill (suspect UST)
- Former TCE Degreaser Unit

Figure 3 Site Plan
 1110 and 1112 Race Street
 Baltimore, Maryland 21230

Date:	July 2013	Figure:	3
Approximate Scale:	Not to Scale	Project Number:	041-012-13



Basemap - 2010 Aerial Photograph: Google Earth Pro



Legend

- Property boundary
- - - Site Parcel Boundary
- Building Footprint(s)
- Building Areas

Basemap - 2010 Aerial Photograph: Google Earth Pro

Attachment IVb
ENVIRONMENTAL REPORTS

Limited Phase II Environmental Site Assessment – 1110 to 1112 Race Street

Limited Phase II Environmental Site Assessment Report

Race Street Property
1110 to 1112 Race Street
Baltimore, Maryland 21230

Prepared For:

Caves Valley Partners
23 Walker Avenue
Baltimore, Maryland 21208

July 2013

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1.0 INTRODUCTION

On behalf of Caves Valley Partners, Urban Green Environmental, LLC (Urban Green) has prepared this Limited Phase II Environmental Site Assessment (ESA) Report of the property located at 1110 to 1112 Race Street in Baltimore, Maryland 21230 (Site).

In March 2013 (updated July 2013), a *Phase I Environmental Site Assessment* was completed at the Site by Urban Green (Urban Green 2013). Based on the results of the *Phase I ESA*, several recognized environmental conditions (*RECs*) were identified at the Site. The *RECs* included several former Site uses (machine shop, transportation company, truck repair and dry cleaner), the presence of regulated materials, suspect current and former underground storage tanks (USTs), and regulatory database listings. Additional investigation was recommended to further evaluate the potential for the historic Site uses to have impacted the Site. In addition, if a UST was confirmed to remain at the Site, the UST was recommended to be closed in accordance with the state and federal requirements.

The objective of this investigation was to further evaluate the potential for the historic Site uses as a machine shop, truck repair and dry cleaner to have impacted the integrity of the Site. Please note that the scope of this Limited Phase II ESA is not inclusive of all media sampling (soil and groundwater sampling) which would provide a more comprehensive Site-wide characterization. If the Site is intended to participate in the Maryland Voluntary Cleanup Program (VCP) additional characterization will be required.

This Limited Phase II ESA has been performed in general accordance with *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater Interim Final Guidance, Updated No. 2.1* (MDE 2008) and the *VCP Guidance Document* (MDE 2006). The findings of this Limited Phase II ESA are based solely on the data obtained and reviewed as part of this investigation, including observations and conditions that existed at the time of the field investigative activities performed in June 2013. Information provided by third parties is assumed to be accurate and complete.

This report was prepared for Caves Valley Partners by Urban Green and is based in part on third party information not within the control of Caves Valley Partners or Urban Green. While it is believed that the third party information contained herein will be reliable under the conditions and subject to the limitations set forth herein, neither Caves Valley Partners nor Urban Green guarantee the accuracy thereof.

2.0 SITE LOCATION AND DESCRIPTION

The Site consists of two adjoining parcels of land totaling approximately 0.7-acres and is zoned for commercial and industrial use. The Site is vacant and/or utilized solely for storage and was most recently occupied by Baltimore Tool Works. Baltimore Tool Works vacated the Site circa 2008. The Site is improved with two adjoining concrete/masonry warehouse structures. The 1110 Race Street Site building consists of an 8,955 square foot masonry structure which is underlain with a concrete slab-on-grade foundation. The 1112 Race Street Site Building consists of a 14,081 square foot one-story masonry structure which is underlain by a partial basement foundation (western portion) and a concrete slab-on-grade foundation. The 1110 Race Street Site building occupies the entirety of its respective Site parcel. The 1112 Race Street Site building occupies approximately 60% of its respective Site parcel. Exterior portions of the 1112 Race Street Site parcel consist of two asphalt paved loading dock/parking areas. These paved parking areas are located in the eastern and southern portions of the Site. A Site location map is presented as Figure 1; a Site plan is presented as Figure 2.

The Site is located in a densely developed, mixed-use commercial and residential area of Baltimore City. The Site is bound to the east by Race Street beyond which are apartment buildings, bound to the south by West Street beyond which is Durapak Vacuum Packaging Company, bordered to the north by Hilgartner Natural Stone Company, and bound to the west by Creek Alley, beyond which is ABC Box Company.

The Site is serviced by municipal water and sewer and electric and natural gas-fired heating systems. Municipal water and sewer are provided by the City of Baltimore; electric and natural gas utilities are provided by Baltimore Gas and Electric (BGE).

2.1 Site History

Based on a review of historic records, the 1110 Race Street Site building appears to have been constructed by at least 1942. This building was occupied by Baltimore Tool Works from at least 1942 to 2008. Prior to 1942, the Site parcel appears to have been occupied by Joseph Thomas and Sons Lumber (1914) and a cooper shop (1901).

The 1112 Race Street Site parcel appears to have been improved with the existing Site building since the 1960s and occupied by Baltimore Tool Works from the 1980s to 2008. Prior to that time, the central portion of the Site parcel was occupied by the Baltimore Motor Company (1975-1980), the American Transfer Company (1942-1964) and Joseph Thomas and Sons Lumber (1914). The southern portion of the 1112 Race Street property was historically addressed 100 to 122 West West Street. From at least 1914 to 1952, this southern portion of the Site was occupied by eight residential rowhome structures and three commercial buildings/horse stable buildings. In the 1950s the buildings located at 122 West West Street, 120 West West Street, and 100 West West Street were occupied as a dry cleaner, paint storage warehouse and retail store, respectively.

2.2 Environmental Setting

2.2.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore East (1974), Site elevation is approximately 15 feet above mean sea level. In general, the subject property's slope is relatively flat sloping slightly to the southwest. Overland stormwater flow appears to be directed to the surrounding thoroughfares. Site topography is also illustrated in Figure 1.

The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 1,800 feet southwest of the Site. Based on the topography of the Site and nearby surface water bodies, groundwater is anticipated to flow in a general southwesterly direction across the Site.

2.2.2 Lithology

According to the USDA Soil Conservation Service STATSGO Soil Map data, soil on Site is classified as Urban Land, which consists of variable soils from zero to 59 inches. The Urban Land Complex is defined as an area where more than 80% of the surface is covered by asphalt, concrete, buildings, or other impervious structures.

2.3 Prior Environmental Investigations

In March 2013 (updated July 2013), Urban Green completed a Phase I ESA of the Site (Urban Green 2013). The scope of work of the Phase I ESA consisted of a visual Site inspection, historic records review, regulatory records review and interviews with neighboring property owners. It is noteworthy, that visual observations of the entire floor surfaces within the western interior portion of the 1110 Race Street Site building were limited due to standing water. Further, visual observations throughout the Site were partially limited due to the presence of stored materials.

In July 2013, the Phase I ESA was updated based on additional observations obtained during the performance of the Limited Phase II ESA. Specifically, on June 12 and 14, 2013, Urban Green personnel cleared several areas of debris/weeds to identify locations for soil gas point installation and sampling. Visual evidence of UST(s), consisting of a 2-inch pipe entering the asphalt paved area on the southern portion of the Site and one suspect UST vent/fill south of the Site building in the concrete sidewalk along West West Street were identified.

As identified within the Phase I ESA, the following RECs were identified in connection with the Site:

- **Historical Site Uses:** The Site parcels have been developed since the 1900s and have included industrial and commercial operations including a machine shop, a transportation company, a truck repair, and a dry cleaner.

- **Regulated Materials:** Several 55-gallon drums (gear oil, tetrachloroethylene, steel abrasive, unlabeled), one former trichloroethylene (TCE) degreasing unit, and several quart to 5-gallon containers of hydraulic fluid, paint and routine maintenance supplies were observed throughout the interior portions of the Site. Oily staining was observed on the concrete floor surfaces through the areas of storage and historic use.
- **Historic Suspect USTs:** Visual evidence one to two suspect UST was observed at the Site. In addition, historic atlases indicate the potential presence of one gasoline UST on the 1112 Race Street property from at least 1967 to 1974. No information regarding the historic removal and/or closure of the historic gasoline UST was identified.
- **Historic Former UST:** One 8,000-gallon diesel UST was reportedly removed from the 1110 Race Street property in 1990. No information regarding the location of the former UST was identified during this investigation; however, a Site status letter has been issued by the MDE OCP for this UST indicating that remediation was performed following the removal of the UST and MDE OCP does not require any additional action or investigation.
- **Site Database Listings:** The 1110 Site address is listed in OCPCASES, Emergency Response Notification System (ERNS), and Resource Conservation and Recovery Act (RCRA) databases. Specifically, the Site address is listed with one MDE OCP case file which was opened in February 1990 and closed in March 1990, as a small quantity generator of hazardous waste, and is listed with one ERNS case from 1993 regarding a release of glue from a 55-gallon drum onto asphalt at the Site.

Additional action and/or investigation was recommended to further evaluate the potential for the above *RECs* to have impacted the environmental integrity of the Site and to confirm or deny the potential presence of a UST to remain at the Site. If a UST is confirmed to remain at the Site, the UST should be closed in accordance with state and federal requirements. In addition, it was recommended that prior to purchase and/or redevelopment of the Site, that the regulated materials be removed in accordance with state and federal guidelines.

3.0 INVESTIGATION METHODS

3.1 Purpose and Objectives

The objective of this investigation was to further evaluate the potential for the historic Site uses as a machine shop, truck repair and dry cleaner to have impacted the integrity of the Site. Specifically, the scope of this investigation consisted of the following tasks:

- Advancement of six interior soil borings (SG-1 through SG-6) for Site characterization. Soil borings were biased towards areas of potential concern, including the former motor freight station (SG-1), the suspect and former UST location on the southwestern portion of the Site (SG-2), the former TCE degreasing unit (SG-3), the northern upgradient area of the property (SG-4), areas of regulated material storage (SG-5) and the former dry cleaner and areas of regulated material storage (SG-6).
- Completion of each soil boring as a soil gas sampling point (SG-1 through SG-6).
- Collection of soil gas samples from the six soil gas points for fixed laboratory analysis of volatile organic compounds (VOCs).

The work tasks and associated field sampling activities described below were performed in general accordance with the *MDE Voluntary Cleanup Program Guidance Document* (MDE 2006) and the *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance* (MDE 2008). Please note that the scope of this Limited Phase II ESA was not inclusive of all media sampling (soil and groundwater sampling) which would provide a more comprehensive Site-wide characterization. If the Site is intended to participate in the Maryland VCP, additional characterization will be required.

3.2 Field Investigation Procedures

Fieldwork for the subsurface investigation was conducted on June 12 and 14, 2013. The following report sections summarize the field sampling and laboratory-analysis methodologies implemented during the investigation. The soil gas sampling locations are illustrated on the Site Plan presented as Figure 2.

3.2.1 Utility Mark out

Prior to initiating field activities, Urban Green coordinated with MissUtility to complete the required dig permit and obtain utility clearance for the Site investigation areas. In addition, Urban Green personnel conducted a Site visit to confirm the proposed soil boring locations and below grade utility markings.

3.2.2 Soil Gas Investigation and Sampling

On June 12, 2013, six soil borings were advanced at the Site by Urban Green personnel. Soil boring locations are summarized below.

- *Soil Boring 1:* SG-1 was advanced in the 1112 Race Street Site building within the former Motor Freight Station building.
- *Soil Boring 2:* SG-2 was advanced in the 1112 Race Street Site building immediately west and presumed downgradient from the gasoline tank as identified on the historic atlases.
- *Soil Boring 3:* SG-3 was advanced in the 1110 Race Street Site building, approximately five feet east of the former degreasing unit.
- *Soil Boring 4:* SG-4 was advanced in the eastern portion of the 1110 Race Street Site building.
- *Soil Boring 5:* SG-5 was advanced in the 1112 Race Street Site building, proximate to one existing trench drain and areas of observed regulated material storage.
- *Soil Boring 6:* SG-6 was advanced in the western portion of 1112 Race Street Site building in the area of the former dry cleaner.

Soil borings were advanced to depths of approximately two feet below grade. Soil borings were advanced using a hand auger and/or hammer drill. A log of field activities was maintained throughout the field activities. Soil boring locations are presented in Figure 2. Photographs are presented as Appendix A.

Following soil boring installation, one new stainless steel vapor implant, attached to approximately four feet of 3/16 inch Teflon tubing was placed into each boring with the vapor implant screened section situated at the base of the boring. Following placement of the vapor implant, the surrounding annulus was backfilled with clean No. 2 well sand to a depth of approximately six inches above the vapor implant, and capped with a hydrated bentonite seal to surface grade. Each soil gas sampling location was then allowed to equilibrate for at least 24 hours prior to collecting the soil gas sample.

On June 14, 2013, soil gas sampling was performed at the Site. Prior to connection of the soil gas sampling probe, each soil gas sampling location was purged of approximately three volumes of soil gas using a hand pump. Following purging, a Summa Canister® affixed with an 8-hour flow controller was attached to the Teflon tubing of each sampling location. Soil gas was then sampled from each soil gas sampling point for an approximate eight hour period. Following sample collection, each canister was closed, sealed, and hand delivered under strict COC to Maryland Spectral Services, Inc. of Baltimore, Maryland for laboratory analysis of the VOCs by USEPA Method TO-15.

3.2.3 Quality Assurance/Quality Control Procedures

QA/QC protocols covered general aspects of measurement systems design and implementation, including sampling methods, data handling, and QC measures employed. QA/QC procedures followed during the investigation included the use of dedicated sampling equipment for sampling activities.

3.2.4 Sample Handling/Chain of Custody

Soil gas samples were hand delivered to Maryland Spectral Services, Inc. of Baltimore, Maryland for laboratory analysis of the VOCs by USEPA Method TO-15. All analysis was performed on a standard one to two week turn around.

3.2.5 Decontamination and Investigation-Derived Material Handling Procedures

The primary objective of the decontamination process was to prevent the accidental introduction of potential contaminants to non-contaminated areas and/or samples. During field activities, a designated decontamination area was established and equipped with decontamination equipment (wash bucket, brushes, spray bottles, potable water, distilled water, towels, etc.) to adequately decontaminate the equipment used on-site. To the maximum extent possible, dedicated equipment was used at each media sample location.

Sampling equipment that was not dedicated to one sample location (hammer drill bit) was washed with a medical-grade detergent wash, rinsed with distilled water and allowed to air dry.

Following completion of each soil boring, soil cuttings generated during sampling activities were placed back into the boring.

4.0 PHASE II ESA INVESTIGATION RESULTS

4.1 Site Conditions

4.1.1 Lithology

Based on field observations, the soil lithology at the Site consisted of fill materials (coarse sandy silt and clay) to the maximum depth of two feet below grade. No visual evidence of a release, such as staining or a chemical odor was observed in the soil borings.

Although groundwater was not encountered and groundwater sampling was not performed as part of this investigation, based on the topography of the Site and proximity of the Northwest Branch of the Patapsco River (50 feet north of the Site), groundwater is anticipated to flow in a general south/southwesterly direction across the Site.

4.2 Soil Gas Analytical Results

Six soil gas samples (SG-1 through SG-6) were collected from the Site and submitted for laboratory analysis of VOCs via USEPA Method TO-15. A summary of the soil gas laboratory analytical results are presented on Table 1 and Figure 3. A copy of the fixed laboratory analytical report is provided in Appendix B.

As shown in Table 1, low concentrations of several VOCs (primarily petroleum-related VOCs and chlorinated solvents) were detected in the soil gas samples. The highest concentrations of chlorinated solvents were reported in soil gas collected from soil gas sample location SG-3, which was installed on the northern portion of the Site immediately adjacent to the inactive TCE metal degreasing unit and in soil gas sample location SG-2, located on the southern portion of the Site downgradient from the historic suspect gasoline tank and adjacent to the former dry cleaner.

To further evaluate the soil gas sample results, in accordance with the *Maryland Voluntary Cleanup Program Guidance Document* (MDE 2006), the Johnson and Ettinger (J&E) Vapor Intrusion Model (SG-SCREEN) was used to evaluate the potential for inhalation risk to future Site occupants. The J&E Model was developed for use as a screening level model and is based on several simplifying and conservative assumptions regarding contaminant distribution and occurrence, subsurface characteristics, transport mechanisms, and building construction. The soil gas screening model was conservatively evaluated based on a future commercial land use scenario.

A summary of the soil gas model results and model input parameters used within the screening model are presented in Table 2.

Results of soil screening modeling indicated a potential non-carcinogenic risk (hazard quotient) ranging from 0.002 (SG-4 and SG-6) to 3.738 (SG-3) and a potential carcinogenic risk ranging from

1.9×10^{-7} (SG-4) to 3.2×10^{-3} (SG-3). For comparison purposes, the MDE VCP typically establishes non-carcinogenic hazard index (HI) of one and carcinogenic risk thresholds of 1.0×10^{-5} as an acceptable risk threshold. As shown on Table 2 and on Figure 3, concentrations of VOCs in soil gas in soil gas samples SG-2 and SG-3 appear to present the potential to be above the MDE VCP acceptable risk threshold. These soil gas samples were located on the northern portion of the Site, adjacent to the inactive degreasing unit (SG-3), and on the southern portion of the Site, adjacent to the former dry cleaner and in the presumed downgradient location from the historic gasoline tank (SG-2). Results of the soil gas screening from the remaining soil gas samples do not appear to present the potential for an unacceptable risk.

The primary contaminants of concern within soil gas samples SG-2 and SG-3 appear to be associated with the presence of TCE and the TCE degradation product (cis-1,2-dichloroethylene [DCE]).

5.0 DISCUSSION OF RESULTS

On behalf of Caves Valley Partners, Urban Green has performed a Limited Phase II ESA of the property located at 1110 to 1112 Race Street in Baltimore, Maryland 21230.

In March 2013 (updated July 2013), a *Phase I Environmental Site Assessment* was completed at the Site by Urban Green (Urban Green 2013). Based on the results of the *Phase I ESA*, several *RECs* were identified in connection with the Site. The *RECs* included the former Site uses (machine shop, transportation company, truck repair and dry cleaner), presence of regulated materials, suspect current and former USTs, and regulatory database listings. Additional investigation was recommended to further evaluate the potential for the historic Site uses to have impacted the Site. In addition, if a UST was confirmed to remain at the Site, the UST was recommended to be closed in accordance with the state and federal requirements.

The objective of this investigation was to further evaluate the potential for the historic Site uses as a machine shop, truck repair and dry cleaner to have impacted the integrity of the Site. Please note that the scope of this Limited Phase II ESA is not inclusive of all media sampling (soil and groundwater sampling) which would provide a more comprehensive Site-wide characterization. If the Site is intended to participate in the Maryland VCP additional characterization will be required.

The scope of this investigation consisted of advancing six soil borings, each of which was completed as a soil gas point (SG-1 through SG-6). Soil borings were installed to depths of two feet below grade. Groundwater was not encountered to the maximum drilling depth of two feet below grade.

Soil gas sample locations were biased towards areas of concerns including the former motor freight station (SG-1), the suspect and former UST location on the southwestern portion of the Site (SG-2), the former TCE degreasing unit (SG-3), the northern upgradient area of the property (SG-4), areas of regulated material storage (SG-5) and the former dry cleaner and areas of regulated material storage (SG-6).

5.1 Soil Gas

Concentrations of several VOCs (primarily petroleum-related VOCs and chlorinated solvents) were detected in the soil gas samples collected from the Site. The highest concentrations of chlorinated solvents were reported in soil gas collected from soil gas sample location SG-3, which was installed on the northern portion of the Site immediately adjacent to the inactive TCE metal degreasing unit and in soil gas sample location SG-2, located on the southern portion of the Site downgradient from the historic suspect gasoline tank and adjacent to the former dry cleaner.

Results of soil gas screening modeling of the samples indicated that with the exception of soil gas collected from locations SG-2 and SG-3, VOCs within the soil gas are well below the MDE VCP risk thresholds.

However, the concentrations of VOCs in soil gas in soil gas samples SG-2 and SG-3 do appear to present the potential to be above the MDE VCP acceptable risk thresholds. The primary contaminants of concern within soil gas samples SG-2 and SG-3 appear to be associated with the presence of TCE and the TCE degradation product, cis-1,2- DCE.

5.2 Recommendations

Based on the results of this investigation, additional action or investigation, including soil and/or groundwater sampling appears warranted to further evaluate the source and extent of the VOC impacts in soil gas at the Site.

In addition to the above, as noted within the Phase I ESA report (Urban Green 2013), if a UST is confirmed to remain at the Site, the UST is recommended to be closed in accordance with the state and federal requirements.

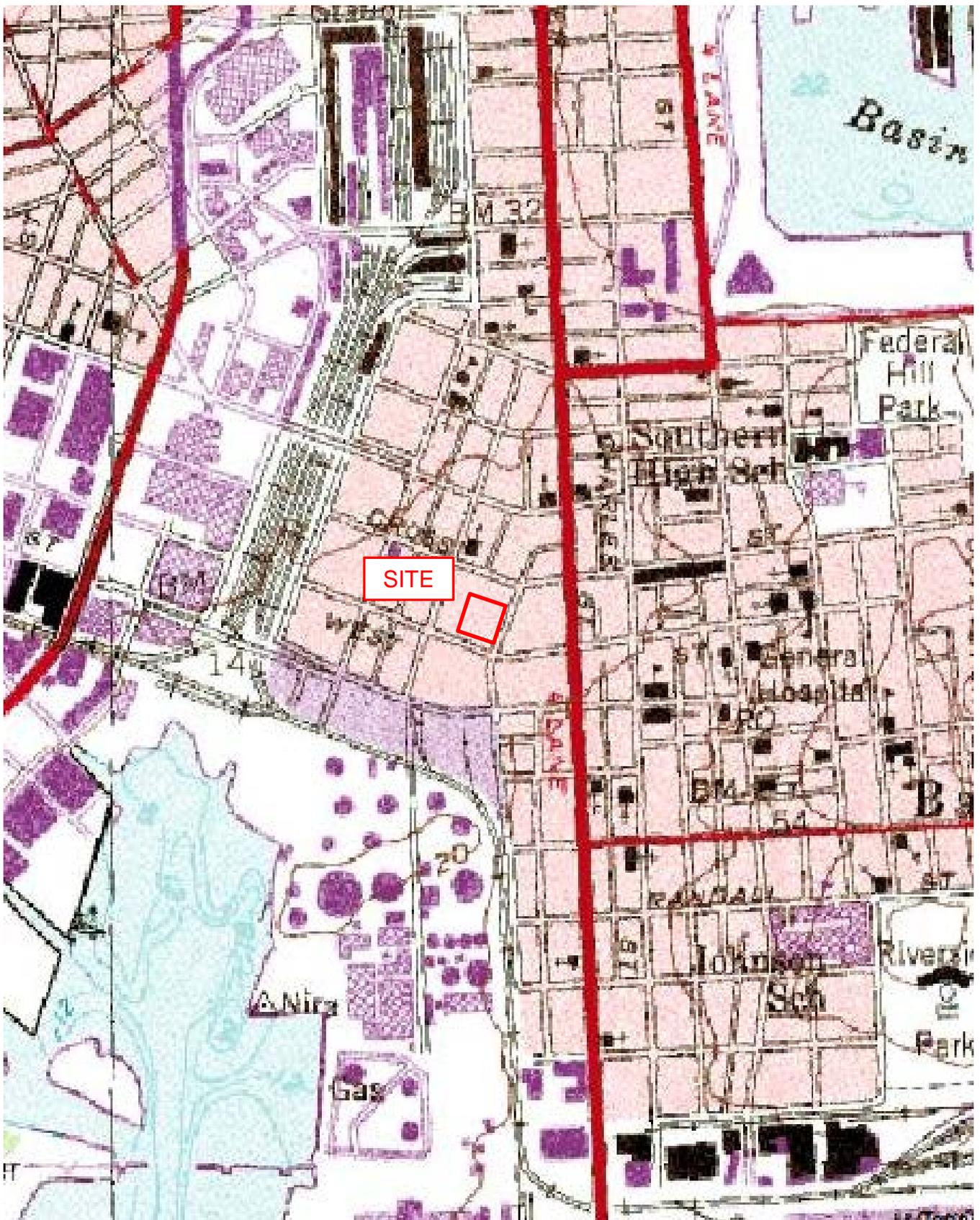
6.0 REFERENCES

Maryland Department of the Environment (MDE). 2008. *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater*. June.

MDE. 2006. *Voluntary Cleanup Program Guidance Document*. March.

Maryland Geological Survey (MGS). 1968. *Geologic Map of Maryland*, compiled by Emery T. Cleaves, Jonathan Edwards Jr., and John D. Glaser. Scale 1:250,000.

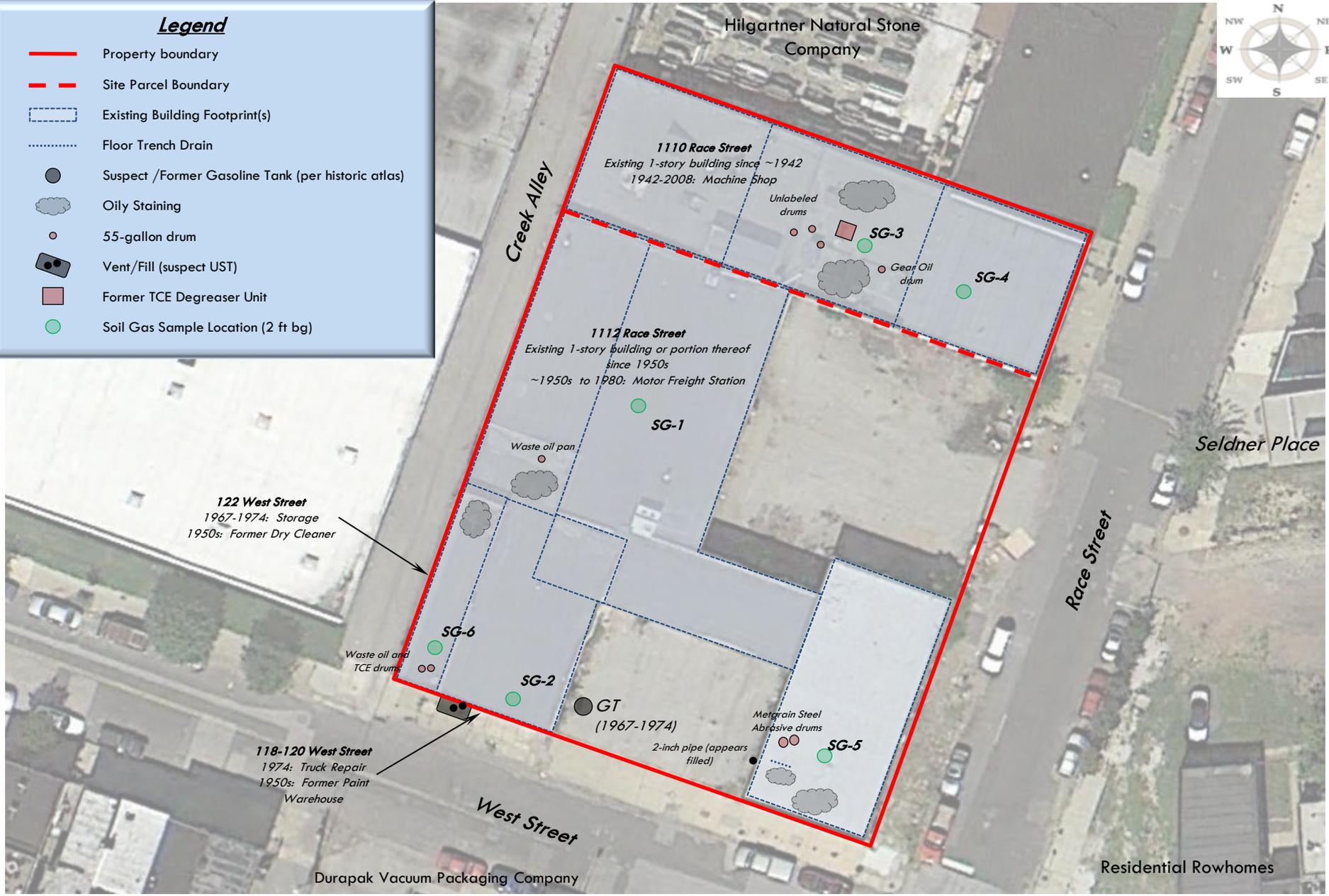
Urban Green Environmental, LLC (Urban Green). 2013. *Phase I Environmental Site Assessment, 1110 to 1112 Race Street, Baltimore, Maryland 21230*. June (Updated July).



Basemap Source: Topozone.com

Legend

- Property boundary
- - - Site Parcel Boundary
- Existing Building Footprint(s)
- Floor Trench Drain
- Suspect /Former Gasoline Tank (per historic atlas)
- Oily Staining
- 55-gallon drum
- Vent/Fill (suspect UST)
- Former TCE Degreaser Unit
- Soil Gas Sample Location (2 ft bg)



Basemap - 2010 Aerial Photograph: Google Earth Pro

Legend

- Property boundary
- - - Site Parcel Boundary
- Existing Building Footprint(s)
- Floor Trench
- Suspect Former Gasoline Tank
- Oily Staining
- 55-gallon drum
- Vent/Fill (suspect UST)
- Former TCE Degreaser Unit
- Soil Gas Sample Location (2 ft bg)

SG-6	
Acetone	54.3 µg/m ³
Benzene	13.5 µg/m ³
Heptane	3.93 µg/m ³
Methyl ethyl ketone	10.6 µg/m ³
Propene	35.2 µg/m ³
Tetrachloroethane	22.5 µg/m ³
Toluene	20.0 µg/m ³
Trichloroethane	12.7 µg/m ³
Potential Carcinogenic Risk	1.11 E-06
Potential Non-Carcinogenic Risk	0.002
<i>(below MDE Risk thresholds)</i>	

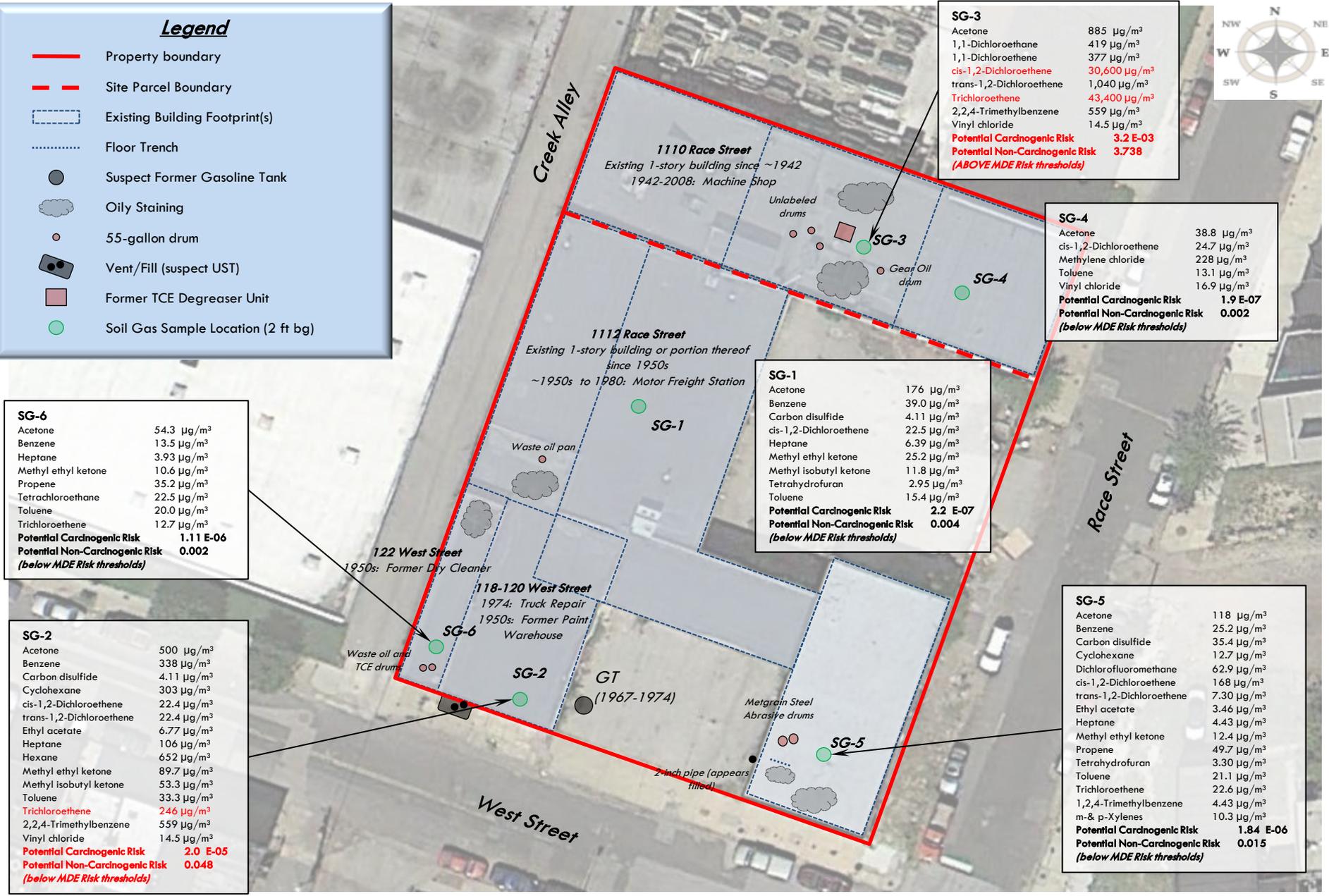
SG-2	
Acetone	500 µg/m ³
Benzene	338 µg/m ³
Carbon disulfide	4.11 µg/m ³
Cyclohexane	303 µg/m ³
cis-1,2-Dichloroethane	22.4 µg/m ³
trans-1,2-Dichloroethane	22.4 µg/m ³
Ethyl acetate	6.77 µg/m ³
Heptane	106 µg/m ³
Hexane	652 µg/m ³
Methyl ethyl ketone	89.7 µg/m ³
Methyl isobutyl ketone	53.3 µg/m ³
Toluene	33.3 µg/m ³
Trichloroethane	246 µg/m³
2,2,4-Trimethylbenzene	559 µg/m ³
Vinyl chloride	14.5 µg/m ³
Potential Carcinogenic Risk	2.0 E-05
Potential Non-Carcinogenic Risk	0.048
<i>(below MDE Risk thresholds)</i>	

SG-1	
Acetone	176 µg/m ³
Benzene	39.0 µg/m ³
Carbon disulfide	4.11 µg/m ³
cis-1,2-Dichloroethane	22.5 µg/m ³
Heptane	6.39 µg/m ³
Methyl ethyl ketone	25.2 µg/m ³
Methyl isobutyl ketone	11.8 µg/m ³
Tetrahydrofuran	2.95 µg/m ³
Toluene	15.4 µg/m ³
Potential Carcinogenic Risk	2.2 E-07
Potential Non-Carcinogenic Risk	0.004
<i>(below MDE Risk thresholds)</i>	

SG-3	
Acetone	885 µg/m ³
1,1-Dichloroethane	419 µg/m ³
1,1-Dichloroethene	377 µg/m ³
cis-1,2-Dichloroethane	30,600 µg/m³
trans-1,2-Dichloroethane	1,040 µg/m ³
Trichloroethane	43,400 µg/m³
2,2,4-Trimethylbenzene	559 µg/m ³
Vinyl chloride	14.5 µg/m ³
Potential Carcinogenic Risk	3.2 E-03
Potential Non-Carcinogenic Risk	3.738
<i>(ABOVE MDE Risk thresholds)</i>	

SG-4	
Acetone	38.8 µg/m ³
cis-1,2-Dichloroethane	24.7 µg/m ³
Methylene chloride	228 µg/m ³
Toluene	13.1 µg/m ³
Vinyl chloride	16.9 µg/m ³
Potential Carcinogenic Risk	1.9 E-07
Potential Non-Carcinogenic Risk	0.002
<i>(below MDE Risk thresholds)</i>	

SG-5	
Acetone	118 µg/m ³
Benzene	25.2 µg/m ³
Carbon disulfide	35.4 µg/m ³
Cyclohexane	12.7 µg/m ³
Dichlorofluoromethane	62.9 µg/m ³
cis-1,2-Dichloroethane	168 µg/m ³
trans-1,2-Dichloroethane	7.30 µg/m ³
Ethyl acetate	3.46 µg/m ³
Heptane	4.43 µg/m ³
Methyl ethyl ketone	12.4 µg/m ³
Propene	49.7 µg/m ³
Tetrahydrofuran	3.30 µg/m ³
Toluene	21.1 µg/m ³
Trichloroethane	22.6 µg/m ³
1,2,4-Trimethylbenzene	4.43 µg/m ³
m-& p-Xylenes	10.3 µg/m ³
Potential Carcinogenic Risk	1.84 E-06
Potential Non-Carcinogenic Risk	0.015
<i>(below MDE Risk thresholds)</i>	



Basemap - 2010 Aerial Photograph: Google Earth Pro

Table 1 Summary of Soil Gas Analytical Results

1110 and 1112 Race Street Property
 1110 and 1112 Race Street
 Baltimore, Maryland 21230

Sample ID	SG-1	SG-2	SG-3	SG-4	SG-5	SG-6	
Depth	2 feet	2 feet	2 feet	2 feet	2 feet	2 feet	
Date	6/14/13	6/14/13	6/14/13	6/14/13	6/14/13	6/14/13	
Analyte	CAS Number						
Volatile Organic Compounds (TO-15 / ug/m³)							
Acetone	67641	176	500	885	38.8	118	54.3
Benzene	71432	39.0	338	ND (179)	ND (7.68)	25.2	13.5
Carbon disulfide	75150	4.11	4.11	ND (174)	ND (7.44)	35.4	ND (2.48)
Cyclohexane	110827	ND (2.76)	303	ND (193)	ND (8.28)	12.7	ND (2.76)
Dichlorodifluoromethane	75718	ND (5.20)	ND (5.20)	ND (277)	ND (11.9)	62.9	ND (3.96)
1,1-Dichloroethane	75343	ND (3.24)	ND (3.24)	419	ND (9.72)	ND (3.24)	ND (3.24)
1,1-Dichloroethene	75354	ND (3.16)	ND (3.16)	377	ND (9.48)	ND (3.16)	ND (3.16)
cis-1,2-Dichloroethene	156592	22.5	22.4	30,600	24.7	168	ND (3.64)
trans-1,2-Dichloroethene	156605	ND (3.16)	22.4	1,040	ND (9.48)	7.30	ND (3.64)
Ethyl acetate	141786	ND (2.88)	6.77	ND (202)	ND (8.64)	3.46	ND (2.88)
Heptane	142825	6.39	106	ND (230)	ND (9.84)	4.43	3.93
Hexane	110543	ND (56.0)	652	ND (3,920)	ND (168)	ND (56.0)	ND (56.0)
Methylene Chloride	75092	ND (56.0)	ND (56.0)	ND (3,920)	228	ND (56.0)	ND (56.0)
Methyl ethyl ketone (2-Butanone)	78933	25.2	89.7	ND (165)	ND (7.08)	12.4	10.6
Methyl isobutyl ketone	108101	4.75	53.3	ND (230)	ND (9.84)	ND (3.28)	ND (3.28)
Propene	115071	11.8	ND (1.36)	ND (95.2)	ND (4.08)	49.7	35.2
Tetrachloroethene	127184	ND (5.60)	ND (5.60)	ND (392)	ND (16.8)	ND (5.60)	22.2
Tetrahydrofuran	109999	2.95	ND (2.36)	ND (165)	ND (7.08)	3.30	ND (2.36)
Toluene	108883	15.4	33.3	ND (210)	13.1	21.1	20.0
1,1,1-Trichloroethane	71556	ND (4.40)	ND (4.40)	ND (308)	ND (13.2)	17.2	ND (4.40)
Trichloroethene	79016	ND (4.40)	246	43,400	ND (13.2)	22.6	12.7
1,2,4-Trimethylbenzene	95636	ND (3.92)	ND (3.92)	ND (274)	ND (11.2)	4.33	ND (3.72)
2,2,4-Trimethylpentane	540841	ND (3.72)	559	ND (274)	ND (11.2)	ND (2.80)	ND (3.72)
Vinyl Chloride	75014	ND (2.04)	14.5	ND (196)	16.9	ND (2.04)	ND (2.04)
m- & p-Xylenes	106423	ND (6.80)	ND (6.80)	ND (476)	ND (20.4)	10.3	ND (6.80)
n-Pentane [TIC]		NA	510	NA	NA	NA	NA
n-Butane [TIC]		NA	843	NA	NA	NA	NA
2,2,3-Trimethylbutane [TIC]		NA	439	NA	NA	NA	NA
1,3-Dimethylcyclopentane [TIC]		NA	147	NA	NA	NA	NA
2,2-Dimethylbutane [TIC]		NA	666	NA	NA	NA	NA
2,3-Dimethylbutane [TIC]		NA	691	NA	NA	NA	NA
3-Methylpentane [TIC]		NA	559	NA	NA	NA	NA
2-3-Dimethylpentane [TIC]		NA	643	NA	NA	NA	NA
3,3-Dimethylpentane [TIC]		NA	419	NA	NA	NA	NA
2,4,4-Trimethylpentane [TIC]		NA	359	NA	NA	NA	NA
2-Methylpentane [TIC]		NA	387	NA	NA	NA	NA
2,4-Dimethylhexane (01) [TIC]		NA	466	NA	NA	NA	NA
3-Methylhexane [TIC]		NA	272	NA	NA	NA	NA
2,4-Dimethylhexane (02) [TIC]		NA	287	NA	NA	NA	NA

Notes / Superscripts

CAS = Chemical Abstract Service.

All concentrations are in micrograms per cubic meter (ug/m³).

Only detected analytes are shown. For the full list of compounds analyzed, please refer to the laboratory reports.

ND = Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

NA - Soil gas sample not analyzed for select compound.

Bold cell indicates a concentration detected above the LLQ.

TIC = Analyte included in report as a Tentatively Identified Compound

Table 2 Summary of USEPA Modified Johnson and Ettinger Soil Gas Screening Model Results

1110 and 1112 Race Street Property
1110 and 1112 Race Street
Baltimore, Maryland 21230

Model Parameter Input Values			
Foundation Type	Slab on Grade	Vadose Zone Soil Type	Loom/FILL
Depth Below Grade to Bottom of Enclosed Space (cm)	15	Exposure Duration	Commertical / 25 years
Soil Sampling Depth Below Grade (cm)	60.96	Exposure Frequency	Commertical / 250 days/year
Average Soil Temperature	14° C	Averaging Time for Carcinogens	Residential / 70 years

Analyte	CAS Number	SG-1 2 feet 6/14/2013			SG-2 2 feet 6/14/2013			SG-3 2 feet 6/14/2013			SG-4 2 feet 6/14/2013			SG-5 2 feet 6/14/2013			SG-6 2 feet 6/14/2013		
		Concentration (ug/m ³)	Results - Carcinogenic Risk	Results - Hazard Quotient	Concentration (ug/m ³)	Results - Carcinogenic Risk	Results - Hazard Quotient	Concentration (ug/m ³)	Results - Carcinogenic Risk	Results - Hazard Quotient	Concentration (ug/m ³)	Results - Carcinogenic Risk	Results - Hazard Quotient	Concentration (ug/m ³)	Results - Carcinogenic Risk	Results - Hazard Quotient	Concentration (ug/m ³)	Results - Carcinogenic Risk	Results - Hazard Quotient
Acetone	67641	176	NA	7.1E-05	500	NA	3.2E-03	885	NA	5.7E-03	38.8	NA	2.5E-04	118	NA	7.7E-04	54.3	NA	3.5E-04
Benzene	71432	39.0	2.2E-07	2.6E-03	338	1.9E-06	2.2E-02	ND (179)	---	---	ND (7.68)	---	---	25.2	1.4E-07	1.7E-03	13.5	7.5E-08	9.0E-04
Carbon disulfide	75150	4.11	NA	1.2E-05	4.11	NA	1.2E-05	ND (174)	---	---	ND (7.44)	---	---	35.4	NA	1.1E-04	ND (2.48)	---	---
Cyclohexane	110827	ND (2.76)	---	---	303	NA	---	ND (193)	---	---	ND (8.28)	---	---	12.7	NA	---	ND (2.76)	---	---
Dichlorodifluoromethane	75718	ND (5.20)	---	---	ND (5.20)	---	---	ND (277)	---	---	ND (11.9)	---	---	62.9	NA	5.5E-04	ND (3.96)	---	---
1,1-Dichloroethane	75343	ND (3.24)	---	---	ND (3.24)	---	---	419	NA	1.6E-03	ND (9.72)	---	---	ND (3.24)	---	---	ND (3.24)	---	---
1,1-Dichloroethene	75354	ND (3.16)	---	---	ND (3.16)	---	---	377	NA	3.8E-03	ND (9.48)	---	---	ND (3.16)	---	---	ND (3.16)	---	---
cis-1,2-Dichloroethene	156592	22.5	NA	1.2E-03	22.4	NA	1.2E-03	30,600	NA	1.6E+00	24.7	NA	1.5E-03	168	NA	8.9E-03	ND (3.64)	---	---
trans-1,2-Dichloroethene	156605	ND (3.16)	---	---	22.4	NA	5.8E-04	1,040	NA	2.7E-02	ND (9.48)	---	---	7.30	NA	1.9E-04	ND (3.64)	---	---
Ethyl acetate	141786	ND (2.88)	---	---	6.77	NA	4.0E-06	ND (202)	---	---	ND (8.64)	---	---	3.46	NA	2.0E-06	ND (2.88)	---	---
Heptane	142825	6.39	---	---	106	NA	---	ND (230)	---	---	ND (9.84)	---	---	4.43	NA	NA	3.93	NA	NA
Hexane	110543	ND (56.0)	NA	NA	652	NA	8.4E-03	ND (3,920)	---	---	ND (168)	---	---	ND (56.0)	---	---	ND (56.0)	---	---
Methylene Chloride	75092	ND (56.0)	---	---	ND (56.0)	---	---	ND (3,920)	---	---	228	8.0E-08	1.6E-04	ND (56.0)	---	---	ND (56.0)	---	---
Methyl ethyl ketone (2-Butanone)	78933	25.2	NA	9.7E-06	89.7	NA	3.5E-05	ND (165)	---	---	ND (7.08)	---	---	12.4	NA	4.8E-06	10.6	NA	4.1E-06
Methyl isobutyl ketone	108101	4.75	NA	3.0E-06	53.3	NA	3.3E-05	ND (230)	---	---	ND (9.84)	---	---	ND (3.28)	---	---	ND (3.28)	---	---
Propene	115071	11.8	NA	---	ND (1.36)	---	---	ND (95.2)	NA	NA	ND (4.08)	---	---	49.7	NA	NA	35.2	NA	---
Tetrachloroethene	127184	ND (5.60)	---	---	ND (5.60)	---	---	ND (392)	---	---	ND (16.8)	---	---	ND (5.60)	---	---	22.2	8.5E-08	6.8E-05
Tetrahydrofuran	109999	2.95	NA	---	ND (2.36)	---	---	ND (165)	---	---	ND (7.08)	---	---	3.30	NA	NA	ND (2.36)	---	---
Toluene	108883	15.4	NA	7.6E-05	33.3	NA	1.7E-04	ND (210)	---	---	13.1	NA	6.5E-05	21.1	NA	1.1E-04	20.0	NA	9.9E-05
1,1,1-Trichloroethane	71556	ND (4.40)	---	---	ND (4.40)	---	---	ND (308)	---	---	ND (13.2)	---	---	17.2	NA	1.5E-05	ND (4.40)	---	---
Trichloroethene	79016	ND (4.40)	---	---	246	1.8E-05	1.2E-02	43,400	---	3.2E-03	2.1E+00	---	---	22.6	1.7E-06	1.1E-03	12.7	9.5E-07	6.0E-04
1,2,4-Trimethylbenzene	95636	ND (3.92)	---	---	ND (3.92)	---	---	ND (274)	---	---	ND (11.2)	---	---	4.33	NA	1.2E-03	ND (3.72)	---	---
2,2,4-Trimethylpentane	540841	ND (3.72)	---	---	559	NA	---	ND (274)	---	---	ND (11.2)	---	---	ND (2.80)	---	---	ND (3.72)	---	---
Vinyl Chloride	75014	ND (2.04)	---	---	14.5	9.8E-08	3.1E-04	ND (196)	---	---	16.9	1.1E-07	3.6E-04	ND (2.04)	---	---	ND (2.04)	---	---
m- & p-Xylenes	106423	ND (6.80)	---	---	ND (6.80)	---	---	ND (476)	---	---	ND (20.4)	---	---	10.3	NA	1.9E-04	ND (6.80)	---	---
			2.20E-07	0.004		2.00E-05	0.048		3.20E-03	3.738		1.90E-07	0.002		1.84E-06	0.015		1.11E-06	0.002

NOTES AND SUPERSCRIPTS:

CAS = Chemical Abstract Service

ug/m³ = micrograms per cubic meter

ND = Not Detected. The quantitation limit is in parentheses.

NA = not applicable

--- = Model results not calculated due to non-detect analytical result.

* = m-Xylene and p-Xylene have two separate CAS numbers, yet the laboratory results group the two together. The model was run on each xylene and the highest hazard quotient [p-Xylene] is listed.

APPENDIX A
SITE PHOTOGRAPHS

Site Photographs
1110 to 1112 Race Street
Baltimore, Maryland 21230



Photograph 1. SG-1 Soil Gas Sample Location.



Photograph 2. SG-2 Soil Gas Sample Location.



Photograph 3. SG-3 Soil Gas Sample Location.



Photograph 4. SG-5 Soil Gas Sample Location.



Photograph 5. SG-6 Soil Gas Sample Location.

APPENDIX B
LABORATORY ANALYTICAL REPORTS

20 June 2013

Denise Sullivan
Urban Green Environmental, LLC
1700 Beason St
Baltimore, MD 21230
RE: 101 W. WEST ST

Enclosed are the results of analyses for samples received by the laboratory on 06/14/13 17:15.

Maryland Spectral Services, Inc. is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, has included a list of accredited analytes in this report.

Please visit our website at www.mdspectral.com for a complete listing of our NELAP accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Brewington
Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SG-1		3061414-01	Vapor	06/14/13 16:10	06/14/13 17:15
SG-2		3061414-02	Vapor	06/14/13 16:27	06/14/13 17:15
SG-3		3061414-03	Vapor	06/14/13 16:20	06/14/13 17:15
SG-4		3061414-04	Vapor	06/14/13 16:15	06/14/13 17:15
SG-5		3061414-05	Vapor	06/14/13 16:30	06/14/13 17:15
SG-6		3061414-06	Vapor	06/14/13 16:25	06/14/13 17:15



Will Brewington, Staff Chemist

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-1

3061414-01 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting				Analyzed	Analyst	Notes
			Limit	Dilution	Prepared				
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS)									
Acetone	176	ug/m ³	9.60	4	06/18/13	06/18/13 11:58	CMK		
Benzene	39.0	ug/m ³	2.56	4	06/18/13	06/18/13 11:58	CMK		
Benzyl chloride	ND	ug/m ³	4.00	4	06/18/13	06/18/13 11:58	CMK		
Bromodichloromethane	ND	ug/m ³	5.20	4	06/18/13	06/18/13 11:58	CMK		
Bromoform	ND	ug/m ³	8.40	4	06/18/13	06/18/13 11:58	CMK		
Bromomethane	ND	ug/m ³	3.12	4	06/18/13	06/18/13 11:58	CMK		
1,3-Butadiene	ND	ug/m ³	1.76	4	06/18/13	06/18/13 11:58	CMK		
Carbon disulfide	4.11	ug/m ³	2.48	4	06/18/13	06/18/13 11:58	CMK		
Carbon tetrachloride	ND	ug/m ³	5.20	4	06/18/13	06/18/13 11:58	CMK		
Chlorobenzene	ND	ug/m ³	3.68	4	06/18/13	06/18/13 11:58	CMK		
Chloroethane	ND	ug/m ³	2.12	4	06/18/13	06/18/13 11:58	CMK		
Chloroform	ND	ug/m ³	3.88	4	06/18/13	06/18/13 11:58	CMK		
Chloromethane	ND	ug/m ³	1.64	4	06/18/13	06/18/13 11:58	CMK		
3-Chloropropene	ND	ug/m ³	2.52	4	06/18/13	06/18/13 11:58	CMK		
Cyclohexane	ND	ug/m ³	2.76	4	06/18/13	06/18/13 11:58	CMK		
Dibromochloromethane	ND	ug/m ³	5.20	4	06/18/13	06/18/13 11:58	CMK		
1,2-Dibromoethane (EDB)	ND	ug/m ³	5.60	4	06/18/13	06/18/13 11:58	CMK		
1,2-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 11:58	CMK		
1,3-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 11:58	CMK		
1,4-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 11:58	CMK		
Dichlorodifluoromethane	ND	ug/m ³	3.96	4	06/18/13	06/18/13 11:58	CMK		
1,1-Dichloroethane	ND	ug/m ³	3.24	4	06/18/13	06/18/13 11:58	CMK		
1,2-Dichloroethane	ND	ug/m ³	3.24	4	06/18/13	06/18/13 11:58	CMK		
1,1-Dichloroethene	ND	ug/m ³	3.16	4	06/18/13	06/18/13 11:58	CMK		
cis-1,2-Dichloroethene	22.5	ug/m ³	3.16	4	06/18/13	06/18/13 11:58	CMK		
trans-1,2-Dichloroethene	ND	ug/m ³	3.16	4	06/18/13	06/18/13 11:58	CMK		
1,2-Dichloropropane	ND	ug/m ³	3.68	4	06/18/13	06/18/13 11:58	CMK		
cis-1,3-Dichloropropene	ND	ug/m ³	3.64	4	06/18/13	06/18/13 11:58	CMK		
trans-1,3-Dichloropropene	ND	ug/m ³	3.64	4	06/18/13	06/18/13 11:58	CMK		
1,4-Dioxane	ND	ug/m ³	2.88	4	06/18/13	06/18/13 11:58	CMK		
Ethyl acetate	ND	ug/m ³	2.88	4	06/18/13	06/18/13 11:58	CMK		
Ethylbenzene	ND	ug/m ³	3.48	4	06/18/13	06/18/13 11:58	CMK		
4-Ethyltoluene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 11:58	CMK		
Freon 113	ND	ug/m ³	6.00	4	06/18/13	06/18/13 11:58	CMK		
Freon 114	ND	ug/m ³	5.60	4	06/18/13	06/18/13 11:58	CMK		
Heptane	6.39	ug/m ³	3.28	4	06/18/13	06/18/13 11:58	CMK		
Hexachlorobutadiene	ND	ug/m ³	8.40	4	06/18/13	06/18/13 11:58	CMK		

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-1

3061414-01 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)								
Hexane	ND	ug/m ³	56.0	4	06/18/13	06/18/13 11:58	CMK	
2-Hexanone	ND	ug/m ³	3.28	4	06/18/13	06/18/13 11:58	CMK	
Methyl tert-butyl ether (MTBE)	ND	ug/m ³	2.88	4	06/18/13	06/18/13 11:58	CMK	
Methylene chloride	ND	ug/m ³	56.0	4	06/18/13	06/18/13 11:58	CMK	
Methyl ethyl ketone (2-Butanone)	25.2	ug/m ³	2.36	4	06/18/13	06/18/13 11:58	CMK	
Methyl isobutyl ketone	4.75	ug/m ³	3.28	4	06/18/13	06/18/13 11:58	CMK	
Naphthalene	ND	ug/m ³	4.40	4	06/18/13	06/18/13 11:58	CMK	
Propene	11.8	ug/m ³	1.36	4	06/18/13	06/18/13 11:58	CMK	
Styrene	ND	ug/m ³	3.40	4	06/18/13	06/18/13 11:58	CMK	
1,1,2,2-Tetrachloroethane	ND	ug/m ³	5.60	4	06/18/13	06/18/13 11:58	CMK	
Tetrachloroethene	ND	ug/m ³	5.60	4	06/18/13	06/18/13 11:58	CMK	
Tetrahydrofuran	2.95	ug/m ³	2.36	4	06/18/13	06/18/13 11:58	CMK	
Toluene	15.4	ug/m ³	3.00	4	06/18/13	06/18/13 11:58	CMK	
1,2,4-Trichlorobenzene	ND	ug/m ³	6.00	4	06/18/13	06/18/13 11:58	CMK	
1,1,1-Trichloroethane	ND	ug/m ³	4.40	4	06/18/13	06/18/13 11:58	CMK	
1,1,2-Trichloroethane	ND	ug/m ³	4.40	4	06/18/13	06/18/13 11:58	CMK	
Trichloroethene	ND	ug/m ³	4.40	4	06/18/13	06/18/13 11:58	CMK	
Trichlorofluoromethane (Freon 11)	ND	ug/m ³	4.40	4	06/18/13	06/18/13 11:58	CMK	
1,2,4-Trimethylbenzene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 11:58	CMK	
1,3,5-Trimethylbenzene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 11:58	CMK	
2,2,4-Trimethylpentane	ND	ug/m ³	3.72	4	06/18/13	06/18/13 11:58	CMK	
Vinyl acetate	ND	ug/m ³	2.80	4	06/18/13	06/18/13 11:58	CMK	
Vinyl bromide	ND	ug/m ³	3.48	4	06/18/13	06/18/13 11:58	CMK	
Vinyl chloride	ND	ug/m ³	2.04	4	06/18/13	06/18/13 11:58	CMK	
o-Xylene	ND	ug/m ³	3.48	4	06/18/13	06/18/13 11:58	CMK	
m- & p-Xylenes	ND	ug/m ³	6.80	4	06/18/13	06/18/13 11:58	CMK	
Surrogate: 4-Bromofluorobenzene		86-110	96 %		06/18/13	06/18/13 11:58		

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-2

3061414-02 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS)								
Acetone	500	ug/m ³	9.60	4	06/18/13	06/18/13 12:34	CMK	E
Benzene	338	ug/m ³	2.56	4	06/18/13	06/18/13 12:34	CMK	E
Benzyl chloride	ND	ug/m ³	4.00	4	06/18/13	06/18/13 12:34	CMK	
Bromodichloromethane	ND	ug/m ³	5.20	4	06/18/13	06/18/13 12:34	CMK	
Bromoform	ND	ug/m ³	8.40	4	06/18/13	06/18/13 12:34	CMK	
Bromomethane	ND	ug/m ³	3.12	4	06/18/13	06/18/13 12:34	CMK	
1,3-Butadiene	ND	ug/m ³	1.76	4	06/18/13	06/18/13 12:34	CMK	
Carbon disulfide	4.11	ug/m ³	2.48	4	06/18/13	06/18/13 12:34	CMK	
Carbon tetrachloride	ND	ug/m ³	5.20	4	06/18/13	06/18/13 12:34	CMK	
Chlorobenzene	ND	ug/m ³	3.68	4	06/18/13	06/18/13 12:34	CMK	
Chloroethane	ND	ug/m ³	2.12	4	06/18/13	06/18/13 12:34	CMK	
Chloroform	ND	ug/m ³	3.88	4	06/18/13	06/18/13 12:34	CMK	
Chloromethane	ND	ug/m ³	1.64	4	06/18/13	06/18/13 12:34	CMK	
3-Chloropropene	ND	ug/m ³	2.52	4	06/18/13	06/18/13 12:34	CMK	
Cyclohexane	303	ug/m ³	2.76	4	06/18/13	06/18/13 12:34	CMK	
Dibromochloromethane	ND	ug/m ³	5.20	4	06/18/13	06/18/13 12:34	CMK	
1,2-Dibromoethane (EDB)	ND	ug/m ³	5.60	4	06/18/13	06/18/13 12:34	CMK	
1,2-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 12:34	CMK	
1,3-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 12:34	CMK	
1,4-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 12:34	CMK	
Dichlorodifluoromethane	ND	ug/m ³	3.96	4	06/18/13	06/18/13 12:34	CMK	
1,1-Dichloroethane	ND	ug/m ³	3.24	4	06/18/13	06/18/13 12:34	CMK	
1,2-Dichloroethane	ND	ug/m ³	3.24	4	06/18/13	06/18/13 12:34	CMK	
1,1-Dichloroethene	ND	ug/m ³	3.16	4	06/18/13	06/18/13 12:34	CMK	
cis-1,2-Dichloroethene	22.4	ug/m ³	3.16	4	06/18/13	06/18/13 12:34	CMK	
trans-1,2-Dichloroethene	22.4	ug/m ³	3.16	4	06/18/13	06/18/13 12:34	CMK	
1,2-Dichloropropane	ND	ug/m ³	3.68	4	06/18/13	06/18/13 12:34	CMK	
cis-1,3-Dichloropropene	ND	ug/m ³	3.64	4	06/18/13	06/18/13 12:34	CMK	
trans-1,3-Dichloropropene	ND	ug/m ³	3.64	4	06/18/13	06/18/13 12:34	CMK	
1,4-Dioxane	ND	ug/m ³	2.88	4	06/18/13	06/18/13 12:34	CMK	
Ethyl acetate	6.77	ug/m ³	2.88	4	06/18/13	06/18/13 12:34	CMK	
Ethylbenzene	ND	ug/m ³	3.48	4	06/18/13	06/18/13 12:34	CMK	
4-Ethyltoluene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 12:34	CMK	
Freon 113	ND	ug/m ³	6.00	4	06/18/13	06/18/13 12:34	CMK	
Freon 114	ND	ug/m ³	5.60	4	06/18/13	06/18/13 12:34	CMK	
Heptane	106	ug/m ³	3.28	4	06/18/13	06/18/13 12:34	CMK	
Hexachlorobutadiene	ND	ug/m ³	8.40	4	06/18/13	06/18/13 12:34	CMK	

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-2

3061414-02 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting				Analyzed	Analyst	Notes
			Limit	Dilution	Prepared				
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)									
Hexane	652	ug/m ³	56.0	4	06/18/13	06/18/13 12:34	CMK	E	
2-Hexanone	ND	ug/m ³	3.28	4	06/18/13	06/18/13 12:34	CMK		
Methyl tert-butyl ether (MTBE)	ND	ug/m ³	2.88	4	06/18/13	06/18/13 12:34	CMK		
Methylene chloride	ND	ug/m ³	56.0	4	06/18/13	06/18/13 12:34	CMK		
Methyl ethyl ketone (2-Butanone)	89.7	ug/m ³	2.36	4	06/18/13	06/18/13 12:34	CMK		
Methyl isobutyl ketone	53.3	ug/m ³	3.28	4	06/18/13	06/18/13 12:34	CMK		
Naphthalene	ND	ug/m ³	4.40	4	06/18/13	06/18/13 12:34	CMK		
Propene	ND	ug/m ³	1.36	4	06/18/13	06/18/13 12:34	CMK		
Styrene	ND	ug/m ³	3.40	4	06/18/13	06/18/13 12:34	CMK		
1,1,2,2-Tetrachloroethane	ND	ug/m ³	5.60	4	06/18/13	06/18/13 12:34	CMK		
Tetrachloroethene	ND	ug/m ³	5.60	4	06/18/13	06/18/13 12:34	CMK		
Tetrahydrofuran	ND	ug/m ³	2.36	4	06/18/13	06/18/13 12:34	CMK		
Toluene	33.3	ug/m ³	3.00	4	06/18/13	06/18/13 12:34	CMK		
1,2,4-Trichlorobenzene	ND	ug/m ³	6.00	4	06/18/13	06/18/13 12:34	CMK		
1,1,1-Trichloroethane	ND	ug/m ³	4.40	4	06/18/13	06/18/13 12:34	CMK		
1,1,2-Trichloroethane	ND	ug/m ³	4.40	4	06/18/13	06/18/13 12:34	CMK		
Trichloroethene	246	ug/m ³	4.40	4	06/18/13	06/18/13 12:34	CMK		
Trichlorofluoromethane (Freon 11)	ND	ug/m ³	4.40	4	06/18/13	06/18/13 12:34	CMK		
1,2,4-Trimethylbenzene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 12:34	CMK		
1,3,5-Trimethylbenzene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 12:34	CMK		
2,2,4-Trimethylpentane	559	ug/m ³	3.72	4	06/18/13	06/18/13 12:34	CMK	E	
Vinyl acetate	ND	ug/m ³	2.80	4	06/18/13	06/18/13 12:34	CMK		
Vinyl bromide	ND	ug/m ³	3.48	4	06/18/13	06/18/13 12:34	CMK		
Vinyl chloride	14.5	ug/m ³	2.04	4	06/18/13	06/18/13 12:34	CMK		
o-Xylene	ND	ug/m ³	3.48	4	06/18/13	06/18/13 12:34	CMK		
m- & p-Xylenes	ND	ug/m ³	6.80	4	06/18/13	06/18/13 12:34	CMK		
n-Pentane	510	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
n-Butane	843	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
2,2,3-Trimethylbutane	439	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
1,3-Dimethylcyclopentane	147	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
2,2-Dimethylbutane	666	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
2,3-Dimethylbutane	691	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
3-Methylpentane	559	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
2-3-Dimethylpentane	643	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
3,3-Dimethylpentane	419	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
2,4,4-Trimethylpentane	359	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	
2-Methylpentane	387	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC	

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-2

3061414-02 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting Limit	Dilution	Prepared	Analyzed	Analyst	Notes
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)								
2,4-Dimethylhexane (01)	466	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC
3-Methylhexane	272	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC
2,4-Dimethylhexane (02)	287	ug/m ³		4	06/18/13	06/18/13 12:34	CMK	TIC
Surrogate: 4-Bromofluorobenzene		86-110	106 %		06/18/13	06/18/13 12:34		

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-3

3061414-03 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS)								
Acetone	885	ug/m ³	672	280	06/18/13	06/18/13 19:28	CMK	
Benzene	ND	ug/m ³	179	280	06/18/13	06/18/13 19:28	CMK	
Benzyl chloride	ND	ug/m ³	280	280	06/18/13	06/18/13 19:28	CMK	
Bromodichloromethane	ND	ug/m ³	364	280	06/18/13	06/18/13 19:28	CMK	
Bromoform	ND	ug/m ³	588	280	06/18/13	06/18/13 19:28	CMK	
Bromomethane	ND	ug/m ³	218	280	06/18/13	06/18/13 19:28	CMK	
1,3-Butadiene	ND	ug/m ³	123	280	06/18/13	06/18/13 19:28	CMK	
Carbon disulfide	ND	ug/m ³	174	280	06/18/13	06/18/13 19:28	CMK	
Carbon tetrachloride	ND	ug/m ³	364	280	06/18/13	06/18/13 19:28	CMK	
Chlorobenzene	ND	ug/m ³	258	280	06/18/13	06/18/13 19:28	CMK	
Chloroethane	ND	ug/m ³	148	280	06/18/13	06/18/13 19:28	CMK	
Chloroform	ND	ug/m ³	272	280	06/18/13	06/18/13 19:28	CMK	
Chloromethane	ND	ug/m ³	115	280	06/18/13	06/18/13 19:28	CMK	
3-Chloropropene	ND	ug/m ³	176	280	06/18/13	06/18/13 19:28	CMK	
Cyclohexane	ND	ug/m ³	193	280	06/18/13	06/18/13 19:28	CMK	
Dibromochloromethane	ND	ug/m ³	364	280	06/18/13	06/18/13 19:28	CMK	
1,2-Dibromoethane (EDB)	ND	ug/m ³	392	280	06/18/13	06/18/13 19:28	CMK	
1,2-Dichlorobenzene	ND	ug/m ³	336	280	06/18/13	06/18/13 19:28	CMK	
1,3-Dichlorobenzene	ND	ug/m ³	336	280	06/18/13	06/18/13 19:28	CMK	
1,4-Dichlorobenzene	ND	ug/m ³	336	280	06/18/13	06/18/13 19:28	CMK	
Dichlorodifluoromethane	ND	ug/m ³	277	280	06/18/13	06/18/13 19:28	CMK	
1,1-Dichloroethane	419	ug/m ³	227	280	06/18/13	06/18/13 19:28	CMK	
1,2-Dichloroethane	ND	ug/m ³	227	280	06/18/13	06/18/13 19:28	CMK	
1,1-Dichloroethene	377	ug/m ³	221	280	06/18/13	06/18/13 19:28	CMK	
cis-1,2-Dichloroethene	30600	ug/m ³	221	280	06/18/13	06/18/13 19:28	CMK	E
trans-1,2-Dichloroethene	1040	ug/m ³	221	280	06/18/13	06/18/13 19:28	CMK	
1,2-Dichloropropane	ND	ug/m ³	258	280	06/18/13	06/18/13 19:28	CMK	
cis-1,3-Dichloropropene	ND	ug/m ³	255	280	06/18/13	06/18/13 19:28	CMK	
trans-1,3-Dichloropropene	ND	ug/m ³	255	280	06/18/13	06/18/13 19:28	CMK	
1,4-Dioxane	ND	ug/m ³	202	280	06/18/13	06/18/13 19:28	CMK	
Ethyl acetate	ND	ug/m ³	202	280	06/18/13	06/18/13 19:28	CMK	
Ethylbenzene	ND	ug/m ³	244	280	06/18/13	06/18/13 19:28	CMK	
4-Ethyltoluene	ND	ug/m ³	274	280	06/18/13	06/18/13 19:28	CMK	
Freon 113	ND	ug/m ³	420	280	06/18/13	06/18/13 19:28	CMK	
Freon 114	ND	ug/m ³	392	280	06/18/13	06/18/13 19:28	CMK	
Heptane	ND	ug/m ³	230	280	06/18/13	06/18/13 19:28	CMK	
Hexachlorobutadiene	ND	ug/m ³	588	280	06/18/13	06/18/13 19:28	CMK	

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-3

3061414-03 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)								
Hexane	ND	ug/m ³	3920	280	06/18/13	06/18/13 19:28	CMK	
2-Hexanone	ND	ug/m ³	230	280	06/18/13	06/18/13 19:28	CMK	
Methyl tert-butyl ether (MTBE)	ND	ug/m ³	202	280	06/18/13	06/18/13 19:28	CMK	
Methylene chloride	ND	ug/m ³	3920	280	06/18/13	06/18/13 19:28	CMK	
Methyl ethyl ketone (2-Butanone)	ND	ug/m ³	165	280	06/18/13	06/18/13 19:28	CMK	
Methyl isobutyl ketone	ND	ug/m ³	230	280	06/18/13	06/18/13 19:28	CMK	
Naphthalene	ND	ug/m ³	308	280	06/18/13	06/18/13 19:28	CMK	
Propene	ND	ug/m ³	95.2	280	06/18/13	06/18/13 19:28	CMK	
Styrene	ND	ug/m ³	238	280	06/18/13	06/18/13 19:28	CMK	
1,1,2,2-Tetrachloroethane	ND	ug/m ³	392	280	06/18/13	06/18/13 19:28	CMK	
Tetrachloroethene	ND	ug/m ³	392	280	06/18/13	06/18/13 19:28	CMK	
Tetrahydrofuran	ND	ug/m ³	165	280	06/18/13	06/18/13 19:28	CMK	
Toluene	ND	ug/m ³	210	280	06/18/13	06/18/13 19:28	CMK	
1,2,4-Trichlorobenzene	ND	ug/m ³	420	280	06/18/13	06/18/13 19:28	CMK	
1,1,1-Trichloroethane	ND	ug/m ³	308	280	06/18/13	06/18/13 19:28	CMK	
1,1,2-Trichloroethane	ND	ug/m ³	308	280	06/18/13	06/18/13 19:28	CMK	
Trichloroethene	43400	ug/m ³	308	280	06/18/13	06/18/13 19:28	CMK	E
Trichlorofluoromethane (Freon 11)	ND	ug/m ³	308	280	06/18/13	06/18/13 19:28	CMK	
1,2,4-Trimethylbenzene	ND	ug/m ³	274	280	06/18/13	06/18/13 19:28	CMK	
1,3,5-Trimethylbenzene	ND	ug/m ³	274	280	06/18/13	06/18/13 19:28	CMK	
2,2,4-Trimethylpentane	ND	ug/m ³	260	280	06/18/13	06/18/13 19:28	CMK	
Vinyl acetate	ND	ug/m ³	196	280	06/18/13	06/18/13 19:28	CMK	
Vinyl bromide	ND	ug/m ³	244	280	06/18/13	06/18/13 19:28	CMK	
Vinyl chloride	ND	ug/m ³	143	280	06/18/13	06/18/13 19:28	CMK	
o-Xylene	ND	ug/m ³	244	280	06/18/13	06/18/13 19:28	CMK	
m- & p-Xylenes	ND	ug/m ³	476	280	06/18/13	06/18/13 19:28	CMK	
Surrogate: 4-Bromofluorobenzene		86-110	95 %		06/18/13	06/18/13 19:28		

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-4

3061414-04 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS)								
Acetone	38.8	ug/m ³	28.8	12	06/18/13	06/18/13 13:48	CMK	
Benzene	ND	ug/m ³	7.68	12	06/18/13	06/18/13 13:48	CMK	
Benzyl chloride	ND	ug/m ³	12.0	12	06/18/13	06/18/13 13:48	CMK	
Bromodichloromethane	ND	ug/m ³	15.6	12	06/18/13	06/18/13 13:48	CMK	
Bromoform	ND	ug/m ³	25.2	12	06/18/13	06/18/13 13:48	CMK	
Bromomethane	ND	ug/m ³	9.36	12	06/18/13	06/18/13 13:48	CMK	
1,3-Butadiene	ND	ug/m ³	5.28	12	06/18/13	06/18/13 13:48	CMK	
Carbon disulfide	ND	ug/m ³	7.44	12	06/18/13	06/18/13 13:48	CMK	
Carbon tetrachloride	ND	ug/m ³	15.6	12	06/18/13	06/18/13 13:48	CMK	
Chlorobenzene	ND	ug/m ³	11.0	12	06/18/13	06/18/13 13:48	CMK	
Chloroethane	ND	ug/m ³	6.36	12	06/18/13	06/18/13 13:48	CMK	
Chloroform	ND	ug/m ³	11.6	12	06/18/13	06/18/13 13:48	CMK	
Chloromethane	ND	ug/m ³	4.92	12	06/18/13	06/18/13 13:48	CMK	
3-Chloropropene	ND	ug/m ³	7.56	12	06/18/13	06/18/13 13:48	CMK	
Cyclohexane	ND	ug/m ³	8.28	12	06/18/13	06/18/13 13:48	CMK	
Dibromochloromethane	ND	ug/m ³	15.6	12	06/18/13	06/18/13 13:48	CMK	
1,2-Dibromoethane (EDB)	ND	ug/m ³	16.8	12	06/18/13	06/18/13 13:48	CMK	
1,2-Dichlorobenzene	ND	ug/m ³	14.4	12	06/18/13	06/18/13 13:48	CMK	
1,3-Dichlorobenzene	ND	ug/m ³	14.4	12	06/18/13	06/18/13 13:48	CMK	
1,4-Dichlorobenzene	ND	ug/m ³	14.4	12	06/18/13	06/18/13 13:48	CMK	
Dichlorodifluoromethane	ND	ug/m ³	11.9	12	06/18/13	06/18/13 13:48	CMK	
1,1-Dichloroethane	ND	ug/m ³	9.72	12	06/18/13	06/18/13 13:48	CMK	
1,2-Dichloroethane	ND	ug/m ³	9.72	12	06/18/13	06/18/13 13:48	CMK	
1,1-Dichloroethene	ND	ug/m ³	9.48	12	06/18/13	06/18/13 13:48	CMK	
cis-1,2-Dichloroethene	24.7	ug/m ³	9.48	12	06/18/13	06/18/13 13:48	CMK	
trans-1,2-Dichloroethene	ND	ug/m ³	9.48	12	06/18/13	06/18/13 13:48	CMK	
1,2-Dichloropropane	ND	ug/m ³	11.0	12	06/18/13	06/18/13 13:48	CMK	
cis-1,3-Dichloropropene	ND	ug/m ³	10.9	12	06/18/13	06/18/13 13:48	CMK	
trans-1,3-Dichloropropene	ND	ug/m ³	10.9	12	06/18/13	06/18/13 13:48	CMK	
1,4-Dioxane	ND	ug/m ³	8.64	12	06/18/13	06/18/13 13:48	CMK	
Ethyl acetate	ND	ug/m ³	8.64	12	06/18/13	06/18/13 13:48	CMK	
Ethylbenzene	ND	ug/m ³	10.4	12	06/18/13	06/18/13 13:48	CMK	
4-Ethyltoluene	ND	ug/m ³	11.8	12	06/18/13	06/18/13 13:48	CMK	
Freon 113	ND	ug/m ³	18.0	12	06/18/13	06/18/13 13:48	CMK	
Freon 114	ND	ug/m ³	16.8	12	06/18/13	06/18/13 13:48	CMK	
Heptane	ND	ug/m ³	9.84	12	06/18/13	06/18/13 13:48	CMK	
Hexachlorobutadiene	ND	ug/m ³	25.2	12	06/18/13	06/18/13 13:48	CMK	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-4

3061414-04 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
<u>VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)</u>								
Hexane	ND	ug/m ³	168	12	06/18/13	06/18/13 13:48	CMK	
2-Hexanone	ND	ug/m ³	9.84	12	06/18/13	06/18/13 13:48	CMK	
Methyl tert-butyl ether (MTBE)	ND	ug/m ³	8.64	12	06/18/13	06/18/13 13:48	CMK	
Methylene chloride	228	ug/m ³	168	12	06/18/13	06/18/13 13:48	CMK	L
Methyl ethyl ketone (2-Butanone)	ND	ug/m ³	7.08	12	06/18/13	06/18/13 13:48	CMK	
Methyl isobutyl ketone	ND	ug/m ³	9.84	12	06/18/13	06/18/13 13:48	CMK	
Naphthalene	ND	ug/m ³	13.2	12	06/18/13	06/18/13 13:48	CMK	
Propene	ND	ug/m ³	4.08	12	06/18/13	06/18/13 13:48	CMK	
Styrene	ND	ug/m ³	10.2	12	06/18/13	06/18/13 13:48	CMK	
1,1,2,2-Tetrachloroethane	ND	ug/m ³	16.8	12	06/18/13	06/18/13 13:48	CMK	
Tetrachloroethene	ND	ug/m ³	16.8	12	06/18/13	06/18/13 13:48	CMK	
Tetrahydrofuran	ND	ug/m ³	7.08	12	06/18/13	06/18/13 13:48	CMK	
Toluene	13.1	ug/m ³	9.00	12	06/18/13	06/18/13 13:48	CMK	
1,2,4-Trichlorobenzene	ND	ug/m ³	18.0	12	06/18/13	06/18/13 13:48	CMK	
1,1,1-Trichloroethane	ND	ug/m ³	13.2	12	06/18/13	06/18/13 13:48	CMK	
1,1,2-Trichloroethane	ND	ug/m ³	13.2	12	06/18/13	06/18/13 13:48	CMK	
Trichloroethene	ND	ug/m ³	13.2	12	06/18/13	06/18/13 13:48	CMK	
Trichlorofluoromethane (Freon 11)	ND	ug/m ³	13.2	12	06/18/13	06/18/13 13:48	CMK	
1,2,4-Trimethylbenzene	ND	ug/m ³	11.8	12	06/18/13	06/18/13 13:48	CMK	
1,3,5-Trimethylbenzene	ND	ug/m ³	11.8	12	06/18/13	06/18/13 13:48	CMK	
2,2,4-Trimethylpentane	ND	ug/m ³	11.2	12	06/18/13	06/18/13 13:48	CMK	
Vinyl acetate	ND	ug/m ³	8.40	12	06/18/13	06/18/13 13:48	CMK	
Vinyl bromide	ND	ug/m ³	10.4	12	06/18/13	06/18/13 13:48	CMK	
Vinyl chloride	16.9	ug/m ³	6.12	12	06/18/13	06/18/13 13:48	CMK	
o-Xylene	ND	ug/m ³	10.4	12	06/18/13	06/18/13 13:48	CMK	
m- & p-Xylenes	ND	ug/m ³	20.4	12	06/18/13	06/18/13 13:48	CMK	
Surrogate: 4-Bromofluorobenzene		86-110	94 %		06/18/13	06/18/13 13:48		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-5

3061414-05 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS)								
Acetone	118	ug/m ³	9.60	4	06/18/13	06/18/13 14:25	CMK	
Benzene	25.2	ug/m ³	2.56	4	06/18/13	06/18/13 14:25	CMK	
Benzyl chloride	ND	ug/m ³	4.00	4	06/18/13	06/18/13 14:25	CMK	
Bromodichloromethane	ND	ug/m ³	5.20	4	06/18/13	06/18/13 14:25	CMK	
Bromoform	ND	ug/m ³	8.40	4	06/18/13	06/18/13 14:25	CMK	
Bromomethane	ND	ug/m ³	3.12	4	06/18/13	06/18/13 14:25	CMK	
1,3-Butadiene	ND	ug/m ³	1.76	4	06/18/13	06/18/13 14:25	CMK	
Carbon disulfide	35.4	ug/m ³	2.48	4	06/18/13	06/18/13 14:25	CMK	
Carbon tetrachloride	ND	ug/m ³	5.20	4	06/18/13	06/18/13 14:25	CMK	
Chlorobenzene	ND	ug/m ³	3.68	4	06/18/13	06/18/13 14:25	CMK	
Chloroethane	ND	ug/m ³	2.12	4	06/18/13	06/18/13 14:25	CMK	
Chloroform	ND	ug/m ³	3.88	4	06/18/13	06/18/13 14:25	CMK	
Chloromethane	ND	ug/m ³	1.64	4	06/18/13	06/18/13 14:25	CMK	
3-Chloropropene	ND	ug/m ³	2.52	4	06/18/13	06/18/13 14:25	CMK	
Cyclohexane	12.7	ug/m ³	2.76	4	06/18/13	06/18/13 14:25	CMK	
Dibromochloromethane	ND	ug/m ³	5.20	4	06/18/13	06/18/13 14:25	CMK	
1,2-Dibromoethane (EDB)	ND	ug/m ³	5.60	4	06/18/13	06/18/13 14:25	CMK	
1,2-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 14:25	CMK	
1,3-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 14:25	CMK	
1,4-Dichlorobenzene	ND	ug/m ³	4.80	4	06/18/13	06/18/13 14:25	CMK	
Dichlorodifluoromethane	62.9	ug/m ³	3.96	4	06/18/13	06/18/13 14:25	CMK	
1,1-Dichloroethane	ND	ug/m ³	3.24	4	06/18/13	06/18/13 14:25	CMK	
1,2-Dichloroethane	ND	ug/m ³	3.24	4	06/18/13	06/18/13 14:25	CMK	
1,1-Dichloroethene	ND	ug/m ³	3.16	4	06/18/13	06/18/13 14:25	CMK	
cis-1,2-Dichloroethene	168	ug/m ³	3.16	4	06/18/13	06/18/13 14:25	CMK	
trans-1,2-Dichloroethene	7.30	ug/m ³	3.16	4	06/18/13	06/18/13 14:25	CMK	
1,2-Dichloropropane	ND	ug/m ³	3.68	4	06/18/13	06/18/13 14:25	CMK	
cis-1,3-Dichloropropene	ND	ug/m ³	3.64	4	06/18/13	06/18/13 14:25	CMK	
trans-1,3-Dichloropropene	ND	ug/m ³	3.64	4	06/18/13	06/18/13 14:25	CMK	
1,4-Dioxane	ND	ug/m ³	2.88	4	06/18/13	06/18/13 14:25	CMK	
Ethyl acetate	3.46	ug/m ³	2.88	4	06/18/13	06/18/13 14:25	CMK	
Ethylbenzene	ND	ug/m ³	3.48	4	06/18/13	06/18/13 14:25	CMK	
4-Ethyltoluene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 14:25	CMK	
Freon 113	ND	ug/m ³	6.00	4	06/18/13	06/18/13 14:25	CMK	
Freon 114	ND	ug/m ³	5.60	4	06/18/13	06/18/13 14:25	CMK	
Heptane	4.43	ug/m ³	3.28	4	06/18/13	06/18/13 14:25	CMK	
Hexachlorobutadiene	ND	ug/m ³	8.40	4	06/18/13	06/18/13 14:25	CMK	

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-5

3061414-05 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)								
Hexane	ND	ug/m ³	56.0	4	06/18/13	06/18/13 14:25	CMK	
2-Hexanone	ND	ug/m ³	3.28	4	06/18/13	06/18/13 14:25	CMK	
Methyl tert-butyl ether (MTBE)	ND	ug/m ³	2.88	4	06/18/13	06/18/13 14:25	CMK	
Methylene chloride	ND	ug/m ³	56.0	4	06/18/13	06/18/13 14:25	CMK	
Methyl ethyl ketone (2-Butanone)	12.4	ug/m ³	2.36	4	06/18/13	06/18/13 14:25	CMK	
Methyl isobutyl ketone	ND	ug/m ³	3.28	4	06/18/13	06/18/13 14:25	CMK	
Naphthalene	ND	ug/m ³	4.40	4	06/18/13	06/18/13 14:25	CMK	
Propene	49.7	ug/m ³	1.36	4	06/18/13	06/18/13 14:25	CMK	
Styrene	ND	ug/m ³	3.40	4	06/18/13	06/18/13 14:25	CMK	
1,1,2,2-Tetrachloroethane	ND	ug/m ³	5.60	4	06/18/13	06/18/13 14:25	CMK	
Tetrachloroethene	ND	ug/m ³	5.60	4	06/18/13	06/18/13 14:25	CMK	
Tetrahydrofuran	3.30	ug/m ³	2.36	4	06/18/13	06/18/13 14:25	CMK	
Toluene	21.1	ug/m ³	3.00	4	06/18/13	06/18/13 14:25	CMK	
1,2,4-Trichlorobenzene	ND	ug/m ³	6.00	4	06/18/13	06/18/13 14:25	CMK	
1,1,1-Trichloroethane	17.2	ug/m ³	4.40	4	06/18/13	06/18/13 14:25	CMK	
1,1,2-Trichloroethane	ND	ug/m ³	4.40	4	06/18/13	06/18/13 14:25	CMK	
Trichloroethene	22.6	ug/m ³	4.40	4	06/18/13	06/18/13 14:25	CMK	
Trichlorofluoromethane (Freon 11)	ND	ug/m ³	4.40	4	06/18/13	06/18/13 14:25	CMK	
1,2,4-Trimethylbenzene	4.33	ug/m ³	3.92	4	06/18/13	06/18/13 14:25	CMK	
1,3,5-Trimethylbenzene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 14:25	CMK	
2,2,4-Trimethylpentane	ND	ug/m ³	3.72	4	06/18/13	06/18/13 14:25	CMK	
Vinyl acetate	ND	ug/m ³	2.80	4	06/18/13	06/18/13 14:25	CMK	
Vinyl bromide	ND	ug/m ³	3.48	4	06/18/13	06/18/13 14:25	CMK	
Vinyl chloride	ND	ug/m ³	2.04	4	06/18/13	06/18/13 14:25	CMK	
o-Xylene	ND	ug/m ³	3.48	4	06/18/13	06/18/13 14:25	CMK	
m- & p-Xylenes	10.3	ug/m ³	6.80	4	06/18/13	06/18/13 14:25	CMK	
Surrogate: 4-Bromofluorobenzene		86-110	95 %		06/18/13	06/18/13 14:25		

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-6

3061414-06 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Prepared	Analyzed	Analyst	Notes
			Limit	Dilution					
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS)									
Acetone	54.3	ug/m ³	9.60	4		06/18/13	06/18/13 15:01	CMK	
Benzene	13.5	ug/m ³	2.56	4		06/18/13	06/18/13 15:01	CMK	
Benzyl chloride	ND	ug/m ³	4.00	4		06/18/13	06/18/13 15:01	CMK	
Bromodichloromethane	ND	ug/m ³	5.20	4		06/18/13	06/18/13 15:01	CMK	
Bromoform	ND	ug/m ³	8.40	4		06/18/13	06/18/13 15:01	CMK	
Bromomethane	ND	ug/m ³	3.12	4		06/18/13	06/18/13 15:01	CMK	
1,3-Butadiene	ND	ug/m ³	1.76	4		06/18/13	06/18/13 15:01	CMK	
Carbon disulfide	ND	ug/m ³	2.48	4		06/18/13	06/18/13 15:01	CMK	
Carbon tetrachloride	ND	ug/m ³	5.20	4		06/18/13	06/18/13 15:01	CMK	
Chlorobenzene	ND	ug/m ³	3.68	4		06/18/13	06/18/13 15:01	CMK	
Chloroethane	ND	ug/m ³	2.12	4		06/18/13	06/18/13 15:01	CMK	
Chloroform	ND	ug/m ³	3.88	4		06/18/13	06/18/13 15:01	CMK	
Chloromethane	ND	ug/m ³	1.64	4		06/18/13	06/18/13 15:01	CMK	
3-Chloropropene	ND	ug/m ³	2.52	4		06/18/13	06/18/13 15:01	CMK	
Cyclohexane	ND	ug/m ³	2.76	4		06/18/13	06/18/13 15:01	CMK	
Dibromochloromethane	ND	ug/m ³	5.20	4		06/18/13	06/18/13 15:01	CMK	
1,2-Dibromoethane (EDB)	ND	ug/m ³	5.60	4		06/18/13	06/18/13 15:01	CMK	
1,2-Dichlorobenzene	ND	ug/m ³	4.80	4		06/18/13	06/18/13 15:01	CMK	
1,3-Dichlorobenzene	ND	ug/m ³	4.80	4		06/18/13	06/18/13 15:01	CMK	
1,4-Dichlorobenzene	ND	ug/m ³	4.80	4		06/18/13	06/18/13 15:01	CMK	
Dichlorodifluoromethane	ND	ug/m ³	3.96	4		06/18/13	06/18/13 15:01	CMK	
1,1-Dichloroethane	ND	ug/m ³	3.24	4		06/18/13	06/18/13 15:01	CMK	
1,2-Dichloroethane	ND	ug/m ³	3.24	4		06/18/13	06/18/13 15:01	CMK	
1,1-Dichloroethene	ND	ug/m ³	3.16	4		06/18/13	06/18/13 15:01	CMK	
cis-1,2-Dichloroethene	ND	ug/m ³	3.16	4		06/18/13	06/18/13 15:01	CMK	
trans-1,2-Dichloroethene	ND	ug/m ³	3.16	4		06/18/13	06/18/13 15:01	CMK	
1,2-Dichloropropane	ND	ug/m ³	3.68	4		06/18/13	06/18/13 15:01	CMK	
cis-1,3-Dichloropropene	ND	ug/m ³	3.64	4		06/18/13	06/18/13 15:01	CMK	
trans-1,3-Dichloropropene	ND	ug/m ³	3.64	4		06/18/13	06/18/13 15:01	CMK	
1,4-Dioxane	ND	ug/m ³	2.88	4		06/18/13	06/18/13 15:01	CMK	
Ethyl acetate	ND	ug/m ³	2.88	4		06/18/13	06/18/13 15:01	CMK	
Ethylbenzene	ND	ug/m ³	3.48	4		06/18/13	06/18/13 15:01	CMK	
4-Ethyltoluene	ND	ug/m ³	3.92	4		06/18/13	06/18/13 15:01	CMK	
Freon 113	ND	ug/m ³	6.00	4		06/18/13	06/18/13 15:01	CMK	
Freon 114	ND	ug/m ³	5.60	4		06/18/13	06/18/13 15:01	CMK	
Heptane	3.93	ug/m ³	3.28	4		06/18/13	06/18/13 15:01	CMK	
Hexachlorobutadiene	ND	ug/m ³	8.40	4		06/18/13	06/18/13 15:01	CMK	

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Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

SG-6

3061414-06 (Vapor)
Sample Date: 06/14/13

Analyte	Result	Units	Reporting			Analyzed	Analyst	Notes
			Limit	Dilution	Prepared			
VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)								
Hexane	ND	ug/m ³	56.0	4	06/18/13	06/18/13 15:01	CMK	
2-Hexanone	ND	ug/m ³	3.28	4	06/18/13	06/18/13 15:01	CMK	
Methyl tert-butyl ether (MTBE)	ND	ug/m ³	2.88	4	06/18/13	06/18/13 15:01	CMK	
Methylene chloride	ND	ug/m ³	56.0	4	06/18/13	06/18/13 15:01	CMK	
Methyl ethyl ketone (2-Butanone)	10.6	ug/m ³	2.36	4	06/18/13	06/18/13 15:01	CMK	
Methyl isobutyl ketone	ND	ug/m ³	3.28	4	06/18/13	06/18/13 15:01	CMK	
Naphthalene	ND	ug/m ³	4.40	4	06/18/13	06/18/13 15:01	CMK	
Propene	35.2	ug/m ³	1.36	4	06/18/13	06/18/13 15:01	CMK	
Styrene	ND	ug/m ³	3.40	4	06/18/13	06/18/13 15:01	CMK	
1,1,2,2-Tetrachloroethane	ND	ug/m ³	5.60	4	06/18/13	06/18/13 15:01	CMK	
Tetrachloroethene	22.2	ug/m ³	5.60	4	06/18/13	06/18/13 15:01	CMK	
Tetrahydrofuran	ND	ug/m ³	2.36	4	06/18/13	06/18/13 15:01	CMK	
Toluene	20.0	ug/m ³	3.00	4	06/18/13	06/18/13 15:01	CMK	
1,2,4-Trichlorobenzene	ND	ug/m ³	6.00	4	06/18/13	06/18/13 15:01	CMK	
1,1,1-Trichloroethane	ND	ug/m ³	4.40	4	06/18/13	06/18/13 15:01	CMK	
1,1,2-Trichloroethane	ND	ug/m ³	4.40	4	06/18/13	06/18/13 15:01	CMK	
Trichloroethene	12.7	ug/m ³	4.40	4	06/18/13	06/18/13 15:01	CMK	
Trichlorofluoromethane (Freon 11)	ND	ug/m ³	4.40	4	06/18/13	06/18/13 15:01	CMK	
1,2,4-Trimethylbenzene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 15:01	CMK	
1,3,5-Trimethylbenzene	ND	ug/m ³	3.92	4	06/18/13	06/18/13 15:01	CMK	
2,2,4-Trimethylpentane	ND	ug/m ³	3.72	4	06/18/13	06/18/13 15:01	CMK	
Vinyl acetate	ND	ug/m ³	2.80	4	06/18/13	06/18/13 15:01	CMK	
Vinyl bromide	ND	ug/m ³	3.48	4	06/18/13	06/18/13 15:01	CMK	
Vinyl chloride	ND	ug/m ³	2.04	4	06/18/13	06/18/13 15:01	CMK	
o-Xylene	ND	ug/m ³	3.48	4	06/18/13	06/18/13 15:01	CMK	
m- & p-Xylenes	ND	ug/m ³	6.80	4	06/18/13	06/18/13 15:01	CMK	
Surrogate: 4-Bromofluorobenzene		86-110	93 %		06/18/13	06/18/13 15:01		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, Staff Chemist

Analytical Results

Project: 101 W. WEST ST

Project Number: [none]
Project Manager: Denise Sullivan

Reported:
06/20/13 13:57

Notes and Definitions

TIC	Analyte included in report as a Tentatively Identified Compound
L	Analyte is a possible laboratory contaminant
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Will Brewington, Staff Chemist

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Attachment IVc
ENVIRONMENTAL REPORTS

Supplemental Limited Phase II Environmental Site Assessment – 1110 to 1112 Race Street

Supplemental Limited Phase II Environmental Site Assessment Report

Race Street Property
1110 to 1112 Race Street
Baltimore, Maryland 21230



Prepared For:

Caves Valley Partners
23 Walker Avenue
Baltimore, Maryland 21208

August 2013

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1.0 INTRODUCTION

On behalf of Caves Valley Partners, Urban Green Environmental, LLC (Urban Green) has prepared this Supplemental Limited Phase II Environmental Site Assessment (ESA) Report of the property located at 1110 to 1112 Race Street in Baltimore, Maryland 21230 (Site).

In March 2013 (updated July 2013), a *Phase I Environmental Site Assessment* was completed at the Site by Urban Green (Urban Green 2013a). Based on the results of the *Phase I ESA*, several recognized environmental conditions (*RECs*) were identified at the Site. The *RECs* included several former Site uses (machine shop, transportation company, truck repair and dry cleaner), the presence of regulated materials, suspect current and former underground storage tanks (USTs), and regulatory database listings. Additional investigation was recommended to further evaluate the potential for the historic Site uses to have impacted the Site. In addition, if a UST was confirmed to remain at the Site, the UST was recommended to be closed in accordance with the state and federal requirements.

In July 2013, a Limited Phase II ESA was performed at the Site (Urban Green 2013b). Concentrations of several VOCs (primarily petroleum-related VOCs and chlorinated solvents) were detected in the soil gas samples collected from the Site. The highest concentrations of chlorinated solvents were reported in soil gas collected from soil gas sample location SG-3, which was installed on the northern portion of the Site immediately adjacent to the inactive TCE metal degreasing unit, and in soil gas sample location SG-2, located on the southern portion of the Site downgradient from the historic suspect gasoline tank and adjacent to the former dry cleaner. Results of soil gas screening modeling of the samples indicated that with the exception of soil gas collected from locations SG-2 and SG-3, VOCs within the soil gas were well below the MDE VCP carcinogenic risk threshold of 1.0×10^{-5} and non-carcinogenic hazard index of one. However, the concentrations of VOCs in soil gas in soil gas samples SG-2 and SG-3 did appear to present the potential to be above the MDE VCP acceptable risk thresholds. The primary contaminants of concern within soil gas samples SG-2 and SG-3 appear to be associated with the presence of TCE and the TCE degradation product, cis-1,2 dichloroethene.

The objective of this investigation was to provide soil and groundwater characterization information to more fully delineate areas of concern as identified within the July 2013 Limited Phase II ESA, and to investigate the potential presence of historic suspect USTs at the Site.

This Supplemental Limited Phase II ESA has been performed in general accordance with *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater Interim Final Guidance, Updated No. 2.1* (MDE 2008) and the *VCP Guidance Document* (MDE 2006). The findings of this Supplemental Limited Phase II ESA are based solely on the data obtained and reviewed as part of this investigation, including observations and conditions that existed at the time of the field investigative activities performed in July 2013. Information provided by third parties is assumed to be accurate and complete.

This report was prepared for Caves Valley Partners by Urban Green and is based in part on third party information not within the control of Caves Valley Partners or Urban Green. While it is believed that the third party information contained herein will be reliable under the conditions and subject to the limitations set forth herein, neither Caves Valley Partners nor Urban Green guarantee the accuracy thereof.

2.0 SITE LOCATION AND DESCRIPTION

The Site consists of two adjoining parcels of land totaling approximately 0.7-acres and is zoned for commercial and industrial use. The Site is vacant and/or utilized solely for storage and was most recently occupied by Baltimore Tool Works. Baltimore Tool Works vacated the Site circa 2008. The Site is improved with two adjoining concrete/masonry warehouse structures. The 1110 Race Street Site building consists of an 8,955 square foot masonry structure which is underlain with a concrete slab-on-grade foundation. The 1112 Race Street Site Building consists of a 14,081 square foot one-story masonry structure which is underlain by a partial basement foundation (western portion) and a concrete slab-on-grade foundation. The 1110 Race Street Site building occupies the entirety of its respective Site parcel. The 1112 Race Street Site building occupies approximately 60% of its respective Site parcel. Exterior portions of the 1112 Race Street Site parcel consist of two asphalt paved loading dock/parking areas. These paved parking areas are located in the eastern and southern portions of the Site. A Site location map is presented as Figure 1; a Site plan is presented as Figure 2.

The Site is located in a densely developed, mixed-use commercial and residential area of Baltimore City. The Site is bound to the east by Race Street beyond which are apartment buildings, bound to the south by West Street beyond which is Durapak Vacuum Packaging Company, bordered to the north by Hilgartner Natural Stone Company, and bound to the west by Creek Alley, beyond which is ABC Box Company.

The Site is serviced by municipal water and sewer and electric and natural gas-fired heating systems. Municipal water and sewer are provided by the City of Baltimore; electric and natural gas utilities are provided by Baltimore Gas and Electric (BGE).

2.1 Site History

Based on a review of historic records, the 1110 Race Street Site building appears to have been constructed by at least 1942. This building was occupied by Baltimore Tool Works from at least 1942 to 2008. Prior to 1942, the Site parcel appears to have been occupied by Joseph Thomas and Sons Lumber (1914) and a cooper shop (1901).

The 1112 Race Street Site parcel appears to have been improved with the existing Site building since the 1960s and occupied by Baltimore Tool Works from the 1980s to 2008. Prior to that time, the central portion of the Site parcel was occupied by the Baltimore Motor Company (1975-1980), the American Transfer Company (1942-1964) and Joseph Thomas and Sons Lumber (1914). The southern portion of the 1112 Race Street property was historically addressed 100 to 122 West West Street. From at least 1914 to 1952, this southern portion of the Site was occupied by eight residential rowhome structures and three commercial buildings/horse stable buildings. In the 1950s the buildings located at 122 West West Street, 120 West West Street, and 100 West West Street were occupied as a dry cleaner, paint storage warehouse and retail store, respectively.

2.2 Environmental Setting

2.2.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore East (1974), Site elevation is approximately 15 feet above mean sea level. In general, the subject property's slope is relatively flat sloping slightly to the southwest. Overland stormwater flow appears to be directed to the surrounding thoroughfares. Site topography is also illustrated in Figure 1.

The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 1,800 feet southwest of the Site. Based on the topography of the Site and nearby surface water bodies, groundwater is anticipated to flow in a general southwesterly direction across the Site.

2.2.2 Lithology

According to the USDA Soil Conservation Service STATSGO Soil Map data, soil on Site is classified as Urban Land, which consists of variable soils from zero to 59 inches. The Urban Land Complex is defined as an area where more than 80% of the surface is covered by asphalt, concrete, buildings, or other impervious structures.

Based on field observations, the soil lithology at the Site consisted of fill materials (asphalt, gravel, coarse sandy clay and brick) to a depth of seven feet below grade underlain by clays and sandy clays.

2.3 Prior Environmental Investigations

In March 2013 (updated July 2013), Urban Green completed a Phase I ESA of the Site (Urban Green 2013a). The scope of work of the Phase I ESA consisted of a visual Site inspection, historic records review, regulatory records review and interviews with neighboring property owners. It is noteworthy, that visual observations of the entire floor surfaces within the western interior portion of the 1110 Race Street Site building were limited due to standing water. Further, visual observations throughout the Site were partially limited due to the presence of stored materials.

In July 2013, the Phase I ESA was updated based on additional observations obtained during the performance of the Phase II ESA. Specifically, on June 12 and 14, 2013, Urban Green personnel cleared several areas of debris/weeds to identify locations for soil gas point installation and sampling. Visual evidence of UST(s), consisting of a 2-inch pipe entering the asphalt paved area on the southern portion of the Site and one suspect UST vent/fill south of the Site building in the concrete sidewalk along West West Street were identified.

As identified within the Phase I ESA, the following RECs were identified in connection with the Site:

- **Historical Site Uses:** The Site parcels have been developed since the 1900s and have included industrial and commercial operations including a machine shop, a transportation company, a truck repair, and a dry cleaner.
- **Regulated Materials:** Several 55-gallon drums (gear oil, tetrachloroethylene, steel abrasive, unlabeled), one former trichloroethylene (TCE) degreasing unit, and several quart to 5-gallon containers of hydraulic fluid, paint and routine maintenance supplies were observed throughout the interior portions of the Site. Oily staining was observed on the concrete floor surfaces through the areas of storage and historic use.
- **Historic Suspect USTs:** Visual evidence of one to two suspect USTs was observed at the Site. In addition, historic atlases indicate the potential presence of one gasoline UST on the 1112 Race Street property from at least 1967 to 1974. No information regarding the historic removal and/or closure of the historic gasoline UST was identified.
- **Historic Former UST:** One 8,000-gallon diesel UST was reportedly removed from the 1110 Race Street property in 1990. No information regarding the location of the former UST was identified during this investigation; however, a Site status letter has been issued by the MDE OCP for this UST indicating that remediation was performed following the removal of the UST and MDE OCP does not require any additional action or investigation.
- **Site Database Listings:** The 1110 Site address is listed in OCPCASES, Emergency Response Notification System (ERNS), and Resource Conservation and Recovery Act (RCRA) databases. Specifically, the Site address is listed with one MDE OCP case file which was opened in February 1990 and closed in March 1990, as a small quantity generator of hazardous waste, and is listed with one ERNS case from 1993 regarding a release of glue from a 55-gallon drum onto asphalt at the Site.

Additional action and/or investigation was recommended to further evaluate the potential for the above RECs to have impacted the environmental integrity of the Site and to confirm or deny the potential presence of a UST to remain at the Site. If a UST is confirmed to remain at the Site, the UST should be closed in accordance with state and federal requirements. In addition, it was recommended that prior to purchase and/or redevelopment of the Site, that the regulated materials be removed in accordance with state and federal guidelines.

In July, 2013, a Limited Phase II ESA was performed at the Site (Urban Green 2013b). The investigation consisted of the advancement of six soil borings (SB-1 through SB-6) throughout the interior of the Site for the collection of soil gas samples for fixed laboratory analysis of volatile organic compounds. Results of the soil gas sampling are presented on Figure 3.

Concentrations of several VOCs (primarily petroleum-related VOCs and chlorinated solvents) were detected in the soil gas samples collected from the Site. The highest concentrations of chlorinated solvents were reported in soil gas collected from soil gas sample location SG-3, which was installed on the northern portion of the Site immediately adjacent to the inactive TCE metal degreasing unit, and in soil gas sample location SG-2, located on the southern portion of the Site downgradient from the historic suspect gasoline tank and adjacent to the former dry cleaner.

Results of soil gas screening modeling of the samples indicated that with the exception of soil gas collected from locations SG-2 and SG-3, VOCs within the soil gas were well below the MDE VCP carcinogenic risk threshold of 1.0×10^{-5} and non-carcinogenic hazard index of one.

However, the concentrations of VOCs in soil gas in soil gas samples SG-2 and SG-3 did appear to present the potential to be above the MDE VCP acceptable risk thresholds. The primary contaminants of concern within soil gas samples SG-2 and SG-3 appear to be associated with the presence of TCE and the TCE degradation product, cis-1,2 dichloroethene.

Based on the results of the Limited Phase II ESA, additional investigation, including soil and/or groundwater sampling was recommended to further evaluate the source and extent of the VOC impacts in soil gas at the Site.

3.0 INVESTIGATION METHODS

3.1 Purpose and Objectives

The objective of this investigation was to provide soil and groundwater characterization information to more fully delineate areas of concern as identified within the July 2013 Limited Phase II ESA, and to investigate the potential presence of historic suspect USTs at the Site. Specifically, the scope of this investigation consisted of the following tasks:

- Three limited geophysical surveys of historic suspect UST areas in the southern portion of the Site.
- Advancement of four exterior soil borings (SB-1 through SB-4) of the Site to depths ranging from 12 to 16 feet below grade or the groundwater interface. The soil borings were advanced within the southern and eastern asphalt paved parking areas in proximity to areas of elevated soil gas results and/or suspect historic USTs. All soil borings were completed as temporary groundwater wells.
- Field screening of soil samples collected from each soil boring at approximate two foot intervals for the presence of total VOCs.
- Collection of select, discrete soil samples from each soil boring for fixed laboratory analysis of one or more of the following suite of analytes: VOCs, toxicity characteristic leaching procedure (TCLP) VOCs, polycyclic aromatic hydrocarbons (PAHs) and priority pollutant list (PPL) metals.
- Collection of groundwater samples from the four temporary groundwater monitoring wells for fixed laboratory analysis of VOCs.

The work tasks and associated field sampling activities described below were performed in general accordance with the *MDE Voluntary Cleanup Program Guidance Document* (MDE 2006) and the *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance* (MDE 2008).

3.2 Field Investigation Procedures

Fieldwork for the subsurface investigation was conducted on July 23, 2013. The following report sections summarize the field sampling and laboratory-analysis methodologies implemented during the investigation. The soil and groundwater sampling locations are illustrated on the Site Plan presented as Figure 2.

3.2.1 Utility Mark out and Geophysical Survey

Prior to initiating field activities, Urban Green coordinated with MissUtility and a private utility mark out subcontractor to complete the required dig permit and obtain utility clearance for the Site investigation areas. In addition, Urban Green personnel conducted a Site visit to confirm the proposed soil boring locations and below grade utility markings.

On July 23, 2013, concurrent with the utility mark out, three limited geophysical surveys were conducted by Ground Penetrating Radar Systems, Inc., of Toledo, Ohio within the southern portion of the Site. The limited investigations were conducted using ground penetrating radar (GPR) and covered three approximate 20 feet by 20 feet areas in the vicinity of suspects vent ports and fill pipes observed during Site reconnaissance and the historic gasoline UST identified on the 1974 and 1967 Sanborn atlases. GPR uses radar pulses to image the subsurface of the Site. The depth range of GPR is limited by the electrical conductivity of the ground, and the transmitting frequency. As conductivity increases, the penetration depth decreases. As such, subsurface materials, such as concrete, reinforced concrete or metallic debris may reduce the effective penetration depth. The maximum depth of penetration was approximately three to seven feet below grade. The geophysical survey areas are depicted on Figure 3.

3.2.2 Soil Investigation and Sampling

On July 23, 2013, under the supervision of the Urban Green Environmental Scientist, four soil borings were advanced at the Site. Soil borings were advanced to depths ranging from 12 to 16 feet below grade using direct push drilling technologies. Drilling services were performed by Green Services, Inc. of Bel Air, Maryland. The direct push technology method utilizes a two-inch inner diameter, four foot long, stainless steel sampler lined with a dedicated high-density polyethylene (HDPE) liner. The HDPE-lined stainless steel sampler is hydraulically driven into the subsurface for soil core retrieval.

A log of field activities, including logs of the soil borings and photographs, was maintained throughout the field activities. Site photographs are included as Appendix A. Soil boring logs, including soil lithology, recovery and field observations are provided in Appendix B. A summary of the soil borings is provided below; soil boring locations are presented in Figure 2.

- *SB-1 –Historic Site Use/TCE concentration in soil gas:* SB-1 was advanced in the northern portion of the eastern asphalt paved parking lot. This soil boring was also located presumably downgradient of a TCE degreasing unit located in machine shop portion of the 1110 Race Street building and in the vicinity of elevated TCE concentrations reported in soil gas sample SG-3. SB-1 was advanced to 12 feet below grade; groundwater was encountered at approximately seven below grade. SB-1 was completed at temporary well TW-1.
- *SB-2 –Historical UST:* SB-2 was advanced in the western portion of the southern asphalt paved parking lot and in the vicinity of a suspect historic UST observed on the 1967 and 1974 Sanborn atlases. SB-2 was advanced to 12 feet below grade; groundwater was encountered at approximately three feet below grade. SB-2 was completed as temporary groundwater well TW-2.
- *SB-3 – Historic Site Use/TCE concentration in soil gas:* SB-3 was advanced in the southeast portion of the eastern asphalt paved parking lot in the vicinity of materials storage and downgradient of elevated TCE concentrations reported in soil gas sample SG-3. SB-3 was advanced to 16 feet below

grade; groundwater was encountered at approximately four feet below grade. SB-3 was completed as temporary groundwater well TW-3.

- *SB-4 – Historic Suspect UST:* SB-4 was advanced in the southeastern portion of the southern asphalt paved parking lot, in the vicinity of a suspect historic UST. SB-4 was advanced to 16 feet below grade; groundwater was encountered at four feet below grade. SB-4 was completed as temporary groundwater well TW-4.

Immediately following the direct push sampler retrieval, the HDPE sample liner was opened by the Urban Green Environmental Scientists, and screened, at approximate two foot intervals for evidence of total VOCs using a photoionization detector (PID). Discrete grab soil samples were then collected directly from the sample core liner using disposable, using dedicated aseptic sampling devices. PID readings within the soil borings ranged from 0.0 parts per million by volume (ppmv) to 961 (SB-2 at four to six feet below grade). Minor petroleum impacts including odor and staining was observed in all of the soil borings. As noted within the following report sections, field screening readings within soil boring SB-4 indicated elevated PID reading at depths ranging from 12-14 feet below grade; the subsurface soil sample from soil boring SB-4 was collected from this depth interval.

Based on field screening and visual observations, surface soil samples (zero to one foot below grade) and subsurface soil samples (four to five feet below grade or 12 to 14 feet below grade) were collected from each soil boring.

Samples were collected using dedicated sampling equipment and placed into new, clean sample containers. The soil samples were labeled with sample designation, date and time, and the required analyses. Soil samples were then placed on ice in a portable cooler prior to hand-delivery Caliber Analytical Services in Towson, Maryland. Chain of custody (COC) forms were maintained (and accompanied the samples in transit) to provide a record of samples from collection to analyses. The select soil samples were submitted for fixed laboratory analysis of one or more of the following: VOCs via USEPA method 8260B, TCLP VOCs via method 1311, PAHs via USEPA method 8270C, and PPL metals via USEPA method 6020A.

3.2.3 Groundwater Investigation and Sampling

On July 23, 2013, following the collection of soil samples, soil borings SB-1 through SB-4 were converted into temporary groundwater monitoring wells (TW-1 through TW-4). The wells were installed to depths of approximately 10 to 15 feet below grade and constructed using 10 to 15 feet of 1-inch diameter flush-threaded PVC screen (0.020 slot) and completed with solid PVC riser to the ground surface to allow for the collection of grab groundwater samples.

Grab groundwater samples were collected from the temporary well points using dedicated plastic tubing and a ball and check valve. The groundwater samples were placed in new laboratory-supplied glass sample 40-ml VOAs and preserved. The samples were labeled with sample

designation, date and time, and the required analyses. The groundwater samples were then placed on ice in a portable cooler prior to being delivered to Caliber Analytical Services in Towson, Maryland for analysis of VOCs via USEPA Method 8260B. COC forms were maintained (and accompanied the samples in transit) to provide a record of samples from collection to analyses.

3.2.4 Groundwater Elevation Survey

In order to evaluate the groundwater flow at the Site, on August 1, 2013, a groundwater elevation survey was conducted on all temporary groundwater wells (TW-1 through TW-4). The survey was completed by collecting elevation and groundwater gauging data from the center of each well's top of PVC well riser. Based on the topography of the Site, groundwater was anticipated to flow in a southwesterly direction, however the results of the elevation survey results indicated that groundwater appears to be flowing in a southeastern direction across the Site. The results of the groundwater elevation survey are presented in Figure 5.

3.2.5 Quality Assurance/Quality Control Procedures

QA/QC protocols covered general aspects of measurement systems design and implementation, including sampling methods, data handling, and QC measures employed. QA/QC procedures followed during the investigation included the use of dedicated sampling equipment for sampling activities.

3.2.6 Sample Handling/Chain of Custody

Soil and groundwater samples were hand delivered, via strict chain-of-custody, to Caliber Analytical Services in Towson, Maryland for fixed laboratory analysis of one or more of the following: VOCs via USEPA method 8260B, TCLP VOCs via USEPA method 1311, PAHs via USEPA method 8270C and PPL metals via USEPA method 6020A. All analysis was performed on a standard one week turn around.

3.2.7 Decontamination and Investigation-Derived Material Handling Procedures

The primary objective of the decontamination process was to prevent the accidental introduction of potential contaminants to non-contaminated areas and/or samples. During field activities, a designated decontamination area was established and equipped with decontamination equipment (wash bucket, brushes, spray bottles, potable water, distilled water, towels, etc.) to adequately decontaminate the equipment used on-site. To the maximum extent possible, dedicated equipment was used at each media sample location.

Sampling equipment that was not dedicated to one sample location (hammer drill bit) was washed with a medical-grade detergent wash, rinsed with distilled water and allowed to air dry.

4.0 PHASE II ESA INVESTIGATION RESULTS

4.1 Site Conditions

4.1.1 Lithology

Based on field observations, the soil lithology at the Site consisted of fill materials (asphalt, gravel, coarse sandy clay and brick) to a depth of seven feet below grade underlain by clays and sandy clays. Groundwater was observed at depths ranging from four to seven feet below grade.

Evidence of potential petroleum impacts (staining and/or odor) were observed in the soil borings. Specifically,

- *SB-1*: Field screening readings indicated background concentrations of total VOCs throughout the boring and no staining or petroleum odor was observed.
- *SB-2*: Field screening indicated concentrations of total VOCs ranging from 26.0 ppmv to 961 ppmv; VOC concentrations in excess of 100 were observed between two and eight feet below grade. Petroleum odor was observed between three and 12 feet below grade and staining was observed between three and four, six to eight and 10 to 12 feet below grade.
- *SB-3*: Field screening indicated concentrations of total VOCs ranging from 10.4 ppmv to 355 ppmv; the elevated readings appeared to be associated with surface fill materials present at zero to two feet below grade. Petroleum odor was observed between four and 10 feet below grade and staining was observed between eight and 10 feet below grade.
- *SB-4*: Field screening indicated concentrations of total VOCs ranging from 0.0 ppmv to 24.2 ppmv. Petroleum odor was observed between five and eight feet and 12 to 16 feet below grade and staining was observed between eight and 10 feet below grade.

4.2 UST Investigation Results

Based on a discussion with the Ground Penetrating Radar Systems, Inc. personnel, results of the three limited geophysical surveys indicated two anomalous areas indicative of suspect USTs. Geophysical survey results are depicted on Figure 4.

Specifically, one anomalous area, of approximately five feet by five feet, was observed at the southwestern Site boundary along the southern exterior wall of the building (geophysical area #1). Another anomalous area, of approximately seven feet by five feet, was observed in the southeastern portion of the southern asphalt paved parking lot (geophysical area #3); these anomalous areas are indicative of USTs.

Geophysical area #2 was performed in western portion of the southern asphalt paved parking lot and no evidence of a UST was observed.

4.3 Soil Analytical Results

Surface soil samples (zero to one foot below grade) and subsurface soil samples (four to five or 12 to 14 feet below grade) were collected from each soil boring. Field screening readings within soil boring SB-4 indicated elevated PID reading at depths ranging from 12-14 feet below grade; the subsurface soil sample from soil boring SB-4 was collected from this depth interval. In total, four surface soil samples and four subsurface soil samples were submitted for laboratory analysis of one or more of the following: VOCs, TCLP VOCs, PAHs and PPL metals.

To assess whether there has been an impact to the soil by the current and historic operations, the analytical results were compared to the MDE Cleanup Standards for Non-Residential Soil. In addition, the soil sample results for metals were also compared to the eastern Maryland Anticipated Typical Concentrations (ATC); the MDE VCP recognizes the greater of the MDE Cleanup Standards for Non-Residential Soil or the ATC as the applicable cleanup standard.

A summary of the soil laboratory analytical results are presented on Table 1 and Figure 4. A copy of the fixed laboratory analytical report is provided in Appendix C.

VOCs

Four soil samples (SB-1 4-5, SB-2 4-5, SB-3 4-5, and SB-4 12-14) were submitted for analysis of VOCs. No detectable concentrations of VOCs were reported in the soil samples.

TCLP VOCs

One soil sample (SB-1 4-5) was submitted for analysis of TCLP VOCs. No detectable concentrations of TCLP VOCs were reported in the soil sample.

PAHs

Four soil samples (SB-1 0-1, SB-2 0-1, SB-3 0-1, and SB-4 0-1) were submitted for analysis of PAHs. All four soil samples detected one or more PAH concentration; however, only one PAH (benzo[a]pyrene) was reported in excess of the MDE Cleanup Standards for Non-Residential Soil. Specifically, benzo[a]pyrene was reported in three samples (SB-1 0-1, SB-3 0-1 and SB-4 0-1) at concentrations of 1,400 micrograms per kilogram ($\mu\text{g}/\text{kg}$), 1,900 $\mu\text{g}/\text{kg}$ and 570 $\mu\text{g}/\text{kg}$, respectively, which exceed the MDE Cleanup Standards for Non-Residential Soil of 390 $\mu\text{g}/\text{kg}$.

PPL Metals

Four soil samples (SB-1 0-1, SB-2 0-1, SB-3 0-1, and SB-4 0-1) were submitted for analysis of PPL metals. With the exception of arsenic and mercury, no PPL metals were reported in soil above the ATC or the MDE Cleanup Standards for Non-Residential Soil. Specifically,

- Arsenic was reported in three samples (SB-2 0-1, SB-3 0-1 and SB-4 0-1) at concentrations of 4.1 milligrams per kilogram (mg/kg), 5.9 mg/kg and 10 mg/kg, respectively, which exceed the ATC of 3.6 mg/kg.
- Mercury was reported in three samples (SB-2 0-1, SB-3 0-1 and SB-4 0-1) at concentrations of 1.7 mg/kg, 3.3 mg/kg and 1.9 mg/kg, respectively, which exceed the ATC of 0.51 mg/kg.

4.4 Groundwater Analytical Results

A summary of the analytes detected in groundwater are presented in Table 2 and discussed below. The full laboratory analytical data reports are provided in Appendix C.

Grab groundwater samples were collected from the temporary groundwater monitoring wells (TW-1 through TW-4) and submitted for fixed laboratory analysis of VOCs. To assess whether there has been an impact to the groundwater by the historic onsite operations, the analytical results were compared to the MDE Cleanup Standards for Groundwater.

As indicated on Table 2, low concentrations of two VOCs (cyclohexane and methylcyclohexane) were reported in the TW-2 groundwater sample; MDE has not published groundwater standards for the above VOCs. No detectable concentrations of VOCs were reported in samples TW-1, TW-3 or TW-4.

5.0 DISCUSSION OF RESULTS

On behalf of Caves Valley Partners, Urban Green has performed a Phase II ESA of the property located at 1110 to 1112 Race Street in Baltimore, Maryland 21230. The objective of this investigation was to provide soil and groundwater characterization information to more fully delineate areas of concern as identified within the July 2013 Limited Phase II ESA, and to investigate the potential presence of historic suspect USTs at the Site.

The scope of this investigation consisted of advancing four soil borings (SB-1 through SB-4) at the Site and performance of three limited geophysical surveys of historic suspect UST areas in the southern portion of the Site. Groundwater was encountered at depths of approximately three to seven feet below grade and all soil borings were completed as temporary groundwater monitoring wells.

In general, soil boring locations were biased towards areas of concerns. Specifically, soil borings SB-1 and SB-3 were advanced in proximity to or downgradient of elevated TCE concentrations reported in soil gas sample SG-3 and to address potential environmental impacts of historic Site use as a machine shop. SB-2 and SB-4 were advanced in proximity to historic suspect USTs located in the southern portions of the Site. Select surface and subsurface soil samples were collected from each soil boring and submitted for fixed laboratory analysis of VOCs, TCLP VOCs, PAHs and PPL Metals. Four grab groundwater samples were collected from the temporary groundwater monitoring wells and submitted for fixed laboratory analysis of VOCs.

5.1 Geophysical Investigation Results

Results of the limited geophysical survey indicated two anomalous areas indicative of suspect USTs.

Specifically, one anomalous area, of approximately five feet by five feet, was observed at the southwestern Site boundary along the southern exterior wall of the building (geophysical area #1). Another anomalous area, of approximately seven feet by five feet, was observed in the southeastern portion of the southern asphalt paved parking lot (geophysical area #3).

Geophysical area #2 was performed in western portion of the southern asphalt paved parking lot and no evidence of a UST was observed.

5.2 Soil

No detectable concentrations of VOCs or TCLP VOCs were reported in the soil samples.

Concentrations of the PAH benzo(a)pyrene were reported in excess of the currently applicable MDE Cleanup Standards for Non-Residential soil. Specifically, elevated concentrations of benzo(a)pyrene were reported in surface soil samples collected from soil borings SB-1 and SB-3 which were

advanced in the eastern asphalt paved parking lot, and soil boring SB-4 which was advanced in the southern asphalt paved parking lot.

Concentrations of two PPL Metals (arsenic and mercury) were reported at concentrations in excess of the currently applicable MDE Cleanup Standards for Non-Residential soil and/or ATC. Specifically, elevated concentrations of arsenic and mercury were observed in surface soils collected from soil borings SB-2, SB-3, and SB-4.

Priority pollutant metals occur widely in the earth's crust as natural minerals and are therefore, commonly identified in soil. The MDE has compiled data regarding anticipated concentrations of various metals for soil throughout the state, which are referenced as the ATC/Reference Levels of Metals in the State of Maryland. A listing of these concentrations as compared to the concentrations was performed as part of this investigation. In summary, the concentrations of arsenic and mercury were comparable to the ATC for metals in the Site area.

5.3 Groundwater

Low concentrations of two VOCs (cyclohexane and methylcyclohexane) were reported in the TW-2 groundwater sample; MDE has not published groundwater standards for the above VOCs. No detectable concentrations of VOCs were reported in samples TW-1, TW-3 or TW-4. TW-2 was advanced in the southern asphalt paved parking lot in the vicinity of a suspect former UST.

6.0 REFERENCES

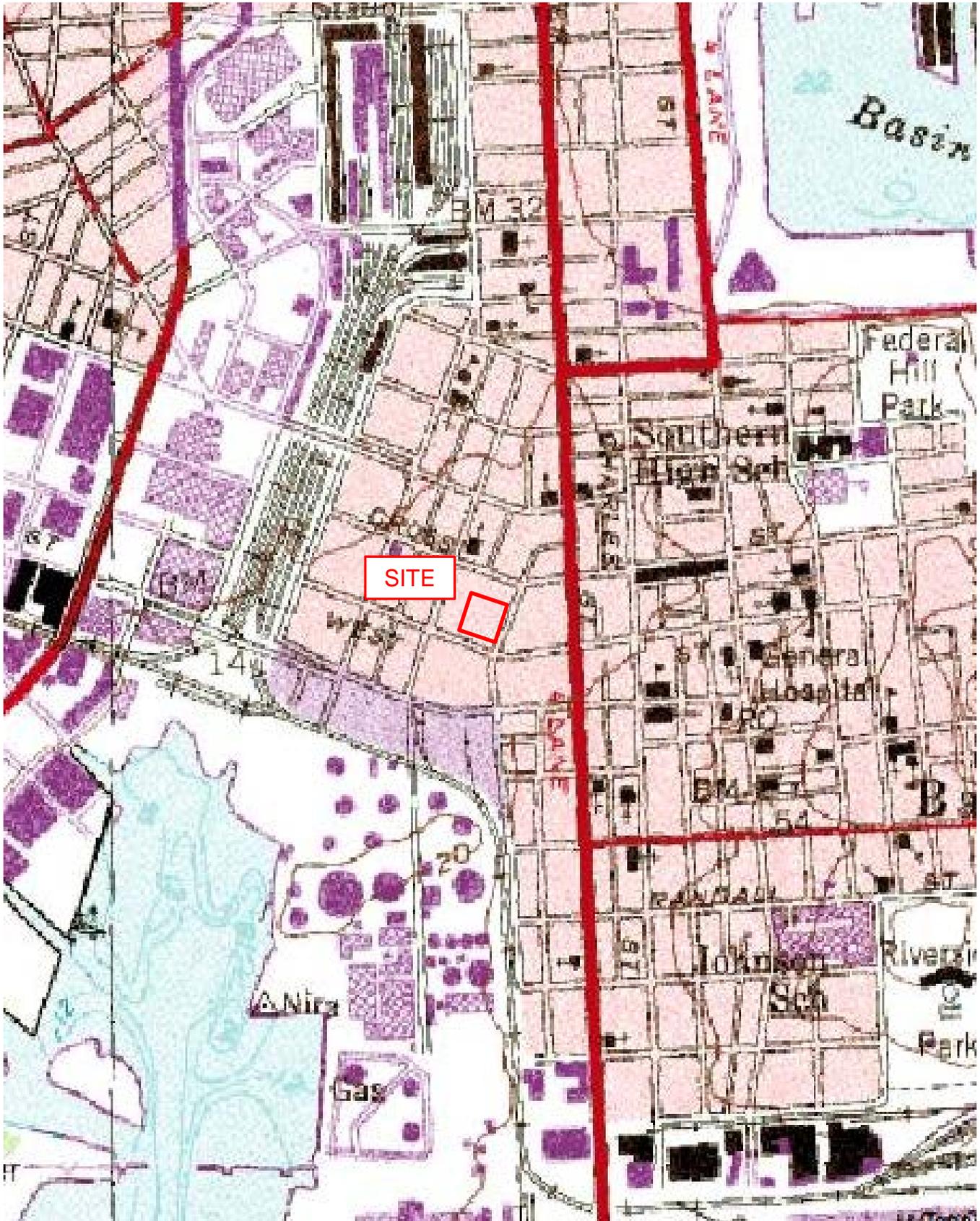
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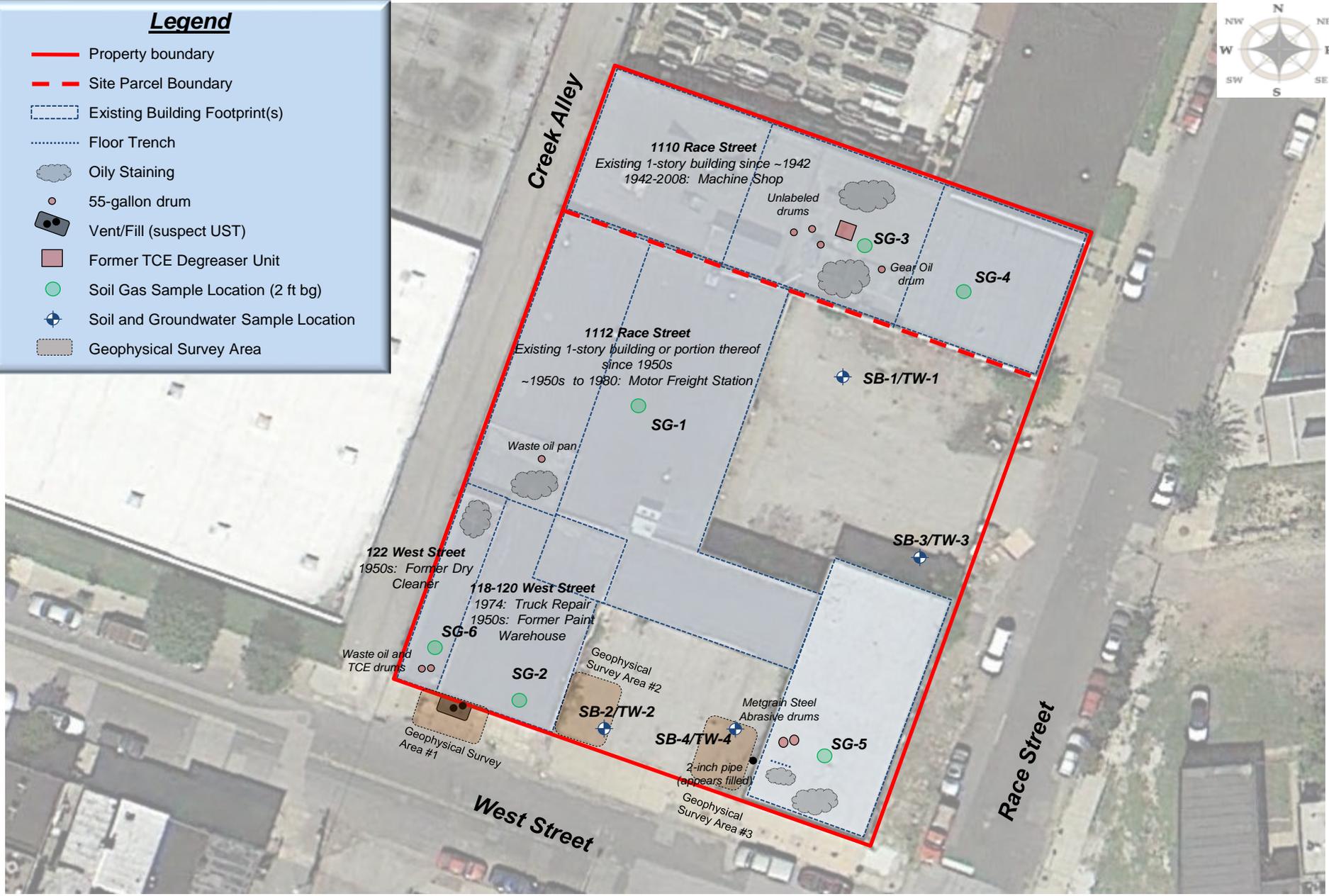
Urban Green. 2013b. *Limited Phase II Environmental Site Assessment, 1110 to 1112 Race Street, Baltimore, Maryland 21230*. July.



Basemap Source: Topozone.com

Legend

- Property boundary
- - - Site Parcel Boundary
- Existing Building Footprint(s)
- Floor Trench
- Oily Staining
- 55-gallon drum
- Vent/Fill (suspect UST)
- Former TCE Degreaser Unit
- Soil Gas Sample Location (2 ft bg)
- Soil and Groundwater Sample Location
- Geophysical Survey Area



Basemap - 2010 Aerial Photograph: Google Earth Pro

Legend

- Property boundary
- - - Site Parcel Boundary
- Existing Building Footprint(s)
- Floor Trench
- Suspect Former Gasoline Tank
- Oily Staining
- 55-gallon drum
- Vent/Fill (suspect UST)
- Former TCE Degreaser Unit
- Soil Gas Sample Location (2 ft bg)

SG-3	
Acetone	885 µg/m³
1,1-Dichloroethane	419 µg/m³
1,1-Dichloroethene	377 µg/m³
cis-1,2-Dichloroethene	30,600 µg/m³
trans-1,2-Dichloroethene	1,040 µg/m³
Trichloroethene	43,400 µg/m³
2,2,4-Trimethylbenzene	559 µg/m³
Vinyl chloride	14.5 µg/m³
Potential Carcinogenic Risk	3.2 E-03
Potential Non-Carcinogenic Risk	3.738
(ABOVE MDE Risk thresholds)	

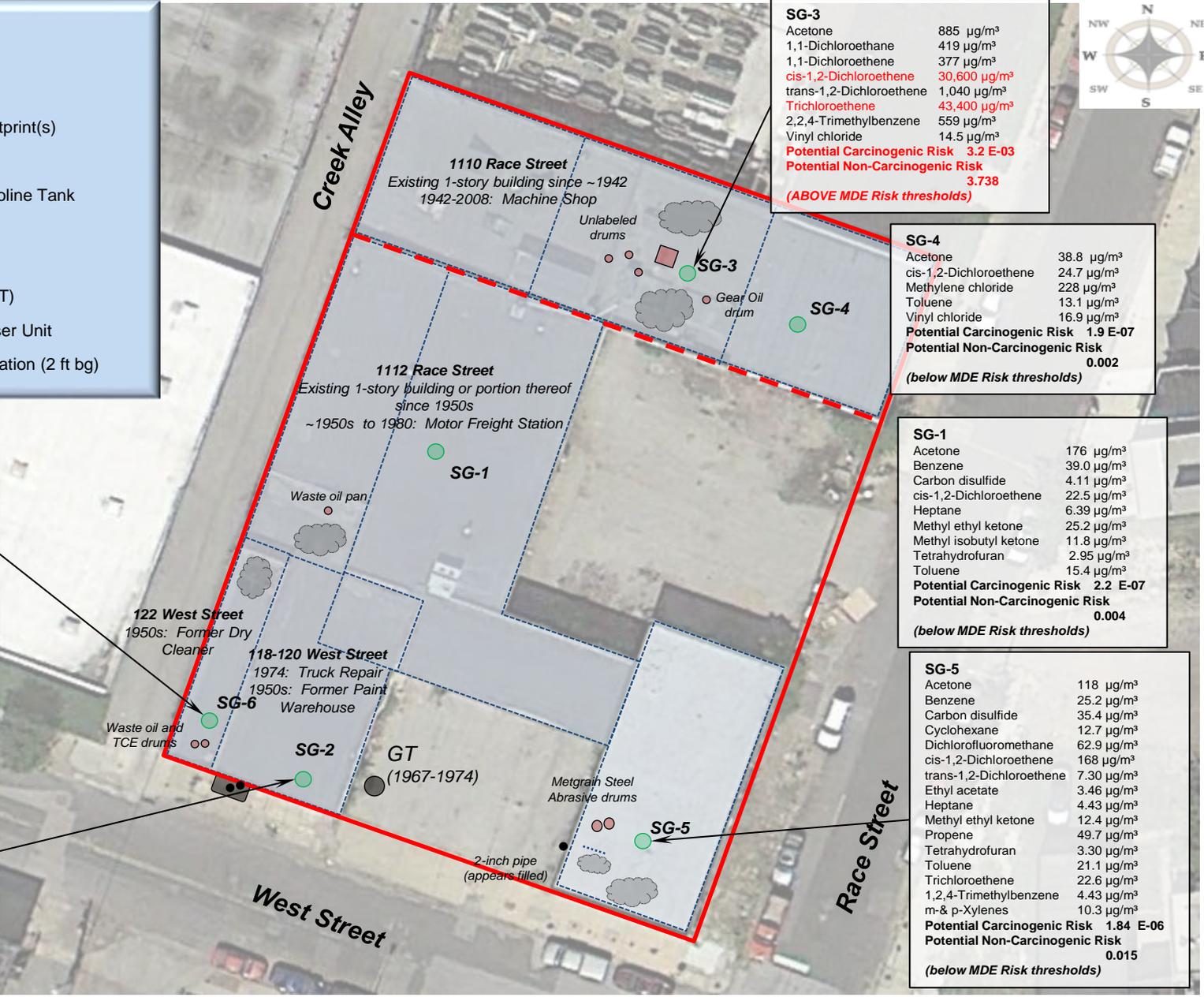
SG-4	
Acetone	38.8 µg/m³
cis-1,2-Dichloroethene	24.7 µg/m³
Methylene chloride	228 µg/m³
Toluene	13.1 µg/m³
Vinyl chloride	16.9 µg/m³
Potential Carcinogenic Risk	1.9 E-07
Potential Non-Carcinogenic Risk	0.002
(below MDE Risk thresholds)	

SG-1	
Acetone	176 µg/m³
Benzene	39.0 µg/m³
Carbon disulfide	4.11 µg/m³
cis-1,2-Dichloroethene	22.5 µg/m³
Heptane	6.39 µg/m³
Methyl ethyl ketone	25.2 µg/m³
Methyl isobutyl ketone	11.8 µg/m³
Tetrahydrofuran	2.95 µg/m³
Toluene	15.4 µg/m³
Potential Carcinogenic Risk	2.2 E-07
Potential Non-Carcinogenic Risk	0.004
(below MDE Risk thresholds)	

SG-5	
Acetone	118 µg/m³
Benzene	25.2 µg/m³
Carbon disulfide	35.4 µg/m³
Cyclohexane	12.7 µg/m³
Dichlorofluoromethane	62.9 µg/m³
cis-1,2-Dichloroethene	168 µg/m³
trans-1,2-Dichloroethene	7.30 µg/m³
Ethyl acetate	3.46 µg/m³
Heptane	4.43 µg/m³
Methyl ethyl ketone	12.4 µg/m³
Propene	49.7 µg/m³
Tetrahydrofuran	3.30 µg/m³
Toluene	21.1 µg/m³
Trichloroethene	22.6 µg/m³
1,2,4-Trimethylbenzene	4.43 µg/m³
m- & p-Xylenes	10.3 µg/m³
Potential Carcinogenic Risk	1.84 E-06
Potential Non-Carcinogenic Risk	0.015
(below MDE Risk thresholds)	

SG-6	
Acetone	54.3 µg/m³
Benzene	13.5 µg/m³
Heptane	3.93 µg/m³
Methyl ethyl ketone	10.6 µg/m³
Propene	35.2 µg/m³
Tetrachloroethane	22.5 µg/m³
Toluene	20.0 µg/m³
Trichloroethene	12.7 µg/m³
Potential Carcinogenic Risk	1.11 E-06
Potential Non-Carcinogenic Risk	0.002
(below MDE Risk thresholds)	

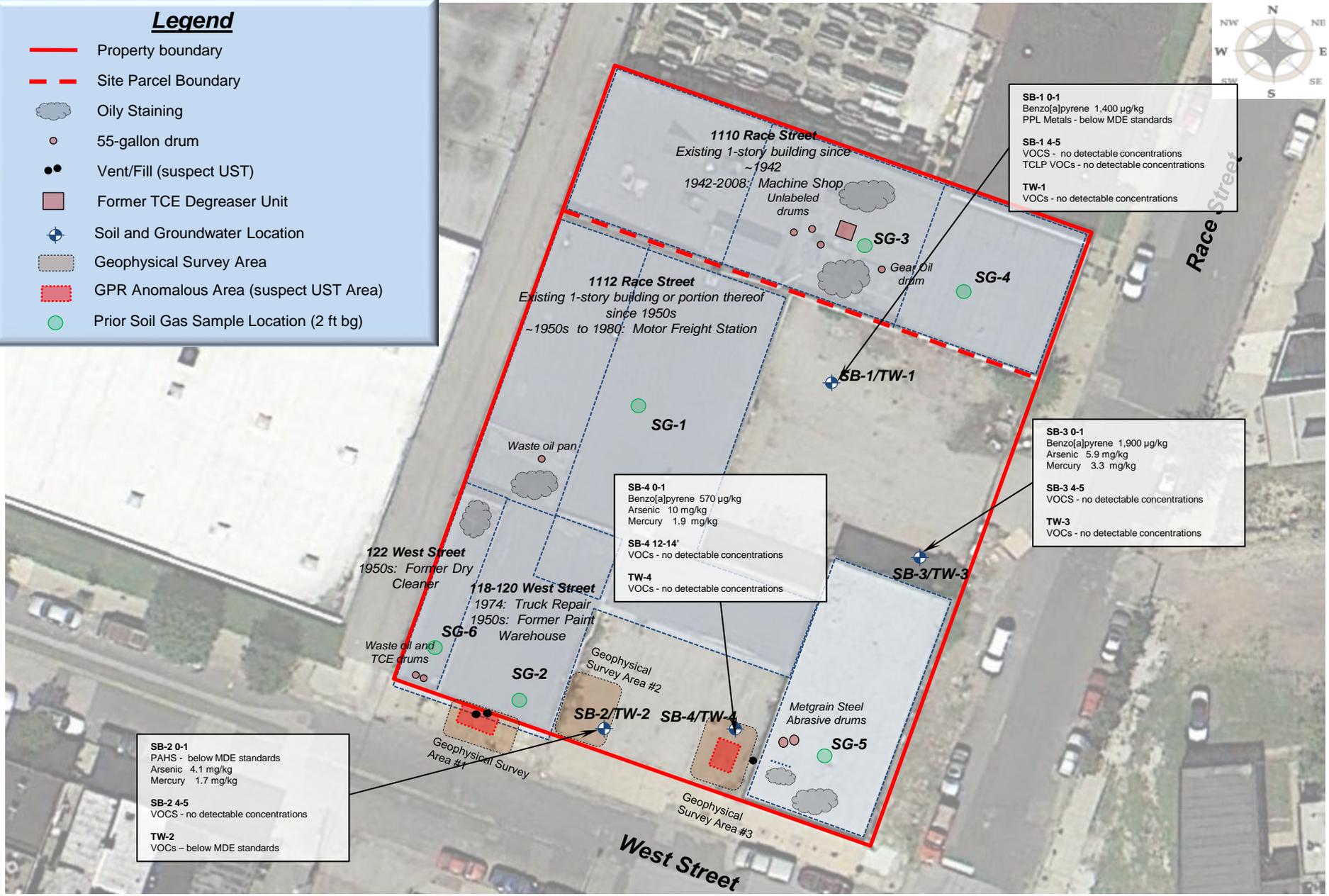
SG-2	
Acetone	500 µg/m³
Benzene	338 µg/m³
Carbon disulfide	4.11 µg/m³
Cyclohexane	303 µg/m³
cis-1,2-Dichloroethene	22.4 µg/m³
trans-1,2-Dichloroethene	22.4 µg/m³
Ethyl acetate	6.77 µg/m³
Heptane	106 µg/m³
Hexane	652 µg/m³
Methyl ethyl ketone	89.7 µg/m³
Methyl isobutyl ketone	53.3 µg/m³
Toluene	33.3 µg/m³
Trichloroethene	246 µg/m³
2,2,4-Trimethylbenzene	559 µg/m³
Vinyl chloride	14.5 µg/m³
Potential Carcinogenic Risk	2.0 E-05
Potential Non-Carcinogenic Risk	0.048
(below MDE Risk thresholds)	



Basemap - 2010 Aerial Photograph: Google Earth Pro

Legend

- Property boundary
- - - Site Parcel Boundary
- Oily Staining
- 55-gallon drum
- Vent/Fill (suspect UST)
- Former TCE Degreaser Unit
- Soil and Groundwater Location
- Geophysical Survey Area
- GPR Anomalous Area (suspect UST Area)
- Prior Soil Gas Sample Location (2 ft bg)



SB-1 0-1
 Benzo[a]pyrene 1,400 µg/kg
 PPL Metals - below MDE standards

SB-1 4-5
 VOCs - no detectable concentrations
 TCLP VOCs - no detectable concentrations

TW-1
 VOCs - no detectable concentrations

SB-3 0-1
 Benzo[a]pyrene 1,900 µg/kg
 Arsenic 5.9 mg/kg
 Mercury 3.3 mg/kg

SB-3 4-5
 VOCs - no detectable concentrations

TW-3
 VOCs - no detectable concentrations

SB-4 0-1
 Benzo[a]pyrene 570 µg/kg
 Arsenic 10 mg/kg
 Mercury 1.9 mg/kg

SB-4 12-14'
 VOCs - no detectable concentrations

TW-4
 VOCs - no detectable concentrations

SB-2 0-1
 PAHS - below MDE standards
 Arsenic 4.1 mg/kg
 Mercury 1.7 mg/kg

SB-2 4-5
 VOCs - no detectable concentrations

TW-2
 VOCs - below MDE standards

Aerial Photograph Source: Google Earth

Date:	August 2013	Figure:	4
Approximate Scale:	Not to Scale	Project Number:	078-008-13



LEGEND	
◆	GROUNDWATER MONITORING WELL LOCATION
400	RELATIVE GROUNDWATER ELEVATION (AUGUST 2013)

FIGURE 5 GROUNDWATER ELEVATION CONTOURS
 1110 to 1112 Race Street
 Baltimore, Maryland 21230

Table 1 Summary of Analytes Reported in Soil

1110 to 1112 Race Street
 Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential ⁽¹⁾	ATC ⁽²⁾	Sample ID	SB-1	SB-1	SB-2	SB-2	SB-3	SB-3	SB-4	SB-4
			Interval (ft bg)	0-1'	4-5'	0-1'	4-5'	0-1'	4-5'	0-1'	12-14'
			Date	7/23/13	7/23/13	7/23/13	7/23/13	7/23/13	7/23/13	7/23/13	7/23/13
Volatile Organic Compounds (SW8260B / ug/kg)											
VOCs	Varies	NA		---	ND	---	ND	---	ND	---	ND
TCLP Volatile Organic Compounds (SW1311 / ug/l)											
TCLP VOCs	NA	NA		---	ND	---	---	---	---	---	---
Polycyclic Aromatic Hydrocarbons (SW8270C / ug/kg)											
Acenaphthene	6,100,000	NA		170	---	18	---	140	---	49	---
Acenaphthylene	6,100,000	NA		120	---	9	---	50	---	18	---
Anthracene	31,000,000	NA		430	---	28	---	260	---	240	---
Benzo[a]anthracene	3,900	NA		1,500	---	77	---	1,500	---	650	---
Benzo[a]pyrene	390	NA		1,400	---	79	---	1,900	---	570	---
Benzo[a]fluoranthene	3,900	NA		3,100	---	140	---	2,700	---	960	---
Benzo[g,h,i]perylene	3,100,000	NA		37	---	21	---	540	---	94	---
Benzo[k]fluoranthene	39,000	NA		810	---	49	---	1,400	---	430	---
Chrysene	390,000	NA		1,400	---	75	---	1,800	---	690	---
Dibenz[a,h]anthracene	390	NA		35	---	7	---	180	---	46	---
Fluoranthene	4,100,000	NA		260	---	200	---	3,300	---	1,200	---
Fluorene	4,100,000	NA		180	---	11	---	99	---	66	---
Indeno[1,2,3-cd]pyrene	3,900	NA		380	---	20	---	510	---	100	---
2-Methylnaphthalene	410,000	NA		42	---	18	---	71	---	57	---
Naphthalene	2,000,000	NA		34	---	16	---	120	---	46	---
Phenanthrene	31,000,000	NA		1,700	---	60	---	1,500	---	980	---
Pyrene	3,100,000	NA		6,100	---	320	---	3,500	---	1,100	---
Priority Pollutant List Metals (SW6020 / mg/kg)											
Antimony	41	6		ND (2.5)	---	ND (2.6)	---	ND (2.3)	---	ND (2.7)	---
Arsenic	1.9	3.6		3.4	---	4.1	---	5.9	---	10	---
Beryllium	200	6.6		ND (2.5)	---	ND (1.8)	---	ND (2.2)	---	ND (2.2)	---
Cadmium	51	0.73		ND (2.5)	---	ND (1.8)	---	ND (2.2)	---	ND (2.2)	---
Chromium	310	28		18	---	21	---	24	---	17	---
Copper	4,100	12		53	---	27	---	77	---	54	---
Lead	1,000	45		140	---	770	---	340	---	380	---
Mercury	---	0.51		0.46	---	1.7	---	3.3	---	1.9	---
Nickel	160	13		5.2	---	7.5	---	4.1	---	11	---
Selenium	510	2.2		ND (2.5)	---	ND (1.8)	---	ND (2.2)	---	ND (2.2)	---
Silver	510	0.9		ND (2.5)	---	ND (1.8)	---	ND (2.2)	---	ND (2.2)	---
Thallium	7.2	3.9		ND (2.5)	---	ND (1.8)	---	ND (2.2)	---	ND (2.2)	---
Zinc	2,300	63		110	---	56	---	140	---	180	---

Notes / Superscripts

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2 (MDE 2008).

(2) Anticipated Typical Concentrations (ATCs) represent reference or background levels published by the MDE for the Site area.

(3) TCLP = United States Environmental Protection Agency (USEPA) Toxicity Characteristic Leachate Procedure.

ft bg = feet below grade.

ug/kg = micrograms per kilogram.

mg/kg = milligrams per kilogram.

ug/l = micrograms per liter

ND = Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

Bold cell indicates a concentration above the LLQ

Bold and shaded cells indicate a detection above the MDE Cleanup Standard for Residential Soil or the ATC

--- = Sample not analyzed for select compound

For the full list of compounds analyzed, please refer to the laboratory reports in Appendix C.

Table 2 Summary of Analytes Reported in Groundwater

1110 to 1112 Race Street
Baltimore, Maryland 21230

Analyte	MDE Cleanup Standard for Groundwater ⁽¹⁾	Sample ID Date	TW-1 7/23/13	TW-2 7/23/13	TW-3 7/23/13	TW-4 7/23/13
Volatile Organic Compounds (SW8260B / ug/l)						
Cyclohexane	---		ND (5)	15	ND (5)	ND (5)
Methylcyclohexane	---		ND (5)	34	ND (5)	ND (5)

Notes / Superscripts

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2.1) (MDE 2008).

ug/l = micrograms per liter

Only detected analytes are shown. For the full list of compounds analyzed, please refer to the laboratory reports in Appendix C.

APPENDIX A
SITE PHOTOGRAPHS

Site Photographs

1110 to 1112 Race Street
Baltimore, Maryland 21230



Photograph 1. Geophysical survey area #1 overview along southern portion of Site.



Photograph 2. Potential underground storage tank location identified along southern portion of Site.



Photograph 3. Geophysical survey area #3 overview along eastern portion of southern asphalt paved parking lot.



Photograph 4. Potential underground storage tank location identified along eastern wall of southern asphalt paved parking lot.



Photograph 5. SB-1 location.



Photograph 6. SB-1 macrocores.

Site Photographs

1110 to 1112 Race Street
Baltimore, Maryland 21230



Photograph 7. Geophysical area #2 and SB-2 location.



Photograph 8. SB-2 macrocores.



Photograph 9. SB-3 location.



Photograph 10. SB-3 macrocores.



Photograph 7. SB-4 location.



Photograph 8. SB-4 macrocores.

Site Photographs

1110 to 1112 Race Street
Baltimore, Maryland 21230



Photograph 9. TW-1 setup.



Photograph 10. TW-2 setup.



Photograph 7. TW-3 setup.



Photograph 8. TW-4 setup.

APPENDIX B
SOIL BORING LOGS

APPENDIX C
LABORATORY ANALYTICAL REPORTS



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 12:10
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-1 0-1		Matrix:	Soil		Lab ID:	13072302-01	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	92	%		SM2540G	07/24/13	07/24/13 16:51	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	170	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Acenaphthylene	120	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Anthracene	430	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Benzo[a]anthracene	1,500	ug/kg	50	EPA 8270C	07/24/13	07/25/13 16:40	JKL	
Benzo[a]pyrene	1,400	ug/kg	50	EPA 8270C	07/24/13	07/25/13 16:40	JKL	
Benzo[b]fluoranthene	3,100	ug/kg	50	EPA 8270C	07/24/13	07/25/13 16:40	JKL	
Benzo[g,h,i]perylene	37	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Benzo[k]fluoranthene	810	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Chrysene	1,400	ug/kg	50	EPA 8270C	07/24/13	07/25/13 16:40	JKL	
Dibenz[a,h]anthracene	35	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Fluoranthene	260	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Fluorene	180	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Indeno[1,2,3-cd]pyrene	380	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
2-Methylnaphthalene	42	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Naphthalene`	34	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:16	JKL	
Phenanthrene	1,700	ug/kg	50	EPA 8270C	07/24/13	07/25/13 16:40	JKL	
Pyrene	6,100	ug/kg	50	EPA 8270C	07/24/13	07/25/13 16:40	JKL	
Total Metals								
Antimony	ND	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Arsenic	3.4	mg/kg	0.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Beryllium	ND	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Cadmium	ND	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Chromium	18	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Copper	53	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Lead	140	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Mercury	0.46	mg/kg	0.1	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Nickel	5.2	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Selenium	ND	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Silver	ND	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Thallium	ND	mg/kg	2	EPA 6020A	07/23/13	07/25/13 13:45	MEL	
Zinc	110	mg/kg	2.5	EPA 6020A	07/23/13	07/25/13 13:45	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 12:05
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-1 4-5	Matrix:	Soil	Lab ID:	13072302-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	79	%		SM2540G	07/24/13	07/24/13 16:51	LMJ
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Chloromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Vinyl chloride	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Bromomethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Chloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Acetone	ND	ug/kg	60	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Carbon disulfide	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Methyl acetate	ND	ug/kg	30	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Methylene chloride	ND	ug/kg	30	EPA 8260B	07/24/13	07/24/13 11:53	JKL
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
2-Butanone (MEK)	ND	ug/kg	60	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Chloroform	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Cyclohexane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Benzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Trichloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Toluene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Chlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Ethylbenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
m&p-Xylene	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 11:53	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 12:05
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-1 4-5	Matrix:	Soil	Lab ID:	13072302-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
o-Xylene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Styrene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Bromoform	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Naphthalene	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	07/24/13	07/24/13 11:53	JKL
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	07/24/13	07/24/13 11:53	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 11:53	JKL
TCLP Volatiles							
Benzene	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
Carbon Tetrachloride	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
Chloroform	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
1,2-Dichloroethane	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
Tetrachloroethene	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
Vinyl Chloride	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
2-Butanone (MEK)	ND	ug/L	50	1311/8260	07/24/13	07/24/13 11:53	CBS
Chlorobenzene	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
1,4-Dichlorobenzene	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
1,1-Dichloroethene	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS
Trichloroethene	ND	ug/L	25	1311/8260	07/24/13	07/24/13 11:53	CBS

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 9:15
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-2 0-1	Matrix:	Soil	Lab ID:	13072302-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	84	%		SM2540G	07/24/13	07/24/13 16:51	LMJ
Polycyclic Aromatic Hydrocarbons (SIM)							
Acenaphthene	18	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Acenaphthylene	9	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Anthracene	28	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Benzo[a]anthracene	77	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Benzo[a]pyrene	79	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Benzo[b]fluoranthene	140	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Benzo[g,h,i]perylene	21	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Benzo[k]fluoranthene	49	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Chrysene	75	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Dibenz[a,h]anthracene	7	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Fluoranthene	200	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Fluorene	11	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Indeno[1,2,3-cd]pyrene	20	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
2-Methylnaphthalene	18	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Naphthalene`	16	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Phenanthrene	60	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Pyrene	320	ug/kg	5	EPA 8270C	07/24/13	07/25/13 14:52	JKL
Total Metals							
Antimony	ND	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Arsenic	4.1	mg/kg	0.53	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Beryllium	ND	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Cadmium	ND	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Chromium	21	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Copper	27	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Lead	770	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Mercury	1.7	mg/kg	0.11	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Nickel	7.5	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Selenium	ND	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Silver	ND	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Thallium	ND	mg/kg	2.1	EPA 6020A	07/23/13	07/25/13 14:17	MEL
Zinc	56	mg/kg	2.6	EPA 6020A	07/23/13	07/25/13 14:17	MEL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 9:15
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-2 4-5	Matrix:	Soil	Lab ID:	13072302-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	80	%		SM2540G	07/24/13	07/24/13 16:51	LMJ
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Chloromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Vinyl chloride	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Bromomethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Chloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Acetone	ND	ug/kg	58	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Carbon disulfide	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Methyl acetate	ND	ug/kg	29	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Methylene chloride	ND	ug/kg	29	EPA 8260B	07/24/13	07/24/13 12:21	JKL
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
2-Butanone (MEK)	ND	ug/kg	58	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Chloroform	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Cyclohexane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Benzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Trichloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Toluene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Chlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Ethylbenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
m&p-Xylene	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 12:21	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 9:15
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-2 4-5	Matrix:	Soil	Lab ID:	13072302-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
o-Xylene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Styrene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Bromoform	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Naphthalene	ND	ug/kg	12	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
tert-Butanol (TBA)	ND	ug/kg	29	EPA 8260B	07/24/13	07/24/13 12:21	JKL
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL
tert-Amyl alcohol (TAA)	ND	ug/kg	29	EPA 8260B	07/24/13	07/24/13 12:21	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	6	EPA 8260B	07/24/13	07/24/13 12:21	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 11:05
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-3 0-1		Matrix:	Soil		Lab ID:	13072302-07	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	85	%		SM2540G	07/24/13	07/24/13 16:51	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	140	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Acenaphthylene	50	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Anthracene	260	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Benzo[a]anthracene	1,500	ug/kg	55	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Benzo[a]pyrene	1,900	ug/kg	55	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Benzo[b]fluoranthene	2,700	ug/kg	55	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Benzo[g,h,i]perylene	540	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Benzo[k]fluoranthene	1,400	ug/kg	55	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Chrysene	1,800	ug/kg	55	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Dibenz[a,h]anthracene	180	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Fluoranthene	3,300	ug/kg	55	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Fluorene	99	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Indeno[1,2,3-cd]pyrene	510	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
2-Methylnaphthalene	71	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Naphthalene`	120	ug/kg	6	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Phenanthrene	1,500	ug/kg	55	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Pyrene	3,500	ug/kg	55	EPA 8270C	07/24/13	07/25/13 15:28	JKL	
Total Metals								
Antimony	ND	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Arsenic	5.9	mg/kg	0.46	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Beryllium	ND	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Cadmium	ND	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Chromium	24	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Copper	77	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Lead	340	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Mercury	3.3	mg/kg	0.091	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Nickel	4.1	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Selenium	ND	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Silver	ND	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Thallium	ND	mg/kg	1.8	EPA 6020A	07/23/13	07/25/13 14:23	MEL	
Zinc	140	mg/kg	2.3	EPA 6020A	07/23/13	07/25/13 14:23	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by: 
QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 11:10
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-3 4-5	Matrix:	Soil	Lab ID:	13072302-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	75	%		SM2540G	07/24/13	07/24/13 16:51	LMJ
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Chloromethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Vinyl chloride	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Bromomethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Chloroethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Acetone	ND	ug/kg	54	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Carbon disulfide	ND	ug/kg	11	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Methyl acetate	ND	ug/kg	27	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Methylene chloride	ND	ug/kg	27	EPA 8260B	07/24/13	07/24/13 12:50	JKL
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
2-Butanone (MEK)	ND	ug/kg	54	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Chloroform	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Cyclohexane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Benzene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Trichloroethene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Toluene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Chlorobenzene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Ethylbenzene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
m&p-Xylene	ND	ug/kg	11	EPA 8260B	07/24/13	07/24/13 12:50	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 11:10
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-3 4-5	Matrix:	Soil	Lab ID:	13072302-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
o-Xylene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Styrene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Bromoform	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Naphthalene	ND	ug/kg	11	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
tert-Butanol (TBA)	ND	ug/kg	27	EPA 8260B	07/24/13	07/24/13 12:50	JKL
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL
tert-Amyl alcohol (TAA)	ND	ug/kg	27	EPA 8260B	07/24/13	07/24/13 12:50	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	07/24/13	07/24/13 12:50	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 12:10
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	TW-1	Matrix:	Water	Lab ID:	13072302-10			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Target Compound List - VOLATILES								
Dichlorodifluoromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Chloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Vinyl chloride	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Bromomethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Chloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
1,1-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Acetone	ND	ug/L	10	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Carbon disulfide	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Methyl acetate	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Methylene chloride	ND	ug/L	50	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
trans-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Methyl t-butyl ether (MTBE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
1,1-Dichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
cis-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
2-Butanone (MEK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Chloroform	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
1,1,1-Trichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Cyclohexane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Carbon tetrachloride	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Benzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
1,2-Dichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Trichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Methylcyclohexane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
1,2-Dichloropropane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Bromodichloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
cis-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Toluene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
trans-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
1,1,2-Trichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Tetrachloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
2-Hexanone (MBK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Dibromochloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
1,2-Dibromoethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Chlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Ethylbenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
m&p-Xylene	ND	ug/L	2	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
o-Xylene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	
Styrene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL	



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 12:10
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	TW-1	Matrix:	Water	Lab ID:	13072302-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Bromoform	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
Isopropylbenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
1,3-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
1,4-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
1,2-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
1,2,4-Trichlorobenzene	ND	ug/L	2	EPA 8260B	07/24/13	07/24/13 21:02	JKL
Naphthalene	ND	ug/L	10	EPA 8260B	07/24/13	07/24/13 21:02	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	07/24/13	07/24/13 21:02	JKL
Diisopropyl ether (DIPE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	07/24/13	07/24/13 21:02	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:02	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 9:30
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID: TW-2 Matrix: Water Lab ID: 13072302-11

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Chloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Vinyl chloride	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Bromomethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Chloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,1-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Acetone	ND	ug/L	15	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Carbon disulfide	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Methyl acetate	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Methylene chloride	ND	ug/L	50	EPA 8260B	07/24/13	07/24/13 21:30	JKL
trans-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,1-Dichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
cis-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
2-Butanone (MEK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Chloroform	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,1,1-Trichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Cyclohexane	15	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Carbon tetrachloride	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Benzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,2-Dichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Trichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Methylcyclohexane	34	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,2-Dichloropropane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Bromodichloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
cis-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Toluene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
trans-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,1,2-Trichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Tetrachloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
2-Hexanone (MBK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Dibromochloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,2-Dibromoethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Chlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Ethylbenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
m&p-Xylene	ND	ug/L	2	EPA 8260B	07/24/13	07/24/13 21:30	JKL
o-Xylene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Styrene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 9:30
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	TW-2	Matrix:	Water	Lab ID:	13072302-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Bromoform	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Isopropylbenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,3-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,4-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,2-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
1,2,4-Trichlorobenzene	ND	ug/L	2	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Naphthalene	ND	ug/L	10	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	07/24/13	07/24/13 21:30	JKL
Diisopropyl ether (DIPE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	07/24/13	07/24/13 21:30	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:30	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 11:30
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	TW-3	Matrix:	Water	Lab ID:	13072302-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Chloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Vinyl chloride	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Bromomethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Chloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,1-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Acetone	ND	ug/L	10	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Carbon disulfide	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Methyl acetate	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Methylene chloride	ND	ug/L	50	EPA 8260B	07/24/13	07/24/13 21:58	JKL
trans-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,1-Dichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
cis-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
2-Butanone (MEK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Chloroform	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,1,1-Trichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Cyclohexane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Carbon tetrachloride	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Benzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,2-Dichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Trichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Methylcyclohexane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,2-Dichloropropane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Bromodichloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
cis-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Toluene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
trans-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,1,2-Trichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Tetrachloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
2-Hexanone (MBK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Dibromochloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,2-Dibromoethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Chlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Ethylbenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
m&p-Xylene	ND	ug/L	2	EPA 8260B	07/24/13	07/24/13 21:58	JKL
o-Xylene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Styrene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 11:30
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	TW-3	Matrix:	Water	Lab ID:	13072302-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Bromoform	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Isopropylbenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,3-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,4-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,2-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
1,2,4-Trichlorobenzene	ND	ug/L	2	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Naphthalene	ND	ug/L	10	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	07/24/13	07/24/13 21:58	JKL
Diisopropyl ether (DIPE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	07/24/13	07/24/13 21:58	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 21:58	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 10:25
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID: TW-4 Matrix: Water Lab ID: 13072302-13

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Chloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Vinyl chloride	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Bromomethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Chloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,1-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Acetone	ND	ug/L	15	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Carbon disulfide	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Methyl acetate	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Methylene chloride	ND	ug/L	50	EPA 8260B	07/24/13	07/24/13 22:27	JKL
trans-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,1-Dichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
cis-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
2-Butanone (MEK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Chloroform	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,1,1-Trichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Cyclohexane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Carbon tetrachloride	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Benzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,2-Dichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Trichloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Methylcyclohexane	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,2-Dichloropropane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Bromodichloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
cis-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Toluene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
trans-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,1,2-Trichloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Tetrachloroethene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
2-Hexanone (MBK)	ND	ug/L	5	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Dibromochloromethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,2-Dibromoethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Chlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Ethylbenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
m&p-Xylene	ND	ug/L	2	EPA 8260B	07/24/13	07/24/13 22:27	JKL
o-Xylene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Styrene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 10:25
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	TW-4	Matrix:	Water	Lab ID:	13072302-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Bromoform	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Isopropylbenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,3-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,4-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,2-Dichlorobenzene	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
1,2,4-Trichlorobenzene	ND	ug/L	2	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Naphthalene	ND	ug/L	10	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	07/24/13	07/24/13 22:27	JKL
Diisopropyl ether (DIPE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	07/24/13	07/24/13 22:27	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	1	EPA 8260B	07/24/13	07/24/13 22:27	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 10:10
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-4 0-1		Matrix:	Soil		Lab ID:	13072302-14	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	81	%		SM2540G	07/24/13	07/24/13 16:51	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	49	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Acenaphthylene	18	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Anthracene	240	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Benzo[a]anthracene	650	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Benzo[a]pyrene	570	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Benzo[b]fluoranthene	960	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Benzo[g,h,i]perylene	94	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Benzo[k]fluoranthene	430	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Chrysene	690	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Dibenz[a,h]anthracene	46	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Fluoranthene	1,200	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Fluorene	66	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Indeno[1,2,3-cd]pyrene	100	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
2-Methylnaphthalene	57	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Naphthalene`	46	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Phenanthrene	980	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Pyrene	1,100	ug/kg	7	EPA 8270C	07/24/13	07/25/13 16:04	JKL	
Total Metals								
Antimony	ND	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Arsenic	10	mg/kg	0.54	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Beryllium	ND	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Cadmium	ND	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Chromium	17	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Copper	54	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Lead	380	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Mercury	1.9	mg/kg	0.11	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Nickel	11	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Selenium	ND	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Silver	ND	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Thallium	ND	mg/kg	2.2	EPA 6020A	07/23/13	07/25/13 14:29	MEL	
Zinc	180	mg/kg	2.7	EPA 6020A	07/23/13	07/25/13 14:29	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by: 
QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 10:20
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-4 12-14	Matrix:	Soil	Lab ID:	13072302-16		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	70	%		SM2540G	07/24/13	07/24/13 16:51	LMJ
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Chloromethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Vinyl chloride	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Bromomethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Chloroethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Acetone	ND	ug/kg	71	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Carbon disulfide	ND	ug/kg	14	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Methyl acetate	ND	ug/kg	35	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Methylene chloride	ND	ug/kg	35	EPA 8260B	07/24/13	07/24/13 13:19	JKL
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
2-Butanone (MEK)	ND	ug/kg	71	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Chloroform	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Cyclohexane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Benzene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Trichloroethene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Toluene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Chlorobenzene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Ethylbenzene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
m&p-Xylene	ND	ug/kg	14	EPA 8260B	07/24/13	07/24/13 13:19	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 07/23/13 10:20
Date Received: 07/23/13 13:30
Date Issued: 07/26/13

Project: Race Street
Site Location: Baltimore City, MD
Project Number: 078-008-13

SDG Number: 13072302

Field Sample ID:	SB-4 12-14	Matrix:	Soil	Lab ID:	13072302-16		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
o-Xylene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Styrene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Bromoform	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Naphthalene	ND	ug/kg	14	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
tert-Butanol (TBA)	ND	ug/kg	35	EPA 8260B	07/24/13	07/24/13 13:19	JKL
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL
tert-Amyl alcohol (TAA)	ND	ug/kg	35	EPA 8260B	07/24/13	07/24/13 13:19	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	7	EPA 8260B	07/24/13	07/24/13 13:19	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist

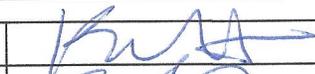
Chain of Custody Record

Customer:	Urban Green Environment
Contact/Report to:	Denise A Sullivan
Phone:	410-244-7215
Fax:	410-685-0226

E-mail address:	denise@ugenv.com
Project Name:	Race Street
Project Number:	078-008-13
Site Location:	Baltimore City

SDG Number:	13072302
Sampled by:	KJ
PO Number:	
Page <u>1</u> of <u>2</u>	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix *	Analysis Requested										Sampling Remarks/Comments		
						Preservative	VOCs	TCLP VOCs	PPL Metals	Pesticides	Herbicides	PCBs	PAHs					
	SB-1 0-1	07/23/13	1210	2	S				X					X				
	SB-1 4-5	07/23/13	1205	2	S				X					X				HOLD
	SB-1 4-5	07/23/13	1205	2	S	X	X											
	SB-2 0-1	07/23/13	0915	2	S				X					X				
	SB-2 4-5	07/23/13	0915	2	S				X					X				HOLD
	SB-2 4-5	07/23/13	0915	3	S	X												
	SB-3 0-1	07/23/13	1105	2	S				X					X				
	SB-3 4-5	07/23/13	1110	2	S				X					X				HOLD
	SB-3 4-5	07/23/13	1110	3	S	X												
	TW-1	07/23/13	1210	3	GW	X												

Relinquished by:		Date/Time:	7/23/13 1330	Deliverables:	Receipt Temperature:	Turnaround Time: 48 hrs
Received by:		Date/Time:	7/23/13 1330	I II III CLP EDD	Temp: _____ <u>On Ice</u>	STD Next Day 2-Day Other _____
Relinquished by:		Date/Time:		Custody Seals:	Comments/Special Instructions:	
Received by:		Date/Time:		Sample Cooler		
Relinquished by:		Date/Time:		<u>Delivered by client</u>		
Received by:		Date/Time:				

* W = Water; WW = Wastewater; GW = Groundwater; S = Soil; SL = Sludge

Chain of Custody Record

Customer:	Urban Green Environment
Contact/Report to:	Denise A Sullivan
Phone:	410-244-7215
Fax:	410-685-0226

E-mail address:	denise@ugenv.com
Project Name:	Race Street
Project Number:	078-008-13
Site Location:	Baltimore City

SDG Number:	13072302
Sampled by:	KJ
PO Number:	

Page 1 of 2

Analysis Requested

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix *	Preservative										Sampling Remarks/ Comments		
						VOCs	SVOCs (SIM)	PPL Metals	Pesticides	Herbicides	PCBs	PHS						
	TW-2	07/23/13	0930	3	GW	X												
	TW-3	07/23/13	1130	3	GW	X												
	TW-4	7/23/13	1025	3	GW	X												
	SB-4 0-1	↓	1010	2	S			X					X					
	SB-4 4-5		1015	2	S			X					X				HOLD	
	SB-4 12-14		1020	2	S	X												

Relinquished by:	<i>[Signature]</i>	Date/Time:	7/23/13 1330	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	7/23/13 1330	I II III CLP EDD	Temp: <u>On Ice</u>	STD Next Day 2-Day Other
Relinquished by:		Date/Time:		Custody Seals:	Comments/Special Instructions:	
Received by:		Date/Time:		Sample Cooler		
Relinquished by:		Date/Time:		Delivered by client		
Received by:		Date/Time:				

* W = Water; WW = Wastewater; GW = Groundwater; S = Soil; SL = Sludge

Attachment IVd
ENVIRONMENTAL REPORTS

Phase I Environmental Site Assessment – 101 West Cross Street

Phase I Environmental Site Assessment

101 West Cross Street
Baltimore, Maryland 21230



Prepared For:

Caves Valley Partners
23 Walker Avenue
Baltimore, Maryland 21208

August 2013

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SUMMARY

Urban Green Environmental (Urban Green) has performed a Phase I Environmental Site Assessment (ESA) of the property located at 101 West Cross Street in Baltimore, Maryland 21230. This assessment was performed in general accordance with the ASTM E1527-05 standard. This study consisted of a review of current and historic activities and conditions at the property and surrounding properties, including a non-intrusive visual inspection of the property, interviews with Site personnel, review of local, state, and federal regulatory database records, review of historic records, and a survey of the adjacent land uses. Limitations, exceptions to, or deletions from, this practice are described in Sections 1.3 and 1.4 of this report.

The Site consists of a 0.47-acre parcel of land, which is zoned industrial, and is occupied by Higartner Natural Stone Company Inc., a marble and granite supplier, fabricator and installer. The Site is improved with a one- to three-story masonry structure that is underlain by a concrete-slab-on-grade foundation. The three-story portion (northern) is utilized for offices and a showroom and the remainder of the building is used for fabrication and storage. The structure is located in the eastern portion of the Site. Exterior areas of the Site consist of a fenced gravel lot used for stone and maintenance supply storage.

The Site is serviced by municipal water and sewer provided by the City of Baltimore and natural gas and electric utilities provided by Baltimore Gas and Electric (BGE). The northern portion of the Site building is heated and cooled by a combination forced air system; the remainder of the building is heated by natural gas-fired overhead heaters.

Based on a review of historic records, the existing Site building was constructed prior to 1890. A second building was located within the western portion of the Site from at least 1890 to 1901. Following 1901, the western portion of the Site was vacant and/or used for truck parking. Historic Site occupants include AW Kreit Fruit Packers (at least 1890 to 1901), Fleming & Co Canned Goods (at least 1890 to 1930), multiple motor freight/trucking companies (at least 1942 to 1974) and Hilgartner Natural Stone and Adhesive Cement Co (1975 to 2012). In addition, a gasoline underground storage tank (UST) was identified along the western exterior of the Site building on the 1901 historical atlas; the UST was not identified on any other historical atlas or resource.

No visual evidence of an existing UST, such as vent or fill piping entering the ground surface, was observed at the Site. However, based on a review of an *Environmental Audit* performed at the Site in 1990, one UST was emptied of its contents and filled with concrete at the Site in 1975. No location information for this UST was provided in the prior report.

A water/sludge separator system is located throughout the majority of the fabrication portion of the building. Washwater, which includes solids (fines generated during cutting and cleaning the stone) are discharged into two holding tanks located along the northern and southern portion of

the drain system. These tanks are reportedly cleaned and emptied approximately once a year. Following settling in the holding tanks, the resulting clarified effluent is discharged into the sanitary sewer system.

Chemical storage at the Site included several pint to 55-gallon containers of stone cleaners, sealants, adhesives, and routine maintenance supplies within the fabrication portion of the Site building. In addition, one air compressor and associated compressor oil was observed within a wooden shed (with a concrete floor) along the western exterior of the Site building. The containers were stored either on the ground surface or wooden or metal shelves and appeared to be in sound condition. With the exception of minor oily staining observed in the vicinity of the air compressor, no visual evidence of a release, such as leaking or staining was observed within the vicinity of the chemical storage.

No aboveground storage tanks were observed at the Site. Further, no hazardous materials or petroleum product disposal/storage, stressed vegetation, pits, ponds, lagoons, or surface staining, indicative of a suspect release, was observed on the exterior areas of the Site. Lastly, the Site address was not identified on state or federal database listings, such as RCRA-generators, which would indicate the current or historic handling and/or generation of hazardous materials or petroleum products at the Site.

Urban Green submitted a Public Information Act (PIA) request to the Maryland Department of the Environment (MDE) and researched databases with the United States Environmental Protection Agency (USEPA) in an attempt to obtain information in connection with the Site. No records are on file for the Site with the MDE or in the USEPA databases.

Recognized Environmental Conditions

Urban Green Environmental has performed a Phase I ESA of the property located at 101 West Cross Street in Baltimore, Maryland 21230. This assessment has revealed no evidence of *recognized environmental conditions* (RECs) or *historic recognized environmental conditions* in connection with the property with the exception of the following:

- ***Historic Underground Storage Tank:*** The Site was historically utilized as a freight station from at least 1942 to 1974. Furthermore, the 1901 historic atlas indicates the presence of one gasoline UST located along the western portion of the Site building. Based on a review of the *Environmental Audit* completed at the Site in 1990, one UST was reportedly emptied and filled in place at the Site in 1975; however, no location information was provided. No visual evidence of a UST, such as vent or fill piping entering the ground surface, was observed during the Site reconnaissance. Lastly, no records are on file with the MDE which could confirm the location of the UST or whether the UST may have impacted the environmental integrity of the Site. Therefore, this former UST, and absence of

confirmatory soil and/or groundwater sampling, represents a *historic recognized environmental condition* at the Site.

- **Historic Site Use (Freight Station):** The Site was historically utilized as a freight station from at least 1942 to 1974.

Additional action and investigation, including a geophysical survey and/or limited soil/groundwater sampling, is recommended to further evaluate the potential for a UST to remain in the area of the gasoline storage tank as identified on the historic Site atlas and to further evaluate the potential for the above recognized environmental conditions to have impacted the environmental integrity of the Site.

The additional findings noted below are not considered recognized environmental conditions at this time, but are considered *de minimis* conditions where no additional investigation or action is currently warranted; however preventive measures or future actions may be prudent as discussed below.

- **Storage containers:** Several pint to 55-gallon containers of stone cleaners, sealants, adhesives, and routine maintenance supplies were observed throughout the fabrication portion of the building and along the western exterior of the structure. Prior to demolition, renovations and/or redevelopment, it is recommended that the above materials be removed in accordance with state and federal guidelines.
- **Surrounding Property Database Listings:** Several properties within the surrounding area were identified within the environmental databases, including the southern and western adjoining property. Based on the current regulatory case statuses (closed), distance from the Site and/or topographically downgradient location, these properties are not anticipated to present an adverse environmental impact to the Site at this time.

1.0 INTRODUCTION

1.1 Purpose

Urban Green Environmental (Urban Green) has completed a Phase I Environmental Site Assessment (ESA) Report for the property located at 101 West Cross Street, Baltimore, Maryland 21230 (Site).

The purpose of this investigation was to conduct an environmental site assessment of the Site with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products.

1.2 Detailed Scope of Services

This Phase I ESA was conducted in conformance with the scope of work and limitations defined in our proposal executed on July 29, 2013 and in general accordance with the American Society for Testing and Materials (ASTM) standard E1527-05, "Environmental Site Assessments: Phase I Environmental Site Assessment Process" and the United States Environmental Protection Agency's All Appropriate Inquiries (AAI Rule) 40 CFR Part 312 dated November 1, 2005. This report is intended to satisfy one of the requirements to qualify for the *innocent landowner*, *contiguous property owner*, or *bona fide prospective purchaser* limitations on CERCLA liability (hereinafter, the "landowner liability protections"). In conjunction with the user responsibilities, identified in Section 1.2.3, this report satisfies "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice."

This assessment was performed by an Environmental Professional (as defined in AAI Rule) and/or conducted under the supervision or responsible charge of an Environmental Professional. The goal of the processes established by the ASTM Standard is to identify *recognized environmental conditions* (RECs), including *historical recognized environmental conditions* (HRECs) in connection with the property and to satisfy appropriate environmental due diligence. A REC is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. HRECs are defined as a condition which in the past would have been considered a REC, but which may or may not be considered a REC currently. HRECs generally include a past release of any hazardous substances or petroleum products at a property that has been remediated, and such remediation has been accepted by the responsible regulatory agency. The determination of a HREC is influenced by the current impact of the HREC on the property. The terms are not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

This Phase I ESA consisted of a non-intrusive visual inspection of the property, survey of adjacent land uses, interviews, and review of available records pertaining to the current and historic activities and conditions at the property and surrounding properties.

1.2.1 Site Reconnaissance and Interviews

The Site reconnaissance was conducted by Ms. Katherine Christensen of Urban Green Environmental on July 30, 2013. At the time of the Site visit, the temperature was approximately 80°F with clear skies. Mr. Steve Brown, the Site foreman, accompanied the Urban Green personnel during the Site visit.

The Site reconnaissance consisted of a non-intrusive visual Site inspection of the property, which included a review of Site operations, hazardous materials and petroleum products handling, storage, and disposal practices, waste management practices, and evidence of hazardous material and petroleum product releases, such as stained soil or stressed vegetation. Containerized hazardous substances or petroleum products in quantities greater than or equal to 5-gallons or materials present on Site were noted, including those which are unidentified. In addition, the current and past uses of the Site and adjoining properties (from the Site property boundary) were observed and noted. No visual or access limitations were encountered at the time of the Site reconnaissance and Urban Green was allowed access to all interior and exterior portions of the Site.

Concurrent with the Site visit, on July 30, 2013, Ms. Katherine Christensen of Urban Green conducted an interview with Mr. Steve Brown and Mr. Tom Doyle of Hilgartner Natural Stone Company. Records of communication are included in Appendix E.

1.2.2 Records Review

The purpose of the records review is to obtain and review records that will help identify RECs in connection with the Site. Records reviewed as part of this investigation included the following:

- *Standard Environmental Record Sources* (environmental database report), obtained via Environmental Data Resources, Inc. (EDR).
- *Physical Setting Sources*, including the current United States Geological Survey (USGS) 7.5-Minute Quadrangle topographic map and available geologic and hydrogeologic information for the Site vicinity.
- *Historic Use Information*, including, as applicable, aerial photographs, historic atlases, property tax files, recorded land title records, local street directories, building department records, and zoning/land use records.

In addition, Urban Green submitted a Public Information Act (PIA) request to the Maryland Department of the Environment (MDE) and researched databases with the United States

Environmental Protection Agency (USEPA) in an attempt to obtain information indicating any RECs in connection with the Site. No records are on file for the Site with the MDE or USEPA.

A complete listing of record sources reviewed as part of this assessment is provided in Section 7 of this report. Section 7 also includes sources researched which resulted in no findings.

1.2.3 User-Provided Information

The ASTM Standard E1527-05 defines several tasks to be performed by the user/Client in order to assist the environmental professional identify RECs in connection with the property. These tasks are outlined in Section 6 and include a.) review of the Title and Judicial Records for environmental liens or activity and use limitations, b.) communication to the environmental professional of any specialized knowledge, actual knowledge, or experience that is material to RECs at the property, c.) explanation for a lower purchase price (in comparison to the fair market value), and d.) commonly known or reasonable ascertainable community information that is material to RECs at the property. Under the AAI Standard, the above tasks are required by a potential purchaser to qualify for the landowner liability protections. Further, if applicable, in accordance with the ASTM E1527-05, the client must comply with activity and use limitations, to maintain the landowner liability protections.

The above information was requested by Urban Green Environmental of the user/Client to assist in preparing this report.

1.3 Significant Assumptions

The findings of this assessment are based solely on the data provided and reviewed as part of this investigation, including observations and conditions that existed at the time of the Site reconnaissance on July 30, 2013. Information provided by third parties is assumed to be accurate and complete.

Controlled substances are not included within the scope of this standard. Further, the scope of this assessment did not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the Landowner Liability Protections. Non-scope items that are beyond the scope of the ASTM E1527-05 practice and therefore were not addressed as part of this report include, but are not limited to: Asbestos-Containing Materials; Radon; Lead-Based Paint; Mold; Lead in Drinking Water; Regulatory Compliance; Cultural and Historic Resources; Industrial Hygiene; Health and Safety; Ecological Resources; Endangered Species; Indoor Air Quality; Biological Agents, and High Voltage Power Lines. This list is not intended to be all-inclusive and no implication is intended regarding the importance of inquiry into non-scope considerations.

As defined by ASTM Standard E1527-05, a data gap is a lack of or inability to obtain information required by the practice, despite good faith efforts by the environmental professional. Data gaps can be significant or insignificant based on the manner in which they occur. A data gap is only significant if other information and/or professional experience raise reasonable concern involving the data gap, which would then warrant comment. After a review of the obtained historical information, no data gaps were identified.

1.4 Limitations, Exceptions, Deviations and Special Terms and Conditions

No environmental Site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and this practice recognizes reasonable limits of time and cost.

Urban Green Environmental, LLC does not warrant that there are no toxic or hazardous materials or contamination, nor does Urban Green Environmental, LLC accept any liability if such are found at some future time, or could have been found if sampling or additional studies were conducted. Urban Green Environmental, LLC does not assume responsibility for other environmental issues that may be associated with this Site.

In view of the rapidly changing status of environmental laws, regulations, and guidelines, Urban Green Environmental, LLC cannot be responsible for changes in laws, regulations, or guidelines, which occur after the study has been completed and which may affect the Site.

1.5 User Reliance

This report was prepared for Caves Valley Partners by Urban Green Environmental, LLC and is based in part on third party information not within the control of Caves Valley Partners or Urban Green Environmental, LLC. While it is believed that the third party information contained herein will be reliable under the conditions and subject to the limitations set forth herein, neither Caves Valley Partners nor Urban Green Environmental, LLC guarantee the accuracy thereof. This report has been completed solely for the use of Caves Valley Partners and is being provided as a confidential document. Any transfer of this report to third parties is the sole responsibility of Caves Valley Partners.

2.0 SITE DESCRIPTION

The Site reconnaissance was conducted by Ms. Katherine Christensen of Urban Green Environmental on July 30, 2013. At the time of the Site visit, the temperature was approximately 80°F with clear skies. Mr. Steve Brown, the Site foreman, accompanied the Urban Green personnel during the Site visit.

2.1 Location and Legal Description

The Site is located at 101 West Cross Street in Baltimore, Maryland 21230. Information published online by the Maryland Department of Assessments and Taxation identifies the Site as Map 0023, Section 07, Block 0947, and Lot 001. The Site is currently owned by Thomas S Doyle.

The Site location is illustrated in Figure 1. A tax plat, illustrating the Site boundaries, is presented as Figure 2.

2.2 Site and Vicinity General Characteristics

The Site consists of a 0.47-acre parcel of land that is zoned industrial. The Site is located in the Sharp-Leadenhall neighborhood of Baltimore City. Properties immediately surrounding the Site consist of residential and commercial properties.

2.3 Current Use and Description of Site Improvements

The Site is occupied by Higtartner Natural Stone Company Inc., a marble and granite supplier, fabricator and installer. The Site is improved with a one- to three-story masonry structure that is underlain by a concrete-slab-on-grade foundation. The three-story portion (northern) is utilized for offices and a showroom and the remainder of the building is used for fabrication and storage. According to the Maryland Department of Assessments and Taxation, the building was constructed in 1900 and the total enclosed area of the building is 7,139 square feet. The structure is located in the eastern portion of the Site and the exterior area consists of a fenced gravel lot used for stone and maintenance supply storage.

The Site is serviced by municipal water and sewer provided by the City of Baltimore and natural gas and electric utilities provided by Baltimore Gas and Electric (BGE). The northern portion of the Site building is heated and cooled by a combination forced air system and the remainder of the building is heated by natural gas-fired overhead heaters.

Urban Green conducted a well search for potable water supply wells located within 0.5 mile of the Site. The following source of information was researched as part of the well survey: EDR Geocheck Physical Setting Source Summary. The EDR Geocheck Physical Setting Source included all potable and non-potable water supply wells registered within a one half-mile radius of the Site (based on latitude and longitude). To evaluate potential potable water supply wells, well information was

sorted based on use. Specifically, domestic wells, designated “D,” were separated from the well information provided. No domestic wells are identified as situated within a half-mile radius of the Site. A complete listing of all potable wells within a half mile radius can be found in the EDR report (Appendix C).

2.4 Current Use of the Adjoining Properties

The Site is located in a residential and commercial area of Baltimore City. The Site is bound to the east by Race Street beyond which is a grass lot and residential apartment buildings, bordered to the south by Baltimore ToolWorks, bound to the north by West Cross Street beyond which are residential rowhomes, and bound to the west by Creek Alley, beyond which is ABC Box Company.

2.5 Environmental Setting

2.5.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore East (1974), Site elevation is approximately 15 feet above mean sea level. In general, the subject property’s slope is relatively flat sloping slightly to the southwest. Overland stormwater flow discharges directly to the subsurface in the western portion of the Site and is directed to stormwater catch basins located within the surrounding thoroughfares. Site topography is also illustrated in Figure 1.

The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 1,800 feet southwest of the Site.

2.5.2 Lithology / Hydrogeology

According to the USDA’s Soil Conservation Service STATSGO Soil Map data, soil on Site is classified as Urban Land, which consists of variable soils from zero to 59 inches.

Based on a review of the USGS topographic map, groundwater is anticipated to flow in a general southwesterly direction across the Site.

2.5.2 Wetlands and Flood Plains

According to the EDR database report, the subject property is not located within a designated wetland area but is designated within the 100-year and 500-year flood zones. The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 1,800 feet southwest of the Site.

3.0 SITE RECONNAISSANCE

The Site reconnaissance was conducted by Ms. Katherine Christensen of Urban Green Environmental on July 30, 2013. At the time of the Site visit, the temperature was approximately 80°F with clear skies. Mr. Steve Brown, the Site foreman, accompanied the Urban Green personnel during the Site visit. Areas accessed included all interior and exterior areas of the Site and the property boundaries.

At the time of the Site reconnaissance, the Site was occupied by Higartner Natural Stone Company Inc., a marble and granite supplier, fabricator and installer.

3.1 Interior Observations

The Site is improved with a 7,139 square foot one- to three-story masonry structure that is underlain by a concrete-slab-on-grade foundation. The three-story portion (northern) is utilized for offices and a showroom and the remainder of the building is used for storage and fabrication.

Associated Site photographs illustrating the interior building observations and exterior Site observations are presented in Appendix A. A Site plan is presented as Figure 3.

3.1.1 Heating and Cooling

The northern portion of the Site building is heated and cooled by a combination forced air system and the remainder of the building is heated by natural gas-fired overhead heaters.

3.1.2 Stains or Corrosion

No visual evidence of stains or corrosion, associated with a current or former release of hazardous materials or petroleum products, was observed during the Site reconnaissance.

3.1.3 Drains and Sumps

A trench drain water/sludge separator system is located throughout the majority of the fabrication area which is utilized to collect rinse water and stone residue. Solids are discharged into two holding tanks located along the northern and southern portion of the drain system and water discharges directly into the sanitary sewer system. According to the Site representative, the sludge is shoveled out of the holding tanks approximately once a year and allowed to dry, prior to removal from the Site by a stone recycler.

No sumps were observed in the Site structure at the time of the Site reconnaissance.

3.2 Exterior Observations

The Site is accessed by West Cross Street which runs along the northern Site boundary and Race Street which runs along the eastern Site boundary.

The structure is located in the eastern portion of the Site and the exterior area consists of a fenced gravel lot used for stone and maintenance supply storage.

3.2.1 Pits, Ponds, and Lagoons, Surface Staining, Stressed Vegetation, and Solid Waste

No visual evidence of solid waste, stressed vegetation, pits, ponds, or lagoons were observed in the exterior portions of the Site.

Minor oily staining was observed in the wooden shed along the western building exterior which housed an air compressor associated with equipment used in the fabrication process. The staining was observed in the vicinity of the air compressor and compressor oil containers and appeared to be a result of minor spills and/or overfills. The concrete floor of the shed appeared to be in sound condition and no staining was observed on the gravel surface outside of the shed.

3.2.2 Water, Sewerage, Stormwater, and Wastewater

The Site is serviced by public water and public sewer. In addition, stormwater flow discharges directly to the subsurface in the western portion of the Site and is directed via overland flow to stormwater catch basins located in the surrounding thoroughfares.

3.3 Hazardous Substances and Petroleum Products

Routine maintenance supplies, stone cleaners and adhesives were observed throughout the fabrication portion of the Site building. Table 1 provides a summary of the quantity, location and type of materials observed.

Table 1 Summary of Regulated, Hazardous Substances and Petroleum Products

Approximate Container Size	Quantity	Substance	Location
One to 5 gallon	20+	Stone cleaner	Wooden shelves along west-central portion
One to 5 gallon	20+	Epoxy adhesive	Wooden shelves along west-central portion
100 pound bags	20+	Portland cement and silica quartzite	Wooden shelves along west-central portion
---	3	Lead acid batteries	Wooden shelves along west-central portion
1 gallon	2	Automotive fluids	Maintenance supply room in southwestern portion

Approximate Container Size	Quantity	Substance	Location
Pint	20	Permalube	Maintenance supply room in southwestern portion
One to 5 gallon	5	Polishing compound	Maintenance supply room in southwestern portion
Pint	20+	Stone sealant	Storage room in northwestern portion
One to 5 gallon	20+	Stone cleaner	Storage room in northwestern portion
1 gallon	5	Floor cleaner	Storage room in northwestern portion
1 gallon	5	Paint	Storage room in northwestern portion
One to 5 gallon	5	Polishing compound	Storage room in northwestern portion
Quart	20+	Polyester adhesive	Metal shelves along east-central portion
1 gallon	5	Acetone	Metal shelves along east-central portion
1 gallon	10	Stone cleaner	Metal shelves along east-central portion
One to 5 gallon	5	Compressor oil	Wooden shed along western portion of building exterior

The containers appeared to be in sound condition as no visual evidence of a release, such as leaking or staining was observed in the areas of the majority of the material storage. As previously mentioned, minor oily staining was observed in the vicinity of the compressor oil containers within the wooden shed; however the concrete floor surface appeared to be in sound condition, and no staining was observed on the gravel surface outside of the shed.

3.4 Storage Tanks and Drums

No visual evidence of an underground storage tank (UST) such as vent or fill piping entering the ground surface was observed during the Site reconnaissance. No aboveground storage tanks (ASTs) were observed at the Site.

Several plastic 55-gallon drums were observed in and along the western exterior of the fabrication portion of the Site building. With the exception of one drum which contained stone cleaner (located in the southwestern portion of the building), the drums either contained water, sand, polishing powder, or were empty. The drums appeared to be in sound condition as no visual evidence of a release, such as leaking or staining was observed in the areas of the vicinity of the drums.

3.5 Odors and Pools of Liquid

No evidence of pools of liquid or odors associated with chemical releases was observed at the time of the Site inspection.

3.6 Waste Generation

Wastes generated as part of on-Site operations consist of solid and sanitary waste generated during daily operations. In addition, no chemical waste streams were observed during the Site inspection.

3.7 Polychlorinated Biphenyls

Two pole-mounted transformers were observed in Creek Alley, along the western Site boundary. The transformers were labeled as non-polychlorinated biphenyl (PCB) containing and appeared to be in sound condition and no visual evidence of a release, such as leaking or staining was observed on the pole or the ground surface in the vicinity of the transformers.

3.8 Adjacent Property Use

The Site is bound to the east by Race Street beyond which is a grass lot and residential apartment buildings, bordered to the south by Baltimore ToolWorks, bound to the north by West Cross Street beyond which are residential rowhomes, and bound to the west by Creek Alley, beyond which is ABC Box Company.

Adjacent properties were observed from the Site boundary line to assess potential environmental concerns at off-Site locations. No visual signs of off-Site contamination migrating onto the Site were observed.

4.0 HISTORIC RECORDS REVIEW

Based on a review of historic atlases, aerial photographs, topographic maps, and municipal records, the existing Site building was constructed prior to 1890 and a second building was located within the western portion of the Site from at least 1890 to 1901. Following 1901, the western portion of the Site was vacant and/or used for truck parking. Historic Site occupants include AW Kreit Fruit Packers (1890 to 1901), Fleming & Co Canned Goods (1890 to 1930), multiple motor freight/trucking companies (1942 to 1974) and Hilgartner Natural Stone and Adhesive Cement Co (1975 to 2012).

The following sections provide additional details regarding historic information reviewed for the Site.

4.1 Property Tax Files and Ownership Information

Current and historic Site ownership information was obtained from the Maryland Department of Assessments and Taxation website. The property consists of a 0.47-acre parcel of land that is owned by Thomas S Doyle. Historic ownership information is provided below in Table 2.

Table 2 Ownership Information

Site Address	Libre; Folio	Grantor	Grantee	Transfer Date
101 West Cross Street	13316;0007	Hilgartner Natural	Thomas S Doyle	February 24, 2011
	03449;00074	Sanitary Food Stores, Inc.	Hilgartner Natural	November 18, 1992

4.2 Aerial Photographs

Aerial photographs of the Site dated 2011, 2009, 2007, 2005, 1998, 1994, 1988, 1980, 1971, 1966, 1964 and 1957 were reviewed as part of this investigation. A summary of the aerial photograph review is presented in Table 3.

Table 3 Aerial Photograph Review

Year	Observations
2007 to 1957 Scale 1 in = 500 ft; and 1 in = 750 ft	The Site appears to be developed as it is presently with the existing building footprint located in the eastern portion of the Site and the western portion of the Site consists of a parking/storage area. Roadways adjoin the Site to the north, east and west beyond which are residential rowhomes to the north and east and a commercial property to the west. A commercial property also adjoins the Site to the south.

4.3 Historic Atlases

Historic atlases dated 1974, 1967, 1952, 1950, 1914, 1901 and 1890 were obtained from EDR as part of this investigation. A summary of the historic atlas review is presented in Table 4. Copies of the historical atlases are included in Appendix B.

Table 4 Historic Atlas Review

Year	Observations
1974 and 1967 Sanborns	<p>The Site is improved with the existing building footprint within the eastern portion of the Site, and is identified as a motor freight station warehouse. The western portion of the Site is identified as truck parking.</p> <p>Surrounding properties are identified as the following: North: West Cross Street beyond which are residential rowhomes South: Machine shop East: Race Street beyond which are residential rowhomes and commercial buildings West: Creek Alley beyond which is a truck sales and service building</p>
1952 and 1950 Sanborn	<p>An additional building is located off of the northern portion of the Site building, which is identified as an ice depot. The remaining portions of the Site appear unchanged from the 1967 atlas.</p> <p>The surrounding area appears relatively unchanged from the 1967 atlas.</p>
1914 Sanborn	<p>The Site is occupied by the Fleming & Co Canning Factory. The Site building appears unchanged (with the exception that the ice depot building is no longer present) and is identified as a work room and storage in the northern portion, and canning, kettles and a work room in the southern portion.</p> <p>Surrounding properties are identified as the following: North: West Cross Street beyond which are residential rowhomes South: Joseph Thomas & Son Lumber East: Race Street beyond which are residential rowhomes and stores West: Creek Alley beyond which is the Baltimore Canning Company Oyster Packaging facility</p>
1901 Sanborn	<p>A second building, which is identified as occupied by A.W. Kreit Fruit Packers and “used mostly for storage” is located within the western portion of the Site. The eastern portion of the Site appears relatively unchanged from the 1914 atlas, with the exception of three unidentified storage tanks located in the west-central portion of the building and a gasoline tank, which is identified as being underground, is located between the two buildings.</p> <p>Surrounding properties are identified as the following: North: West Cross Street beyond which are residential rowhomes South: A cooper shop East: Race Street beyond which are residential rowhomes and stores West: Creek Alley beyond which is the Radecke and Louis Box Factory</p>
1890 Sanborn	<p>The gasoline and unidentified storage tanks are no longer present within the eastern portion of the Site. The northern portion of the western Site building is identified as closed, and the southern portion is occupied by a tin can factory.</p> <p>Surrounding properties are identified as the following: North: West Cross Street beyond which are residential rowhomes South: Baltimore Lime of Teil Works storage and barrel warehouse East: Race Street beyond which are residential rowhomes and stores</p>

Table 4 Historic Atlas Review

Year	Observations
	West: Creek Alley beyond which is the Rittler & Co Box Factory

4.4 Historic Topographic Maps

Historic topographic maps dated 1974, 1966, 1953, 1946, 1908, 1904, and 1899 were reviewed as part of this investigation. A summary of the historic topographic map review is presented in Table 5.

Table 5 Historic Topographic Map Review

Year	Observations
1974, 1966, 1953 and 1946 USGS 7.5 min. quadrangle "Baltimore East"	The Site and surrounding area are shaded to depict dense development and specific details are not shown. Roadways adjoin the Site to the north and east, a church is visible farther north of the Site and the Middle Branch of the Patapsco River is visible farther southwest.
1908 USGS 30 min. quadrangle "Patapsco", 1904 and 1899 USGS 15 min. quadrangle "Baltimore"	The Site appears to be densely developed within Baltimore City and specific details are not shown.

4.5 Historic City Directories

City directory listings, dated 2012, 2007, 2005, 2002, 1993, 1990, 1984, 1980, 1975, 1971, 1964, 1960, 1959, 1958, 1955, 1952, 1946, 1942, 1930, 1925 and 1920 were obtained from EDR, Inc. A summary of the city directory review is presented in Table 6. Copies of the city directory listings are provided in Appendix B.

Table 6 City Directory Review

Site Address	Year/Source	Occupant Listing
101 West Cross Street	2012 to 1975 Cole Information Services, Hill Donnelly, and Chesapeake and Potomac Telephone Co. of Maryland	Adhesive Cement Co Hilgartner Natural Stone Co
	1964 R.L. Polk & Co. of Baltimore	Vacant
	1958 and 1952 Chesapeake and Potomac and R.L. Polk directories	Bealls Express Trucking
	1946 Chesapeake and Potomac and R.L. Polk directories	Bealls Express Elliot Bros Trucking Co Inc Grubb Motor Lines Shorb Harry Jr

Site Address	Year/Source	Occupant Listing
	1942 R.L. Polk & Co. of Baltimore	Ericsson Transfer Co
	1930 R.L. Polk & Co. of Baltimore	Fleming & Co fruit packers

4.6 Prior Environmental Reports and Investigations

Urban Green Environmental was provided with one prior environmental assessment report. A copy of the report is provided in Appendix C.

In February 1990, a *Phase I Environmental Audit* (EA) was prepared for the Site by Penniman & Browne, Inc. (P&B). The scope of work of the Phase I EA consisted of a visual site inspection, interviews, historic records review, and city, state and federal records review. At the time of the investigation the Site was operating as it is presently as Hilgartner Natural Stone Co. Inc. Based on the information available and reviewed as part of the Phase I EA, P&B recommended that any unmarked transformers be tested for PCBs. No additional recommendations were identified within the report.

However, it is noteworthy that although the P&B historic and municipal records review did not identify any information regarding USTs associated with the Site, the P&B report did note that discussions with former Site personnel indicated that one UST was present at the Site when Hilgartner moved to the Site in 1975. At that time, the UST was pumped dry and the tank and associated piping were filled with concrete. No information regarding the location of this UST was provided in the P&B report.

5.0 ENVIRONMENTAL RECORDS REVIEW

5.1 Local Government Records

On July 22, 2013, Urban Green Environmental submitted a PIA request to the MDE and researched USEPA databases for information regarding petroleum storage and releases of hazardous materials and/or petroleum products at the Site. A response was received from MDE on July 30, 2013 which stated no records are on file for the Site. No records are on file for the Site in the USEPA databases.

5.2 Standard State Environmental Record Sources

In accordance with the ASTM standard, specific State published databases were reviewed as part of this investigation within designated search radii. In addition, supplemental databases were provided for the Site and surrounding properties by the database provider, EDR. These supplemental databases include local database listings (i.e. brownfields, solid waste disposal sites, and land records). As part of this report, the additional supplemental databases were also reviewed for the Site address. Unless identified in the following section, the Site address was not identified on the supplemental database findings. A report containing the database information was prepared by EDR and is included as Appendix D.

The Site address was not identified on any state database. Database findings reported several facilities located within the ASTM standard radii of the Site, as listed in the state database findings. A summary of the standard state environmental agency database findings is provided in Table 7.

Table 7 State Environmental Database Summary

Database	Approximate Minimum Search Distance	Subject Property Results	Adjoining Property Results	Total Radius Search Results
State HWS <i>State Hazardous Waste Sites</i>	1.0 mile	0	0	10
State Landfill <i>Solid Waste Landfills</i>	0.5 mile	0	0	0
OCPCASE <i>Leaking Underground Storage Tank (LUST) Sites and Historic LUSTs</i>	0.5 mile	0	2	67
UST <i>UST and Historic UST Registry</i>	Site and Adjoining	0	0	28
ENG/INST Controls <i>Engineering/Institutional Controls Database</i>	Site	0	NA	5
Brownfields/VCP <i>Brownfields and Voluntary Cleanup Sites</i>	0.5 mile	0	0	11

Baltimore Tool Works (1110 Race Street) OCPCASES 90-1710BC1: The Baltimore Tool Works property adjoins the Site to the south. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES with one case which was opened in February 1990 and

issued closure by the MDE OCP in March 1990. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

ABC Box Company (1135 Leadenhall Street) OCPCASES 90-1709BC1: The ABC Box Company property adjoins the Site to the west beyond Creek Alley. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with one case that was opened in February 1990 and issued closure by the MDE OCP in May 2004. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Kleiman Property/Johns Auto Service (69 W. West Street) OCPCASES 98-0834BC1: The Kleiman Property/Johns Auto Service is located approximately 267 feet south/southeast of the Site. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with one case that was opened in October 1997 and issued closure by the MDE OCP in August 1998 with “tank closure-motor/lube oil” status and a release and subsequent cleanup listed. This facility is also listed in the UST database with two 1,000-gallon gasoline USTs which are listed as permanently out of use. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Downtown Amoco Inc/Amoco/John Cessna (1100 S. Hanover Street) 4-4066BC1 and 90-0050BC1: The Downtown Amoco Inc/Amoco/John Cessna property is located approximately 305 feet east of the Site. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with two cases, one that was opened and closed in May 1984 and the second that was opened in July 1989 and issued closure in June 1998 with a “well/gw contamination-motor/lube oil” status. Additionally, this facility is listed in the UST and Historic UST databases with three 10,000-gallon gasohol USTs that are listed as currently in use, and six gasoline and used oil USTs, ranging in size from 550-gallons to 8,000-gallons, that are listed as permanently out of use. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Plymouth Wallpaper Co Inc (1120 S. Hanover Street) 92-2505BC1: The Plymouth Wallpaper Co Inc property is located approximately 309 feet east of the Site. Available regulatory database records indicate this facility is listed in the MDE OCPCASES database with one case which was opened and closed in June 1990. Additionally, this facility is listed in the UST and Historic UST databases with one 550-gallon gasoline UST which is listed as permanently out of use/removed. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Engine House #26 (140 W. West Street [399 Fort Ave]) OCPCASES 02-0175BC3: The Engine House #26 property is located approximately 311 feet west/southwest of the Site. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with one case that was opened in July 2001 and issued closure by the MDE OCP in October 2001 with a “tank

closure-motor/lube oil” status. Additionally, this facility is listed in the Historic UST database with one 285-gallon gasoline UST which is listed as permanently out of use. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Medical Office Building (1137-47 Hanover Street) 91-0928BC1: The Medical Office Building is located approximately 356 feet east of the Site. Available regulatory database records indicate this facility is listed in the MDE OCPCASES database with one case which was opened and closed in November 1990. Based on the current case file status and anticipated groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

Leadenhall Baptist Church (1021 Leadenhall Street) 05-1032BC2: The Leadenhall Baptist Church is located approximately 378 feet north/northwest of the Site. Available regulatory database records indicate this facility is listed in the MDE OCPCASES database with one case which was opened in April 2005 and issued closure in June 2005. Additionally, this facility is listed in the UST database with one 550-gallon heating oil UST which is listed as permanently out of use. Based on the current case file status, this facility is not anticipated to impact the Site at this time.

A. Wheatley (1037 S. Hanover Street) 92-2149BC3: The A. Wheatley property is located approximately 395 feet northeast of the Site. Available regulatory database records indicate this facility is listed in the MDE OCPCASES database with one case which was opened in April 1992 and issued closure in June 2001. Based on the current case file status, this facility is not anticipated to impact the Site at this time.

The remaining state-listed facilities are located at distances greater than 400 feet from the Site. Based on the dense urban Site setting, current case status (closed), the distance from the Site and/or a review of the Site topography which indicates that these facilities are located downgradient and/or crossgradient of the Site, these state-listed facilities represent a limited potential to impact the subject Site.

5.3 Standard Federal Environmental Record Sources

In accordance with the ASTM standard, specific Federal published databases were reviewed as part of this investigation within designated search radii. As noted in Section 5.2, supplemental federal databases were also provided for the Site and surrounding properties by the database provider, EDR. These supplemental databases included additional federal database listings (i.e. FUDS, DOT, PCB database listings). As part of this report, the additional supplemental databases were reviewed for the Site address. Unless identified in the following section, the Site address was not identified on the supplemental database findings. A report containing the database information was prepared by EDR and is provided in Appendix D. A summary of the federal environmental agency database findings is provided in Table 8.

Available regulatory information identifies no notices of violations or regulatory actions on file for the Site or site addresses.

Table 8 Federal Environmental Database Summary

Database	Approximate Minimum Search Distance	Subject Property Results	Adjoining Property Results	Total Radius Search Results
NPL <i>Superfund Sites</i>	1.0 mile	0	0	0
Delisted NPL <i>Removed Superfund Sites</i>	0.5 mile	0	0	0
CERCLIS <i>Potential Superfund Sites</i>	0.5 mile	0	0	0
CERCLIS NFRAP <i>Sites with No Further Remedial Action Planned</i>	0.5 mile	0	0	3
RCRA CORRACTS <i>Corrective Action Report</i>	1.0 mile	0	0	2
RCRA-TSD <i>Treatment, Storage and Disposal Sites</i>	0.5 mile	0	0	0
RCRA-GEN <i>Hazardous Waste Generators</i>	Site and Adjoining Properties	0	1	11
ENG/INST Controls <i>Engineering/Institutional Controls Database</i>	Site	0	0	0
ERNS <i>Emergency Response Notification System Database</i>	Site	0	0	0

Baltimore Tool Works (1110 Race Street): The Baltimore Tool Works property adjoins the Site to the south. The property is listed in the RCRA-GEN database as a Small Quantity Generator (SQG) which means the facility generates between 100 and 1,000 kilograms (kg) of hazardous waste per month; no violations are listed. Based on the groundwater flow (southwest) and current regulatory case status, this facility is not anticipated to impact the Site at this time.

Johns Auto Service (69 W. West Street): The Johns Auto Service property is located approximately 297 feet south/southeast of the Site. The property is listed in the RCRA-GEN database as a Conditionally Exempt Small Quantity Generator (CESQG) which means the facility generates less than 100 kg of hazardous waste per month; no violations are listed. Based on the groundwater flow (southwest) and current regulatory case status, this facility is not anticipated to impact the Site at this time.

Hanover Metal Company Lead Smelter (20 West Cross Street): The Hanover Metal Company Lead Smelter is located approximately 307 feet east of the Site. Available regulatory database records indicate this facility is currently listed in the CERC-NFRAP database with a discovery date of April 2001 and an archive site date of April 2012. Based on the current regulatory case status, this facility is not anticipated to impact the Site at this time.

Furst Brothers Co (1215 Leadenhall Street): The Furst Brothers Co property is located approximately 357 feet west/southwest of the Site. Available regulatory database records indicate this facility is currently listed in the RCRA-CESQG database with several violations issued between 1986 and 1996. Based on the groundwater flow (southwest), this facility is not anticipated to impact the Site at this time.

The remaining federal-listed facilities are located at distances greater than 400 feet from the Site. Based on the dense urban Site setting, the distance from the Site and a review of the Site topography which indicates that these facilities are all located downgradient and/or crossgradient of the Site, these federal-listed facilities represent a limited potential to impact the subject Site.

6.0 FINDINGS, OPINIONS, AND CONCLUSIONS

6.1 Findings

The Site consists of a 0.47-acre parcel of land, which is zoned industrial, and is occupied by Higartner Natural Stone Company Inc., a marble and granite supplier, fabricator and installer. The Site is improved with a one- to three-story masonry structure that is underlain by a concrete-slab-on-grade foundation. The three-story portion (northern) is utilized for offices and a showroom and the remainder of the building is used for fabrication and storage. The structure is located in the eastern portion of the Site. Exterior areas of the Site consist of a fenced gravel lot used for stone and maintenance supply storage.

The Site is serviced by municipal water and sewer provided by the City of Baltimore and natural gas and electric utilities provided by BGE. The northern portion of the Site building is heated and cooled by a combination forced air system; the remainder of the building is heated by natural gas-fired overhead heaters.

Based on a review of historic records, the existing Site building was constructed prior to 1890. A second building was located within the western portion of the Site from at least 1890 to 1901. Following 1901, the western portion of the Site was vacant and/or used for truck parking. Historic Site occupants include AW Kreit Fruit Packers (at least 1890 to 1901), Fleming & Co Canned Goods (at least 1890 to 1930), multiple motor freight/trucking companies (at least 1942 to 1974) and Hilgartner Natural Stone and Adhesive Cement Co (1975 to 2012). In addition, a gasoline UST was identified along the western exterior of the Site building on the 1901 historical atlas; the UST was not identified on any other historical atlas or resource.

No visual evidence of an existing UST, such as vent or fill piping entering the ground surface, was observed at the Site. However, based on a review of an *Environmental Audit* performed at the Site in 1990, one UST was emptied of its contents and filled with concrete at the Site in 1975. No location information for this UST was provided in the prior report.

A water/sludge separator system is located throughout the majority of the fabrication portion of the building. Washwater, which includes solids (fines generated during cutting and cleaning the stone) are discharged into two holding tanks located along the northern and southern portion of the drain system. These tanks are reportedly cleaned and emptied approximately once a year. Following settling in the holding tanks, the resulting clarified effluent is discharged into the sanitary sewer system.

Chemical storage at the Site included several pint to 55-gallon containers of stone cleaners, sealants, adhesives, and routine maintenance supplies within the fabrication portion of the Site building. In addition, one air compressor and associated compressor oil was observed within a wooden shed (with a concrete floor) along the western exterior of the Site building. The containers

were stored either on the ground surface or wooden or metal shelves and appeared to be in sound condition. With the exception of minor oily staining observed in the vicinity of the air compressor, no visual evidence of a release, such as leaking or staining was observed within the vicinity of the chemical storage.

No aboveground storage tanks were observed at the Site. Further, no hazardous materials or petroleum product disposal/storage, stressed vegetation, pits, ponds, lagoons, or surface staining, indicative of a suspect release, was observed on the exterior areas of the Site. Lastly, the Site address was not identified on state or federal database listings, such as RCRA-generators, which would indicate the current or historic handling and/or generation of hazardous materials or petroleum products at the Site.

Urban Green submitted a PIA request to the MDE and researched databases with the USEPA in an attempt to obtain information in connection with the Site. No records are on file for the Site with the MDE or in the USEPA databases.

6.2 Opinions and Conclusions

Urban Green Environmental has performed a Phase I ESA of the property located at 101 West Cross Street in Baltimore, Maryland 21230. This assessment has revealed no evidence of *RECs* or *historic RECs* in connection with the property with the exception of the following:

- ***Historic Underground Storage Tank:*** The Site was historically utilized as a freight station from at least 1942 to 1974. Furthermore, the 1901 historic atlas indicates the presence of one gasoline UST located along the western portion of the Site building. Based on a review of the *Environmental Audit* completed at the Site in 1990, one UST was reportedly emptied and filled in place at the Site in 1975; however, no location information was provided. No visual evidence of a UST, such as vent or fill piping entering the ground surface, was observed during the Site reconnaissance. Lastly, no records are on file with the MDE which could confirm the location of the UST or whether the UST may have impacted the environmental integrity of the Site. Therefore, this former UST, and absence of confirmatory soil and/or groundwater sampling, represents a *historic recognized environmental condition* at the Site.
- ***Historic Site Use (Freight Station):*** The Site was historically utilized as a freight station from at least 1942 to 1974.

Additional action and investigation, including a geophysical survey and/or limited soil/groundwater sampling, is recommended to further evaluate the potential for a UST to remain in the area of the gasoline storage tank as identified on the historic Site atlas and to further evaluate the potential for the above recognized environmental conditions to have impacted the environmental integrity of the Site.

The additional findings noted below are not considered recognized environmental conditions at this time, but are considered *de minimis* conditions where no additional investigation or action is currently warranted; however preventive measures or future actions may be prudent as discussed below.

- ***Storage containers:*** Several pint to 55-gallon containers of stone cleaners, sealants, adhesives, and routine maintenance supplies were observed throughout the fabrication portion of the building and along the western exterior of the structure. Prior to demolition, renovations and/or redevelopment, it is recommended that the above materials be removed in accordance with state and federal guidelines.
- ***Surrounding Property Database Listings:*** Several properties within the surrounding area were identified within the environmental databases, including the southern and western adjoining property. Based on the current regulatory case statuses (closed), distance from the Site and/or topographically downgradient location, these properties are not anticipated to present an adverse environmental impact to the Site at this time.

7.0 REFERENCES

Site reconnaissance by Urban Green Environmental, July 30, 2013.

Environmental Data Resources, Inc. (EDR). The EDR Radius Map with GeoCheck, Cross Street. 101 West Street, Baltimore, MD 21230. Inquiry No. 3671124.5. July 19, 2013.

EDR. Certified Sanborn Map Report, Inquiry No. 3671124.3. July 22, 2013.

EDR. The EDR-City Directory Abstract, Inquiry No. 3671124.6. July 19, 2013.

Penniman & Browne, Inc. 1990. *Phase I Environmental Audit, 101 Cross Street, Baltimore, MD.* February.

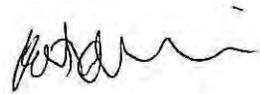
State of Maryland Department of Assessment and Taxation. Assessment information and current tax map. July 31, 2013.

USEPA. My Property Info. <http://www.epa.gov/enviro/html/fii/myproperty.html>. July 31, 2013.

8.0 SIGNATURE OF THE ENVIRONMENTAL PROFESSIONAL

8.1 Signature

I declare that, to the best of my professional knowledge and belief, I meet the definition of and Environmental Professional as defined in §312.10 of 40 CFR 312” and have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



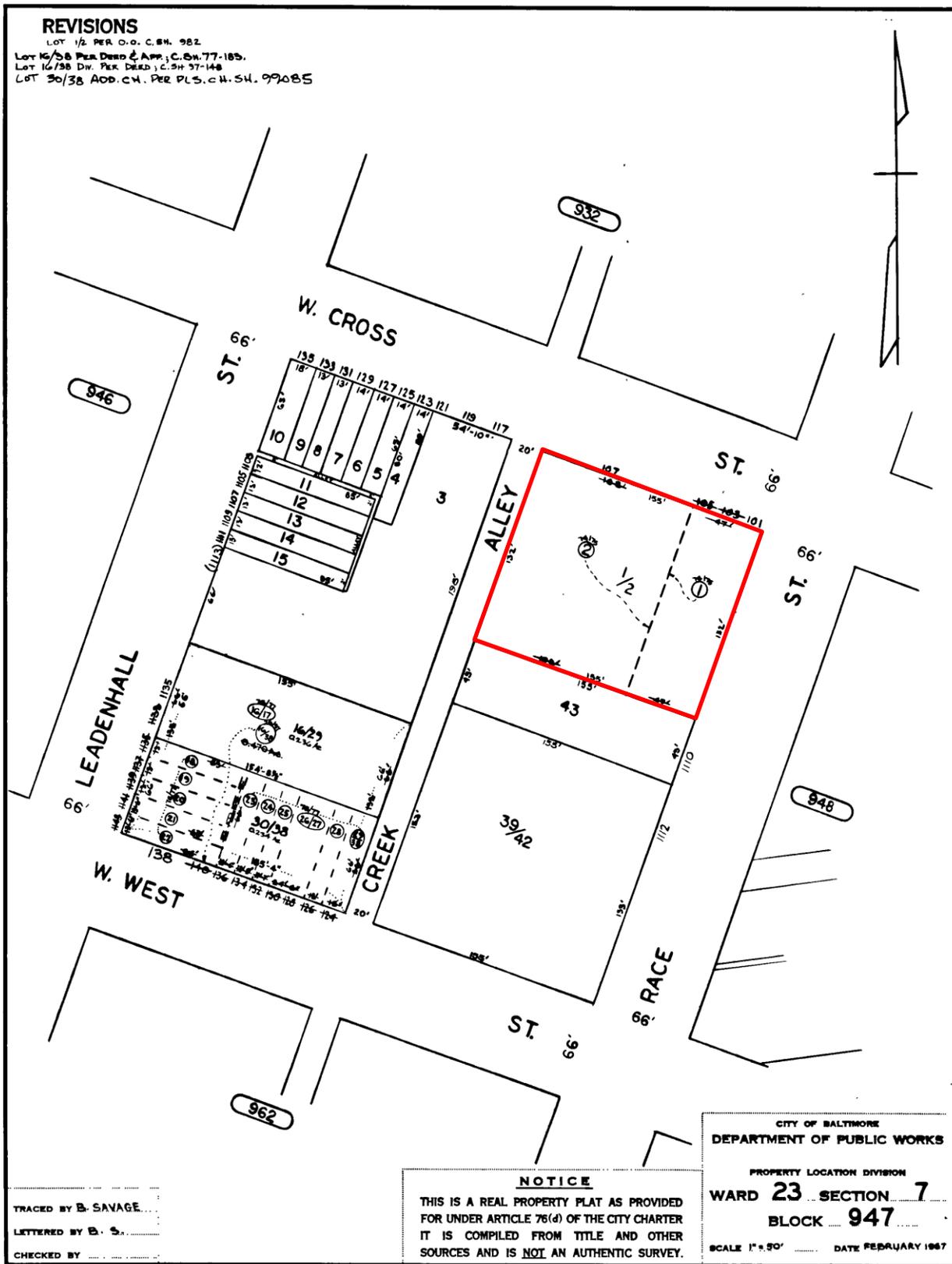
Katherine Christensen
Environmental Scientist/Project Manager



Source: Topozone.com

REVISIONS

LOT 1/2 PER D.O. C. 84. 982.
 LOT 16/38 PER DEED & APP.; C. 84. 77-185.
 LOT 16/38 DIV. PER DEED; C. 84. 97-148.
 LOT 30/38 ADD. CM. PER PLS. C.H. 84. 99085



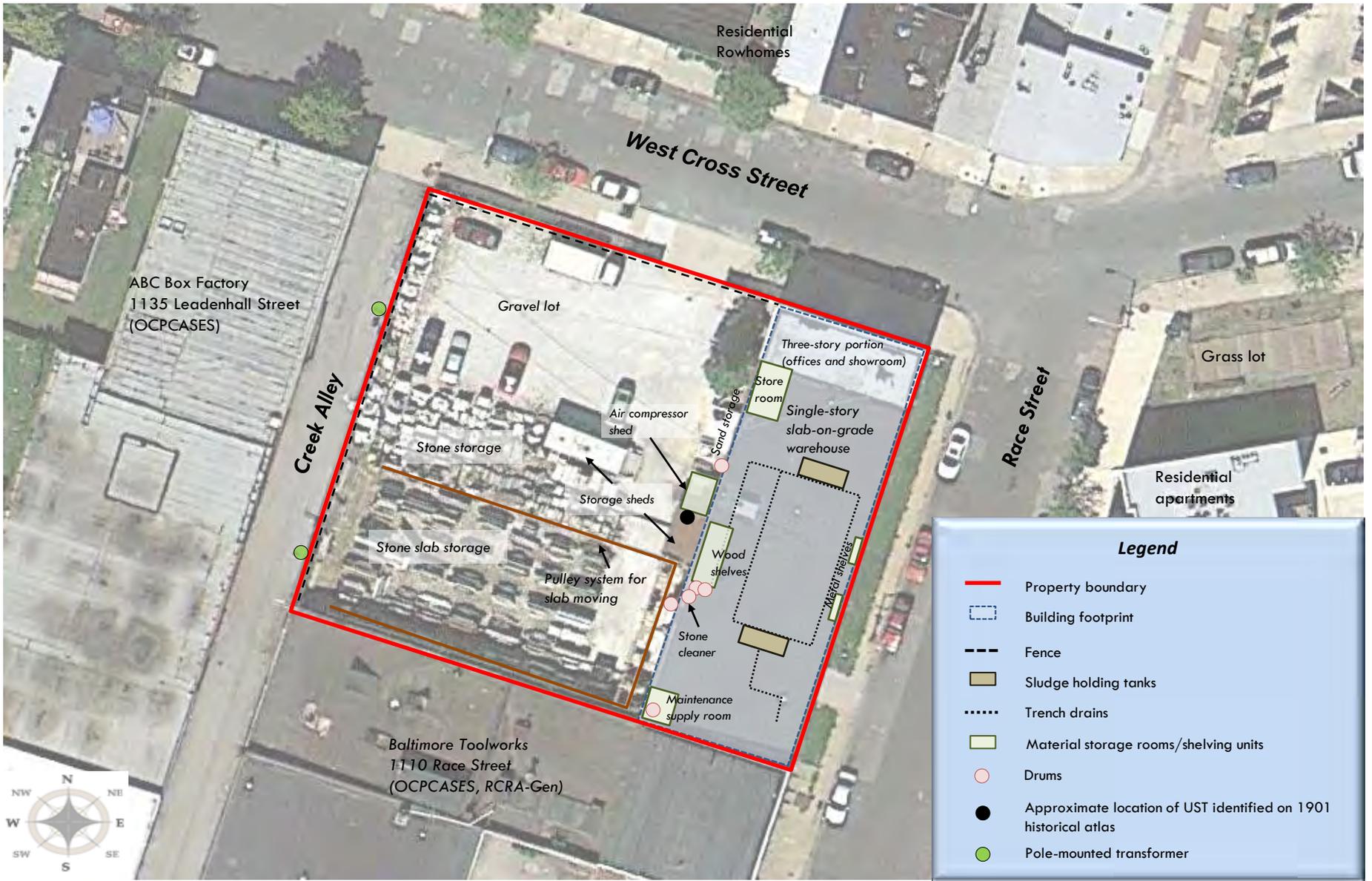
TRACED BY B. SAVAGE
 LETTERED BY B. S.
 CHECKED BY

NOTICE
 THIS IS A REAL PROPERTY PLAT AS PROVIDED FOR UNDER ARTICLE 76(d) OF THE CITY CHARTER IT IS COMPILED FROM TITLE AND OTHER SOURCES AND IS NOT AN AUTHENTIC SURVEY.

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 PROPERTY LOCATION DIVISION
WARD 23 SECTION 7
BLOCK 947
 SCALE 1" = 50' DATE FEBRUARY 1987

Basemap Source: Maryland Departments of Assessments and Taxation

	Caves Valley Partners	Figure 2 Tax Plat 101 West Cross Street Baltimore, Maryland 21230		Date: August 2013	Figure: 2
		Not to Scale		Approximate Scale: Not to Scale	Project Number: 078-009-13



Legend

- Property boundary
- Building footprint
- Fence
- Sludge holding tanks
- Trench drains
- Material storage rooms/shelving units
- Drums
- Approximate location of UST identified on 1901 historical atlas
- Pole-mounted transformer



Aerial Photograph Source: Google Earth

Attachment IV
ENVIRONMENTAL REPORTS

Phase I Environmental Site Assessment – 117 to 135 West Cross Street, 1103 to 1135 Leadenhall Street, 138 West West Street, and Creek Alley

Phase I Environmental Site Assessment

ABC Box Company Properties
117 to 135 West Cross Street, 1103 to 1135 Leadenhall
Street, 138 West West Street and Creek Alley
Baltimore, Maryland 21230



Prepared For:

Stadium Square I, LLC
1 Olympic Place, Suite 1210
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February 2014 *(Updated March 2014)*

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SUMMARY

Urban Green Environmental (Urban Green) has performed a Phase I Environmental Site Assessment (ESA) of the ABC Box Company Properties located at 117 to 135 West Cross Street, 1103 to 1135 Leadenhall Street, 138 West West Street and Creek Alley in Baltimore, Maryland 21230 (Site). This assessment was performed in general accordance with the ASTM E1527-13 standard. This study consisted of a review of current and historic activities and conditions at the property and surrounding properties, including a non-intrusive visual inspection of the property, interviews with Site personnel, review of local, state, and federal regulatory database records, review of historic records, and a survey of the adjacent land uses. Limitations, exceptions to, or deletions from, this practice are described in Sections 1.3 and 1.4 of this report.

The Site consists of seventeen adjoining parcels of land totaling approximately 1.4-acres which are occupied by ABC Box Company, a cardboard box recycler and wholesaler and several residential properties. The Site is improved with two adjoining single-story concrete structures, which are underlain by concrete-slab-on-grade foundations and six residential rowhomes. The limited exterior areas consist of vacant grass-covered lots in the northwestern portion of the Site, a maintained grass lawn along the southern Site boundary, and Creek Alley which runs along the eastern Site boundary.

The Site is serviced by municipal water and sewer provided by the City of Baltimore and electric utilities provided by Baltimore Gas and Electric (BGE). The office portion of the Site building (west-central portion of the building) is heated by individual electric wall-mounted heaters; the remaining portions of the building are not heated or cooled.

Based on interviews with on-Site personnel and a review of historic records, the existing Site building was constructed prior to 1890, with several expansions between 1890 and 1980 and has been occupied by multiple commercial/industrial entities with the most recent being ABC Box Company from 1957 to present. The Site had also been developed with several smaller commercial buildings and residential rowhomes. Noteworthy historic occupants of these prior buildings include:

- **117 to 121 West Cross Street:** Truck sales/service and auto repair from 1974 to 1930; Baltimore Canning Company Oyster Packaging in 1914; Radecke and Louis Box Factory in 1901; and Rittler and Co Box Factory in 1890. In addition, two gasoline storage tanks were noted on historic atlases in the northern portion of the parcel between 1950 and 1952.
- **1113 to 1119 Leadenhall Street:** Truck sales/service and auto repair from 1974 to 1942; a lumber yard between 1914 and 1901; and Baltimore Lime of Tiel Works in 1890.
- **1121 to 1133 Leadenhall Street:** A lumber yard between 1914 and 1942.
- **1135 Leadenhall Street:** Dixie Waste Company in 2002.
- **128 West West Street:** Caraway Auto Repair Shop in 1975.
- **130 West West Street:** A blacksmith from 1890 to 1952.

No visual evidence of underground storage tanks (USTs), such as vent or fill piping entering the ground surface was observed during the Site reconnaissance. However, as noted above, the historic atlas review indicated the presence of two gasoline USTs in the northern portion of the 117 West Cross Street Site parcel between 1950 and 1952. In addition, the 1135 Leadenhall Street Site address is listed in the Maryland Department of the Environment (MDE) Oil Control Program Cases (OCPCASES) database with one case that was opened in February 1990 and closed in May 2004 with an “other (specify)” status.

With the exception of routine maintenance supplies and three gasoline containers located in and near the offices within the west-central portion of the Site building, no hazardous materials or petroleum product use, handling or generation were observed at the Site. No aboveground storage tanks (ASTs), hazardous materials or petroleum product disposal/storage, stressed vegetation, pits, ponds, lagoons, or surface staining, indicative of a suspect release, was observed in the exterior portions of the Site. In addition, the Site addresses were not identified on state or federal database listings, such as RCRA-generators, which would indicate the current or historic handling and/or generation of hazardous materials or petroleum products at the Site. It is noteworthy, that the Site buildings are filled with cardboard boxes; significant portions of the interior of the Site buildings were obscured by the stored boxes.

Urban Green submitted a Public Information Act (PIA) request to the MDE and researched databases with the United States Environmental Protection Agency (USEPA) in an attempt to obtain information regarding storage and releases of hazardous materials and/or petroleum products at the Site. No records are on file for the Site in the USEPA databases. To date, no response has been received from MDE. Any pertinent information received will be forwarded upon receipt and review.

Recognized Environmental Conditions

Urban Green Environmental has performed a Phase I ESA of the ABC Box Company Properties located at 117 to 135 West Cross Street, 1103 to 1135 Leadenhall Street, 138 West West Street and Creek Alley in Baltimore, Maryland 21230. This assessment has revealed no evidence of *recognized environmental conditions*, *controlled recognized environmental conditions* or *historic recognized environmental conditions* in connection with the property with the exception of the following:

- ***Historic Site Use and Underground Storage Tanks:*** The Site historically operated as several auto repair facilities, a lumber yard, a lime of tiel works, and a blacksmith. In addition, based on a review of historic atlases dated 1950 and 1952, two gasoline USTs were depicted in the northern portion of the 117 West Cross Street parcel. Lastly, the 1135 Leadenhall Site address is listed in OCPCASES database with one case that was opened in February 1990 and closed in May 2004.

Additional action and investigation is recommended to further evaluate the potential for the above RECs to have impacted the environmental integrity of the Site. If inactive USTs are identified at the Site, the USTs should be abandoned in accordance with state and federal guidelines.

The additional findings noted below are not considered recognized environmental conditions at this time, but are considered *de minimis* conditions where no additional investigation or action is currently warranted; however preventive measures or future actions may be prudent as discussed below.

- **Storage containers:** Routine maintenance supplies and gasoline containers were observed in and near the offices within the west-central portion of the Site building. Prior to demolition, renovations and/or redevelopment, it is recommended that the above materials be removed in accordance with state and federal guidelines.
- **Surrounding Property Database Listings:** Several properties within the surrounding area were identified within the environmental databases, including the northern (cross-gradient), southeastern (cross-gradient), and southwestern (down-gradient) adjoining properties. Based on the current regulatory case statuses (closed), distance from the Site and/or topographically cross- or down-gradient location, these properties are not anticipated to present an adverse environmental impact to the Site at this time.

1.0 INTRODUCTION

1.1 Purpose

Urban Green Environmental (Urban Green) has completed a Phase I Environmental Site Assessment (ESA) Report for the ABC Box Company Properties located at 117 to 135 West Cross Street, 1103 to 1135 Leadenhall Street, 138 West West Street and Creek Alley in Baltimore, Maryland 21230 (Site).

The purpose of this investigation was to conduct an environmental site assessment of the Site with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products.

1.2 Detailed Scope of Services

This Phase I ESA was conducted in conformance with the scope of work and limitations defined in our proposal executed on January 16, 2014 and in general accordance with the American Society for Testing and Materials (ASTM) standard E1527-13, "Environmental Site Assessments: Phase I Environmental Site Assessment Process" and the United States Environmental Protection Agency's All Appropriate Inquiries (AAI Rule) 40 CFR Part 312 dated November 1, 2013. This report is intended to satisfy one of the requirements to qualify for the *innocent landowner, contiguous property owner, or bona fide prospective purchaser* limitations on CERCLA liability (hereinafter, the "landowner liability protections"). In conjunction with the user responsibilities, identified in Section 1.2.3, this report satisfies "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice."

This assessment was performed by an Environmental Professional (as defined in AAI Rule) and/or conducted under the supervision or responsible charge of an Environmental Professional. The goal of the processes established by the ASTM Standard is to identify *recognized environmental conditions* (RECs), including *controlled recognized environmental conditions* (CRECs) and *historical recognized environmental conditions* (HRECs) in connection with the property and to satisfy appropriate environmental due diligence. A REC is defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to release to the environment; 2) under conditions that indicative of a release to the environment; or 3) under conditions that pose a material threat of a release to the environment. CRECs are defined as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. HRECs are defined as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required

controls. The terms are not intended to include *de minimus* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

This Phase I ESA consisted of a non-intrusive visual inspection of the property, survey of adjacent land uses, interviews, and review of available records pertaining to the current and historic activities and conditions at the property and surrounding properties.

1.2.1 Site Reconnaissance and Interviews

The Site reconnaissance was conducted by Ms. Katherine Christensen of Urban Green Environmental on January 30, 2014. At the time of the Site visit, the temperature was approximately 20°F with clear skies. Mr. Maury Lerner, ABC Box Co. Vice President, accompanied the Urban Green personnel during the Site visit.

The Site reconnaissance consisted of a non-intrusive visual Site inspection of the property, which included a review of Site operations, hazardous materials and petroleum products handling, storage, and disposal practices, waste management practices, and evidence of hazardous material and petroleum product releases, such as stained soil or stressed vegetation. Containerized hazardous substances or petroleum products in quantities greater than or equal to 5-gallons or materials present on Site were noted, including those which are unidentified. In addition, the current and past uses of the Site and adjoining properties (from the Site property boundary) were observed and noted. Urban Green was allowed access to all interior and exterior portions of the commercial properties on the Site. It is noteworthy, that the Site buildings are filled with cardboard boxes; significant portions of the interior of the Site buildings were obscured by the stored boxes. At the time of the inspection, no access was available to the residential rowhouse properties located at 123 to 135 West Cross Street or 1103 to 1105 Leadenhall Street.

Concurrent with the Site visit, on January 30, 2014, Ms. Katherine Christensen of Urban Green conducted an interview with Mr. Maury Lerner. A record of communication is included in Appendix D.

1.2.2 Records Review

The purpose of the records review is to obtain and review records that will help identify RECs in connection with the Site. Records reviewed as part of this investigation included the following:

- *Standard Environmental Record Sources* (environmental database report), obtained via Environmental Data Resources, Inc. (EDR).
- *Physical Setting Sources*, including the current United States Geological Survey (USGS) 7.5-Minute Quadrangle topographic map and available geologic and hydrogeologic information for the Site vicinity.

- *Historic Use Information*, including, as applicable, aerial photographs, historic atlases, property tax files, recorded land title records, local street directories, building department records, and zoning/land use records.

In addition, Urban Green submitted a Public Information Act (PIA) request to the Maryland Department of the Environment (MDE) and researched databases with the United States Environmental Protection Agency (USEPA) in an attempt to obtain information indicating any RECs in connection with the Site. No records are on file for the Site in the USEPA databases. To date, no response has been received from MDE. Any pertinent information received will be forwarded upon receipt and review.

A complete listing of record sources reviewed as part of this assessment is provided in Section 7 of this report. Section 7 also includes sources researched which resulted in no findings.

1.2.3 User-Provided Information

The ASTM Standard E1527-13 defines several tasks to be performed by the user/Client in order to assist the environmental professional identify RECs in connection with the property. These tasks are outlined in Section 6 and include a.) review of the Title and Judicial Records for environmental liens or activity and use limitations, b.) communication to the environmental professional of any specialized knowledge, actual knowledge, or experience that is material to RECs at the property, c.) explanation for a lower purchase price (in comparison to the fair market value), and d.) commonly known or reasonable ascertainable community information, or other obvious information, that is material to RECs at the property. Under the AAI Standard, the above tasks are required by a potential purchaser to qualify for the landowner liability protections. Further, if applicable, in accordance with the ASTM E1527-13, the client must comply with activity and use limitations, to maintain the landowner liability protections.

The above information was requested by Urban Green Environmental of the user/Client to assist in preparing this report.

1.3 Significant Assumptions

The findings of this assessment are based solely on the data provided and reviewed as part of this investigation, including observations and conditions that existed at the time of the Site reconnaissance on January 30, 2014. Information provided by third parties is assumed to be accurate and complete.

Controlled substances are not included within the scope of this standard. Further, the scope of this assessment did not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the Landowner Liability Protections. Non-scope items that are beyond the scope of the ASTM E1527-13 practice and therefore were not addressed as part of this report include, but are not limited to: Asbestos-Containing Materials; Radon; Lead-

Based Paint; Mold; Lead in Drinking Water; Wetlands; Regulatory Compliance; Cultural and Historic Resources; Industrial Hygiene; Health and Safety; Ecological Resources; Endangered Species; Indoor Air Quality; Biological Agents, and High Voltage Power Lines. This list is not intended to be all-inclusive and no implication is intended regarding the importance of inquiry into non-scope considerations.

As defined by ASTM Standard E1527-13, a data gap is a lack of or inability to obtain information required by the practice, despite good faith efforts by the environmental professional. Data gaps can be significant or insignificant based on the manner in which they occur. A data gap is only significant if other information and/or professional experience raise reasonable concern involving the data gap, which would then warrant comment. After a review of the obtained historical information, no data gaps were identified.

1.4 Limitations, Exceptions, Deviations and Special Terms and Conditions

No environmental Site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and this practice recognizes reasonable limits of time and cost.

Urban Green Environmental, LLC does not warrant that there are no toxic or hazardous materials or contamination, nor does Urban Green Environmental, LLC accept any liability if such are found at some future time, or could have been found if sampling or additional studies were conducted. Urban Green Environmental, LLC does not assume responsibility for other environmental issues that may be associated with this Site.

In view of the rapidly changing status of environmental laws, regulations, and guidelines, Urban Green Environmental, LLC cannot be responsible for changes in laws, regulations, or guidelines, which occur after the study has been completed and which may affect the Site.

1.5 User Reliance

This report was prepared for Stadium Square I, LLC by Urban Green Environmental, LLC and is based in part on third party information not within the control of Stadium Square I, LLC or Urban Green Environmental, LLC. While it is believed that the third party information contained herein will be reliable under the conditions and subject to the limitations set forth herein, neither Stadium Square I, LLC nor Urban Green Environmental, LLC guarantee the accuracy thereof. This report has been completed solely for the use of Stadium Square I, LLC and is being provided as a confidential document. Any transfer of this report to third parties is the sole responsibility of Stadium Square I, LLC.

2.0 SITE DESCRIPTION

The Site reconnaissance was conducted by Ms. Katherine Christensen of Urban Green Environmental on January 30, 2014. At the time of the Site visit, the temperature was approximately 20°F with clear skies. Mr. Maury Lerner, ABC Box Co. Vice President, accompanied the Urban Green personnel during the Site visit.

2.1 Location and Legal Description

The Site is located at 117 to 135 West Cross Street, 1103 to 1135 Leadenhall Street, 138 West West Street and Creek Alley in Baltimore, Maryland 21230. Information published online by the Maryland Department of Assessments and Taxation identifies the Site as Map 0023, Section 07, Block 0947, and Lots 003, 010, 012 to 016, and 030. Site parcel information is summarized in Table 1.

Table 1 Site Parcel Information

Lot	Property Address	Current Owner	Approximate Acreage
003	117 West Cross Street	Dixie Realty LLC	0.42
004	123 West Cross Street	City of Baltimore	0.03
005	125 West Cross Street	Christopher Weaver	0.03
006	127 West Cross Street	127 W. Cross Street, LLC	0.03
007	129 West Cross Street	Housing Authority of Baltimore	0.03
008	131 West Cross Street	Christopher Weaver	0.03
009	133 West Cross Street	Stadium Square I, LLC	0.03
010	135 West Cross Street	135 Associates LLC	0.03
012	1103 Leadenhall Street	Christopher Weaver	0.03
012	1105 Leadenhall Street	ABC Box Company	0.03
013	1107 Leadenhall Street	MAR 1107 LLC	0.03
014	1109 Leadenhall Street	West Street Investors LLC	0.03
015	1111 Leadenhall Street	ABC Box Company	0.03
016	1135 Leadenhall Street	Dixie Realty LLC	0.24
030	138 West West Street	Dixie Realty LLC	0.24
---	Unnamed Alley	City of Baltimore	0.04
---	Creek Alley	City of Baltimore	0.15

The Site location is illustrated in Figure 1. A tax plat, illustrating the Site boundaries, is presented as Figure 2.

2.2 Site and Vicinity General Characteristics

The Site consists of seventeen adjoining parcels of land totaling approximately 1.4-acres and is zoned commercial and residential. The Site is located in the Sharp-Leadenhall neighborhood of Baltimore City. Properties immediately surrounding the Site consist of residential and commercial properties.

2.3 Current Use and Description of Site Improvements

The Site is occupied by ABC Box Company, a cardboard box recycler and wholesaler and six residential properties. The Site is improved with two adjoining single-story concrete structures, which are underlain by concrete-slab-on-grade foundations, and occupy the majority of the Site. According to the Maryland Department of Assessments and Taxation, the buildings were constructed in 1900 and the total enclosed area of the buildings is 24,348 square feet. The exterior areas of the Site consist of six residential rowhomes and several vacant grass-covered lots in the northwestern portion of the Site, a maintained grass lawn along the southern Site boundary, and Creek Alley which runs along the eastern Site boundary.

The Site is serviced by municipal water and sewer provided by the City of Baltimore and electric utilities provided by Baltimore Gas and Electric (BGE). The office portion of the Site building, located in the west-central portion of the building, is heated by individual electric wall-mounted heaters, and the remaining portions of the building are not heated or cooled.

Urban Green conducted a well search for potable water supply wells located within 0.5 mile of the Site. The following source of information was researched as part of the well survey: EDR Geocheck Physical Setting Source Summary. The EDR Geocheck Physical Setting Source included all potable and non-potable water supply wells registered within a one half-mile radius of the Site (based on latitude and longitude). To evaluate potential potable water supply wells, well information was sorted based on use. Specifically, domestic wells, designated "D," were separated from the well information provided. No domestic wells are identified as situated within a half-mile radius of the Site. A complete listing of all potable wells within a half mile radius can be found in the EDR report (Appendix C).

2.4 Current Use of the Adjoining Properties

The Site is located in a residential and commercial area of Baltimore City. The Site is bound to the north by West Cross Street beyond which is the Leadenhall Baptist Church and residential rowhomes, to the west by Leadenhall Street beyond which are residential rowhomes and the Baltimore City fire station #26, to the south by West West Street beyond which are residential rowhomes and a vacant grass-covered lot, and is bordered to the east by Hilgartner Natural Stone and Baltimore ToolWorks. In addition, residential rowhomes are located along the northern and northwestern portions of the Site between the 117 and 135 West Cross Street and 1103 and 1105 Leadenhall Street parcels.

2.5 Environmental Setting

2.5.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore East (1974), Site elevation is approximately 15 feet above mean sea level. In general, the subject property's slope is relatively flat sloping slightly to the south. Overland stormwater flow discharges to the grass-covered areas is northwestern and southern portions of the Site and is directed to stormwater catch basins located within the surrounding thoroughfares. Site topography is also illustrated in Figure 1.

The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 1,500 feet southwest of the Site.

2.5.2 Lithology / Hydrogeology

According to the USDA's Soil Conservation Service STATSGO Soil Map data, soil on Site is classified as Urban Land, which consists of variable soils from zero to 59 inches.

Based on a review of the USGS topographic map, groundwater is anticipated to flow in a general southwesterly direction across the Site.

2.5.2 Wetlands and Flood Plains

According to the EDR database report, the subject property is not located within a designated wetland area but is located within the 500-year flood zone. The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 1,500 feet southwest of the Site.

3.0 SITE RECONNAISSANCE

The Site reconnaissance was conducted by Ms. Katherine Christensen of Urban Green Environmental on January 30, 2014. At the time of the Site visit, the temperature was approximately 20°F with clear skies. Mr. Maury Lerner, ABC Box Co. Vice President, accompanied the Urban Green personnel during the Site visit. Areas accessed included all interior and exterior areas of the Site and the property boundaries.

At the time of the Site reconnaissance, the Site was occupied by ABC Box Company, a cardboard box recycler and wholesaler.

3.1 Interior Observations

The Site is improved with two adjoining single-story concrete structures, which are underlain by concrete-slab-on-grade foundations. The footprints of the Site buildings cover the majority of the Site.

Associated Site photographs illustrating the interior building observations and exterior Site observations are presented in Appendix A. A Site plan is presented as Figure 3.

3.1.1 Heating and Cooling

The office portion of the Site building, located in the west-central portion of the building, is heated by individual electric wall-mounted heaters, and the remaining portions of the building are not heated or cooled.

3.1.2 Stains or Corrosion

No visual evidence of stains or corrosion, associated with a current or former release of hazardous materials or petroleum products, was observed during the Site reconnaissance.

3.1.3 Drains and Sumps

No drains or sumps were observed in the Site structure at the time of the Site reconnaissance.

3.2 Exterior Observations

The Site is accessed by West Cross Street which runs along the northern Site boundary, Creek Alley in the eastern portion of the Site, West West Street which runs along the southern Site boundary, and Leadenhall Street which runs along the western Site boundary.

The exterior areas of the Site consist of vacant grass-covered lots in the northwestern portion of the Site, a maintained grass lawn along the southern Site boundary, and Creek Alley which runs along the eastern Site boundary.

3.2.1 Pits, Ponds, and Lagoons, Surface Staining, Stressed Vegetation, and Solid Waste

No visual evidence of surface staining, solid waste, stressed vegetation, pits, ponds, or lagoons were observed in the exterior portions of the Site.

3.2.2 Water, Sewerage, Stormwater, and Wastewater

The Site is serviced by public water and public sewer. In addition, stormwater flow discharges to the grass-covered areas is northwestern and southern portions of the Site and is directed to stormwater catch basins located within the surrounding thoroughfares.

3.3 Hazardous Substances and Petroleum Products

With the exception of routine maintenance supplies and three gasoline containers located in and near the offices within the west-central portion of the Site building, no hazardous substances or petroleum products were observed at the time of the Site reconnaissance.

3.4 Storage Tanks and Drums

Several plastic and steel 55-gallon drums were observed in the Site building; the majority of the plastic drums were used to store trash. The remainder of the plastic drums and all the steel drums were empty and packaged on wood pallets for future sale.

No visual evidence of an underground storage tank (UST) such as vent or fill piping entering the ground surface was observed during the Site reconnaissance. No aboveground storage tanks (ASTs) were observed at the Site. It should be noted that historic atlas notations indicate the presence of two gasoline USTs in the northern portion of the 117 West Cross Street Site parcel between 1950 and 1952.

3.5 Odors and Pools of Liquid

No evidence of pools of liquid or odors associated with chemical releases was observed at the time of the Site inspection.

3.6 Waste Generation

Wastes generated as part of on-Site operations consist of solid and sanitary waste generated during daily operations. No visual evidence of chemical usage, or chemical waste streams were observed during the Site inspection.

3.7 Polychlorinated Biphenyls

Two hydraulically-operated cardboard bailers were observed in the eastern portion of the Site building; the hydraulic reservoirs were observed along the exterior of the bailers. No visual evidence of leaking or staining was observed in the vicinity of the bailers, and the polychlorinated biphenyl (PCB) content, if any, of the hydraulic oil utilized for operation of the bailers is unknown.

Two pole-mounted transformers were observed in Creek Alley, along the eastern Site boundary. The transformers were labeled as non-PCB containing and appeared to be in sound condition and no visual evidence of a release, such as leaking or staining was observed on the pole or the ground surface in the vicinity of the transformers.

3.8 Adjacent Property Use

The Site is located in a residential and commercial area of Baltimore City. The Site is bound to the north by West Cross Street beyond which is the Leadenhall Baptist Church and residential rowhomes, to the west by Leadenhall Street beyond which are residential rowhomes and the Baltimore City fire station #26, to the south by West West Street beyond which are residential rowhomes and a vacant grass-covered lot, and is bordered to the east by Hilgartner Natural Stone and Baltimore ToolWorks.

Adjacent properties were observed from the Site boundary line to assess potential environmental concerns at off-Site locations. No visual signs of off-Site contamination migrating onto the Site were observed.

4.0 HISTORIC RECORDS REVIEW

Based on interviews with on-Site personnel and a review of historic atlases, aerial photographs, topographic maps, and municipal records, the existing Site building was constructed in stages between 1890 and 1976 and has been occupied by multiple commercial entities with the most recent being ABC Box Company from 1957 to present. During the time the Site building was constructed, the Site was also developed with several smaller commercial buildings and residential rowhomes. Noteworthy historical occupants include:

- 117 to 121 West Cross Street: Truck sales/service and auto repair from 1974 to 1930; Baltimore Canning Company Oyster Packaging in 1914; Radecke and Louis Box Factory in 1901; and Rittler and Co Box Factory in 1890. In addition, two gasoline storage tanks were noted in the northern portion of the parcel between 1950 and 1952.
- 1113 to 1119 Leadenhall Street: Truck sales/service and auto repair from 1974 to 1942; a lumber yard between 1914 and 1901; and Baltimore Lime of Tiel Works in 1890.
- 1121 to 1133 Leadenhall Street: A lumber yard between 1942 and 1914.
- 1135 Leadenhall Street: Dixie Waste Co. in 2002.
- 128 West West Street: Caraway Auto Repair Shop in 1975.
- 130 West West Street: A blacksmith from 1952 to 1890.

The following sections provide additional details regarding historic information reviewed for the Site.

4.1 Property Tax Files and Ownership Information

Current and historic Site ownership information was obtained from the Maryland Department of Assessments and Taxation website. The property consists of seventeen adjoining parcels of land totaling approximately 1.4-acres and the Site is owned by multiple entities. Ownership information is provided below in Table 2.

Table 2 Ownership Information

Site Address	Libre; Folio	Grantor	Grantee	Transfer Date
117 West Cross Street	09130;00115	Dixie Realty Company	Dixie Realty LLC	December 23, 1999
123 West Cross Street	No prior ownership information listed		City of Baltimore	---
125 West Cross Street	06757;01227	125 W. Cross St, LLC	Christopher Weaver	September 12, 2005
127 West Cross Street	02977;00381	Payson Properties, LLC	127 W Cross Street, LLC	October 16, 2002
129 West Cross Street	07709;00190	Mayor & City Council	Housing Authority of Balt.	April 27, 2006
131 West Cross Street	03712;00018	131 W. Cross St., LLC	Christopher Weaver	May 1, 2003
133 West Cross Street	16090;0383	Neff Rehabs, LLC	Stadium Square I, LLC	March 20, 2014

Table 2 Ownership Information

Site Address	Libre; Folio	Grantor	Grantee	Transfer Date
135 West Cross Street	06842;00093	Louis H Szeliga	135 Associates LLC	November 19, 1997
	00000;00000	Lonza Davis	Louis H Szeliga	May 24, 1994
1103 Leadenhall Street	07132;00722	Lonza Davis	Christopher Weaver	December 20, 2005
1105 Leadenhall Street	06545;00501	Lonza Davis, Et al	ABC Box Company	July 22, 1997
1107 Leadenhall Street	07405;00502	Paul W Nochumowitz	Mar 1107 LLC	June 11, 1998
1109 Leadenhall Street	05999;00196	Heyman Realty Co Inc	West Street Investors LLC	November 26, 1996
1111 Leadenhall Street	06321;00448	Willie Davis	ABC Box Company	April 25, 1997
1135 Leadenhall Street	09130;00115	Dixie Waste Co	Dixie Realty LLC	December 23, 1999
138 West West Street	No prior ownership information listed		Dixie Realty LLC	---
Unnamed Alley	City of Baltimore			
Creek Alley	City of Baltimore			

4.2 Aerial Photographs

Aerial photographs of the Site dated 2011, 2009, 2007, 2005, 1998, 1994, 1988, 1980, 1971, 1966, 1964 and 1957 were reviewed as part of this investigation. A summary of the aerial photograph review is presented in Table 3.

Table 3 Aerial Photograph Review

Year	Observations
2011 to 1994 Scale 1 in = 500 ft; and 1 in = 750 ft	<p>The Site appears to be developed as it is presently with the existing building footprint encompassing the majority of the Site, a roadway along the eastern Site boundary, and vacant vegetated land in the northwestern portion of the Site.</p> <p>Roadways adjoin the Site to the north, south and west beyond which are commercial properties and some residential rowhomes. In addition, residential rowhomes are located near the northern and northwestern portions of the Site, between the Cross Street and Leadenhall properties.</p>
1988 to 1980 Scale 1 in = 500 ft	<p>The majority of the Site appears unchanged from the 1994 photograph with the exception of the northwestern portion of the Site which appears to be developed with residential rowhomes.</p> <p>Rowhomes adjoin the Site to the north, beyond the roadway, and the remaining adjoining properties appear relatively unchanged from the 1994 photograph.</p>
1971 to 1957 Scale 1 in = 500 ft	<p>The Site building is smaller and occupies only the northeastern and central portion of the Site. The southern portion of the Site appears to be utilized for truck parking.</p> <p>The adjoining properties appear relatively unchanged from the 1980 photograph.</p>

4.3 Historic Atlases

Historic atlases dated 1974, 1967, 1952, 1950, 1914, 1901 and 1890 were obtained from EDR as part of this investigation. A summary of the historic atlas review is presented in Table 4. Copies of the historical atlases are included in Appendix B.

Table 4 Historic Atlas Review

Year	Observations
<p>1974 and 1967 Sanborns</p>	<p>The Site is separated into multiple lots and is developed with several buildings including:</p> <ul style="list-style-type: none"> • 117 to 121 West Cross Street: One single-story building identified as Truck Sales & Service with an office along West Cross Street; the building extends to 1113 Leadenhall Street where it is identified as Auto Repair. • 123 to 133 West Cross Street: Six adjoining two-story residential rowhomes. • 135 West Cross Street: One three-story residential rowhome with a garage in the southern portion of the parcel. • 1103 to 1111 Leadenhall Street: Five adjoining two-story residential rowhomes. • 1137 to 1143 Leadenhall Street: Four adjoining three-story residential rowhomes. • 128 to 130 West West Street: One single-story building identified as Upholstery. <p>The remaining portions of the Site are vacant. An unnamed alley is located on the southern boundary of the properties at 125 to 135 West Cross Street and Creek Alley is located along the eastern Site boundary.</p> <p>Surrounding properties are identified as the following:</p> <p>North: West Cross Street beyond which are residential rowhomes; residential rowhomes are also located between the 121 and 135 West Cross Street Site parcels.</p> <p>South: West West Street beyond which are residential rowhomes.</p> <p>East: A machine shop and truck parking lot to the northeast and a motor freight station to the southwest.</p> <p>West: Leadenhall Street beyond which are residential rowhomes and the Fire Department Engine No 28 building to the southwest; a residential rowhome is also present between the 135 West Cross Street and 1105 Leadenhall Street parcels.</p>
<p>1952 and 1950 Sanborn</p>	<p>With the exception of the following, Site conditions do not appear to differ significantly from the 1967 Sanborn atlas:</p> <ul style="list-style-type: none"> • 117 to 121 West Cross Street: The entire building is identified as Auto Sales & Service; two gasoline storage tanks are shown in the northern portion of the parcel along West Cross Street. • 135 West Cross Street: The building is identified as a saloon. • 1133 Leadenhall Street: A lumber shed. • 1135 to 1143 Leadenhall Street: Five adjoining three-story residential rowhomes; 1143 Leadenhall is identified as a store. • 124 to 136 West West Street: Seven adjoining two- to three-story residential rowhomes; 130 West West Street is identified as a blacksmith. <p>The majority of the surrounding properties appear relatively unchanged from the 1967 atlas with the exception of an ice depot building that is located in the northeastern adjoining property.</p>

Table 4 Historic Atlas Review

Year	Observations
1914 Sanborn	<p>With the exception of the following, Site conditions do not appear to differ significantly from the 1950 Sanborn atlas:</p> <ul style="list-style-type: none"> • 117 to 121 West Cross Street: The building is smaller, does not extend over to Leadenhall Street, and is two-stories. The building is identified as Baltimore Canning Company Oyster Packaging with canning on the first floor and storage on the second floor; in addition, a chimney is shown along the southern portion of the building. • 1113 to 1133 Leadenhall Street: The parcels are improved with a lumber shed and several lumber piles. This area is identified as Jos. Thomas & Son Lumber which also extends across Creek Alley into the southeastern adjoining property. • A shed is located in the southern portion of Creek Alley <p>The northeastern adjoining property is identified as Fleming & Co Canning Factory. The southeastern adjoining property is identified as Jos. Thomas & Son Lumber with several lumber piles and a lumber shed; residential rowhomes are also located in the southern portion of the property, along West West Street. The remaining adjoining properties appear unchanged from the 1950 atlas.</p>
1901 Sanborn	<p>The 117 to 121 West Cross Street building is identified as Radecke and Louis Box Factory, several lumber piles are located in the center of the Site extending to Leadehall Street and a large stable is located south of the box factory along Creek Alley. A livery stable is present in the southern portion of Creek Alley and the remaining Site buildings appear unchanged from the 1914 atlas.</p> <p>Residential rowhomes adjoin the Site to the north, northwest, south and southeast and the southwest adjoining property is vacant. The northeastern adjoining property is identified as AW Kriet Fruit Packers and is improved with several buildings and a cooper shop.</p>
1890 Sanborn	<p>With the exception of the following, Site conditions do not appear to differ significantly from the 1901 Sanborn atlas:</p> <ul style="list-style-type: none"> • 117 to 121 West Cross Street: the building is smaller and is identified as Rittler and Co Box Factory; the building is identified as unfinished with the exception of an engine room and chimney located in the southern portion of the building. • 1113 Leadenhall Street: Baltimore Lime of Tiel Works building, drying yard and storage shed. • Creek Alley only extends into the northern portion of the Site and the area beyond Creek Alley is vacant up to the rowhomes in the southern portion of the Site. <p>The adjoining properties appear relatively unchanged from the 1901 atlas with the exception of a Lime of Teil storage and barrel warehouse located in the eastern adjoining property.</p>

4.4 Historic Topographic Maps

Historic topographic maps dated 1974, 1966, 1953, 1946, 1908, 1904, and 1899 were reviewed as part of this investigation. A summary of the historic topographic map review is presented in Table 5.

Table 5 Historic Topographic Map Review

Year	Observations
1974, 1966, 1953 and 1946 USGS 7.5 min. quadrangle "Baltimore East"	The Site and surrounding area are shaded to depict dense development and specific details are not shown. Roadways adjoin the Site to the north, south and west, and a church adjoins the Site to the north.
1908 USGS 30 min. quadrangle "Patapsco", 1904 and 1899 USGS 15 min. quadrangle "Baltimore"	The Site appears to be densely developed within Baltimore City and specific details are not shown.

4.5 Historic City Directories

City directory listings, dated 2013, 2008, 2005, 2002, 1993, 1990, 1984, 1980, 1975, 1971, 1964, 1960, 1959, 1958, 1955, 1952, 1946, 1942, 1930, 1925 and 1920 were obtained from EDR, Inc. A summary of the city directory review is presented in Table 6. Copies of the city directory listings are provided in Appendix B.

Table 6 City Directory Review

Site Address	Year/Source	Occupant Listing
117 West Cross Street	1971 to 1964 Chesapeake and Potomac Telephone Co. of Maryland	Seidel Geo J & Son Automotive Serv & Equipment Inc
	1958 to 1952 R.L. Polk & Co. and Chesapeake and Potomac Telephone Co. of Maryland	Hammon & Seidel Auto Service
	1946 Chesapeake and Potomac Telephone Co. of Maryland	Reo Sales & Service Seward HM
119 to 121 West Cross Street	1942 R.L. Polk & Co.	Southern Garage filling station
	1930 R.L. Polk & Co.	Murphys Garage
123 to 133 West Cross Street	2005 Hill Donnelly, 1990 to 1920 Chesapeake and Potomac Telephone Co. of Maryland and R.L. Polk & Co.	Various residential listings
135 West Cross Street	1971 Chesapeake and Potomac Telephone Co. of Maryland	Residential
	1964 to 1946 R.L. Polk & Co. and Chesapeake and Potomac Telephone Co. of Maryland	Davis & Davis Lunch Phils Grocery
	1942 to 1920 R.L. Polk & Co.	Residential Listings
1103 to 1111 Leadenhall Street	2005 Hill Donnelly, 2002 Stewart, 1990 to 1920 Chesapeake and Potomac Telephone Co. of Maryland and R.L. Polk & Co.	Several residential listings

Site Address	Year/Source	Occupant Listing
1113 to 1119 Leadenhall Street	1946 to 1942 Chesapeake and Potomac Telephone Co. of Maryland and R.L. Polk & Co.	Hammond & Seidel auto truck repairs
	1930 R.L. Polk & Co.	Private Garage
1121 to 1133 Leadenhall Street	1942 R.L. Polk & Co.	Thomas Lumber Co
	1930 R.L. Polk & Co.	Private Garage
1135 Leadenhall Street	2013 to 2005 Cole Information Services and Hill Donnelly	ABC Box Company
	2002 Stewart Directories	ABC Box Company Dixie Waste Co
	1942 to 1920 R.L. Polk & Co.	Residential Listings
1137 to 1143 Leadenhall Street	1975 to 1920 Chesapeake and Potomac Telephone Co. of Maryland and R.L. Polk & Co.	Several residential listings
128 West West Street	1975 Chesapeake and Potomac Telephone Co. of Maryland	Caraway Auto Repair Shop
138 West West Street	No Listings	

4.6 Prior Environmental Reports and Investigations

Urban Green Environmental was not provided with any previously conducted environmental assessment reports.

5.0 ENVIRONMENTAL RECORDS REVIEW

5.1 Local Government Records

On January 29, 2014, Urban Green Environmental submitted a PIA request to the MDE and researched USEPA databases for information regarding petroleum storage and releases of hazardous materials and/or petroleum products at the Site. No records are on file for the Site in the USEPA databases. To date, no response has been received from MDE. Any pertinent information received will be forwarded upon receipt and review.

5.2 Standard State Environmental Record Sources

In accordance with the ASTM standard, specific State published databases were reviewed as part of this investigation within designated search radii. In addition, supplemental databases were provided for the Site and surrounding properties by the database provider, EDR. These supplemental databases include local database listings (i.e. brownfields, solid waste disposal sites, and land records). As part of this report, the additional supplemental databases were also reviewed for the Site address. Unless identified in the following section, the Site address was not identified on the supplemental database findings. A report containing the database information was prepared by EDR and is included as Appendix C.

The Site address was identified on one state database and two supplemental state databases (OCPCASES, Historic Auto Station, and MD SWRCY) which are discussed below. Database findings reported several facilities located within the ASTM standard radii of the Site, as listed in the state database findings. A summary of the standard state environmental agency database findings is provided in Table 7.

Table 7 State Environmental Database Summary

Database	Approximate Minimum Search Distance	Subject Property Results	Adjoining Property Results	Total Radius Search Results
State HWS <i>State Hazardous Waste Sites</i>	1.0 mile	0	0	10
State Landfill <i>Solid Waste Landfills</i>	0.5 mile	0	0	0
OCPCASE <i>Leaking Underground Storage Tank (LUST) Sites and Historic LUSTs</i>	0.5 mile	1	2	69
UST <i>UST and Historic UST Registry</i>	Site and Adjoining	0	2	28
ENG/INST Controls <i>Engineering/Institutional Controls Database</i>	Site	0	NA	5
Brownfields/VCP <i>Brownfields and Voluntary Cleanup Sites</i>	0.5 mile	0	0	12

The Site addresses are listed in several state environmental databases, including:

- *ABC Box Company (1135 Leadenhall Street)* is listed in the MDE OCPCASES database with one case (90-1709BC1) that was opened in February 1990 and closed in May 2004 by the MDE Oil Control Program (OCP) with an “other (specify)” status. A case closed status typically indicates that no additional action or investigation is required as associated with the facility. The address is also listed in the MD SWRCY database as a recycler of cardboard.
- *Hammond & Sledel (117 W Cross)* is listed in the Historical Auto Station database as an Automobile Repairing facility in 1958.
- *Murphys Garage (117-121 W Cross St)* is listed in the Historical Auto Station database as an Automobile Garage facility in 1930.

Leadenhall Baptist Church (1021 Leadenhall Street) 05-1032BC2: The Leadenhall Baptist Church adjoins the Site to the north, and in a cross-gradient location from the Site. Available regulatory database records indicate this facility is listed in the MDE OCPCASES database with one case which was opened in April 2005 and issued closure in June 2005 with a “tank closure-commercial heating oil” status. Additionally, this facility is listed in the UST database with one 550-gallon heating oil UST which is listed as permanently out of use. Based on the current case file status (closed) which indicates that no additional action or investigation is required at this facility, this facility is not anticipated to impact the Site at this time.

Baltimore Tool Works (1110 Race Street) OCPCASES 90-1710BC1: The Baltimore Tool Works property adjoins the Site to the southeast, and in a cross-gradient location from the Site. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES with one case which was opened in February 1990 and issued closure by the MDE OCP in March 1990. Based on the current case file status (closed), this facility is not anticipated to impact the Site at this time.

Engine House #26 (140 W. West Street [399 Fort Ave]) OCPCASES 02-0175BC3: The Engine House #26 property adjoins the Site to the southwest. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with one case that was opened in July 2001 and issued closure by the MDE OCP in October 2001 with a “tank closure-motor/lube oil” status. Additionally, this facility is listed in the Historic UST database with one 285-gallon gasoline UST which is listed as permanently out of use. Based on the current case file status (closed) and anticipated groundwater flow (southwest) away from the Site, this facility is not anticipated to impact the Site at this time.

Sharp Leadenhall Elementary (150 W. West Street) OCPCASES 90-1765BC1 and 12-0529BC: Sharp Leadenhall Elementary is located approximately 247 feet west of the Site. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with two cases, the first case was opened in February 1990 and issued closure by the MDE OCP in June 2004; the second case was opened in March 2012 and issued closure in November 2012. In addition, this facility is listed in the UST and Historic UST databases with two heating oil USTs, one 10,000-

gallons in size that is listed as permanently out of use, and one with no capacity provided that is listed as currently in use. Based on the current case file status (closed) and anticipated groundwater flow (southwest) away from the Site, this facility is not anticipated to impact the Site at this time.

Kleiman Property/Johns Auto Service (69 W. West Street) OCPCASES 98-0834BC1: The Kleiman Property/Johns Auto Service is located approximately 370 feet southeast of the Site. Available regulatory database records indicate this facility is currently listed in the MDE OCPCASES database with one case that was opened in October 1997 and issued closure by the MDE OCP in August 1998. This facility is also listed in the UST database with two 1,000-gallon gasoline USTs which are listed as permanently out of use. Based on the current case file status (closed) and anticipated groundwater flow (southwest) away from the Site, this facility is not anticipated to impact the Site at this time.

The remaining state-listed facilities are located at distances greater than 400 feet from the Site. Based on the dense urban Site setting, current case status (closed), the distance from the Site and/or a review of the Site topography which indicates that these facilities are located downgradient and/or crossgradient of the Site, these state-listed facilities represent a limited potential to impact the subject Site at this time.

5.3 Standard Federal Environmental Record Sources

In accordance with the ASTM standard, specific Federal published databases were reviewed as part of this investigation within designated search radii. As noted in Section 5.2, supplemental federal databases were also provided for the Site and surrounding properties by the database provider, EDR. These supplemental databases included additional federal database listings (i.e. FUDS, DOT, PCB database listings). As part of this report, the additional supplemental databases were reviewed for the Site address. Unless identified in the following section, the Site address was not identified on the supplemental database findings. A report containing the database information was prepared by EDR and is provided in Appendix C. A summary of the federal environmental agency database findings is provided in Table 8.

Available regulatory information identifies no notices of violations or regulatory actions on file for the Site or site addresses.

Table 8 Federal Environmental Database Summary

Database	Approximate Minimum Search Distance	Subject Property Results	Adjoining Property Results	Total Radius Search Results
NPL Superfund Sites	1.0 mile	0	0	0
Delisted NPL Removed Superfund Sites	0.5 mile	0	0	0
CERCLIS		0	0	1

Table 8 Federal Environmental Database Summary

Database	Approximate Minimum Search Distance	Subject Property Results	Adjoining Property Results	Total Radius Search Results
<i>Potential Superfund Sites</i>	0.5 mile			
CERCLIS NFRAP <i>Sites with No Further Remedial Action Planned</i>	0.5 mile	0	0	4
RCRA CORRACTS <i>Corrective Action Report</i>	1.0 mile	0	0	2
RCRA-TSD <i>Treatment, Storage and Disposal Sites</i>	0.5 mile	0	0	0
RCRA-GEN <i>Hazardous Waste Generators</i>	Site and Adjoining Properties	0	1	11
ENG/INST Controls <i>Engineering/Institutional Controls Database</i>	Site	0	0	0
ERNS <i>Emergency Response Notification System Database</i>	Site	0	0	0

Baltimore Tool Works (1110 Race Street): The Baltimore Tool Works property adjoins the Site to the southeast, and in a cross-gradient location from the Site. The property is listed in the RCRA-GEN database as a Small Quantity Generator (SQG) which means the facility generates between 100 and 1,000 kilograms (kg) of hazardous waste per month. No violations are listed for this facility in the database report. Based on the current regulatory case status, this facility is not anticipated to present an adverse environmental impact to the Site.

Furst Brothers Co (1215 Leadenhall Street): The Furst Brothers Co property is located approximately 92 feet southwest of the Site. Available regulatory database records indicate this facility is listed in the RCRA-GEN database as a Conditionally Exempt Small Quantity Generator (CESQG) which means the facility generates less than 100 kg of hazardous waste per month; several violations are listed between 1986 and 1996. Based on the anticipated groundwater flow (southwest) away from the Site, this facility is not anticipated to impact the Site at this time.

Baltimore Woodworks (1234 Leadenhall Street): The Baltimore Woodworks property is located approximately 166 feet southwest of the Site. The property is listed in the RCRA-GEN database as a SQG; no violations are listed. Based on the current regulatory case status and anticipated groundwater flow (southwest) away from the Site, this property is not anticipated to present an adverse environmental impact to the Site at this time.

Sharp Leadenhall (150 W West Street): The Sharp Leadenhall property is located approximately 247 feet west of the Site. The property is listed in the RCRA-GEN database as a CESQG; no violations are listed. Based on the current regulatory case status and anticipated groundwater flow (southwest)

away from the Site, this property is not anticipated to present an adverse environmental impact to the Site at this time.

Johns Auto Service (69 W. West Street): The Johns Auto Service property is located approximately 370 feet southeast of the Site. The property is listed in the RCRA-GEN database as a CESQG; no violations are listed. Based on the current regulatory case status and anticipated groundwater flow (southwest) away from the Site, this facility is not anticipated to impact the Site at this time.

The remaining federal-listed facilities are located at distances greater than 400 feet from the Site. Based on the dense urban Site setting, the distance from the Site and a review of the Site topography which indicates that these facilities are all located downgradient and/or crossgradient of the Site, these federal-listed facilities represent a limited potential to impact the subject Site.

6.0 FINDINGS, OPINIONS, AND CONCLUSIONS

6.1 Findings

The Site consists of seventeen adjoining parcels of land totaling approximately 1.4-acres, is zoned commercial and residential, and is occupied by ABC Box Company, a cardboard box recycler and wholesaler, and several residential properties. The Site is improved with two adjoining single-story concrete structures, which are underlain by concrete-slab-on-grade foundations, and occupy the majority of the Site. The exterior areas of the Site consist of vacant grass-covered lots in the northwestern portion of the Site, a maintained grass lawn along the southern Site boundary, and Creek Alley which runs along the eastern Site boundary.

The Site is serviced by municipal water and sewer provided by the City of Baltimore and electric utilities provided by BGE. The office portion of the Site building, located in the west-central portion of the building, is heated by individual electric wall-mounted heaters, and the remaining portions of the building are not heated or cooled.

Based on interviews with on-Site personnel and a review of historic records, the existing Site building was constructed in stages between 1890 and 1980 and has been occupied by multiple commercial entities with the most recent being ABC Box Company from 1957 to present. During the time the Site building was constructed, the Site was also developed with several smaller commercial buildings and residential rowhomes. Noteworthy historical occupants include:

- 117 to 121 West Cross Street: Truck sales/service and auto repair from 1974 to 1930; Baltimore Canning Company Oyster Packaging in 1914; Radecke and Louis Box Factory in 1901; and Rittler and Co Box Factory in 1890. In addition, two gasoline storage tanks were noted on historic atlases in the northern portion of the parcel between 1950 and 1952.
- 1113 to 1119 Leadenhall Street: Truck sales/service and auto repair from 1974 to 1942; a lumber yard between 1914 and 1901; and Baltimore Lime of Tiel Works in 1890.
- 1121 to 1133 Leadenhall Street: A lumber yard between 1942 and 1914.
- 1135 Leadenhall Street: Dixie Waste Co. in 2002.
- 128 West West Street: Caraway Auto Repair Shop in 1975.
- 130 West West Street: A blacksmith from 1952 to 1890.

No visual evidence of USTs, such as vent or fill piping entering the ground surface was observed during the Site reconnaissance. However, as noted above, the historic atlas review indicated the presence of two gasoline USTs in the northern portion of the 117 West Cross Street Site parcel between 1950 and 1952. In addition, the 1135 Leadenhall Street Site address is listed in the MDE OCPCASES database with one case that was opened in February 1990 and closed in May 2004 with an “other (specify)” status.

With the exception of routine maintenance supplies and three gasoline containers located in and near the offices within the west-central portion of the Site building, no hazardous materials or petroleum product use, handling or generation were observed at the Site. No ASTs, hazardous materials or petroleum product disposal/storage, stressed vegetation, pits, ponds, lagoons, or surface staining, indicative of a suspect release, was observed in the exterior portions of the Site. In addition, the Site addresses were not identified on state or federal database listings, such as RCRA-generators, which would indicate the current or historic handling and/or generation of hazardous materials or petroleum products at the Site.

Urban Green submitted a PIA request to the MDE and researched databases with the USEPA in an attempt to obtain information regarding storage and releases of hazardous materials and/or petroleum products at the Site. No records are on file for the Site in the USEPA databases. To date, no response has been received from MDE. Any pertinent information received will be forwarded upon receipt and review.

6.2 Opinions and Conclusions

Urban Green Environmental has performed a Phase I ESA of the ABC Box Company Properties located at 117 to 135 West Cross Street, 1103 to 1135 Leadenhall Street, 138 West West Street and Creek Alley in Baltimore, Maryland 21230. This assessment has revealed no evidence of *recognized environmental conditions*, *controlled recognized environmental conditions* or *historic recognized environmental conditions* in connection with the property with the exception of the following:

- **Historic Site Use and Underground Storage Tanks:** The Site historically operated as several auto repair facilities, a lumber yard, a lime of tiel works, and a blacksmith. In addition, based on a review of historic atlases dated 1950 and 1952, two gasoline USTs were depicted in the northern portion of the 117 West Cross Street parcel. Lastly, the 1135 Leadenhall Site address is listed in OCPCASES database with one case that was opened in February 1990 and closed in May 2004.

Additional action and investigation is recommended to further evaluate the potential for the above RECs to have impacted the environmental integrity of the Site. If inactive USTs are identified at the Site, the USTs should be abandoned in accordance with state and federal guidelines.

The additional findings noted below are not considered recognized environmental conditions at this time, but are considered *de minimis* conditions where no additional investigation or action is currently warranted; however preventive measures or future actions may be prudent as discussed below.

- **Storage containers:** Routine maintenance supplies and gasoline containers were observed in and near the offices within the west-central portion of the Site building. Prior to demolition, renovations and/or redevelopment, it is recommended that the above materials be removed in accordance with state and federal guidelines.

- **Surrounding Property Database Listings:** Several properties within the surrounding area were identified within the environmental databases, including the northern (cross-gradient), southeastern (cross-gradient), and southwestern (down-gradient) adjoining properties. Based on the current regulatory case statuses (closed), distance from the Site and/or topographically cross- or down-gradient location, these properties are not anticipated to present an adverse environmental impact to the Site at this time.

6.2 Non-Scope Considerations

Items presented as non-scope considerations are those that the client may have particular interest in, but which review, inquiry or any investigation of was not included in the scope of the Phase I ESA and are presented simply as a courtesy for the purpose of awareness.

- Based on the age of the structures, the on-Site buildings may contain suspected asbestos building materials (ACBM) and Lead-Based Paint. Any future alterations of the building (including renovations or demolition) that may impact the asbestos containing materials or lead-based paint should include consideration of appropriate assessment, abatement and disposal of asbestos containing materials in accordance with applicable guidelines and regulations.

7.0 REFERENCES

Site reconnaissance by Urban Green Environmental, January 30, 2014.

Environmental Data Resources, Inc. (EDR). The EDR Radius Map with GeoCheck, Stadium Square Property. 117 West Cross Street, Baltimore, MD 21230. Inquiry No. 3840706.2s. January 28, 2014.

EDR. Certified Sanborn Map Report, Inquiry No. 3840706.3. January 28, 2014.

EDR. The EDR-City Directory Abstract, Inquiry No. 3840706.5. January 29, 2014.

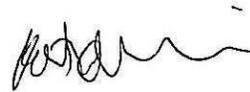
State of Maryland Department of Assessment and Taxation. Assessment information and current tax map. January 13, 2014.

USEPA. My Property Info. <http://www.epa.gov/enviro/html/fii/myproperty.html>. January 29, 2014.

8.0 SIGNATURE OF THE ENVIRONMENTAL PROFESSIONAL

8.1 Signature

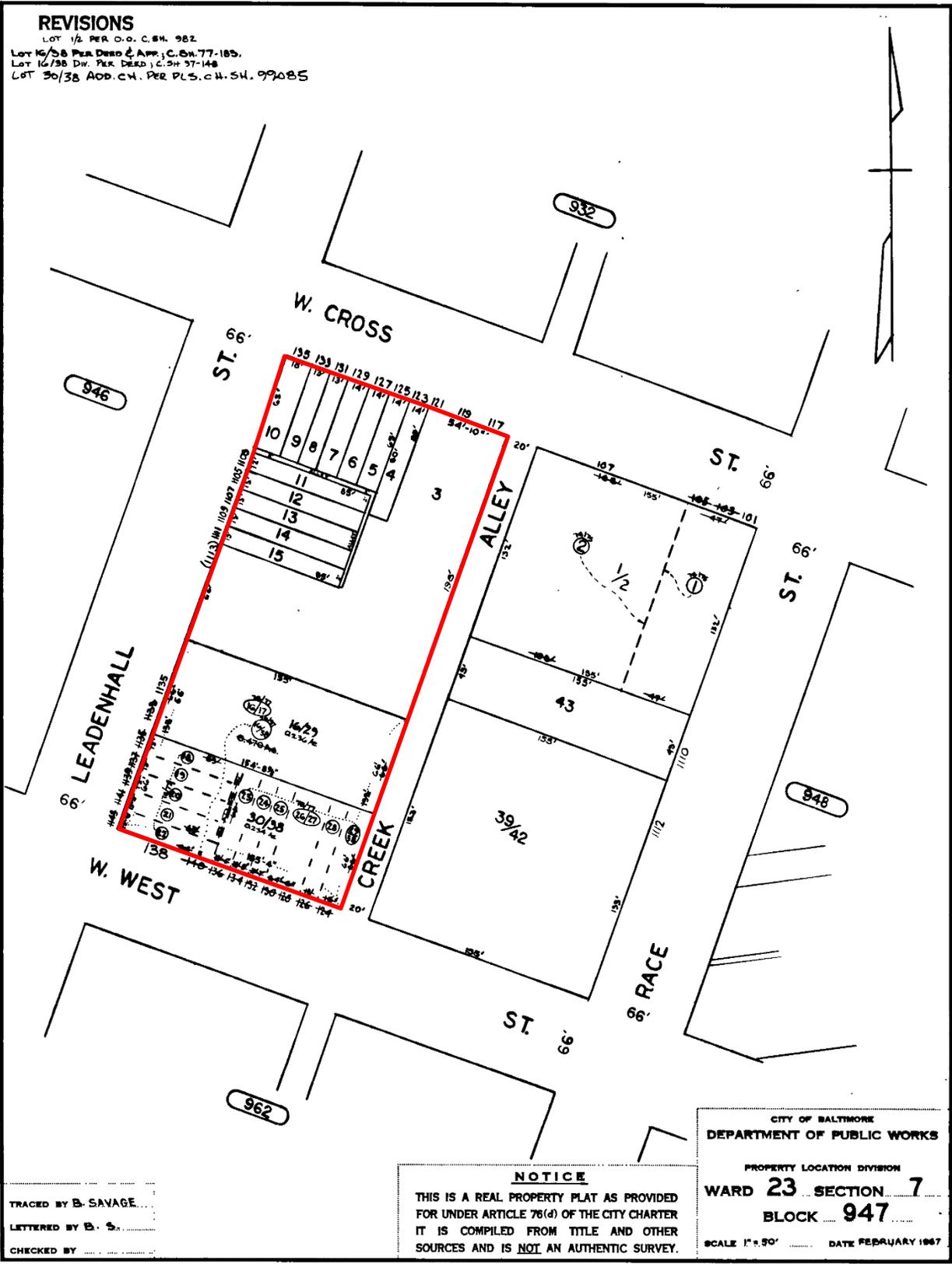
I declare that, to the best of my professional knowledge and belief, I meet the definition of and Environmental Professional as defined in §312.10 of 40 CFR 312” and have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Katherine Christensen
Environmental Scientist/Project Manager

REVISIONS

LOT 1/2 PER O.O. C.S.H. 982
 LOT 16/38 PER DEED & APP.; C.S.H. 77-185.
 LOT 16/38 DIV. PER DEED; C.S.H. 97-148
 LOT 30/38 ADD. CH. PER PLS. C.H. S.H. 99085

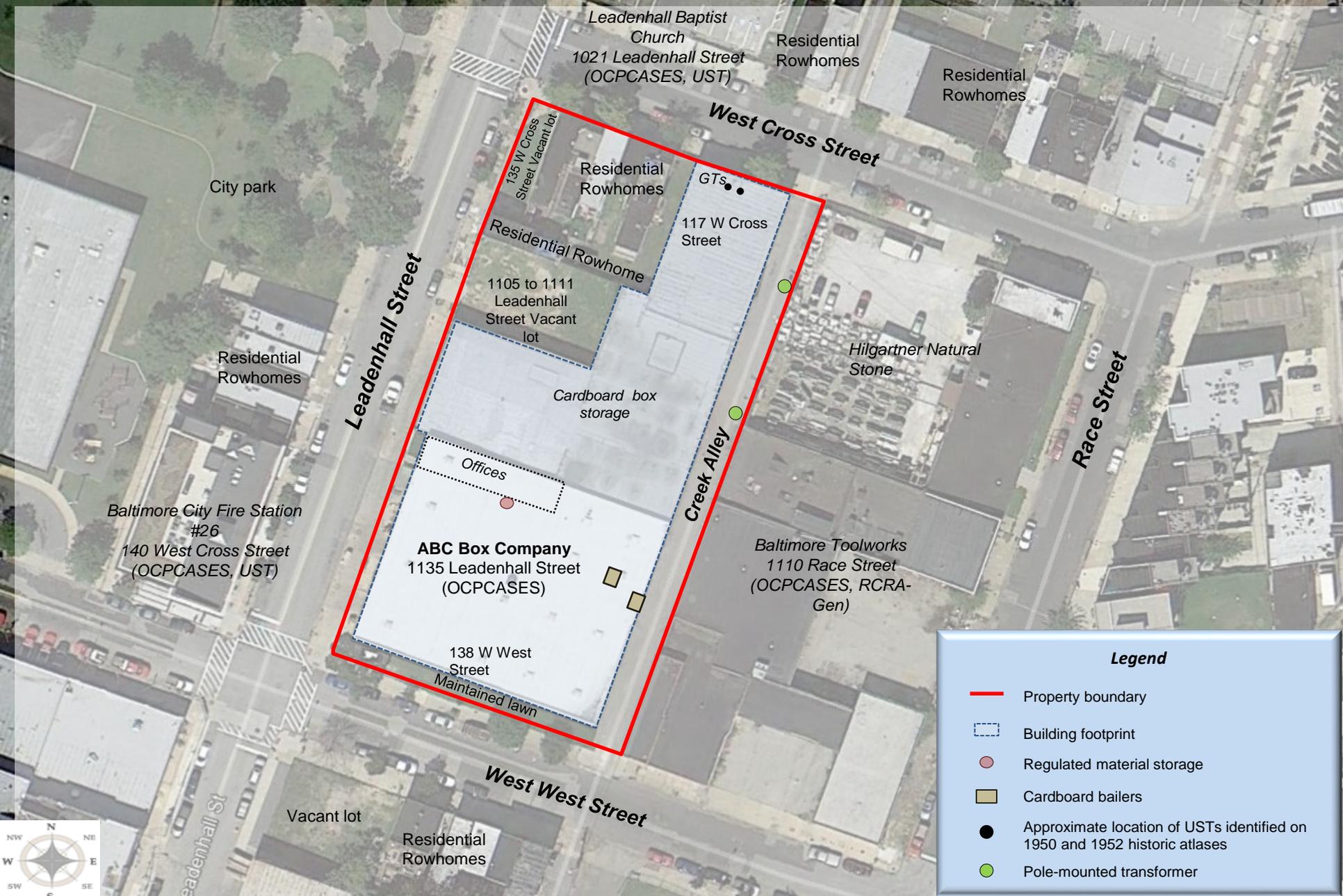


TRACED BY B. SAVAGE
 LETTERED BY B. S.
 CHECKED BY

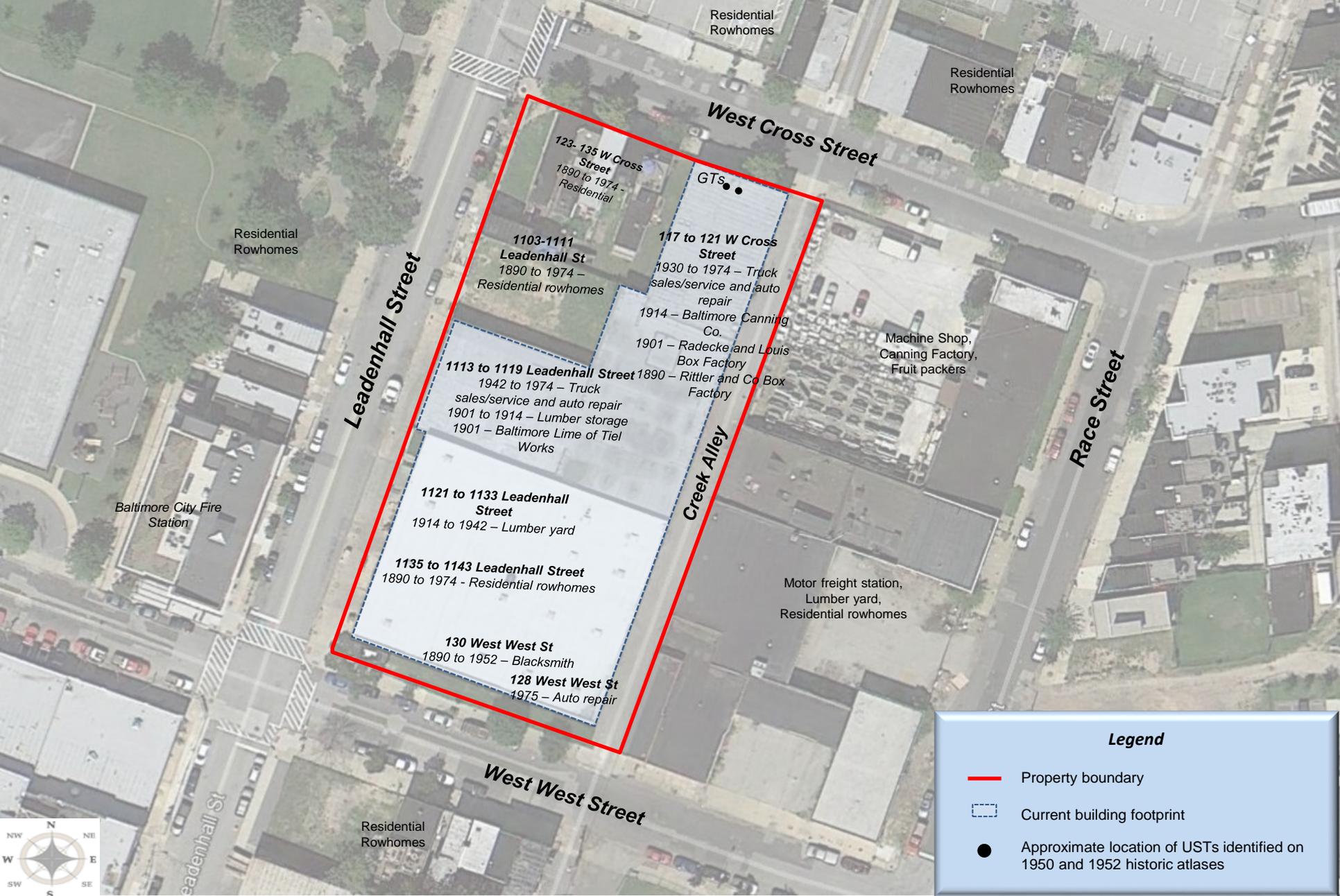
NOTICE
 THIS IS A REAL PROPERTY PLAT AS PROVIDED FOR UNDER ARTICLE 76(d) OF THE CITY CHARTER IT IS COMPILED FROM TITLE AND OTHER SOURCES AND IS NOT AN AUTHENTIC SURVEY.

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 PROPERTY LOCATION DIVISION
WARD 23 SECTION 7
BLOCK 947
 SCALE 1" = 50' DATE FEBRUARY 1987

Basemap Source: Maryland Departments of Assessments and Taxation



Aerial Photograph Source: Google Earth



Aerial Photograph Source: Google Earth

Attachment IVf
ENVIRONMENTAL REPORTS

Phase II Environmental Site Assessment – 101, 117 and 135 West Cross Street, 1105 to 1135
Leadenhall Street and 138 West West Street

Phase II Environmental Site Assessment Report

Stadium Square I Property

101, 117 and 135 West Cross Street,
1105, 1107, 1109, 1111 and 1135 Leadenhall Street and
138 West West Street,
Baltimore, Maryland 21230

Prepared For:

Baltimore Development Corporation

36 South Charles Street, Suite 1600
Baltimore, Maryland 21201

And

Stadium Square I, LLC

1 Olympic Place, Suite 1210
Towson, Maryland 21204

March 2014

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1.0 INTRODUCTION

On behalf of Baltimore Development Corporation and Stadium Square I, LLC, Urban Green Environmental, LLC (Urban Green) has prepared this Phase II Environmental Site Assessment (ESA) Report of the Stadium Square I Property located at 101, 117 and 135 West Cross Street, 1105, 1107, 1109, 1111 and 1135 Leadenhall Street, and 138 West West Street in Baltimore, Maryland 21230 (Site).

In August 2013 and March 2014, Phase I ESAs were completed at the Site by Urban Green (Urban Green 2013 and 2014). As identified within the Phase I ESAs, several recognized environmental conditions (*RECs*) were identified in connection with the Site. The *RECs* included the historic Site uses, historical underground storage tanks (USTs), and Site environmental database listings.

The objective of this investigation was to further evaluate the *RECs* identified in the Phase I ESAs and provide the initial site characterization information to support the participation of the Site in the Maryland Voluntary Cleanup Program (VCP).

This Phase II ESA was performed in general accordance with *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater Interim Final Guidance, Update No. 2.1* (MDE 2008) and the *MDE VCP Guidance Document* (MDE 2006). The findings of this Phase II ESA are based solely on the data obtained and reviewed as part of this investigation, including observations and conditions that existed at the time of the field investigative activities performed in February 2014. Information provided by third parties is assumed to be accurate and complete.

This report was prepared for Baltimore Development Corporation and Stadium Square I, LLC by Urban Green and is based in part on third party information not within the control of Baltimore Development Corporation, Stadium Square I, LLC or Urban Green. While it is believed that the third party information contained herein will be reliable under the conditions and subject to the limitations set forth herein, neither Baltimore Development Corporation, Stadium Square I, LLC nor Urban Green guarantee the accuracy thereof.

2.0 SITE LOCATION AND DESCRIPTION

2.1 Site Location and Description

The Site consists of ten adjoining parcels of land totaling 1.67-acres and is occupied by Higartner Natural Stone Company Inc, a marble and granite supplier, fabricator and installer and ABC Box Company, a cardboard box recycler and wholesaler. The Site improvements consist of:

- 101 West Cross Street: One, one- to three-story masonry structure which is underlain with a concrete slab-on-grade foundation and is located in the northeastern portion of the Site. Occupied by Hilgartner Natural Stone, Inc.,; the Site parcel building the site is utilized for offices and a showroom (northern portion) and the remainder of the building is used for fabrication and storage. Exterior areas consist of a fenced gravel lot used for stone and maintenance supply storage.
- 1135 Leadenhall Street parcels: Two adjoining single-story concrete structures, which are underlain by a concrete slab-on-grade foundations and are located in the western portion of the Site. These Site parcels are occupied by ABC Box Company. The limited exterior areas in this portion of the Site consist of limited grass-covered lots/landscaped areas.

A Site location map is attached as Figure 1; a Site plan is attached as Figure 2.

The Site is located in a residential and commercial area of Baltimore City. The Site is bound to the north by West Cross Street beyond which is the Leadenhall Baptist Church and residential rowhomes, to the west by Leadenhall Street beyond which are residential rowhomes and the Baltimore City fire station #26, to the south by West West Street and to the east by Race Street beyond which are residential rowhomes and vacant grass-covered lots, and is bordered to the southeast by Baltimore Tool Works.

The Site is serviced by municipal water and sewer which are provided by the City of Baltimore, and electric and natural gas utilities which are provided by Baltimore Gas and Electric (BGE).

2.2 Environmental Setting

2.2.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore East (1974), Site elevation is approximately 15 feet above mean sea level. In general, the subject property's slope is relatively flat sloping slightly to the south. Overland stormwater flow discharges to the grass-covered areas is northwestern and southern portions of the Site and is directed to stormwater catch basins located within the surrounding thoroughfares. Site topography is also illustrated in Figure 1.

The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 1,500 feet southwest of the Site.

2.2.2 Geology

According to the Maryland Geologic Survey 1968 Geologic Map of Maryland, the Site lies within the Atlantic Coastal Plain Physiographic Province and is underlain by the Patuxent Formation of the Potomac Group. Soils within this formation consist of Cretaceous age soils consisting of sand, gravel and multicolored silt and clay.

2.2.3 Lithology

According to the 1998 Soil Survey of City of Baltimore, Maryland, the Site is underlain by soils of the Urban Land Complex characterized by a 0 to 15 percent slope. The 1998 Soil Survey text defines the Urban Land Complex as an area where more than 80% of the surface is covered by asphalt, concrete, buildings, or other impervious structures.

Based on field observations, the soil lithology at the Site consisted of fill materials (coarse sand, gravel, and brick) to depths of three to seven feet below grade underlain by sandy clay and clays to the maximum drilling depth of 16 feet below grade.

2.3 Site History

Based on a review of historic records, the existing Site buildings were constructed prior to 1890 and have been occupied as multiple commercial uses. Specifically,

- **101 West Cross Street** - The existing building was constructed prior to 1890 and a second building was located within the western portion of the Site from at least 1890 to 1901. Following 1901, the western portion of the Site was vacant and/or used for truck parking. Historic Site occupants include AW Kreit Fruit Packers (at least 1890 to 1901), Fleming & Co Canned Goods (at least 1890 to 1930), multiple motor freight/trucking companies (at least 1942 to 1974) and Hilgartner Natural Stone and Adhesive Cement Co (1975 to 2012). In addition, a gasoline underground storage tank (UST) was identified along the western exterior of the Site building on the 1901 historical atlas; the UST was not identified on any other historical atlas or resource.
- **1135 Leadenhall Street parcels** – The existing building was constructed prior to 1890, with several expansions between 1890 and 1980 and has been occupied by multiple commercial/industrial entities with the most recent being ABC Box Company from 1957 to present. The Site parcels had also been developed with several smaller commercial buildings and residential rowhomes. Noteworthy historic occupants of these prior buildings include the following:
 - **117 to 121 West Cross Street:** Truck sales/service and auto repair from 1974 to 1930; Baltimore Canning Company Oyster Packaging in 1914; Radecke and Louis

Box Factory in 1901; and Rittler and Co Box Factory in 1890. In addition, two gasoline storage tanks were noted on historic atlases in the northern portion of the parcel between 1950 and 1952.

- **1113 to 1119 Leadenhall Street:** Truck sales/service and auto repair from 1974 to 1942; a lumber yard between 1914 and 1901; and Baltimore Lime of Tiel Works in 1890.
- **1121 to 1133 Leadenhall Street:** A lumber yard between 1914 and 1942.
- **1135 Leadenhall Street:** Dixie Waste Company in 2002.
- **128 West West Street:** Caraway Auto Repair Shop in 1975.
- **130 West West Street:** A blacksmith from 1890 to 1952.

2.4 Future Development

At the time of this investigation, the proposed redevelopment of the Site has not been finalized, however it is anticipated the Site will be redeveloped into a residential use (Tier 1B, Restricted Residential).

The term restricted residential refers to the planned use of the property that allows exposure and access by all populations including infant, children, elderly, and infirmed populations. Tier 1 properties typically include single-family and multi-family dwellings, hospitals and health care facilities, education facilities, day care facilities, playgrounds and other recreational areas.

2.5 Prior Environmental Investigations

Urban Green completed a Phase I ESA of the 101 West Cross Street Site parcel in August 2013 (Urban Green 2013). As identified within the Phase I ESA, several RECs have been identified in connection with the Site parcel including:

- **Historic Underground Storage Tank:** The Site was historically utilized as a freight station from at least 1942 to 1974. Furthermore, the 1901 historic atlas indicates the presence of one gasoline UST located along the western portion of the Site building. Based on a review of the *Environmental Audit* completed at the Site in 1990, one UST was reportedly emptied and filled in place at the Site in 1975; however, no location information was provided. No visual evidence of a UST, such as vent or fill piping entering the ground surface, was observed during the Site reconnaissance. Lastly, no records are on file with the MDE which could confirm the location of the UST or whether the UST may have impacted the environmental integrity of the Site. Therefore, this former UST, and absence of confirmatory soil and/or groundwater sampling, represents a *historic recognized environmental condition* at the Site.
- **Historic Site Use (Freight Station):** The Site was historically utilized as a freight station from at least 1942 to 1974.

Urban Green completed a Phase I ESA of the 117 and 135 West Cross Street, 1105, 1107, 1109, 1111 and 1135 Leadenahall Street, and 138 West West Street Site parcels in March 2014 (Urban Green 2014). As identified within the Phase I ESA, several RECs have been identified in connection with the Site parcels including:

- ***Historic Site Use and Underground Storage Tanks:*** The Site historically operated as several auto repair facilities, a lumber yard, a lime of Tiel works, and a blacksmith. In addition, based on a review of historic atlases dated 1950 and 1952, two gasoline USTs were depicted in the northern portion of the 117 West Cross Street parcel. Lastly, the 1135 Leadenhall Site address is listed in OCPCASES database with one case that was opened in February 1990 and closed in May 2004.

Additional action and investigation was recommended to further evaluate the potential for the above RECs to have impacted the environmental integrity of the Site.

3.0 INVESTIGATION METHODS

3.1 Purpose and Objectives

The objective of this Phase II ESA was to further evaluate the RECs identified in the Phase I ESAs and to provide the initial site characterization information which will likely be required for participation of the Site in the Maryland VCP. Specifically, the scope of this investigation consisted of the following tasks:

- Advancement of nine soil borings (SB-5 through SB-13) throughout the Site to depths of approximately 12 to 16 feet below grade or the groundwater interface. Three soil borings (SB-5, SB-8 and SB-9) were completed as a temporary groundwater wells.
- Advancement of three soil gas sampling points (SG-7 through SG-9) throughout the Site buildings for the collection of soil gas samples.
- Field screening of select soil samples (at two foot intervals) collected from each soil boring for the presence of total volatile organic compounds (VOCs).
- Collection of select, discrete soil samples from each soil boring for fixed laboratory analysis of one or more of the following suite of analytes: VOCs, semi-volatile organic compounds (SVOCs)/polycyclic aromatic hydrocarbons (PAHs), priority pollutant list (PPL) metals, total petroleum hydrocarbons – diesel range organics and gasoline range organics (TPH DRO/GRO), polychlorinated biphenyls (PCBs), pesticides and herbicides.
- Collection of groundwater samples from the three temporary groundwater monitoring wells for fixed laboratory analysis of VOCs.
- Collection of soil gas samples from the five soil gas points for fixed laboratory analysis of VOCs.

The work tasks and associated field sampling activities described below were performed in general accordance with the *MDE VCP Guidance Document* (MDE 2006) and the *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance* (MDE 2008).

3.2 Field Investigation Procedures

Fieldwork for the subsurface investigation was conducted in February 2014. The following report sections summarize the field sampling and laboratory-analysis methodologies implemented during the investigation. Photographs of the investigation are provided in Appendix A.

3.2.1 Utility Mark Out

Prior to initiating field activities, Urban Green coordinated with MissUtility and a private utility mark out subcontractor, to complete the required dig permit and obtain utility clearance for the

Site investigation areas. In addition, Urban Green personnel conducted a Site visit to confirm the proposed soil boring locations and below grade utility markings.

3.2.2 Soil Investigation and Sampling

On February 20, 2014, under the supervision of Urban Green personnel, nine soil borings were advanced at the Site. Soil borings were advanced to approximate depths ranging from 12 to 16 feet below grade using direct push drilling technologies. Drilling services were performed by Green Services, Inc. of Bel Air, Maryland. The direct push technology method utilizes a two-inch inner diameter, four-foot long, stainless steel sampler lined with a dedicated high-density polyethylene (HDPE) liner. The HDPE-lined stainless steel sampler is hydraulically driven into the subsurface for soil core retrieval.

A log of field activities, including logs of the soil borings and photographs, was maintained throughout the field activities. Site photographs are included as Appendix A. Soil boring logs, including soil lithology, recovery and field observations are provided in Appendix B. A summary of the soil borings is provided below; soil boring locations are presented in Figure 2.

- *SB-5 – Historical UST:* SB-5 was advanced in the gravel parking lot along the western portion of the 101 West Cross Street building (Hilgartner Natural Stone), in the vicinity of the potential UST identified on the 1901 historic atlas. SB-5 was advanced to a depth of 12 feet below grade; groundwater was encountered at approximately eight feet below grade. SB-5 was completed as temporary groundwater well TW-5.
- *SB-6 – General Site Characterization:* SB-6 was advanced in the gravel parking lot along the northwestern portion of 101 West Cross Street building, and in presumed upgradient location, for general Site characterization. SB-6 was advanced to a depth of 12 feet below grade; groundwater was encountered at approximately nine feet below grade.
- *SB-7 – General Site Characterization:* SB-7 was originally proposed to be advanced in the southern portion of the 101 West Cross Street parcel in the vicinity of the prior machine shop; however the location was inaccessible due to stone material storage and the boring was advanced along the eastern Site boundary for general Site characterization. SB-7 was advanced to a depth of 12 feet below grade; groundwater was encountered at approximately eight feet below grade.
- *SB-8 – Former Automotive Repair/Historical UST:* SB-8 was advanced in the northern portion of the ABC Box Company building, in the vicinity of prior automotive repair operations and two potential USTs identified on historic atlases dated 1950 and 1952. SB-8 was advanced to a depth of 16 feet below grade; groundwater was encountered at approximately 12 feet below grade. SB-8 was completed as temporary groundwater well TW-8.
- *SB-9 – Former Automotive Repair:* SB-9 was advanced in the western portion of the ABC Box Company building, in the vicinity of prior automotive repair operations. SB-9 was advanced to a depth of 16 feet below grade; groundwater was encountered at approximately 12 feet below grade. SB-9 was completed as temporary groundwater well TW-9.

- *SB-10 – Former Automotive Repair/Lime of Tiel Works:* SB-10 was advanced in the eastern portion of the ABC Box Company building, in the vicinity of prior automotive repair and lime of Tiel operations. SB-10 was advanced to a depth of 12 feet below grade; groundwater was encountered at 11.5 feet below grade.
- *SB-11 – Former Lumber Shed:* SB-11 was advanced in the central portion of the ABC Box Company building, in the vicinity of a prior lumber shed and lumber storage operations. SB-11 was advanced to a depth of 12 feet below grade; groundwater was encountered at nine feet below grade.
- *SB-12 – Former Blacksmith:* SB-12 was advanced in the southern portion of the ABC Box Company building, in the vicinity of a prior blacksmith, and in the presumed downgradient location. SB-12 was advanced to a depth of 16 feet below grade; groundwater was encountered at 12 feet below grade.
- *SB-13 – General Site Characterization:* SB-13 was advanced in the eastern portion of the 1105 to 1111 Leadenhall Street parcels, vacant grass covered lot, for general Site characterization. SB-13 was advanced to a depth of 12 feet below grade; groundwater was encountered at eight feet below grade.

Immediately following the direct push sampler retrieval, the HDPE sample liner was opened by the Urban Green Environmental Scientists, and screened at approximate two-foot intervals for evidence of total VOCs using a photoionization detector (PID). Discrete grab soil samples were then collected directly from the sample core liner using disposable, dedicated aseptic sampling devices. PID readings ranged from 0.8 parts per million by volume (ppmv) to 22.5 ppmv (SB-12 at 4.5 to 5.5 feet below grade). A minor solvent odor was also observed in soil boring SB-12 from four to nine feet below grade. No visual evidence of staining or chemical odors was observed in the remainder of the soil borings.

Based on field screening and visual observations, surface soil samples (zero to one foot below grade) and subsurface soil samples (four to five feet below grade) were collected from each soil boring.

Soil samples were collected using dedicated sampling equipment and placed into new, clean sample containers. The soil samples were labeled with sample designation, date and time, and the required analyses. Soil samples were then placed on ice in a portable cooler prior to hand-delivery to either EnviroSystems in Columbia, Maryland or Caliber Analytical Service in Towson, Maryland. Chain of custody (COC) forms were maintained (and accompanied the samples in transit) to provide a record of samples from collection to analyses. The select soil samples were submitted for fixed laboratory analysis of one or more of the following: VOCs via USEPA method 8260B, pesticides via USEPA method 8151A, herbicides via USEPA method 8081A, and PCBs via USEPA method 8082 (submitted to EnviroSystems), PPL metals via USEPA method 6020A, SVOCs/PAHs via USEPA method 8270C, and TPH DRO/GRO via USEPA method 8015 (submitted to Caliber Analytical Services).

3.2.3 Groundwater Investigation and Sampling

On February 20, 2014, following the collection of soil samples, soil borings SB-5, SB-8 and SB-9 were converted into temporary groundwater monitoring wells (TW-5, TW-8 and TW-9). The wells were installed to depths of approximately 12 to 16 feet below grade and constructed using 10 feet of 1-inch diameter flush-threaded PVC screen (0.020 slot) and completed with solid PVC riser to the ground surface to allow for the collection of grab groundwater samples.

One grab groundwater sample was collected from each of the temporary groundwater monitoring wells using dedicated plastic tubing and a peristaltic pump. The groundwater samples were placed in new laboratory-supplied glass sample 40-ml VOAs and preserved. The sample was labeled with sample designation, date and time, and the required analyses. The groundwater samples were then placed on ice in a portable cooler prior to being delivered to EnviroSystems in Columbia, Maryland for analysis of VOCs via USEPA Method 8260B. COC forms were maintained (and accompanied the samples in transit) to provide a record of samples from collection to analyses.

3.2.4 Soil Gas Investigation and Sampling

On February 20, 2014, three soil borings (SG-7 through SG-9) were advanced at the Site to a depth of two-feet below grade (concrete floor slab) and completed as soil gas sampling points using direct push drilling technologies. A summary of the soil gas sampling points is provided below; soil gas locations are presented in Figure 2.

- *SG-7 – Current Vehicle Painting:* SG-7 was advanced in the central portion of the 101 West Cross Street building.
- *SG-8 – Current Vehicle Painting:* SG-8 was advanced in the northern portion of the ABC Box Company building.
- *SG-9 – Former Automotive Service:* SG-9 was advanced in the southern portion of the ABC Box Company building.

Following soil boring installation, one new stainless steel vapor implant, attached to approximately five feet of 3/16 inch Teflon tubing, was placed into each boring with the screened section of the vapor implant situated at the base of the boring. Following placement of the vapor implant, the surrounding annulus was backfilled with clean No. 2 well sand to a depth of approximately 6 inches above the vapor implant, and capped with a hydrated bentonite seal to surface grade. Each soil gas sampling location was allowed to equilibrate for approximately 24 hours prior to collecting the soil gas sample.

On February 21, 2014, soil gas sampling was performed at the Site. Prior to connection of the soil gas sampling probe, each soil gas sampling location was purged of approximately three volumes of soil gas using a hand pump. Following purging, a Summa Canister® affixed with an 8-hour flow controller was attached to the Teflon tubing of each sampling location. Soil gas was then sampled

from each soil gas sampling point for an approximate 8-hour period. Following sample collection, each canister was closed, sealed, and hand delivered under strict COC to Maryland Spectral Services, Inc. of Baltimore, Maryland for laboratory analysis of VOCs by USEPA Method TO-15.

3.2.5 Quality Assurance/Quality Control Procedures

QA/QC protocols covered general aspects of measurement systems design and implementation, including sampling methods, data handling, and QC measures employed. QA/QC procedures followed during the investigation included the use of dedicated sampling equipment for all sampling activities.

3.2.6 Sample Handling/Chain of Custody

Soil and groundwater samples were hand delivered, via strict chain-of-custody, to either EnviroSystems of Columbia, Maryland or Caliber Analytical Service in Towson, Maryland for fixed laboratory analysis of one or more of the following: VOCs via USEPA method 8260B, SVOCs/PAHs via USEPA method 8270C, PPL metals via USEPA method 6020A, TPH DRO/GRO via USEPA method 8015, pesticides via USEPA method 8151A, herbicides via USEPA method 8081A, and PCBs via USEPA method 8082.

Soil gas samples were hand delivered to Maryland Spectral Services, Inc. of Baltimore, Maryland for laboratory analysis of VOCs by USEPA Method TO-15.

Analysis was performed on a standard one to three week turn around.

3.2.7 Decontamination and Investigation-Derived Material Handling Procedures

The primary objective of the decontamination process was to prevent the accidental introduction of potential contaminants to non-contaminated areas and/or samples. During field activities, a designated decontamination area was established and equipped with decontamination equipment (wash bucket, brushes, spray bottles, potable water, distilled water, towels, etc.) to adequately decontaminate the equipment used on-site. To the maximum extent possible, dedicated equipment was used at each media sample location.

Sampling equipment that was not dedicated to one sample location was washed with a medical-grade detergent wash, rinsed with distilled water and allowed to air dry.

Following completion of each soil boring, soil cuttings generated during sampling activities were placed back into the boring.

4.0 PHASE II ESA INVESTIGATION RESULTS

4.1 Site Conditions

4.1.1 Lithology

Based on field observations, the soil lithology at the Site consisted of fill materials (coarse sand, gravel, and brick) to depths of three to seven feet below grade underlain by sandy clay and clays to the maximum drilling depth of 16 feet below grade. Groundwater was encountered at depths of eight to 12.5 feet below grade.

Results of the field screening for total VOCs using a PID were indicative of background field screening readings throughout the majority of the soil borings and no evidence of a release, such as a chemical odor or staining was observed. A slightly elevated PID reading of 22.5 ppmv was observed at 4.5 to 5.5 feet below grade; furthermore, a minor solvent odor was observed between four and nine feet below grade in soil boring SB-12.

4.2 Soil Analytical Results

Surface soil samples (zero to one foot below grade) and subsurface soil samples (four to five feet below grade) were collected from each soil boring. In total, eighteen surface soil samples and eighteen subsurface soil samples were submitted for laboratory analysis of one or more of the following: VOCs, SVOCs/PAHs, PPL metals, TPH DRO/GRO, pesticides, herbicides, and/or PCBs.

To assess whether there has been an impact to the soil by the historic operations, the analytical results were compared to the Maryland Department of the Environment (MDE) Cleanup Standards for Residential Soil. In addition, the soil sample results for metals were also compared to the eastern Maryland Anticipated Typical Concentrations (ATC); the MDE VCP recognizes the greater of the MDE Cleanup Standards for Residential Soil or the ATC as the applicable cleanup standard.

A summary of the soil laboratory analytical results are presented on Table 1 and Figure 3a. A copy of the fixed laboratory analytical report is provided in Appendix C.

VOCs

Nine soil samples were submitted for analysis of VOCs. Low concentrations of acetone were reported in five of the soil samples (SB-5 4-5, SB-9 4-5, SB-11 4-5, SB-12 4-5, and SB-13 4-5) ranging from 11 to 18 micrograms per kilogram ($\mu\text{g}/\text{kg}$); no concentrations exceeded the MDE Cleanup Standard for Residential Soil of 7,000,000 $\mu\text{g}/\text{kg}$. No detectable concentrations of any other VOC were reported in the soil samples.

SVOCs/PAHs

Sixteen soil samples were analyzed for PAHs and two soil samples (SB-7 0-1, and SB-8 0-1) were analyzed for SVOCs. Detectable SVOC and/or PAH concentrations were reported in nine of the soil samples. The following five PAHs were reported in excess of their respective MDE Cleanup Standards for Residential Soil:

- Benzo(a)anthracene was reported in 16 samples at concentrations ranging from 6 µg/kg (SB-6 4-5) to 2,600 µg/kg (SB-11 0-1); concentrations in four samples, 1,300 µg/kg (SB-6 0-1), 2,300 µg/kg (SB-7 0-1), 500 µg/kg (SB-10 0-1) and 2,600 µg/kg (SB-11 0-1) exceeded the MDE Cleanup Standards for Residential Soil of 220 µg/kg.
- Benzo(a)pyrene was reported in 16 samples at concentrations ranging from 6 µg/kg (SB-5 4-5 and SB-6 4-5) to 3,800 µg/kg (SB-11 0-1). Concentrations in nine samples (SB-5 0-1, SB-6 0-1, SB-7 0-1, SB-10 0-1, SB-10 4-5, SB-11 0-1, SB-11 4-5, SB-12 0-1 and SB-13 0-1) ranging from 43 µg/kg (SB-5 0-1) to 3,800 µg/kg (SB-11 0-1) exceeded the MDE Cleanup Standards for Residential Soil of 22 µg/kg.
- Benzo(b)fluoranthene was reported in 17 samples at concentrations ranging from 7 µg/kg (SB-6 4-5) to 4,600 µg/kg (SB-11 0-1). Concentrations in six samples (SB-6 0-1, SB-7 0-1, SB-10 0-1, SB-11 0-1, SB-11 4-5 and SB-12 0-1) ranging from 250 µg/kg (SB-11 4-5) to 4,600 µg/kg (SB-11 0-1) exceeded the MDE Cleanup Standards for Residential Soil of 220 µg/kg.
- Dibenz(a,h)anthracene was reported in nine samples at concentrations ranging from 6 µg/kg (SB-5 0-1 and SB-13 0-1) to 130 µg/kg (SB-11 0-1). Concentrations in five samples (SB-6 0-1, SB-7 0-1, SB-10 0-1, SB-11 0-1 and SB-12 0-1) ranging from 24 µg/kg (SB-10 0-1) to 130 µg/kg (SB-11 0-1) exceeded the MDE Cleanup Standards for Residential Soil of 22 µg/kg.
- Indeno(1,2,3-cd)pyrene was reported in 12 samples at concentrations ranging from 7 µg/kg (SB-9 4-5) to 1,300 µg/kg (SB-7 0-1); concentrations in four samples, 940 µg/kg (SB-6 0-1), 1,300 µg/kg (SB-7 0-1), 280 µg/kg (SB-10 0-1) and 1,100 µg/kg (SB-11 0-1) exceeded the MDE Cleanup Standards for Residential Soil of 220 µg/kg.

PPL Metals

Eighteen soil samples were submitted for analysis of PPL metals. With the exception of antimony, arsenic, lead and mercury, no PPL metals were reported in soil above the MDE Cleanup Standards for Residential Soil and/or the ATC. Specifically,

- Antimony was reported in three soil samples at concentrations of 3.1 milligrams per kilogram (mg/kg) (SB-7 0-1), 2.5 mg/kg (SB-10 0-1) and 39 mg/kg (SB-11 0-1), of which one sample (SB-11 0-1 at 39 mg/kg) exceed the ATC of 6 mg/kg.

- Arsenic was reported in all 18 soil samples at concentrations ranging from 0.87 mg/kg (SB-5 0-1) to 12 mg/kg (SB-7 0-1). Concentrations in seven soil samples (SB-6 0-1, SB-7 0-1, SB-4-5, SB-10 0-1, SB-11 0-1, SB-11 4-5, and SB-13 0-1) ranging from 3.8 mg/kg (SB-7 4-5) to 12 mg/kg (SB-7 0-1) exceeded the ATC of 3.6 mg/kg.
- Lead was reported in all 18 soil samples at concentrations ranging from 2.3 mg/kg (SB-8 4-5) to 790 mg/kg (SB-11 4-5); concentrations in two samples, 650 mg/kg (SB-7 0-1) and 790 mg/kg (SB-11 4-5), exceeded the MDE Cleanup Standard for Residential Soil of 400 mg/kg.
- Mercury was reported in 14 soil samples at concentrations ranging from 0.12 mg/kg (SB-6 4-5) to 2.6 mg/kg (SB-13 4-5); concentrations in four samples, 1.2 mg/kg (SB-7 0-1 and SB-11 0-1), 1.6 mg/kg (SB-9 0-1), and 2.6 mg/kg (SB-13 4-5), exceeded the ATC of 0.51 mg/kg. Due to these exceedances, the two samples with the highest mercury concentrations (1.6 mg/kg at SB-9 0-1 and 2.6 mg/kg at SB-13 4-5) were speciated for elemental mercury. The results of the analysis identified elemental mercury concentrations of 0.06 mg/kg (SB-9 0-1) and 1.25 mg/kg (SB-13 4-5); the result of 1.25 mg/kg exceeds the ATC of 0.51 mg/kg.

TPH DRO/GRO

Three soil samples (SB-5 4-5, SB-8 4-5, and SB-9 4-5) were submitted for fixed laboratory analysis of TPH DRO/GRO. Low concentrations of TPH DRO, ranging from 12 mg/kg (SB-8 4-5) to 18 mg/kg (SB-9 4-5), were reported in the soil samples; however, no concentrations exceeded the MDE Cleanup Standards for Residential Soil of 230 mg/kg. No detectable concentrations of TPH-GRO were reported in the soil samples.

PCBs, Pesticides and Herbicides

Two soil samples (SB-6 0-1 and SB-13 0-1) were submitted for fixed laboratory analysis of PCBs, pesticides and herbicides.

No detectable concentrations of PCBs or herbicides were reported in the soil samples. Low concentrations of pesticides were reported in the samples; however, no concentrations exceeded their respective MDE Cleanup Standards for Residential Soil.

4.3 Groundwater Analytical Results

One grab groundwater sample was collected from each of the three temporary groundwater monitoring wells (TW-5, TW-8 and TW-9) and submitted for fixed laboratory analysis of VOCs. To assess whether there has been an impact to the groundwater by the historic operations, the analytical results were compared to the MDE Cleanup Standards for Groundwater.

A summary of the groundwater laboratory analytical results are presented in Table 2 and Figure 3a. A copy of the fixed laboratory analytical report is provided in Appendix C.

As shown on Table 2, low concentrations of acetone were reported in the groundwater samples at concentrations ranging from 15 micrograms/liter ($\mu\text{g/l}$) (TW-9) to 26 $\mu\text{g/l}$ (TW-5); no concentrations exceeded the MDE Cleanup Standards for Groundwater of 550 $\mu\text{g/l}$. No detectable concentrations of any other VOC were reported in the groundwater samples.

4.4 Soil Gas Analytical Results

Three soil gas samples (SG-7 through SG-9) were collected from the Site and submitted for laboratory analysis of VOCs via USEPA Method TO-15. A summary of the soil gas laboratory analytical results is presented on Table 3 and Figure 3b. A copy of the fixed laboratory analytical report is provided in Appendix C.

As shown in Table 3, concentrations of 19 VOCs were detected in the soil gas samples. It is noteworthy, that concentrations of acetone were identified as a possible laboratory contaminant.

Based on discussions with MDE VCP personnel, an evaluation of the soil gas results and potential impacts to human health will be performed by the MDE VCP during the VCP application 45-day review period.

5.0 DISCUSSION OF RESULTS

On behalf of Baltimore Development Corporation and Stadium Square I, LLC, Urban Green has performed a Phase II ESA of the Stadium Square I Property located at 101, 117 and 135 West Cross Street, 1105, 1107, 1109, 1111 and 1135 Leadenhall Street, and 138 West West Street in Baltimore, Maryland 21230. The objective of this investigation was to further evaluate the *RECs* identified in the Phase I ESAs and provide the initial site characterization information likely to be required for participation of the Site in the Maryland VCP.

The scope of this investigation consisted of advancing nine soil borings (SB-5 through SB-13), three of which were completed as temporary groundwater monitoring wells, and three soil gas points (SG-7 through SG-9) at the Site. The soil borings were advanced to depths of 12 to 16 feet below grade; groundwater was encountered at depths of approximately eight to 12.5 feet below grade, and three borings (SB-5, SB-8 and SB-8) were completed as temporary groundwater monitoring wells (TW-5, TW-8, and TW-9).

In general, soil boring and soil gas sampling locations were biased towards areas of concerns. Eighteen surface and eighteen subsurface soil samples were collected from each soil boring and submitted for fixed laboratory analysis of VOCs, SVOCs/PAHs, PPL Metals, TPH DRO/GRO, pesticides, herbicides and/or PCBs. Three grab groundwater samples were collected from the temporary groundwater monitoring wells and submitted for fixed laboratory analysis of VOCs. Three soil gas samples were collected from the soil gas sample locations and submitted for fixed laboratory analysis of VOCs.

5.1 Soil

No concentrations of VOCs, TPH DRO/GRO, PCBs, pesticides or herbicides were reported above the MDE Cleanup Standards for Non-Residential Soil.

Concentrations of five PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene) were reported in excess of the currently applicable MDE Cleanup Standards for Residential soil. Specifically, elevated concentrations of all five PAHs were reported in surface samples collected from soil borings SB-6, SB-7, SB-10 and SB-11; concentrations of three PAHs (benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene) were reported in the surface sample collected from SB-12; concentrations two PAHs (benzo(a)pyrene and benzo(b)fluoranthene) were reported in the subsurface sample collected from SB-11; and concentrations of benzo(a)pyrene were reported in the surface samples collected from soil borings SB-5 and SB-13, the subsurface sample collected from soil boring SB-10.

Concentrations of four PPL metals (antimony, arsenic, lead and mercury) were reported at concentrations in excess of the applicable MDE Cleanup Standards for Residential soil and/or ATC. Specifically, elevated concentrations of all four metals were reported in the surface sample

collected from SB-11; and concentrations of three metals (arsenic, lead and mercury) were reported in the surface sample collected from sample SB-7. Elevated concentrations of arsenic were also reported in the surface samples collected from soil borings SB-6, SB-10 and SB-13, and the subsurface soil samples collected from soil borings SB-7 and SB-11. Lastly, elevated concentrations of mercury were also reported in the subsurface soil samples collected from soil borings SB-9 and SB-13. The two samples with the highest mercury concentrations (SB-9 0-1 at 1.6 mg/kg and SB-13 4-5 at 2.6 mg/kg) were speciated for elemental mercury; elemental mercury concentrations of 0.06 mg/kg (SB-9 0-1) and 1.25 mg/kg (SB-13 4-5) were reported.

5.2 Groundwater

Three grab groundwater samples (TW-5, TW-8 and TW-9) were collected from the Site. With the exception of low concentrations of acetone, which did not exceed the MDE Cleanup Standards for Groundwater, no detectable concentrations of VOCs were reported in the groundwater samples.

5.3 Soil Gas

Low concentrations of several VOCs were reported in the soil gas samples collected from the Site.

The soil gas results will be reviewed by MDE VCP personnel during the VCP application 45-day review period to evaluate potential impacts to human health and determine if additional investigation may be necessary.

6.0 REFERENCES

Maryland Department of the Environment (MDE). 2008. *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater*. June.

MDE. 2006. *Voluntary Cleanup Program Guidance Document*. March

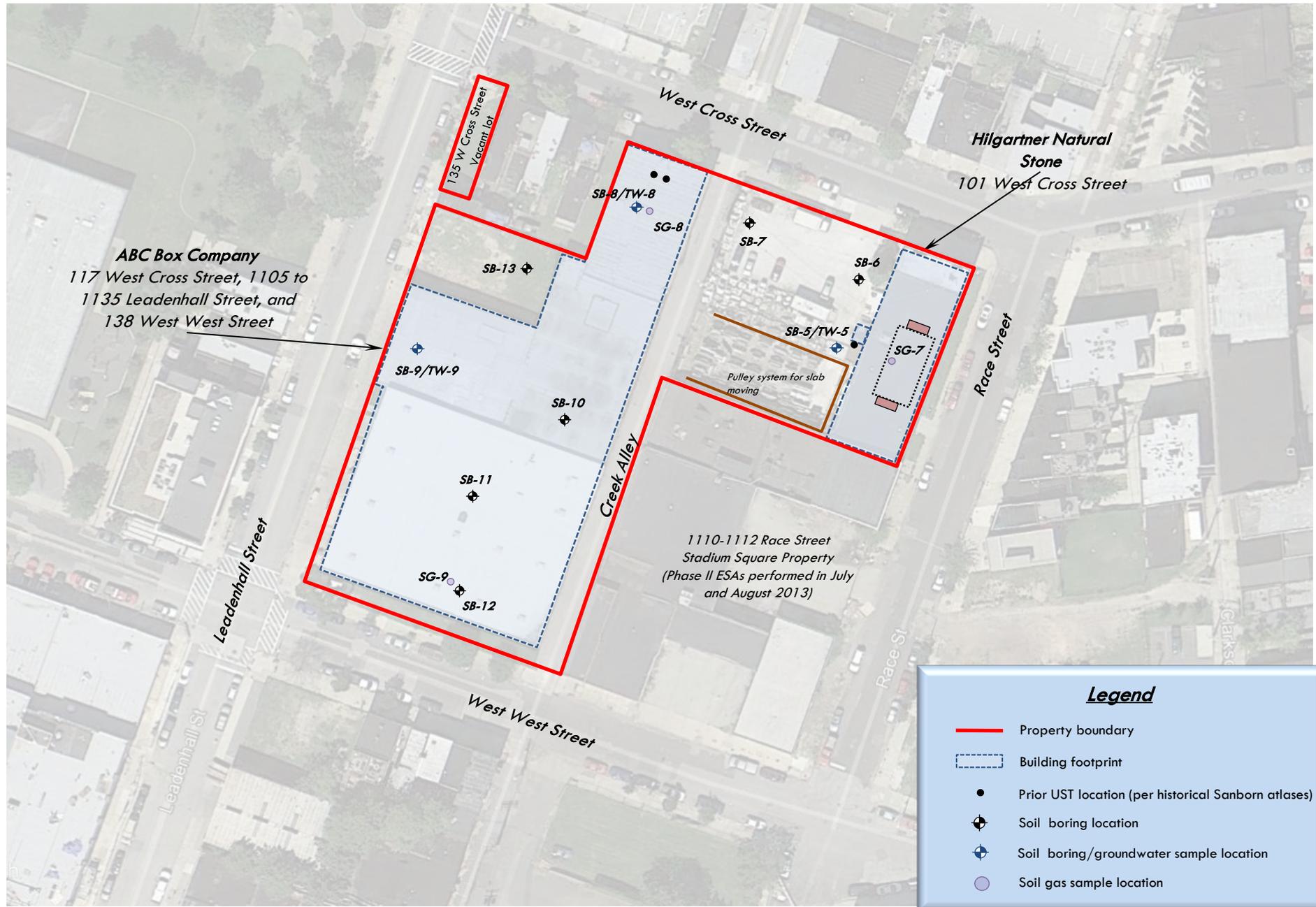
Maryland Geological Survey (MGS). 1968. *Geologic Map of Maryland*, compiled by Emery T. Cleaves, Jonathan Edwards Jr., and John D. Glaser. Scale 1:250,000.

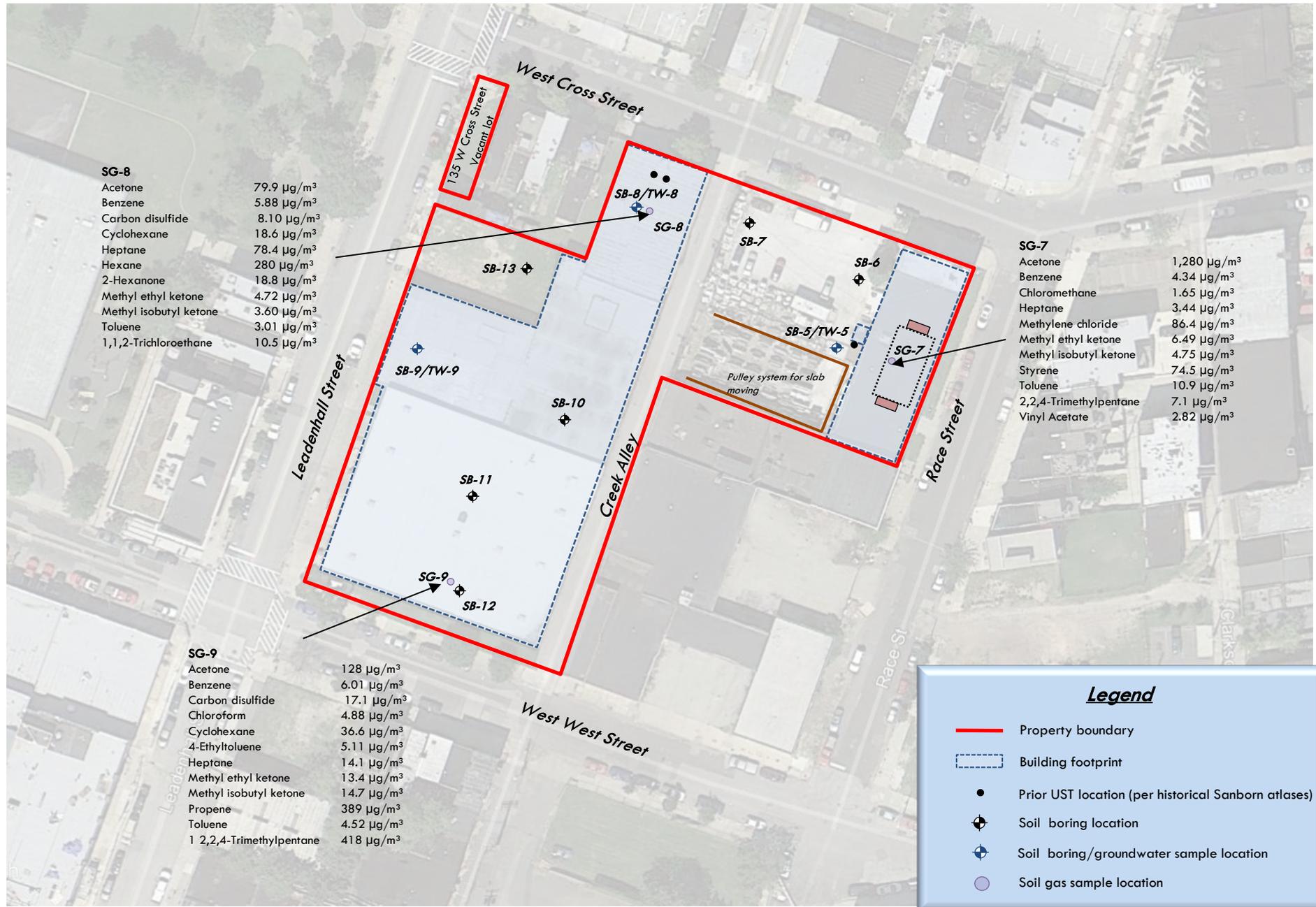
Urban Green Environmental, LLC (Urban Green). 2013. *Phase I Environmental Site Assessment, 101 West Cross Street, Baltimore, Maryland 21230*. August.

Urban Green Environmental, LLC (Urban Green). 2014. *Phase I Environmental Site Assessment, ABC Box Companies, 117 to 135 West Cross Street, 1103 to 1135 Leadenhall Street, 138 West West Street and Creek Alley, Baltimore, Maryland 21230*. March.



Source: Topozone.com





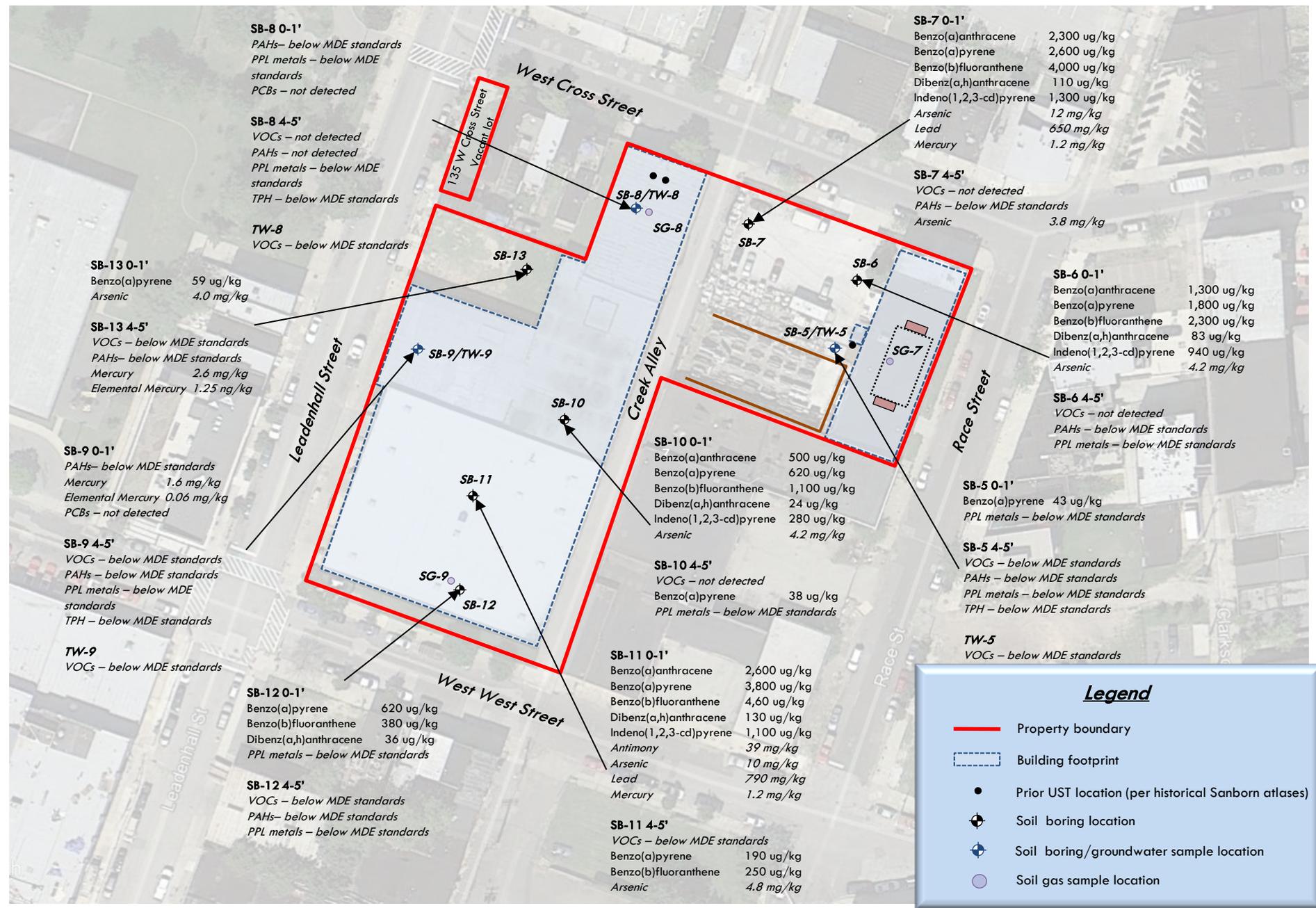


Table 1 Summary of Analytes Reported in Soil

Stadium Square I Property
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard Residential ⁽¹⁾	ATC ⁽²⁾	Sample ID Interval (ft bg) Date	SB-5	SB-5	SB-6	SB-6	SB-7	SB-7	SB-8	SB-8	SB-9	SB-9	SB-10	SB-10	SB-11	SB-11	SB-12	SB-12	SB-13	SB-13
				0-1'	4-5'	0-1'	4-5'	0-1'	4-5'	0-1'	4-5'	0-1'	4-5'	0-1'	4-5'	0-1'	4-5'	0-1'	4-5'	0-1'	4-5'
Volatile Organic Compounds (SW8260B / ug/kg)																					
Acetone	7,000,000	NA	---	14	---	ND (12)	---	ND (13)	---	ND (11)	---	15	---	ND (11)	---	18	---	12	---	---	11 J
Semi-Volatile Organic Compounds/Polycyclic Aromatic Hydrocarbons (SW8270C / ug/kg)																					
Acenaphthene	470,000	NA	ND (5)	ND (6)	47	ND (6)	89	ND (7)	ND (5)	ND (6)	ND (5)	ND (6)	30	ND (6)	180	9	9	ND (6)	ND (6)	ND (6)	ND (6)
Acenaphthylene	470,000	NA	ND (5)	ND (6)	74	ND (6)	140	ND (7)	ND (5)	ND (6)	ND (5)	ND (6)	30	ND (6)	110	ND (7)	12	ND (6)	ND (6)	ND (6)	ND (6)
Anthracene	2,300,000	NA	13	ND (6)	310	ND (6)	490	ND (7)	8	ND (6)	ND (5)	6	81	21	740	54	51	15	19	19	ND (6)
Benzo[a]anthracene	220	NA	40	9	1,300	6	2,300	ND (7)	16	ND (6)	8	12	500	33	2,600	150	200	18	49	9	9
Benzo[a]pyrene	22	NA	43	6	1,800	6	2,600	ND (7)	15	ND (6)	7	16	620	38	3,800	190	240	19	59	9	9
Benzo[b]fluoranthene	220	NA	71	11	2,300	7	4,000	8	35	ND (6)	15	25	1,100	60	4,600	250	380	30	96	18	18
Benzo[g,h,i]perylene	230,000	NA	10	ND (6)	1,000	ND (6)	1,400	ND (7)	12	ND (6)	ND (5)	9	330	23	1,100	65	100	17	20	6	6
Benzo[k]fluoranthene	22,000	NA	39	11	1,000	ND (6)	1,800	ND (7)	14	ND (6)	7	13	360	33	2,800	130	210	39	53	12	12
Butyl benzyl phthalate	---	---	160	ND (120)	---	---	---	---	ND (120)	ND (120)	---	---	---	---	---	---	---	---	---	---	---
Chrysene	22,000	NA	44	13	1,500	10	2,300	ND (7)	53	ND (6)	14	17	760	43	2,500	140	210	27	60	12	12
Dibenz[a,h]anthracene	22	NA	6	ND (6)	83	ND (6)	110	ND (7)	ND (5)	ND (6)	ND (5)	ND (6)	24	8	130	17	36	ND (6)	6	ND (6)	14
Fluoranthene	310,000	NA	83	15	2,400	11	4,300	8	31	ND (6)	16	20	890	73	4,800	220	350	24	86	14	14
Fluorene	310,000	NA	ND (5)	ND (6)	62	ND (6)	140	ND (7)	ND (5)	ND (6)	ND (5)	ND (6)	54	7	180	12	13	8	ND (6)	ND (6)	ND (6)
Indeno[1,2,3-cd]pyrene	220	NA	21	ND (6)	940	ND (6)	1,300	ND (7)	10	ND (6)	ND (5)	7	280	19	1,100	58	89	17	19	ND (6)	ND (6)
2-Methylnaphthalene	31,000	NA	ND (5)	ND (6)	54	7	130	8	14	ND (6)	11	ND (6)	180	16	86	10	22	8	24	ND (6)	ND (6)
Naphthalene	160,000	NA	5	ND (6)	78	ND (6)	160	7	5	ND (6)	6	9	150	22	90	14	25	9	18	ND (6)	ND (6)
Phenanthrene	2,300,000	NA	37	6	1,100	8	2,100	9	70	ND (6)	17	15	930	63	2,400	140	210	32	69	10	10
Pyrene	230,000	NA	94	17	2,300	12	4,400	8	33	ND (6)	17	19	990	78	4,800	240	430	22	100	14	14
Priority Pollutant List Metals (SW6020 / mg/kg)																					
Antimony	3.1	6	ND (1.1)	ND (2.6)	ND (2.2)	ND (2.4)	3.1	ND (2)	ND (2.1)	ND (1.6)	ND (2.4)	ND (2.4)	2.5	ND (2.1)	39	ND (2.4)	ND (2.3)	ND (2.8)	ND (2.5)	ND (2)	ND (2)
Arsenic	0.43	3.6	0.87	1.9	4.2	2.2	12	3.8	2.3	0.49	2.9	1.9	4.2	2.2	10	4.8	3.4	2.9	4.0	2.2	2.2
Beryllium	16	6.6	ND (1.1)	ND (2.6)	ND (2.2)	ND (2.4)	ND (2.5)	ND (2)	ND (2.1)	ND (1.6)	ND (2.4)	ND (2.4)	ND (2.1)	ND (2.1)	ND (2.4)	ND (2.4)	ND (2.3)	ND (2.8)	ND (2.5)	ND (2)	ND (2)
Cadmium	3.9	0.73	ND (1.1)	ND (2.6)	ND (2.2)	ND (2.4)	ND (2.5)	ND (2)	ND (2.1)	ND (1.6)	ND (2.4)	ND (2.4)	ND (2.1)	ND (2.1)	ND (2.4)	ND (2.4)	ND (2.3)	ND (2.8)	ND (2.5)	ND (2)	ND (2)
Chromium	23	28	2.8	20	9.3	16	13	28	14	9.4	9.6	11	3.3	14	26	19	13	16	15	9.6	9.6
Copper	310	12	ND (11)	ND (26)	31	32	75	24	33	ND (1.6)	ND (24)	ND (2.4)	31	ND (21)	93	ND (24)	31	ND (28)	30	ND (20)	ND (20)
Lead	400	45	11	4.8	210	90	650	34	98	2.3	47	33	99	34	790	82	280	14	130	94	94
Mercury	---	0.51	ND (0.044)	ND (0.1)	0.18	0.12	1.2	0.12	0.49	ND (0.066)	1.6	0.17	0.13	0.19	1.2	0.23	0.87	ND (0.11)	0.87	2.6	2.6
Nickel	160	13	ND (11)	ND (26)	ND (22)	ND (24)	ND (2.5)	32	ND (21)	ND (16)	ND (20)	ND (24)	ND (21)	ND (21)	ND (24)	ND (24)	ND (23)	ND (28)	ND (25)	ND (20)	ND (20)
Selenium	39	2.2	ND (1.1)	ND (2.6)	ND (2.2)	ND (2.4)	ND (2.5)	ND (2)	ND (2.1)	ND (1.6)	ND (2.4)	ND (2.4)	ND (2.1)	ND (2.1)	ND (2.4)	ND (2.4)	ND (2.3)	ND (2.8)	ND (2.5)	ND (2)	ND (2)
Silver	39	0.9	ND (1.1)	ND (2.6)	ND (2.2)	ND (2.4)	ND (2.5)	ND (2)	ND (2.1)	ND (1.6)	ND (2.4)	ND (2.4)	ND (2.1)	ND (2.1)	ND (2.4)	ND (2.4)	ND (2.3)	ND (2.8)	ND (2.5)	ND (2)	ND (2)
Thallium	0.55	3.9	ND (0.88)	ND (2.1)	ND (1.8)	ND (1.9)	ND (2.5)	ND (1.6)	ND (1.7)	ND (1.3)	ND (1.9)	ND (1.9)	ND (1.7)	ND (1.7)	ND (1.9)	ND (1.9)	ND (1.9)	ND (2.2)	ND (2)	ND (1.6)	ND (1.6)
Zinc	2,300	63	24	11	120	16	130	30	26	4.0	210	16	56	20	190	33	110	22	140	52	52
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																					
Diesel Range Organics	230	NA	---	16	---	---	---	---	---	12	---	18	---	---	---	---	---	---	---	---	---
Gasoline Range Organics	230	NA	---	ND (0.23)	---	---	---	---	---	ND (0.23)	---	ND (0.22)	---	---	---	---	---	---	---	---	---
Polychlorinated Biphenyls (SW8082 / mg/kg)																					
Arcoclor 1016-1260	0.32	NA	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---
Pesticides (SW 8081 / mg/kg)																					
4,4'-DDT	1.9	NA	---	---	0.0073	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (3.8)	---
Methoxychlor	39	NA	---	---	ND (18)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0053 JP	---
Herbicides (SW 8151 / mg/kg)																					
Pesticides	Varies	NA	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---

Notes / Superscripts

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2 (MDE 2008).

(2) Anticipated Typical Concentrations (ATCs) represent reference or background levels published by the MDE for the Site area.

ft bg = feet below grade.

ug/kg = micrograms per kilogram.

mg/kg = milligrams per kilogram.

ND = Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

J = This flag indicates an estimated value which is less than the adjusted reporting limit but greater than zero.

Bold cell indicates a concentration above the LLQ.

Bold and shaded cells indicate a detection above the MDE Cleanup Standard for Residential Soil or the ATC.

--- = Sample not analyzed for select compound; or no standard.

P=This flag is used for pesticide target compounds when there is greater than 25% difference for detected concentrations between the two GC columns; the flag is not used unless a compound is identified on both columns. The result is the lower of the two column results.

For the full list of compounds analyzed, please refer to the laboratory reports in Appendix C.

Table 2 Summary of Analytes Reported in Groundwater

Stadium Square I Property
Baltimore, Maryland 21230

Analyte	MDE Cleanup Standard for Groundwater ⁽¹⁾	Sample ID Date	TW-5 2/20/14	TW-8 2/20/14	TW-9 2/20/14
<i>Volatile Organic Compounds (SW8260B / ug/l)</i>					
Acetone	550		26	23	15

Notes / Superscripts

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2.1) (MDE 2008).

ug/l = micrograms per liter

--- = No Standard

Only detected analytes are shown. For the full list of compounds analyzed, please refer to the laboratory reports in Appendix C.

Table 3 Summary of Soil Gas Analytical Results

Stadium Square I Property
 Baltimore, Maryland 21230

	Sample ID	SG-7	SG-8	SG-9
	Depth	2 feet	2 feet	2 feet
	Date	2/21/14	2/21/14	2/21/14
Analyte	CAS Number			
<i>Volatile Organic Compounds (TO-15 / ug/m³)</i>				
Acetone	67641	1280 [2]	79.9	128
Benzene	71432	4.34	5.88	6.01
Carbon disulfide	75150	ND (2.48)	8.10	17.1
Chloroform	67663	ND (3.88)	ND (3.88)	4.88
Chloromethane	74873	1.65	ND (1.64)	ND (1.64)
Cyclohexane	110827	ND (2.76)	18.6	36.6
4-Ethyltoluene	622968	ND (3.92)	ND (3.92)	5.11
Heptane	142825	3.44	78.4	14.1
Hexane	110543	ND (56.0)	280	ND (56.0)
2-Hexanone	591786	ND (3.28)	18.8	ND (3.28)
Methylene chloride	75092	86.4 [2]	ND (56.0)	ND (56.0)
Methyl ethyl ketone (2-Butanone)	78933	6.49	4.72	13.4
Methyl isobutyl ketone	108101	4.75	3.60	14.7
Propene	115071	ND (1.36)	ND (1.36)	389 [1]
Styrene	100425	74.5	ND (3.40)	ND (3.40)
Toluene	108883	10.9	3.01	4.52
1,1,2-Trichloroethane	79005	ND (4.40)	10.5	ND (4.40)
2,2,4-Trimethylpentane	540841	7.1	ND (3.72)	418
Vinyl acetate	108054	2.82	ND (2.80)	ND (2.80)

Notes / Superscripts

CAS = Chemical Abstract Service.

ug/m³ = micrograms per cubic meter.

ND = Not Detected. The quantitation limit is in parentheses.

Bold cell indicates a concentration detected above the quantitation limit.

[1] = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.

[2] = Analyte is a possible laboratory contaminant

Only detected analytes are shown. For the full list of compounds analyzed, please refer to the laboratory reports.

APPENDIX A
SITE PHOTOGRAPHS

Site Photographs
Stadium Square I Property
Baltimore, Maryland 21230



Photograph 1. SB-5/TW-5 location.



Photograph 2. SB-5 macrocores.



Photograph 3. TW-5 temporary well.



Photograph 4. SB-6 location.



Photograph 5. SB-6 soil macrocores.



Photograph 6. SB-7 location.

Site Photographs
 Stadium Square I Property
 Baltimore, Maryland 21230



Photograph 7. SB-7 soil macrocores.



Photograph 8. SB-8/TW-8 location.



Photograph 9. SB-8 soil macrocores.



Photograph 10. TW-8 temporary well.



Photograph 11. SB-9/TW-9 location.



Photograph 12. SB-9 soil macrocores.

Site Photographs
Stadium Square I Property
Baltimore, Maryland 21230



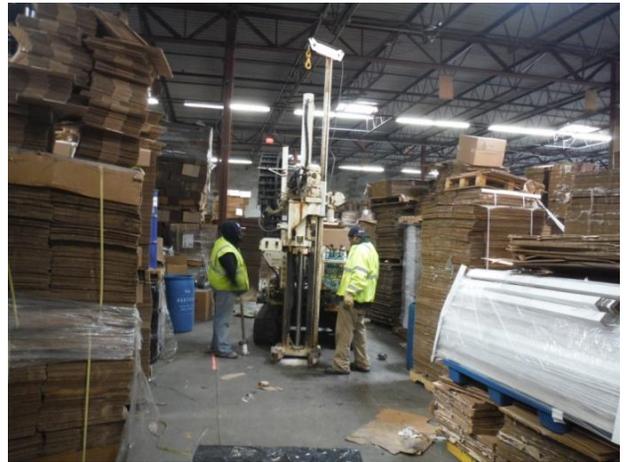
Photograph 13. TW-9 temporary well.



Photograph 14. SB-10 location.



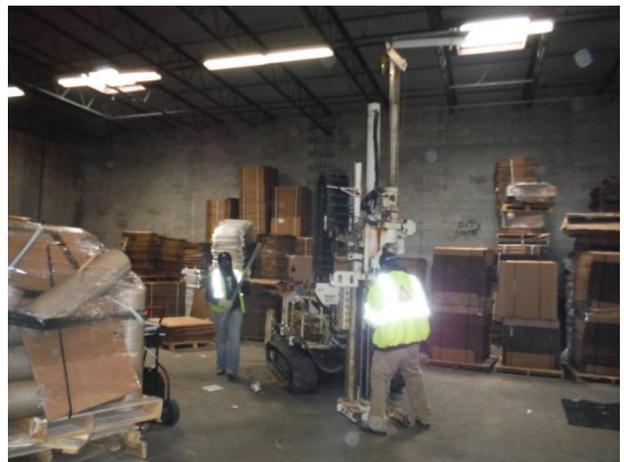
Photograph 15. SB-10 soil macrocores.



Photograph 16. SB-11 location.



Photograph 17. SB-11 soil macrocores.



Photograph 18. SB-12 location.

Site Photographs
Stadium Square I Property
Baltimore, Maryland 21230



Photograph 19. SB-12 soil macrocores.



Photograph 20. SB-13 location.



Photograph 21. SB-13 soil macrocores.



Photograph 22. SG-7 location and setup.



Photograph 21. SG-8 location and setup.



Photograph 22. SG-9 location and setup.

APPENDIX B
SOIL BORING LOGS

SOIL BORING LOG		HOLE NUMBER		SB-8					
1. COMPANY NAME URBAN GREEN ENVIRONMENTAL, LLC		2. DRILL SUBCONTRACTOR TIDEWATER, INC.		SHEET SHEETS 1 of 1					
3. PROJECT Stadium Square I Property									
7. NAME OF DRILLER Devin Murdock		8. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620 DT							
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2 in x 4 ft macrocore TYPE OF LINER USED, IF APPLICABLE HDPE		10. SURFACE ELEVATION AND CONDITIONS Concrete							
11. DIRECT READING PARAMETERS: PID / TOTAL VOCs / 1.7 EV / MINIRAE 3000		12. DATE AND TIME STARTED 2/20/14 10:35		13. DATE AND TIME COMPLETED 2/20/14 11:00					
14. OVERBURDEN THICKNESS		15. DEPTH GROUNDWATER ENCOUNTERED 12'							
16. DEPTH DRILLED INTO ROCK NA		17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED							
18. TOTAL DEPTH OF HOLE 16'		19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)							
20. WELL INSTALLED? Yes, temporary		IF SO COMPLETE CONSTRUCTION DIAGRAM		SAMPLE TYPE: GRAB					
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS Soil sample from 0-1 and 4-5 feet below grade and groundwater sample; SB-8 0-1 and SB-8 4-5, TW-8		SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet (approximate) for VOCs with a PID		SCREENING ANALYSIS VOCs					
22. DISPOSITION OF HOLE IF NOT A WELL, BACKFILLED WITH: Cuttings		23. GEOLOGIST Katherine Johnson							
USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY % (g)	REMARKS	
			VOC (ppm)	Blow Counts					
	0-0.5'	Concrete			SB-8 0-1 (4 oz soil jar)			No staining or odor observed	
	0.5-2'	FILL (Tan coarse sand, gravel and brown clay)	2.4				90%		
	2-3'	FILL (Red brick)							
	3-4'	Brown sandy CLAY with gravel	2.3						
	4-4.5'	Brown sandy CLAY			SB-8 4-5 (4 oz. soil jar and encore)			No staining or odor observed	
	4.5-5'	White crushed stone	3.0				90%		
	5-8'	Brown sandy CLAY	1.9						
	8-10'	Brown and grey CLAY	2.7					No staining or odor observed	
	10-12'	Brown and grey sandy CLAY	2.1			90%			
	12-14'	Grey CLAY, dense, wet at 12'	2.4					No staining or odor observed	
	14-16'	Brown sandy CLAY, dense	2.6		TW-8				
		Borehole terminated at 16', groundwater encountered at 12', temporary well installed							
PROJECT:		Stadium Square I Property		HOLE NO.:		SB-8			

SOIL BORING LOG		HOLE NUMBER		SB-10				
1. COMPANY NAME URBAN GREEN ENVIRONMENTAL, LLC		2. DRILL SUBCONTRACTOR TIDEWATER, INC.		SHEET SHEETS 1 of 1				
3. PROJECT Stadium Square I Property								
7. NAME OF DRILLER Devin Murdock		8. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620 DT						
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2 in x 4 ft macrocore TYPE OF LINER USED, IF APPLICABLE HDPE		10. SURFACE ELEVATION AND CONDITIONS Concrete						
11. DIRECT READING PARAMETERS: PID / TOTAL VOCs / 1.7 EV / MINIRAE 3000		12. DATE AND TIME STARTED 2/20/14 12:25		13. DATE AND TIME COMPLETED 2/20/14 12:50				
14. OVERBURDEN THICKNESS		15. DEPTH GROUNDWATER ENCOUNTERED 12'						
16. DEPTH DRILLED INTO ROCK NA		17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED						
18. TOTAL DEPTH OF HOLE 12'		19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)						
20. WELL INSTALLED? No		IF SO COMPLETE CONSTRUCTION DIAGRAM		SAMPLE TYPE: GRAB				
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS Soil sample from 0-1 and 4-5 feet below grade; SB-10 0-1 and SB-10 4-5		SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet (approximate) for VOCs with a PID		SCREENING ANALYSIS VOCs				
22. DISPOSITION OF HOLE IF NOT A WELL, BACKFILLED WITH: Cuttings		23. GEOLOGIST Katherine Johnson						
USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY % (g)	REMARKS
			VOCs (ppm)	Mercury Vapor (ppm)				
	0-0.5'	Concrete			SB-10 0-1 (4 oz soil jar)			
	0.5-1.5'	FILL (Tan coarse sand and gravel)	2.9				100%	No staining or odor observed
	1.5-3'	FILL (Asphalt)						
	3-4'	FILL (Brown and tan CLAY with gravel and oyster shells at 3-3.5')						
	4-8'	Brown sandy CLAY	7.0		SB-10 4-5 (4 oz. soil jar and encore)		90%	No staining or odor observed
	8-9'	Brown and black CLAY with gravel	7.3					
	9-11'	Brown and orange sandy CLAY	6.9				100%	No staining or odor observed
	11-12'	Brown, orange and grey sandy CLAY mixed, wet at 12'	6.3					
		Borehole terminated at 12', groundwater encountered at 12'						
PROJECT: Stadium Square I Property			HOLE NO.: SB-10					

SOIL BORING LOG		HOLE NUMBER		SB-13				
1. COMPANY NAME URBAN GREEN ENVIRONMENTAL, LLC		2. DRILL SUBCONTRACTOR TIDEWATER, INC.		SHEET SHEETS 1 of 1				
3. PROJECT Stadium Square I Property								
7. NAME OF DRILLER Devin Murdock		8. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620 DT						
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2 in x 4 ft macrocore TYPE OF LINER USED, IF APPLICABLE HDPE		10. SURFACE ELEVATION AND CONDITIONS Gravel						
11. DIRECT READING PARAMETERS: PID / TOTAL VOCs / 1.7 EV / MINIRAE 3000		12. DATE AND TIME STARTED 2/20/14 3:30		13. DATE AND TIME COMPLETED 2/20/14 3:50				
14. OVERBURDEN THICKNESS		15. DEPTH GROUNDWATER ENCOUNTERED 8'						
16. DEPTH DRILLED INTO ROCK NA		17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED						
18. TOTAL DEPTH OF HOLE 16'		19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)						
20. WELL INSTALLED? No		IF SO COMPLETE CONSTRUCTION DIAGRAM		SAMPLE TYPE: GRAB				
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS Soil sample from 0-1 and 4-5 feet below grade; SB-13 0-1 and SB-13 4-5		SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet (approximate) for VOCs with a PID		SCREENING ANALYSIS VOCs				
22. DISPOSITION OF HOLE IF NOT A WELL, BACKFILLED WITH: Cuttings		23. GEOLOGIST Katherine Johnson						
USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY % (g)	REMARKS
			VOCs (ppm)	Mercury Vapor (ppm)				
	0-0.5'	Gravel			SB-13 0-1 (4 oz soil jar)			
	0.5-4'	FILL (Brown CLAY with red brick at 2')	0.1				50%	No staining or odor observed
	4-5'	Brown CLAY with gravel and rock	0.2					
	5-7'	Brown sandy CLAY	0.0		SB-13 4-5 (4 oz. soil jar and encore)		70%	No staining or odor observed
	7-8'	Brown CLAY	0.1					
	8-10'	Brown and grey CLAY, wet at 8'	0.5				80%	No staining or odor observed
	10-12'	Brown and grey sandy CLAY	0.3					
		Borehole terminated at 12', groundwater encountered at 8'						
PROJECT: Stadium Square I Property		HOLE NO.: SB-13						

APPENDIX C
LABORATORY ANALYTICAL REPORTS



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 14:15
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-5 0-1	Matrix:	Soil	Lab ID:	14022010-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	91	%		SM2540G	02/21/14	02/22/14 11:57	LMJ
Polycyclic Aromatic Hydrocarbons (SIM)							
Acenaphthene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Acenaphthylene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Anthracene	13	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Benzo[a]anthracene	40	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Benzo[a]pyrene	43	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Benzo[b]fluoranthene	71	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Benzo[g,h,i]perylene	10	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Benzo[k]fluoranthene	39	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Chrysene	44	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Dibenz[a,h]anthracene	6	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Fluoranthene	83	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Fluorene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Indeno[1,2,3-cd]pyrene	21	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
2-Methylnaphthalene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Naphthalene`	5	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Phenanthrene	37	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Pyrene	94	ug/kg	5	EPA 8270C	02/25/14	02/25/14 16:55	JKL
Target Compound List - SEMIVOLATILES							
Phenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Bis (2-chloroethyl) ether	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
2-Chlorophenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
2-Methylphenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Bis (2-chloroisopropyl) ether	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Acetophenone	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
4-Methylphenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
N-Nitroso-di-n-propylamine	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Hexachloroethane	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Nitrobenzene	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Isophorone	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
2-Nitrophenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
2,4-Dimethylphenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Bis (2-chloroethoxy) methane	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
2,4-Dichlorophenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
4-Chloroaniline	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Hexachlorobutadiene`	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
Caprolactam	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL
4-Chloro-3-methylphenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 14:15
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-5 0-1		Matrix:	Soil		Lab ID:	14022010-01	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Target Compound List - SEMIVOLATILES								
Hexachlorocyclopentadiene	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
2,4,6-Trichlorophenol	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
2,4,5-Trichlorophenol	ND	ug/kg	260	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
1,1-Biphenyl	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
2-Chloronaphthalene	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
2-Nitroaniline	ND	ug/kg	260	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Dimethyl phthalate	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
2,6-Dinitrotoluene	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
3-Nitroaniline	ND	ug/kg	260	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
2,4-Dinitrophenol	ND	ug/kg	260	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
4-Nitrophenol	ND	ug/kg	260	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Dibenzofuran	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
2,4-Dinitrotoluene	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Diethyl phthalate	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
4-Chlorophenyl phenyl ether	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
4-Nitroaniline	ND	ug/kg	260	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
4,6-Dinitro-2-methylphenol	ND	ug/kg	240	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
N-Nitrosodiphenylamine	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
4-Bromophenyl phenyl ether	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Hexachlorobenzene	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Atrazine	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Pentachlorophenol	ND	ug/kg	260	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Carbazole	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Di-n-butyl phthalate	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Butyl benzyl phthalate	160	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
3,3-Dichlorobenzidine	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Bis (2-ethylhexyl) phthalate	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Di-n-octyl phthalate	ND	ug/kg	100	EPA 8270C	02/24/14	02/26/14 8:45	JKL	
Total Metals								
Antimony	ND	mg/kg	1.1	EPA 6020A	02/24/14	02/25/14 13:47	MEL	
Arsenic	0.87	mg/kg	0.22	EPA 6020A	02/24/14	02/25/14 13:47	MEL	
Beryllium	ND	mg/kg	1.1	EPA 6020A	02/24/14	02/25/14 13:47	MEL	
Cadmium	ND	mg/kg	1.1	EPA 6020A	02/24/14	02/25/14 13:47	MEL	
Chromium	2.8	mg/kg	0.7	EPA 6020A	02/24/14	02/25/14 13:47	MEL	
Copper	ND	mg/kg	11	EPA 6020A	02/24/14	02/27/14 10:15	MEL	
Lead	11	mg/kg	1.1	EPA 6020A	02/24/14	02/25/14 13:47	MEL	
Mercury	ND	mg/kg	0.044	EPA 6020A	02/24/14	02/25/14 13:47	MEL	
Nickel	ND	mg/kg	11	EPA 6020A	02/24/14	02/27/14 10:15	MEL	
Selenium	ND	mg/kg	1.1	EPA 6020A	02/24/14	02/25/14 13:47	MEL	
Silver	ND	mg/kg	1.1	EPA 6020A	02/24/14	02/25/14 13:47	MEL	



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 14:15
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-5 0-1	Matrix:	Soil	Lab ID:	14022010-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Total Metals							
Thallium	ND	mg/kg	0.88	EPA 6020A	02/24/14	02/25/14 13:47	MEL
Zinc	24	mg/kg	1.1	EPA 6020A	02/24/14	02/25/14 13:47	MEL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by: 
QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 14:10
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-5 4-5	Matrix:	Soil	Lab ID:	14022010-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	85	%		SM2540G	02/21/14	02/22/14 11:57	LMJ
Polycyclic Aromatic Hydrocarbons (SIM)							
Acenaphthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Acenaphthylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Benzo[a]anthracene	9	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Benzo[a]pyrene	6	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Benzo[b]fluoranthene	11	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Benzo[g,h,i]perylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Benzo[k]fluoranthene	11	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Chrysene	13	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Dibenz[a,h]anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Fluoranthene	15	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Fluorene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Indeno[1,2,3-cd]pyrene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
2-Methylnaphthalene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Naphthalene`	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Phenanthrene	6	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Pyrene	17	ug/kg	6	EPA 8270C	02/25/14	02/25/14 17:31	JKL
Target Compound List - SEMIVOLATILES							
Phenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Bis (2-chloroethyl) ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2-Chlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2-Methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Bis (2-chloroisopropyl) ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Acetophenone	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
4-Methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
N-Nitroso-di-n-propylamine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Hexachloroethane	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Nitrobenzene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Isophorone	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2-Nitrophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2,4-Dimethylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Bis (2-chloroethoxy) methane	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2,4-Dichlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
4-Chloroaniline	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Hexachlorobutadiene`	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Caprolactam	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
4-Chloro-3-methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 14:10
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-5 4-5	Matrix:	Soil	Lab ID:	14022010-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - SEMIVOLATILES							
Hexachlorocyclopentadiene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2,4,6-Trichlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2,4,5-Trichlorophenol	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 9:22	JKL
1,1-Biphenyl	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2-Chloronaphthalene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2-Nitroaniline	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Dimethyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2,6-Dinitrotoluene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
3-Nitroaniline	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2,4-Dinitrophenol	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 9:22	JKL
4-Nitrophenol	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Dibenzofuran	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
2,4-Dinitrotoluene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Diethyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
4-Chlorophenyl phenyl ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
4-Nitroaniline	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 9:22	JKL
4,6-Dinitro-2-methylphenol	ND	ug/kg	280	EPA 8270C	02/24/14	02/26/14 9:22	JKL
N-Nitrosodiphenylamine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
4-Bromophenyl phenyl ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Hexachlorobenzene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Atrazine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Pentachlorophenol	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Carbazole	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Di-n-butyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Butyl benzyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
3,3-Dichlorobenzidine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Bis (2-ethylhexyl) phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Di-n-octyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:22	JKL
Total Metals							
Antimony	ND	mg/kg	2.6	EPA 6020A	02/24/14	02/25/14 14:19	MEL
Arsenic	1.9	mg/kg	0.52	EPA 6020A	02/24/14	02/25/14 14:19	MEL
Beryllium	ND	mg/kg	2.6	EPA 6020A	02/24/14	02/25/14 14:19	MEL
Cadmium	ND	mg/kg	2.6	EPA 6020A	02/24/14	02/25/14 14:19	MEL
Chromium	20	mg/kg	2.6	EPA 6020A	02/24/14	02/25/14 14:19	MEL
Copper	ND	mg/kg	26	EPA 6020A	02/24/14	02/27/14 10:41	MEL
Lead	4.8	mg/kg	2.6	EPA 6020A	02/24/14	02/25/14 14:19	MEL
Mercury	ND	mg/kg	0.1	EPA 6020A	02/24/14	02/25/14 14:19	MEL
Nickel	ND	mg/kg	26	EPA 6020A	02/24/14	02/27/14 10:41	MEL
Selenium	ND	mg/kg	2.6	EPA 6020A	02/24/14	02/25/14 14:19	MEL
Silver	ND	mg/kg	2.6	EPA 6020A	02/24/14	02/25/14 14:19	MEL



CALIBER ANALYTICAL SERVICES

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Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 14:10
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-5 4-5	Matrix:	Soil	Lab ID:	14022010-02			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Total Metals								
Thallium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:19	MEL	
Zinc	11	mg/kg	2.6	EPA 6020A	02/24/14	02/25/14 14:19	MEL	
Total Petroleum Hydrocarbons - (C10-C28) DRO								
Diesel Range Organics	16	mg/kg	12	EPA 8015C	02/21/14	02/24/14 12:16	AC	
Total Petroleum Hydrocarbons - (C6-C10) GRO								
Gasoline Range Organics	ND	mg/kg	0.23	EPA 8015C	02/21/14	02/21/14 13:01	JKL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 14:35
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-6 0-1	Matrix:	Soil	Lab ID:	14022010-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	93	%		SM2540G	02/21/14	02/22/14 11:57	LMJ
Polycyclic Aromatic Hydrocarbons (SIM)							
Acenaphthene	47	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Acenaphthylene	74	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Anthracene	310	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Benzo[a]anthracene	1,300	ug/kg	51	EPA 8270C	02/25/14	02/26/14 15:13	JKL
Benzo[a]pyrene	1,800	ug/kg	51	EPA 8270C	02/25/14	02/26/14 15:13	JKL
Benzo[b]fluoranthene	2,300	ug/kg	51	EPA 8270C	02/25/14	02/26/14 15:13	JKL
Benzo[g,h,i]perylene	1,000	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Benzo[k]fluoranthene	1,000	ug/kg	51	EPA 8270C	02/25/14	02/26/14 15:13	JKL
Chrysene	1,500	ug/kg	51	EPA 8270C	02/25/14	02/26/14 15:13	JKL
Dibenz[a,h]anthracene	83	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Fluoranthene	2,400	ug/kg	51	EPA 8270C	02/25/14	02/26/14 15:13	JKL
Fluorene	62	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Indeno[1,2,3-cd]pyrene	940	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
2-Methylnaphthalene	54	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Naphthalene`	78	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Phenanthrene	1,100	ug/kg	5	EPA 8270C	02/25/14	02/25/14 18:06	JKL
Pyrene	2,300	ug/kg	51	EPA 8270C	02/25/14	02/26/14 15:13	JKL
Total Metals							
Antimony	ND	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Arsenic	4.2	mg/kg	0.45	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Beryllium	ND	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Cadmium	ND	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Chromium	9.3	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Copper	31	mg/kg	22	EPA 6020A	02/24/14	02/27/14 10:45	MEL
Lead	210	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Mercury	0.18	mg/kg	0.089	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Nickel	ND	mg/kg	22	EPA 6020A	02/24/14	02/27/14 10:45	MEL
Selenium	ND	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Silver	ND	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Thallium	ND	mg/kg	1.8	EPA 6020A	02/24/14	02/25/14 14:25	MEL
Zinc	120	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 14:25	MEL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 14:40
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-6 4-5		Matrix:	Soil		Lab ID:	14022010-04	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	85	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Acenaphthylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Benzo[a]anthracene	6	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Benzo[a]pyrene	6	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Benzo[b]fluoranthene	7	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Benzo[g,h,i]perylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Benzo[k]fluoranthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Chrysene	10	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Dibenz[a,h]anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Fluoranthene	11	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Fluorene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Indeno[1,2,3-cd]pyrene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
2-Methylnaphthalene	7	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Naphthalene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Phenanthrene	8	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Pyrene	12	ug/kg	6	EPA 8270C	02/25/14	02/25/14 18:41	JKL	
Total Metals								
Antimony	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Arsenic	2.2	mg/kg	0.48	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Beryllium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Cadmium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Chromium	16	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Copper	32	mg/kg	24	EPA 6020A	02/24/14	02/27/14 10:49	MEL	
Lead	90	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Mercury	0.12	mg/kg	0.096	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Nickel	ND	mg/kg	24	EPA 6020A	02/24/14	02/27/14 10:49	MEL	
Selenium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Silver	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Thallium	ND	mg/kg	1.9	EPA 6020A	02/24/14	02/25/14 14:31	MEL	
Zinc	16	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 14:31	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 15:20
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-7 0-1		Matrix:	Soil	Lab ID: 14022010-05			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	86	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	89	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
Acenaphthylene	140	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
Anthracene	490	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
Benzo[a]anthracene	2,300	ug/kg	60	EPA 8270C	02/25/14	02/26/14 15:49	JKL	
Benzo[a]pyrene	2,600	ug/kg	60	EPA 8270C	02/25/14	02/26/14 15:49	JKL	
Benzo[b]fluoranthene	4,000	ug/kg	60	EPA 8270C	02/25/14	02/26/14 15:49	JKL	
Benzo[g,h,i]perylene	1,400	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
Benzo[k]fluoranthene	1,800	ug/kg	60	EPA 8270C	02/25/14	02/26/14 15:49	JKL	
Chrysene	2,300	ug/kg	60	EPA 8270C	02/25/14	02/26/14 15:49	JKL	
Dibenz[a,h]anthracene	110	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
Fluoranthene	4,300	ug/kg	60	EPA 8270C	02/25/14	02/26/14 15:49	JKL	
Fluorene	140	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
Indeno[1,2,3-cd]pyrene	1,300	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
2-Methylnaphthalene	130	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
Naphthalene`	160	ug/kg	6	EPA 8270C	02/25/14	02/25/14 19:16	JKL	
Phenanthrene	2,100	ug/kg	60	EPA 8270C	02/25/14	02/26/14 15:49	JKL	
Pyrene	4,400	ug/kg	60	EPA 8270C	02/25/14	02/26/14 15:49	JKL	
Total Metals								
Antimony	3.1	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Arsenic	12	mg/kg	0.49	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Beryllium	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Cadmium	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Chromium	13	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Copper	75	mg/kg	25	EPA 6020A	02/24/14	02/27/14 10:54	MEL	
Lead	640	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Mercury	1.2	mg/kg	0.098	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Nickel	ND	mg/kg	25	EPA 6020A	02/24/14	02/27/14 10:54	MEL	
Selenium	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Silver	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Thallium	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:37	MEL	
Zinc	130	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 14:37	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 15:25
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-7 4-5		Matrix:	Soil		Lab ID:	14022010-06	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	80	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Acenaphthylene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Anthracene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Benzo[a]anthracene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Benzo[a]pyrene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Benzo[b]fluoranthene	8	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Benzo[g,h,i]perylene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Benzo[k]fluoranthene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Chrysene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Dibenz[a,h]anthracene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Fluoranthene	8	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Fluorene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Indeno[1,2,3-cd]pyrene	ND	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
2-Methylnaphthalene	8	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Naphthalene`	7	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Phenanthrene	9	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Pyrene	8	ug/kg	7	EPA 8270C	02/25/14	02/25/14 19:50	JKL	
Total Metals								
Antimony	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Arsenic	3.8	mg/kg	0.41	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Beryllium	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Cadmium	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Chromium	28	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Copper	24	mg/kg	20	EPA 6020A	02/24/14	02/27/14 10:58	MEL	
Lead	34	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Mercury	0.12	mg/kg	0.082	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Nickel	32	mg/kg	20	EPA 6020A	02/24/14	02/27/14 10:58	MEL	
Selenium	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Silver	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Thallium	ND	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:45	MEL	
Zinc	30	mg/kg	2	EPA 6020A	02/24/14	02/25/14 14:45	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 11:05
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-8 0-1		Matrix:	Soil		Lab ID:	14022010-07	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	89	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Acenaphthylene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Anthracene	8	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Benzo[a]anthracene	16	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Benzo[a]pyrene	15	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Benzo[b]fluoranthene	35	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Benzo[g,h,i]perylene	12	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Benzo[k]fluoranthene	14	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Chrysene	53	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Dibenz[a,h]anthracene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Fluoranthene	31	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Fluorene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Indeno[1,2,3-cd]pyrene	10	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
2-Methylnaphthalene	14	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Naphthalene`	5	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Phenanthrene	70	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Pyrene	33	ug/kg	5	EPA 8270C	02/25/14	02/25/14 20:25	JKL	
Target Compound List - SEMIVOLATILES								
Phenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Bis (2-chloroethyl) ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
2-Chlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
2-Methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Bis (2-chloroisopropyl) ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Acetophenone	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
4-Methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
N-Nitroso-di-n-propylamine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Hexachloroethane	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Nitrobenzene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Isophorone	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
2-Nitrophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
2,4-Dimethylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Bis (2-chloroethoxy) methane	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
2,4-Dichlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
4-Chloroaniline	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Hexachlorobutadiene`	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
Caprolactam	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	
4-Chloro-3-methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL	



CALIBER ANALYTICAL SERVICES

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Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 11:05
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID: SB-8 0-1 Matrix: Soil Lab ID: 14022010-07

Result Unit LLQ Method Prepared Analyzed Init.

Target Compound List - SEMIVOLATILES

Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Hexachlorocyclopentadiene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
2,4,6-Trichlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
2,4,5-Trichlorophenol	ND	ug/kg	290	EPA 8270C	02/24/14	02/26/14 9:57	JKL
1,1-Biphenyl	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
2-Chloronaphthalene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
2-Nitroaniline	ND	ug/kg	290	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Dimethyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
2,6-Dinitrotoluene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
3-Nitroaniline	ND	ug/kg	290	EPA 8270C	02/24/14	02/26/14 9:57	JKL
2,4-Dinitrophenol	ND	ug/kg	290	EPA 8270C	02/24/14	02/26/14 9:57	JKL
4-Nitrophenol	ND	ug/kg	290	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Dibenzofuran	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
2,4-Dinitrotoluene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Diethyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
4-Chlorophenyl phenyl ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
4-Nitroaniline	ND	ug/kg	290	EPA 8270C	02/24/14	02/26/14 9:57	JKL
4,6-Dinitro-2-methylphenol	ND	ug/kg	270	EPA 8270C	02/24/14	02/26/14 9:57	JKL
N-Nitrosodiphenylamine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
4-Bromophenyl phenyl ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Hexachlorobenzene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Atrazine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Pentachlorophenol	ND	ug/kg	290	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Carbazole	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Di-n-butyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Butyl benzyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
3,3-Dichlorobenzidine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Bis (2-ethylhexyl) phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL
Di-n-octyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 9:57	JKL

Total Metals

Antimony	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:51	MEL
Arsenic	2.3	mg/kg	0.42	EPA 6020A	02/24/14	02/25/14 14:51	MEL
Beryllium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:51	MEL
Cadmium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:51	MEL
Chromium	14	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:51	MEL
Copper	33	mg/kg	21	EPA 6020A	02/24/14	02/27/14 11:02	MEL
Lead	98	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:51	MEL
Mercury	0.49	mg/kg	0.083	EPA 6020A	02/24/14	02/25/14 14:51	MEL
Nickel	ND	mg/kg	21	EPA 6020A	02/24/14	02/27/14 11:02	MEL
Selenium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:51	MEL
Silver	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:51	MEL



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1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 11:05
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-8 0-1	Matrix:	Soil	Lab ID:	14022010-07			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Total Metals								
Thallium	ND	mg/kg	1.7	EPA 6020A	02/24/14	02/25/14 14:51	MEL	
Zinc	26	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 14:51	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: *Matt Cohen*
QC Chemist



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1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 11:00
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-8 4-5	Matrix:	Soil	Lab ID:	14022010-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	88	%		SM2540G	02/21/14	02/22/14 11:57	LMJ
Polycyclic Aromatic Hydrocarbons (SIM)							
Acenaphthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Acenaphthylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Benzo[a]anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Benzo[a]pyrene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Benzo[b]fluoranthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Benzo[g,h,i]perylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Benzo[k]fluoranthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Chrysene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Dibenz[a,h]anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Fluoranthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Fluorene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Indeno[1,2,3-cd]pyrene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
2-Methylnaphthalene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Naphthalene`	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Phenanthrene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Pyrene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 20:59	JKL
Target Compound List - SEMIVOLATILES							
Phenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Bis (2-chloroethyl) ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2-Chlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2-Methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Bis (2-chloroisopropyl) ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Acetophenone	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
4-Methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
N-Nitroso-di-n-propylamine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Hexachloroethane	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Nitrobenzene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Isophorone	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2-Nitrophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2,4-Dimethylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Bis (2-chloroethoxy) methane	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2,4-Dichlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
4-Chloroaniline	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Hexachlorobutadiene`	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Caprolactam	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
4-Chloro-3-methylphenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL



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Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 11:00
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-8 4-5	Matrix:	Soil	Lab ID:	14022010-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - SEMIVOLATILES							
Hexachlorocyclopentadiene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2,4,6-Trichlorophenol	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2,4,5-Trichlorophenol	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 10:33	JKL
1,1-Biphenyl	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2-Chloronaphthalene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2-Nitroaniline	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Dimethyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2,6-Dinitrotoluene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
3-Nitroaniline	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2,4-Dinitrophenol	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 10:33	JKL
4-Nitrophenol	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Dibenzofuran	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
2,4-Dinitrotoluene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Diethyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
4-Chlorophenyl phenyl ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
4-Nitroaniline	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 10:33	JKL
4,6-Dinitro-2-methylphenol	ND	ug/kg	280	EPA 8270C	02/24/14	02/26/14 10:33	JKL
N-Nitrosodiphenylamine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
4-Bromophenyl phenyl ether	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Hexachlorobenzene	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Atrazine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Pentachlorophenol	ND	ug/kg	300	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Carbazole	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Di-n-butyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Butyl benzyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
3,3-Dichlorobenzidine	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Bis (2-ethylhexyl) phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Di-n-octyl phthalate	ND	ug/kg	120	EPA 8270C	02/24/14	02/26/14 10:33	JKL
Total Metals							
Antimony	ND	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:58	MEL
Arsenic	0.49	mg/kg	0.33	EPA 6020A	02/24/14	02/25/14 14:58	MEL
Beryllium	ND	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:58	MEL
Cadmium	ND	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:58	MEL
Chromium	9.4	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:58	MEL
Copper	ND	mg/kg	16	EPA 6020A	02/24/14	02/27/14 11:07	MEL
Lead	2.3	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:58	MEL
Mercury	ND	mg/kg	0.066	EPA 6020A	02/24/14	02/25/14 14:58	MEL
Nickel	ND	mg/kg	16	EPA 6020A	02/24/14	02/27/14 11:07	MEL
Selenium	ND	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:58	MEL
Silver	ND	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:58	MEL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 11:00
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-8 4-5	Matrix:	Soil	Lab ID:	14022010-08			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Total Metals								
Thallium	ND	mg/kg	1.3	EPA 6020A	02/24/14	02/25/14 14:58	MEL	
Zinc	4.0	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 14:58	MEL	
Total Petroleum Hydrocarbons - (C10-C28) DRO								
Diesel Range Organics	12	mg/kg	11	EPA 8015C	02/21/14	02/24/14 12:16	AC	
Total Petroleum Hydrocarbons - (C6-C10) GRO								
Gasoline Range Organics	ND	mg/kg	0.23	EPA 8015C	02/21/14	02/21/14 14:52	JKL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 10:00
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-9 0-1	Matrix:	Soil	Lab ID:	14022010-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	87	%		SM2540G	02/21/14	02/22/14 11:57	LMJ
Polycyclic Aromatic Hydrocarbons (SIM)							
Acenaphthene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Acenaphthylene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Anthracene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Benzo[a]anthracene	8	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Benzo[a]pyrene	7	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Benzo[b]fluoranthene	15	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Benzo[g,h,i]perylene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Benzo[k]fluoranthene	7	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Chrysene	14	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Dibenz[a,h]anthracene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Fluoranthene	16	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Fluorene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Indeno[1,2,3-cd]pyrene	ND	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
2-Methylnaphthalene	11	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Naphthalene`	6	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Phenanthrene	17	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Pyrene	17	ug/kg	5	EPA 8270C	02/25/14	02/25/14 21:34	JKL
Total Metals							
Antimony	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Arsenic	2.9	mg/kg	0.48	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Beryllium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Cadmium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Chromium	9.6	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Copper	ND	mg/kg	24	EPA 6020A	02/24/14	02/27/14 11:11	MEL
Lead	47	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Mercury	1.6	mg/kg	0.97	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Nickel	ND	mg/kg	20	EPA 6020A	02/24/14	02/27/14 11:11	MEL
Selenium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Silver	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Thallium	ND	mg/kg	1.9	EPA 6020A	02/24/14	02/25/14 15:04	MEL
Zinc	210	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:04	MEL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 9:55
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-9 4-5	Matrix:	Soil	Lab ID:	14022010-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	85	%		SM2540G	02/21/14	02/22/14 11:57	LMJ
Polycyclic Aromatic Hydrocarbons (SIM)							
Acenaphthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Acenaphthylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Anthracene	6	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Benzo[a]anthracene	12	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Benzo[a]pyrene	16	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Benzo[b]fluoranthene	25	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Benzo[g,h,i]perylene	9	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Benzo[k]fluoranthene	13	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Chrysene	17	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Dibenz[a,h]anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Fluoranthene	20	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Fluorene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Indeno[1,2,3-cd]pyrene	7	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
2-Methylnaphthalene	ND	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Naphthalene`	9	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Phenanthrene	15	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Pyrene	19	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:06	JKL
Total Metals							
Antimony	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Arsenic	1.9	mg/kg	0.47	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Beryllium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Cadmium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Chromium	11	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Copper	ND	mg/kg	24	EPA 6020A	02/24/14	02/27/14 11:24	MEL
Lead	33	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Mercury	0.17	mg/kg	0.095	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Nickel	ND	mg/kg	24	EPA 6020A	02/24/14	02/27/14 11:24	MEL
Selenium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Silver	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Thallium	ND	mg/kg	1.9	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Zinc	16	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:23	MEL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	18	mg/kg	12	EPA 8015C	02/21/14	02/24/14 14:40	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	ND	mg/kg	0.22	EPA 8015C	02/21/14	02/21/14 13:49	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 9:55
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-9 4-5	Matrix:	Soil	Lab ID:	14022010-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 12:45
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-10 0-1		Matrix:	Soil		Lab ID:	14022010-11	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	88	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	30	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Acenaphthylene	30	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Anthracene	81	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Benzo[a]anthracene	500	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Benzo[a]pyrene	620	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Benzo[b]fluoranthene	1,100	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Benzo[g,h,i]perylene	330	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Benzo[k]fluoranthene	360	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Chrysene	760	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Dibenz[a,h]anthracene	24	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Fluoranthene	890	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Fluorene	54	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Indeno[1,2,3-cd]pyrene	280	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
2-Methylnaphthalene	180	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Naphthalene`	150	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Phenanthrene	930	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Pyrene	990	ug/kg	6	EPA 8270C	02/25/14	02/25/14 23:40	JKL	
Total Metals								
Antimony	2.5	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Arsenic	4.2	mg/kg	0.43	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Beryllium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Cadmium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Chromium	3.3	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Copper	31	mg/kg	21	EPA 6020A	02/24/14	02/27/14 11:28	MEL	
Lead	99	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Mercury	0.13	mg/kg	0.085	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Nickel	ND	mg/kg	21	EPA 6020A	02/24/14	02/27/14 11:28	MEL	
Selenium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Silver	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Thallium	ND	mg/kg	1.7	EPA 6020A	02/24/14	02/25/14 15:29	MEL	
Zinc	56	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:29	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 12:50
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-10 4-5		Matrix:	Soil		Lab ID:	14022010-12	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	88	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Acenaphthylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Anthracene	21	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Benzo[a]anthracene	33	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Benzo[a]pyrene	38	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Benzo[b]fluoranthene	60	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Benzo[g,h,i]perylene	23	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Benzo[k]fluoranthene	33	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Chrysene	43	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Dibenz[a,h]anthracene	8	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Fluoranthene	73	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Fluorene	7	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Indeno[1,2,3-cd]pyrene	19	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
2-Methylnaphthalene	16	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Naphthalene`	22	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Phenanthrene	63	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Pyrene	78	ug/kg	6	EPA 8270C	02/25/14	02/26/14 0:14	JKL	
Total Metals								
Antimony	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Arsenic	2.2	mg/kg	0.43	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Beryllium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Cadmium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Chromium	14	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Copper	ND	mg/kg	21	EPA 6020A	02/24/14	02/27/14 11:33	MEL	
Lead	34	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Mercury	0.19	mg/kg	0.086	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Nickel	ND	mg/kg	21	EPA 6020A	02/24/14	02/27/14 11:33	MEL	
Selenium	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Silver	ND	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Thallium	ND	mg/kg	1.7	EPA 6020A	02/24/14	02/25/14 15:35	MEL	
Zinc	20	mg/kg	2.1	EPA 6020A	02/24/14	02/25/14 15:35	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 12:10
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-11 0-1		Matrix:	Soil		Lab ID:	14022010-13	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	88	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	180	ug/kg	5	EPA 8270C	02/25/14	02/26/14 0:49	JKL	
Acenaphthylene	110	ug/kg	5	EPA 8270C	02/25/14	02/26/14 0:49	JKL	
Anthracene	740	ug/kg	5	EPA 8270C	02/25/14	02/26/14 0:49	JKL	
Benzo[a]anthracene	2,600	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Benzo[a]pyrene	3,800	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Benzo[b]fluoranthene	4,600	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Benzo[g,h,i]perylene	1,100	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Benzo[k]fluoranthene	2,800	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Chrysene	2,500	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Dibenz[a,h]anthracene	130	ug/kg	5	EPA 8270C	02/25/14	02/26/14 0:49	JKL	
Fluoranthene	4,800	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Fluorene	180	ug/kg	5	EPA 8270C	02/25/14	02/26/14 0:49	JKL	
Indeno[1,2,3-cd]pyrene	1,100	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
2-Methylnaphthalene	86	ug/kg	5	EPA 8270C	02/25/14	02/26/14 0:49	JKL	
Naphthalene`	90	ug/kg	5	EPA 8270C	02/25/14	02/26/14 0:49	JKL	
Phenanthrene	2,400	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Pyrene	4,800	ug/kg	54	EPA 8270C	02/25/14	02/26/14 16:25	JKL	
Total Metals								
Antimony	39	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Arsenic	10	mg/kg	0.48	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Beryllium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Cadmium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Chromium	25	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Copper	93	mg/kg	24	EPA 6020A	02/24/14	02/27/14 11:37	MEL	
Lead	790	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Mercury	1.2	mg/kg	0.096	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Nickel	ND	mg/kg	24	EPA 6020A	02/24/14	02/27/14 11:37	MEL	
Selenium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Silver	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Thallium	ND	mg/kg	1.9	EPA 6020A	02/24/14	02/25/14 15:42	MEL	
Zinc	190	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:42	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 12:05
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-11 4-5		Matrix:	Soil		Lab ID:	14022010-14	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	84	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	9	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Acenaphthylene	ND	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Anthracene	54	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Benzo[a]anthracene	150	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Benzo[a]pyrene	190	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Benzo[b]fluoranthene	250	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Benzo[g,h,i]perylene	65	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Benzo[k]fluoranthene	130	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Chrysene	140	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Dibenz[a,h]anthracene	17	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Fluoranthene	220	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Fluorene	12	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Indeno[1,2,3-cd]pyrene	58	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
2-Methylnaphthalene	10	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Naphthalene`	14	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Phenanthrene	140	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Pyrene	240	ug/kg	7	EPA 8270C	02/25/14	02/26/14 1:23	JKL	
Total Metals								
Antimony	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Arsenic	4.8	mg/kg	0.49	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Beryllium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Cadmium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Chromium	19	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Copper	ND	mg/kg	24	EPA 6020A	02/24/14	02/27/14 11:41	MEL	
Lead	82	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Mercury	0.23	mg/kg	0.097	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Nickel	ND	mg/kg	24	EPA 6020A	02/24/14	02/27/14 11:41	MEL	
Selenium	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Silver	ND	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Thallium	ND	mg/kg	1.9	EPA 6020A	02/24/14	02/25/14 15:48	MEL	
Zinc	33	mg/kg	2.4	EPA 6020A	02/24/14	02/25/14 15:48	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 11:50
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-12 0-1		Matrix:	Soil		Lab ID:	14022010-15	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	91	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	9	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Acenaphthylene	12	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Anthracene	51	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Benzo[a]anthracene	200	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Benzo[a]pyrene	240	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Benzo[b]fluoranthene	380	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Benzo[g,h,i]perylene	100	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Benzo[k]fluoranthene	210	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Chrysene	210	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Dibenz[a,h]anthracene	36	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Fluoranthene	350	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Fluorene	13	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Indeno[1,2,3-cd]pyrene	89	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
2-Methylnaphthalene	22	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Naphthalene`	25	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Phenanthrene	210	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Pyrene	430	ug/kg	5	EPA 8270C	02/25/14	02/26/14 1:57	JKL	
Total Metals								
Antimony	ND	mg/kg	2.3	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Arsenic	3.4	mg/kg	0.46	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Beryllium	ND	mg/kg	2.3	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Cadmium	ND	mg/kg	2.3	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Chromium	13	mg/kg	2.3	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Copper	31	mg/kg	23	EPA 6020A	02/24/14	02/27/14 11:46	MEL	
Lead	280	mg/kg	2.3	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Mercury	0.87	mg/kg	0.093	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Nickel	ND	mg/kg	23	EPA 6020A	02/24/14	02/27/14 11:46	MEL	
Selenium	ND	mg/kg	2.3	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Silver	ND	mg/kg	2.3	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Thallium	ND	mg/kg	1.9	EPA 6020A	02/24/14	02/25/14 15:54	MEL	
Zinc	110	mg/kg	2.3	EPA 6020A	02/24/14	02/25/14 15:54	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 11:45
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-12 4-5		Matrix:	Soil		Lab ID:	14022010-16	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	84	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Acenaphthylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Anthracene	15	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Benzo[a]anthracene	18	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Benzo[a]pyrene	19	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Benzo[b]fluoranthene	30	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Benzo[g,h,i]perylene	17	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Benzo[k]fluoranthene	39	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Chrysene	27	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Dibenz[a,h]anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Fluoranthene	24	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Fluorene	8	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Indeno[1,2,3-cd]pyrene	17	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
2-Methylnaphthalene	8	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Naphthalene`	9	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Phenanthrene	32	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Pyrene	22	ug/kg	6	EPA 8270C	02/25/14	02/26/14 2:32	JKL	
Total Metals								
Antimony	ND	mg/kg	2.8	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Arsenic	2.9	mg/kg	0.56	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Beryllium	ND	mg/kg	2.8	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Cadmium	ND	mg/kg	2.8	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Chromium	16	mg/kg	2.8	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Copper	ND	mg/kg	28	EPA 6020A	02/24/14	02/27/14 11:50	MEL	
Lead	14	mg/kg	2.8	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Mercury	ND	mg/kg	0.11	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Nickel	ND	mg/kg	28	EPA 6020A	02/24/14	02/27/14 11:50	MEL	
Selenium	ND	mg/kg	2.8	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Silver	ND	mg/kg	2.8	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Thallium	ND	mg/kg	2.2	EPA 6020A	02/24/14	02/25/14 16:00	MEL	
Zinc	22	mg/kg	2.8	EPA 6020A	02/24/14	02/25/14 16:00	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 15:50
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-13 0-1		Matrix:	Soil	Lab ID: 14022010-17			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	86	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Acenaphthylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Anthracene	19	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Benzo[a]anthracene	49	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Benzo[a]pyrene	59	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Benzo[b]fluoranthene	96	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Benzo[g,h,i]perylene	20	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Benzo[k]fluoranthene	53	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Chrysene	60	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Dibenz[a,h]anthracene	6	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Fluoranthene	86	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Fluorene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Indeno[1,2,3-cd]pyrene	19	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
2-Methylnaphthalene	24	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Naphthalene`	18	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Phenanthrene	69	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Pyrene	100	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:06	JKL	
Total Metals								
Antimony	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Arsenic	4.0	mg/kg	0.49	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Beryllium	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Cadmium	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Chromium	15	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Copper	30	mg/kg	25	EPA 6020A	02/24/14	02/27/14 11:54	MEL	
Lead	130	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Mercury	0.87	mg/kg	0.098	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Nickel	ND	mg/kg	25	EPA 6020A	02/24/14	02/27/14 11:54	MEL	
Selenium	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Silver	ND	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Thallium	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:07	MEL	
Zinc	140	mg/kg	2.5	EPA 6020A	02/24/14	02/25/14 16:07	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Sampled: 02/20/14 15:45
Date Received: 02/20/14 16:45
Date Issued: 02/27/14

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

Field Sample ID:	SB-13 4-5		Matrix:	Soil		Lab ID:	14022010-18	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	84	%		SM2540G	02/21/14	02/22/14 11:57	LMJ	
Polycyclic Aromatic Hydrocarbons (SIM)								
Acenaphthene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Acenaphthylene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Benzo[a]anthracene	9	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Benzo[a]pyrene	9	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Benzo[b]fluoranthene	18	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Benzo[g,h,i]perylene	6	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Benzo[k]fluoranthene	12	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Chrysene	12	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Dibenz[a,h]anthracene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Fluoranthene	14	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Fluorene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Indeno[1,2,3-cd]pyrene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
2-Methylnaphthalene	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Naphthalene`	ND	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Phenanthrene	10	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Pyrene	14	ug/kg	6	EPA 8270C	02/25/14	02/26/14 3:40	JKL	
Total Metals								
Antimony	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Arsenic	2.2	mg/kg	0.4	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Beryllium	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Cadmium	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Chromium	9.6	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Copper	ND	mg/kg	20	EPA 6020A	02/24/14	02/27/14 11:59	MEL	
Lead	94	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Mercury	2.6	mg/kg	0.08	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Nickel	ND	mg/kg	20	EPA 6020A	02/24/14	02/27/14 11:59	MEL	
Selenium	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Silver	ND	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Thallium	ND	mg/kg	1.6	EPA 6020A	02/24/14	02/25/14 16:13	MEL	
Zinc	52	mg/kg	2	EPA 6020A	02/24/14	02/25/14 16:13	MEL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist

Chain of Custody Record

Customer:	Urban Green Environment
Contact/Report to:	Denise A Sullivan
Phone:	410-244-7215
Fax:	410-685-0226

E-mail address:	denise@ugenv.com
Project Name:	Stadium Square
Project Number:	011-016-14
Site Location:	Baltimore City

SDG Number:	14022010
Sampled by:	FJ
PO Number:	

 Page 2 of 2

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix *	Analysis Requested										Sampling Remarks/Comments				
						Preservative		PAHs	PAHs SIM	PAHs	PAHs									
	SB-10 0-1	2/20/14	1245	1	S			X	X											
	SB-10 4-5		1250	1			X	X												
	SB-11 0-1		1210	1			X	X												
	SB-11 4-5		1205	1			X	X												
	SB-12 0-1		1150	1			X	X												
	SB-12 4-5		1145	1			X	X												
	SB-13 0-1		1550	1			X	X												
	SB-13 4-5		1545	1			X	X												

Relinquished by:	<i>[Signature]</i>	Date/Time:	2/20/14 1645	Deliverables:	I II III CLP EDD	Receipt Temperature:	Temp: <u>On Ice</u>	Turnaround Time:	<u>STD</u> Next Day 2-Day Other
Received by:	<i>[Signature]</i>	Date/Time:	2/20/14 1645	Custody Seals:	Sample Cooler	Comments/Special Instructions:			
Relinquished by:		Date/Time:		<u>Delivered by client</u>					
Received by:		Date/Time:							
Relinquished by:		Date/Time:							
Received by:		Date/Time:							

* W = Water; WW = Wastewater; GW = Groundwater; S = Soil; SL = Sludge



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Urban Green Environmental
1700 Beason Street
Baltimore, MD 21230

Date Received: 02/20/14 16:45
Date Issued: 03/25/14 14:06
Matrix: Soil

Project: Stadium Square
Site Location: Baltimore City, MD
Project Number: 041-016-14

SDG Number: 14022010

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Field Sample ID: SB-9 0-1				Date Sampled: 02/20/14 10:00	Lab ID: 14022010-09		
Mercury							
Mercury Non-Extractable; Semi-Mobile	0.06	mg/kg	0.01	EPA 3200	03/17/14	03/17/14 14:12	SS
Field Sample ID: SB-13 4-5				Date Sampled: 02/20/14 15:45	Lab ID: 14022010-18		
Mercury							
Mercury Non-Extractable; Semi-Mobile	1.25	mg/kg	0.31	EPA 3200	03/17/14	03/17/14 14:17	SS

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist

Chain of Custody Record

Customer:	Urban Green Environment
Contact/Report to:	Denise A Sullivan
Phone:	410-244-7215
Fax:	410-685-0226

E-mail address:	denise@ugenv.com
Project Name:	Stadium Square
Project Number:	011-016-14
Site Location:	Baltimore City

SDG Number:	14022010
Sampled by:	DF
PO Number:	

 Page 2 of 2

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix *	Analysis Requested										Sampling Remarks/Comments			
						Preservative		PAHs	PAHs SIM	PAHs	PAHs								
	SB-10 0-1	2/20/14	1245	1	S			X	X										
	SB-10 4-5		1250	1			X	X											
	SB-11 0-1		1210	1			X	X											
	SB-11 4-5		1205	1			X	X											
	SB-12 0-1		1150	1			X	X											
	SB-12 4-5		1145	1			X	X											
	SB-13 0-1		1550	1			X	X											
	SB-13 4-5		1545	1			X	X											

Relinquished by:	<i>[Signature]</i>	Date/Time:	2/20/14 1645	Deliverables:	I II III CLP EDD	Receipt Temperature:	Temp: <u>On Ice</u>	Turnaround Time:	<u>STD</u> Next Day 2-Day Other
Received by:	<i>[Signature]</i>	Date/Time:	2/20/14 1645	Custody Seals:	Sample Cooler	Comments/Special Instructions:			
Relinquished by:		Date/Time:		<u>Delivered by client</u>					
Received by:		Date/Time:							
Relinquished by:		Date/Time:							
Received by:		Date/Time:							

* W = Water; WW = Wastewater; GW = Groundwater; S = Soil; SL = Sludge

ENVIROSYSTEMS, INC.

8510 Corridor Road • Suite A • Savage, Maryland 20763-9505
Phone (301) 362-0330 • Fax (301) 362-0331
Email: info@envsystems.com • Webpage: www.envsystems.com/envsys

March 10, 2014

Denise Sullivan
Urban Green Environmental, LLC
1700 Beason Street
Baltimore, MD 21230

RE; ENVSYS Report# R-1403002

Dear Denise,

Enclosed is the analytical data for samples received on February 21, 2014 along with QC summary data and chain of custody documents.

Please call me if you have any questions, comments, or require additional information.

Sincerely,

Mohan Khare, Ph.D.
President/CEO

LS/mk
Enclosures

Quality Environmental Analytical Services

EnviroSystems, Inc.
Report No.: 1403002

ANALYTICAL DATA PACKAGE

For the samples received
February 21, 2014
Site: Stadium Square Property

Prepared for

Urban Green Environmental, LLC
1700 Beason Street
Baltimore, MD 21230

Prepared by

Technical Staff

EnviroSystems, Inc.
8510 Corridor Road
Suite A
Savage, MD 20763

Table Of Contents

1. Narrative
2. Chain of Custody / Traffic Report
3. GC/MS 8260B Volatiles
4. GC Organics
5. Miscellaneous

1. NARRATIVE

Envirosystems, Inc.

Work Order: 0140202

Client: Urban Green Environmental, LLC

1. SAMPLE RECEIPT

Date Received: February 21, 2014

Cooler Temperature: 4C

Sample Summary

Client ID	Laboratory ID	(1)	(2)	(3)	(4)	Matrix
SB-6 0-1	0140202-01	X			X	SOIL
SB-5 4-5	0140202-02		X			SOIL
SB-6 4-5	0140202-03		X			SOIL
SB-7 0-1	0140202-04			X		SOIL
SB-7 4-5	0140202-05		X			SOIL
SB-8 0-1	0140202-06			X		SOIL
SB-8 4-5	0140202-07		X			SOIL
SB-9 4-5	0140202-08		X			SOIL
SB-10 4-5	0140202-09		X			SOIL
SB-11 4-5	0140202-10		X			SOIL
SB-12 4-5	0140202-11		X			SOIL
SB-13 4-5	0140202-12		X			SOIL
SB-13 0-1	0140202-13	X			X	SOIL
TW-5	0140202-14		X			WATER
TW-8	0140202-15		X			WATER
TW-9	0140202-16		X			WATER

Analyses:

- (1) 8151 Herbicides
- (2) 8260B w/Oxygenates
- (3) SOM02.1 ARO
- (4) SOM02.1 PEST

Note: Volatile soil samples were stored in a refrigerator upon receipt.

Laboratory Data Qualifier Definitions

U: This flag indicates the compound was analyzed for but not detected. The result reported is the adjusted reporting limit for the analyte.

J: This flag indicates an estimated value. This flag is used when the result is less than the adjusted reporting limit but greater than zero.

P: This flag is used for pesticide and Aroclor target compounds when there is greater than 25% difference for detected concentrations between the two GC columns. The 'P' flag is not used unless a compound is identified on both columns. The result reported is the lower of the two column results.

B: This flag is used when the analyte is found in the associated method blank as well as in the sample. Blank contaminants are flagged 'B' only when they are detected in the sample.

E: This flag identifies compounds whose response exceeds the response of the highest standard in the initial calibration range of the instrument for that specific analysis.

D: If a sample or extract is reanalyzed at a dilution factor greater than 1 (e.g., when the response of an analyte exceeds the response of the highest standard in the initial calibration), all the reported concentrations on that Form I are flagged with the 'D' flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

S: This flag is used to indicate an estimated value for Aroclor target compounds where a 5-point initial calibration was not performed prior to the analytes detection in a sample.

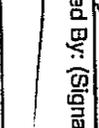
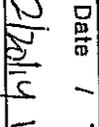
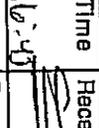
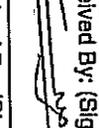
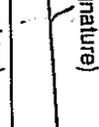
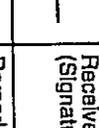
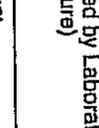
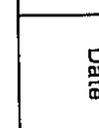
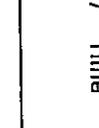
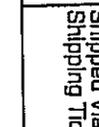
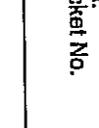
2. Chain Of Custody / Traffic Report

9200 Rumsey Road • Columbia, MD 21045 • Phone: (410) 964-0330 • Fax (410) 740-9306 • Email: info@envsystems.com

ENVIROSYSTEMS, INC.

CHAIN OF CUSTODY RECORD

PARAMETERS

ENVSYS # _____		Quote # _____									
Client Name: <u>Verigan Green Environment</u>											
Project Name: <u>Stadium Square Property</u>											
Site Location: <u>City, State Baltimore, MD</u>											
FIELD SAMPLE - ID	LAB USE ONLY	DATE	TIME	MATRIX	# OF CONTAINERS	PRESERVATIVE USED	VOCS	Pesticides/Herbicides	PCBs	Percent Solids	REMARKS
SB-6 0-1		2/24/14	1435	S	1	10	X				
SB-5 4-5			1410		1		X		X		
SB-6 4-5			1440		1		X		X		
SB-7 0-1			1520		1			X			
SB-7 4-5			1515		1		X			X	
SB-8 0-1			1105		1			X			
SB-8 4-5			1100		1		X				
SB-9 4-5			0905		2		X		X		
SB-10 4-5			1250		2		X		X		
SB-11 4-5			1205		2		X		X		
SB-12 4-5			1145		2		X		X		
SB-13 4-5			1545		2		X		X		
SB-13 0-1			1550		1		X				
Relinquished By: (Signature) 		Date / Time		Received By: (Signature) 		Received by Laboratory: (Signature)		Date / Time		Shipped Via: Shipping Ticket No.	
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					
Relinquished By: (Signature) 		Date / Time		Received By: (Signature)		Remarks:					



ENVIROSYSTEMS, INC.

www.envsystems.com
email: info@envsystems.com

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

1 CLIENT: EnviroSystems OFFICE LOC. _____ PAGE 1 OF 1

PROJECT MGR: Ashraf Gorgios PHONE NO.: 301-362-0330

EMAIL: info@envsystems.com FAX NO.:

PROJECT NAME: Stadium Savar Property PROJECT NO.:

SITE LOCATION: Baltimore, MD P.O. NO.:

SAMPLERS: DW CERT NO.:

LAB NO. SAMPLE IDENTIFICATION DATE TIME MATRIX (See Codes)

SB-6 0-1 2/20/14 14:35 S

SB-13 0-1 2/20/14 15:50 S

Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W=Water

No.	ANALYSIS	REMARKS
8151	Herbicides	Click to enter Remarks

5 Relinquished By: (1) Date 2/26/14 Time 17:50 Received By:

Relinquished By: (2) Date _____ Time _____ Received By:

Relinquished By: (3) Date _____ Time _____ Received By:

Relinquished By: (4) Date _____ Time _____ Received By:

4 Requested Turnaround Time: 5-Day 3-Day 2-Day Other

Data Deliverables Required: Next Day Emergency Other

Special Instructions:

of Coolers: _____

Custody Seal: _____

Ice Present: _____ Temp: _____

Shipping Carrier: _____

8510 Corridor Road • Suite A • Savage, Maryland 20763 • (301) 362-0330 • Fax (301) 362-0331
The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per EnviroSystems- provided quotation.

WORK ORDER

Printed: 2/21/2014 3:40:01PM

Case: 43867 SDG: UGE0202

0140202

EnviroSystems, Inc.

Client: Urban Green Environmental, LLC
Project: Stadium Savar Property

Project Manager: Ashraf Gorgios
Project Number: [none]

Report To:

Urban Green Environmental, LLC
 Denise Sullivan
 1700 Beason Street
 Baltimore, MD 21230
 Phone: (410) 244-7215
 Fax: (410) 685-0226

Invoice To:

Urban Green Environmental, LLC
 Denise Sullivan
 1700 Beason Street
 Baltimore, MD 21230
 Phone : (410) 244-7215
 Fax: (410) 685-0226

Date Due: 28-Feb-14 15:00 (7 day TAT)

Received By: Ashraf Gorgios

Date Received: 21-Feb-14 15:28

Logged In By: Ashraf Gorgios

Date Logged In: 21-Feb-14 15:28

Samples Received at: 4°C

Custody Seals Yes Received On Ice Yes
 Containers Intact Yes
 COC/Labels Agree Yes
 Preservation Confin Yes

Analysis	Due	TAT	Expires	Comments
0140202-01 SB-6 0-1 [Soil] Sampled 20-Feb-14 14:35 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 14:35	
8151 Herbicides	26-Feb-14 12:00	7	06-Mar-14 14:35	
8081A Pesticides	26-Feb-14 12:00	7	06-Mar-14 14:35	
0140202-02 SB-5 4-5 [Soil] Sampled 20-Feb-14 14:10 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 14:10	
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 14:10	
0140202-03 SB-6 4-5 [Soil] Sampled 20-Feb-14 14:40 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 14:40	
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 14:40	
0140202-04 SB-7 0-1 [Soil] Sampled 20-Feb-14 15:20 Eastern				
8082A	26-Feb-14 12:00	7	02-Mar-14 15:20	
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 15:20	
0140202-05 SB-7 4-5 [Soil] Sampled 20-Feb-14 15:15 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 15:15	
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 15:15	
0140202-06 SB-8 0-1 [Soil] Sampled 20-Feb-14 11:05 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 11:05	
8082A	26-Feb-14 12:00	7	02-Mar-14 11:05	

WORK ORDER

Printed: 2/21/2014 3:40:01PM

Case: 43867 SDG: UGE0202

0140202

EnviroSystems, Inc.

Client: Urban Green Environmental, LLC
Project: Stadium Savar Property

Project Manager: Ashraf Gorgios
Project Number: [none]

Analysis	Due	TAT	Expires	Comments
0140202-07 SB-8 4-5 [Soil] Sampled 20-Feb-14 11:06 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 11:06	
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 11:06	
0140202-08 SB-9 4-5 [Soil] Sampled 20-Feb-14 09:55 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 09:55	
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 09:55	
0140202-09 SB-10 4-5 [Soil] Sampled 20-Feb-14 12:50 Eastern				
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 12:50	
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 12:50	
0140202-10 SB-11 4-5 [Soil] Sampled 20-Feb-14 12:05 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 12:05	
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 12:05	
0140202-11 SB-12 4-5 [Soil] Sampled 20-Feb-14 11:45 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 11:45	
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 11:45	
0140202-12 SB-13 4-5 [Soil] Sampled 20-Feb-14 15:45 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 15:45	
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 15:45	
0140202-13 SB-13 0-1 [Soil] Sampled 20-Feb-14 15:50 Eastern				
Solids, Dry Weight	26-Feb-14 12:00	7	27-Feb-14 15:50	
8151 Herbicides	26-Feb-14 12:00	7	06-Mar-14 15:50	
8081A Pesticides	26-Feb-14 12:00	7	06-Mar-14 15:50	
0140202-14 TW-5 [Water] Sampled 20-Feb-14 14:45 Eastern				
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 14:45	
0140202-15 TW-8 [Water] Sampled 20-Feb-14 11:15 Eastern				
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 11:15	
0140202-16 TW-9 [Water] Sampled 20-Feb-14 13:05 Eastern				
8260B w/Oxygenates	26-Feb-14 12:00	7	06-Mar-14 13:05	

Moham Oheve
 Reviewed By

3/10/2014
 Date

3. GC/MS 8260B Volatiles

ORGANIC ANALYSIS DATA SHEET

8260B

SB-5 4-5

Laboratory:	<u>Envirosystems, Inc.</u>	SDG:	<u>UGE0202</u>
Client:	<u>Urban Green Environmental, LLC</u>	Project:	<u>Stadium Square Property</u>
Matrix:	<u>Soil</u>	Laboratory ID:	<u>0140202-02</u>
Sampled:	<u>02/20/14 14:10</u>	Prepared:	<u>02/24/14 17:25</u>
Solids:	<u>85.51</u>	Preparation:	<u>8260B</u>
Batch:	<u>0B42401</u>	Sequence:	<u>0002190</u>
		Calibration:	<u>04C0006</u>
		Instrument:	<u>HP75H</u>
		File ID:	<u>0002190-14.D</u>
		Analyzed:	<u>02/26/14 00:07</u>
		Initial/Final:	<u>5 g / 5 ml</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	5.8	U
74-87-3	Chloromethane	1	5.8	U
75-01-4	Vinyl chloride	1	5.8	U
74-83-9	Bromomethane	1	5.8	U
75-00-3	Chloroethane	1	5.8	U
75-69-4	Trichlorofluoromethane	1	5.8	U
75-35-4	1,1-Dichloroethene	1	5.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	5.8	U
67-64-1	Acetone	1	14	
75-15-0	Carbon disulfide	1	5.8	U
79-20-9	Methyl acetate	1	5.8	U
75-09-2	Methylene chloride	1	5.8	U
156-60-5	trans-1,2-Dichloroethene	1	5.8	U
1634-04-4	Methyl tert-butyl ether	1	5.8	U
75-34-3	1,1-Dichloroethane	1	5.8	U
156-59-2	cis-1,2-Dichloroethene	1	5.8	U
78-93-3	2-Butanone	1	12	U
67-66-3	Chloroform	1	5.8	U
71-55-6	1,1,1-Trichloroethane	1	5.8	U
110-82-7	Cyclohexane	1	5.8	U
56-23-5	Carbon Tetrachloride	1	5.8	U
71-43-2	Benzene	1	5.8	U
107-06-2	1,2-Dichloroethane	1	5.8	U
79-01-6	Trichloroethene	1	5.8	U
108-87-2	Methylcyclohexane	1	5.8	U
78-87-5	1,2-Dichloropropane	1	5.8	U
75-27-4	Bromodichloromethane	1	5.8	U
10061-01-5	cis-1,3-Dichloropropene	1	5.8	U
108-10-1	4-Methyl-2-pentanone	1	12	U
108-88-3	Toluene	1	5.8	U
10061-02-6	trans-1,3-Dichloropropene	1	5.8	U
79-00-5	1,1,2-Trichloroethane	1	5.8	U
127-18-4	Tetrachloroethene	1	5.8	U
591-78-6	2-Hexanone	1	12	U
124-48-1	Dibromochloromethane	1	5.8	U
106-93-4	1,2-Dibromoethane	1	5.8	U
108-90-7	Chlorobenzene	1	5.8	U
100-41-4	Ethylbenzene	1	5.8	U
95-47-6	o-Xylene	1	5.8	U
179601-23-1	m,p-Xylene	1	12	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-5 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-02</u>	File ID: <u>0002190-14.D</u>
Sampled: <u>02/20/14 14:10</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 00:07</u>
Solids: <u>85.51</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	12	U
100-42-5	Styrene	1	5.8	U
75-25-2	Bromoform	1	5.8	U
98-82-8	Isopropylbenzene	1	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	1	5.8	U
541-73-1	1,3-Dichlorobenzene	1	5.8	U
106-46-7	1,4-Dichlorobenzene	1	5.8	U
95-50-1	1,2-Dichlorobenzene	1	5.8	U
96-12-8	1,2-Dibromo-3-chloropropane	1	5.8	U
120-82-1	1,2,4-Trichlorobenzene	1	5.8	U
91-20-3	Naphthalene	1	5.8	U
75-65-0	tert-Butyl Alcohol	1	29	U
108-20-3	Diisopropyl Ether	1	5.8	U
637-92-3	Ethyl tert-butyl ether	1	5.8	U
994-05-8	tert-Amyl methyl ether	1	5.8	U
919-94-8	tert-Amyl ethyl ether	1	5.8	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	58.5	48.6	83	74 - 121	
1,2-Dichloroethane-d4	58.5	50.4	86	80 - 120	
Toluene-d8	58.5	50.0	85	81 - 117	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	39125	8.039	46585	8.039	
Chlorobenzene-d5	34560	13.048	42007	13.048	
1,4-Dichlorobenzene-d4	16590	15.563	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

SB-6 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-03</u>	File ID: <u>0002190-15.D</u>
Sampled: <u>02/20/14 14:40</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 00:36</u>
Solids: <u>82.60</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	6.1	U
74-87-3	Chloromethane	1	6.1	U
75-01-4	Vinyl chloride	1	6.1	U
74-83-9	Bromomethane	1	6.1	U
75-00-3	Chloroethane	1	6.1	U
75-69-4	Trichlorofluoromethane	1	6.1	U
75-35-4	1,1-Dichloroethene	1	6.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	6.1	U
67-64-1	Acetone	1	12	U
75-15-0	Carbon disulfide	1	6.1	U
79-20-9	Methyl acetate	1	6.1	U
75-09-2	Methylene chloride	1	6.1	U
156-60-5	trans-1,2-Dichloroethene	1	6.1	U
1634-04-4	Methyl tert-butyl ether	1	6.1	U
75-34-3	1,1-Dichloroethane	1	6.1	U
156-59-2	cis-1,2-Dichloroethene	1	6.1	U
78-93-3	2-Butanone	1	12	U
67-66-3	Chloroform	1	6.1	U
71-55-6	1,1,1-Trichloroethane	1	6.1	U
110-82-7	Cyclohexane	1	6.1	U
56-23-5	Carbon Tetrachloride	1	6.1	U
71-43-2	Benzene	1	6.1	U
107-06-2	1,2-Dichloroethane	1	6.1	U
79-01-6	Trichloroethene	1	6.1	U
108-87-2	Methylcyclohexane	1	6.1	U
78-87-5	1,2-Dichloropropane	1	6.1	U
75-27-4	Bromodichloromethane	1	6.1	U
10061-01-5	cis-1,3-Dichloropropene	1	6.1	U
108-10-1	4-Methyl-2-pentanone	1	12	U
108-88-3	Toluene	1	6.1	U
10061-02-6	trans-1,3-Dichloropropene	1	6.1	U
79-00-5	1,1,2-Trichloroethane	1	6.1	U
127-18-4	Tetrachloroethene	1	6.1	U
591-78-6	2-Hexanone	1	12	U
124-48-1	Dibromochloromethane	1	6.1	U
106-93-4	1,2-Dibromoethane	1	6.1	U
108-90-7	Chlorobenzene	1	6.1	U
100-41-4	Ethylbenzene	1	6.1	U
95-47-6	o-Xylene	1	6.1	U
179601-23-1	m,p-Xylene	1	12	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-6 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-03</u>	File ID: <u>0002190-15.D</u>
Sampled: <u>02/20/14 14:40</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 00:36</u>
Solids: <u>82.60</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	12	U
100-42-5	Styrene	1	6.1	U
75-25-2	Bromoform	1	6.1	U
98-82-8	Isopropylbenzene	1	6.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	6.1	U
541-73-1	1,3-Dichlorobenzene	1	6.1	U
106-46-7	1,4-Dichlorobenzene	1	6.1	U
95-50-1	1,2-Dichlorobenzene	1	6.1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	6.1	U
120-82-1	1,2,4-Trichlorobenzene	1	6.1	U
91-20-3	Naphthalene	1	6.1	U
75-65-0	tert-Butyl Alcohol	1	30	U
108-20-3	Diisopropyl Ether	1	6.1	U
637-92-3	Ethyl tert-butyl ether	1	6.1	U
994-05-8	tert-Amyl methyl ether	1	6.1	U
919-94-8	tert-Amyl ethyl ether	1	6.1	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	60.5	32.6	54	74 - 121	*
1,2-Dichloroethane-d4	60.5	46.4	77	80 - 120	*
Toluene-d8	60.5	39.7	66	81 - 117	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	44028	8.036	46585	8.039	
Chlorobenzene-d5	38889	13.045	42007	13.048	
1,4-Dichlorobenzene-d4	19211	15.56	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

SB-7 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-05</u>	File ID: <u>0002190-16.D</u>
Sampled: <u>02/20/14 15:15</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 01:06</u>
Solids: <u>79.75</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	6.3	U
74-87-3	Chloromethane	1	6.3	U
75-01-4	Vinyl chloride	1	6.3	U
74-83-9	Bromomethane	1	6.3	U
75-00-3	Chloroethane	1	6.3	U
75-69-4	Trichlorofluoromethane	1	6.3	U
75-35-4	1,1-Dichloroethene	1	6.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	6.3	U
67-64-1	Acetone	1	13	U
75-15-0	Carbon disulfide	1	6.3	U
79-20-9	Methyl acetate	1	6.3	U
75-09-2	Methylene chloride	1	6.3	U
156-60-5	trans-1,2-Dichloroethene	1	6.3	U
1634-04-4	Methyl tert-butyl ether	1	6.3	U
75-34-3	1,1-Dichloroethane	1	6.3	U
156-59-2	cis-1,2-Dichloroethene	1	6.3	U
78-93-3	2-Butanone	1	13	U
67-66-3	Chloroform	1	6.3	U
71-55-6	1,1,1-Trichloroethane	1	6.3	U
110-82-7	Cyclohexane	1	6.3	U
56-23-5	Carbon Tetrachloride	1	6.3	U
71-43-2	Benzene	1	6.3	U
107-06-2	1,2-Dichloroethane	1	6.3	U
79-01-6	Trichloroethene	1	6.3	U
108-87-2	Methylcyclohexane	1	6.3	U
78-87-5	1,2-Dichloropropane	1	6.3	U
75-27-4	Bromodichloromethane	1	6.3	U
10061-01-5	cis-1,3-Dichloropropene	1	6.3	U
108-10-1	4-Methyl-2-pentanone	1	13	U
108-88-3	Toluene	1	6.3	U
10061-02-6	trans-1,3-Dichloropropene	1	6.3	U
79-00-5	1,1,2-Trichloroethane	1	6.3	U
127-18-4	Tetrachloroethene	1	6.3	U
591-78-6	2-Hexanone	1	13	U
124-48-1	Dibromochloromethane	1	6.3	U
106-93-4	1,2-Dibromoethane	1	6.3	U
108-90-7	Chlorobenzene	1	6.3	U
100-41-4	Ethylbenzene	1	6.3	U
95-47-6	o-Xylene	1	6.3	U
179601-23-1	m,p-Xylene	1	13	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-7 4-5

Laboratory: <u>EnviroSystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-05</u>	File ID: <u>0002190-16.D</u>
Sampled: <u>02/20/14 15:15</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 01:06</u>
Solids: <u>79.75</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	13	U
100-42-5	Styrene	1	6.3	U
75-25-2	Bromoform	1	6.3	U
98-82-8	Isopropylbenzene	1	6.3	U
79-34-5	1,1,2,2-Tetrachloroethane	1	6.3	U
541-73-1	1,3-Dichlorobenzene	1	6.3	U
106-46-7	1,4-Dichlorobenzene	1	6.3	U
95-50-1	1,2-Dichlorobenzene	1	6.3	U
96-12-8	1,2-Dibromo-3-chloropropane	1	6.3	U
120-82-1	1,2,4-Trichlorobenzene	1	6.3	U
91-20-3	Naphthalene	1	6.3	U
75-65-0	tert-Butyl Alcohol	1	31	U
108-20-3	Diisopropyl Ether	1	6.3	U
637-92-3	Ethyl tert-butyl ether	1	6.3	U
994-05-8	tert-Amyl methyl ether	1	6.3	U
919-94-8	tert-Amyl ethyl ether	1	6.3	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	62.7	43.8	70	74 - 121	*
1,2-Dichloroethane-d4	62.7	49.1	78	80 - 120	*
Toluene-d8	62.7	46.1	74	81 - 117	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	43991	8.039	46585	8.039	
Chlorobenzene-d5	39504	13.048	42007	13.048	
1,4-Dichlorobenzene-d4	19211	15.563	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

SB-8 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-07</u>	File ID: <u>0002190-17.D</u>
Sampled: <u>02/20/14 11:06</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 01:35</u>
Solids: <u>91.04</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	5.5	U
74-87-3	Chloromethane	1	5.5	U
75-01-4	Vinyl chloride	1	5.5	U
74-83-9	Bromomethane	1	5.5	U
75-00-3	Chloroethane	1	5.5	U
75-69-4	Trichlorofluoromethane	1	5.5	U
75-35-4	1,1-Dichloroethene	1	5.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	5.5	U
67-64-1	Acetone	1	11	U
75-15-0	Carbon disulfide	1	5.5	U
79-20-9	Methyl acetate	1	5.5	U
75-09-2	Methylene chloride	1	5.5	U
156-60-5	trans-1,2-Dichloroethene	1	5.5	U
1634-04-4	Methyl tert-butyl ether	1	5.5	U
75-34-3	1,1-Dichloroethane	1	5.5	U
156-59-2	cis-1,2-Dichloroethene	1	5.5	U
78-93-3	2-Butanone	1	11	U
67-66-3	Chloroform	1	5.5	U
71-55-6	1,1,1-Trichloroethane	1	5.5	U
110-82-7	Cyclohexane	1	5.5	U
56-23-5	Carbon Tetrachloride	1	5.5	U
71-43-2	Benzene	1	5.5	U
107-06-2	1,2-Dichloroethane	1	5.5	U
79-01-6	Trichloroethene	1	5.5	U
108-87-2	Methylcyclohexane	1	5.5	U
78-87-5	1,2-Dichloropropane	1	5.5	U
75-27-4	Bromodichloromethane	1	5.5	U
10061-01-5	cis-1,3-Dichloropropene	1	5.5	U
108-10-1	4-Methyl-2-pentanone	1	11	U
108-88-3	Toluene	1	5.5	U
10061-02-6	trans-1,3-Dichloropropene	1	5.5	U
79-00-5	1,1,2-Trichloroethane	1	5.5	U
127-18-4	Tetrachloroethene	1	5.5	U
591-78-6	2-Hexanone	1	11	U
124-48-1	Dibromochloromethane	1	5.5	U
106-93-4	1,2-Dibromoethane	1	5.5	U
108-90-7	Chlorobenzene	1	5.5	U
100-41-4	Ethylbenzene	1	5.5	U
95-47-6	o-Xylene	1	5.5	U
179601-23-1	m,p-Xylene	1	11	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-8 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-07</u>	File ID: <u>0002190-17.D</u>
Sampled: <u>02/20/14 11:06</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 01:35</u>
Solids: <u>91.04</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u> Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	11	U
100-42-5	Styrene	1	5.5	U
75-25-2	Bromoform	1	5.5	U
98-82-8	Isopropylbenzene	1	5.5	U
79-34-5	1,1,2,2-Tetrachloroethane	1	5.5	U
541-73-1	1,3-Dichlorobenzene	1	5.5	U
106-46-7	1,4-Dichlorobenzene	1	5.5	U
95-50-1	1,2-Dichlorobenzene	1	5.5	U
96-12-8	1,2-Dibromo-3-chloropropane	1	5.5	U
120-82-1	1,2,4-Trichlorobenzene	1	5.5	U
91-20-3	Naphthalene	1	5.5	U
75-65-0	tert-Butyl Alcohol	1	27	U
108-20-3	Diisopropyl Ether	1	5.5	U
637-92-3	Ethyl tert-butyl ether	1	5.5	U
994-05-8	tert-Amyl methyl ether	1	5.5	U
919-94-8	tert-Amyl ethyl ether	1	5.5	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	54.9	38.9	71	74 - 121	*
1,2-Dichloroethane-d4	54.9	40.7	74	80 - 120	*
Toluene-d8	54.9	39.8	73	81 - 117	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	43606	8.039	46585	8.039	
Chlorobenzene-d5	38409	13.045	42007	13.048	
1,4-Dichlorobenzene-d4	19253	15.563	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

SB-9 4-5

Laboratory:	<u>Envirosystems, Inc.</u>	SDG:	<u>UGE0202</u>
Client:	<u>Urban Green Environmental, LLC</u>	Project:	<u>Stadium Square Property</u>
Matrix:	<u>Soil</u>	Laboratory ID:	<u>0140202-08</u>
		File ID:	<u>0002190-18.D</u>
Sampled:	<u>02/20/14 09:55</u>	Prepared:	<u>02/24/14 17:25</u>
		Analyzed:	<u>02/26/14 02:05</u>
Solids:	<u>81.52</u>	Preparation:	<u>8260B</u>
		Initial/Final:	<u>5 g / 5 ml</u>
Batch:	<u>0B42401</u>	Sequence:	<u>0002190</u>
		Calibration:	<u>04C0006</u>
		Instrument:	<u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	6.1	U
74-87-3	Chloromethane	1	6.1	U
75-01-4	Vinyl chloride	1	6.1	U
74-83-9	Bromomethane	1	6.1	U
75-00-3	Chloroethane	1	6.1	U
75-69-4	Trichlorofluoromethane	1	6.1	U
75-35-4	1,1-Dichloroethene	1	6.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	6.1	U
67-64-1	Acetone	1	15	
75-15-0	Carbon disulfide	1	6.1	U
79-20-9	Methyl acetate	1	6.1	U
75-09-2	Methylene chloride	1	6.1	U
156-60-5	trans-1,2-Dichloroethene	1	6.1	U
1634-04-4	Methyl tert-butyl ether	1	6.1	U
75-34-3	1,1-Dichloroethane	1	6.1	U
156-59-2	cis-1,2-Dichloroethene	1	6.1	U
78-93-3	2-Butanone	1	12	U
67-66-3	Chloroform	1	6.1	U
71-55-6	1,1,1-Trichloroethane	1	6.1	U
110-82-7	Cyclohexane	1	6.1	U
56-23-5	Carbon Tetrachloride	1	6.1	U
71-43-2	Benzene	1	6.1	U
107-06-2	1,2-Dichloroethane	1	6.1	U
79-01-6	Trichloroethene	1	6.1	U
108-87-2	Methylcyclohexane	1	6.1	U
78-87-5	1,2-Dichloropropane	1	6.1	U
75-27-4	Bromodichloromethane	1	6.1	U
10061-01-5	cis-1,3-Dichloropropene	1	6.1	U
108-10-1	4-Methyl-2-pentanone	1	12	U
108-88-3	Toluene	1	6.1	U
10061-02-6	trans-1,3-Dichloropropene	1	6.1	U
79-00-5	1,1,2-Trichloroethane	1	6.1	U
127-18-4	Tetrachloroethene	1	6.1	U
591-78-6	2-Hexanone	1	12	U
124-48-1	Dibromochloromethane	1	6.1	U
106-93-4	1,2-Dibromoethane	1	6.1	U
108-90-7	Chlorobenzene	1	6.1	U
100-41-4	Ethylbenzene	1	6.1	U
95-47-6	o-Xylene	1	6.1	U
179601-23-1	m,p-Xylene	1	12	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-9 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-08</u>	File ID: <u>0002190-18.D</u>
Sampled: <u>02/20/14 09:55</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 02:05</u>
Solids: <u>81.52</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	12	U
100-42-5	Styrene	1	6.1	U
75-25-2	Bromoform	1	6.1	U
98-82-8	Isopropylbenzene	1	6.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	6.1	U
541-73-1	1,3-Dichlorobenzene	1	6.1	U
106-46-7	1,4-Dichlorobenzene	1	6.1	U
95-50-1	1,2-Dichlorobenzene	1	6.1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	6.1	U
120-82-1	1,2,4-Trichlorobenzene	1	6.1	U
91-20-3	Naphthalene	1	6.1	U
75-65-0	tert-Butyl Alcohol	1	31	U
108-20-3	Diisopropyl Ether	1	6.1	U
637-92-3	Ethyl tert-butyl ether	1	6.1	U
994-05-8	tert-Amyl methyl ether	1	6.1	U
919-94-8	tert-Amyl ethyl ether	1	6.1	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	61.3	43.3	71	74 - 121	*
1,2-Dichloroethane-d4	61.3	49.8	81	80 - 120	
Toluene-d8	61.3	49.1	80	81 - 117	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	43595	8.042	46585	8.039	
Chlorobenzene-d5	39359	13.049	42007	13.048	
1,4-Dichlorobenzene-d4	19071	15.563	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

SB-10 4-5

Laboratory:	<u>Envirosystems, Inc.</u>	SDG:	<u>UGE0202</u>
Client:	<u>Urban Green Environmental, LLC</u>	Project:	<u>Stadium Square Property</u>
Matrix:	<u>Soil</u>	Laboratory ID:	<u>0140202-09</u>
		File ID:	<u>0002190-19.D</u>
Sampled:	<u>02/20/14 12:50</u>	Prepared:	<u>02/24/14 17:25</u>
		Analyzed:	<u>02/26/14 02:34</u>
Solids:	<u>87.96</u>	Preparation:	<u>8260B</u>
		Initial/Final:	<u>5 g / 5 ml</u>
Batch:	<u>0B42401</u>	Sequence:	<u>0002190</u>
		Calibration:	<u>04C0006</u>
		Instrument:	<u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	5.7	U
74-87-3	Chloromethane	1	5.7	U
75-01-4	Vinyl chloride	1	5.7	U
74-83-9	Bromomethane	1	5.7	U
75-00-3	Chloroethane	1	5.7	U
75-69-4	Trichlorofluoromethane	1	5.7	U
75-35-4	1,1-Dichloroethene	1	5.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	5.7	U
67-64-1	Acetone	1	11	U
75-15-0	Carbon disulfide	1	5.7	U
79-20-9	Methyl acetate	1	5.7	U
75-09-2	Methylene chloride	1	5.7	U
156-60-5	trans-1,2-Dichloroethene	1	5.7	U
1634-04-4	Methyl tert-butyl ether	1	5.7	U
75-34-3	1,1-Dichloroethane	1	5.7	U
156-59-2	cis-1,2-Dichloroethene	1	5.7	U
78-93-3	2-Butanone	1	11	U
67-66-3	Chloroform	1	5.7	U
71-55-6	1,1,1-Trichloroethane	1	5.7	U
110-82-7	Cyclohexane	1	5.7	U
56-23-5	Carbon Tetrachloride	1	5.7	U
71-43-2	Benzene	1	5.7	U
107-06-2	1,2-Dichloroethane	1	5.7	U
79-01-6	Trichloroethene	1	5.7	U
108-87-2	Methylcyclohexane	1	5.7	U
78-87-5	1,2-Dichloropropane	1	5.7	U
75-27-4	Bromodichloromethane	1	5.7	U
10061-01-5	cis-1,3-Dichloropropene	1	5.7	U
108-10-1	4-Methyl-2-pentanone	1	11	U
108-88-3	Toluene	1	5.7	U
10061-02-6	trans-1,3-Dichloropropene	1	5.7	U
79-00-5	1,1,2-Trichloroethane	1	5.7	U
127-18-4	Tetrachloroethene	1	5.7	U
591-78-6	2-Hexanone	1	11	U
124-48-1	Dibromochloromethane	1	5.7	U
106-93-4	1,2-Dibromoethane	1	5.7	U
108-90-7	Chlorobenzene	1	5.7	U
100-41-4	Ethylbenzene	1	5.7	U
95-47-6	o-Xylene	1	5.7	U
179601-23-1	m,p-Xylene	1	11	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-10 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-09</u>	File ID: <u>0002190-19.D</u>
Sampled: <u>02/20/14 12:50</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 02:34</u>
Solids: <u>87.96</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	11	U
100-42-5	Styrene	1	5.7	U
75-25-2	Bromoform	1	5.7	U
98-82-8	Isopropylbenzene	1	5.7	U
79-34-5	1,1,2,2-Tetrachloroethane	1	5.7	U
541-73-1	1,3-Dichlorobenzene	1	5.7	U
106-46-7	1,4-Dichlorobenzene	1	5.7	U
95-50-1	1,2-Dichlorobenzene	1	5.7	U
96-12-8	1,2-Dibromo-3-chloropropane	1	5.7	U
120-82-1	1,2,4-Trichlorobenzene	1	5.7	U
91-20-3	Naphthalene	1	5.7	U
75-65-0	tert-Butyl Alcohol	1	28	U
108-20-3	Diisopropyl Ether	1	5.7	U
637-92-3	Ethyl tert-butyl ether	1	5.7	U
994-05-8	tert-Amyl methyl ether	1	5.7	U
919-94-8	tert-Amyl ethyl ether	1	5.7	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	56.8	37.9	67	74 - 121	*
1,2-Dichloroethane-d4	56.8	40.5	71	80 - 120	*
Toluene-d8	56.8	38.9	68	81 - 117	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	44104	8.036	46585	8.039	
Chlorobenzene-d5	38403	13.048	42007	13.048	
1,4-Dichlorobenzene-d4	19608	15.563	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
8260B

SB-11 4-5

Laboratory: Envirosystems, Inc. SDG: UGE0202
 Client: Urban Green Environmental, LLC Project: Stadium Square Property
 Matrix: Soil Laboratory ID: 0140202-10 File ID: 0002190-20.D
 Sampled: 02/20/14 12:05 Prepared: 02/24/14 17:25 Analyzed: 02/26/14 03:04
 Solids: 77.66 Preparation: 8260B Initial/Final: 5 g / 5 ml
 Batch: 0B42401 Sequence: 0002190 Calibration: 04C0006 Instrument: HP75H

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	6.4	U
74-87-3	Chloromethane	1	6.4	U
75-01-4	Vinyl chloride	1	6.4	U
74-83-9	Bromomethane	1	6.4	U
75-00-3	Chloroethane	1	6.4	U
75-69-4	Trichlorofluoromethane	1	6.4	U
75-35-4	1,1-Dichloroethene	1	6.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	6.4	U
67-64-1	Acetone	1	18	
75-15-0	Carbon disulfide	1	6.4	U
79-20-9	Methyl acetate	1	6.4	U
75-09-2	Methylene chloride	1	6.4	U
156-60-5	trans-1,2-Dichloroethene	1	6.4	U
1634-04-4	Methyl tert-butyl ether	1	6.4	U
75-34-3	1,1-Dichloroethane	1	6.4	U
156-59-2	cis-1,2-Dichloroethene	1	6.4	U
78-93-3	2-Butanone	1	13	U
67-66-3	Chloroform	1	6.4	U
71-55-6	1,1,1-Trichloroethane	1	6.4	U
110-82-7	Cyclohexane	1	6.4	U
56-23-5	Carbon Tetrachloride	1	6.4	U
71-43-2	Benzene	1	6.4	U
107-06-2	1,2-Dichloroethane	1	6.4	U
79-01-6	Trichloroethene	1	6.4	U
108-87-2	Methylcyclohexane	1	6.4	U
78-87-5	1,2-Dichloropropane	1	6.4	U
75-27-4	Bromodichloromethane	1	6.4	U
10061-01-5	cis-1,3-Dichloropropene	1	6.4	U
108-10-1	4-Methyl-2-pentanone	1	13	U
108-88-3	Toluene	1	6.4	U
10061-02-6	trans-1,3-Dichloropropene	1	6.4	U
79-00-5	1,1,2-Trichloroethane	1	6.4	U
127-18-4	Tetrachloroethene	1	6.4	U
591-78-6	2-Hexanone	1	13	U
124-48-1	Dibromochloromethane	1	6.4	U
106-93-4	1,2-Dibromoethane	1	6.4	U
108-90-7	Chlorobenzene	1	6.4	U
100-41-4	Ethylbenzene	1	6.4	U
95-47-6	o-Xylene	1	6.4	U
179601-23-1	m,p-Xylene	1	13	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-11 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-10</u>	File ID: <u>0002190-20.D</u>
Sampled: <u>02/20/14 12:05</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 03:04</u>
Solids: <u>77.66</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	13	U
100-42-5	Styrene	1	6.4	U
75-25-2	Bromoform	1	6.4	U
98-82-8	Isopropylbenzene	1	6.4	U
79-34-5	1,1,2,2-Tetrachloroethane	1	6.4	U
541-73-1	1,3-Dichlorobenzene	1	6.4	U
106-46-7	1,4-Dichlorobenzene	1	6.4	U
95-50-1	1,2-Dichlorobenzene	1	6.4	U
96-12-8	1,2-Dibromo-3-chloropropane	1	6.4	U
120-82-1	1,2,4-Trichlorobenzene	1	6.4	U
91-20-3	Naphthalene	1	6.4	U
75-65-0	tert-Butyl Alcohol	1	32	U
108-20-3	Diisopropyl Ether	1	6.4	U
637-92-3	Ethyl tert-butyl ether	1	6.4	U
994-05-8	tert-Amyl methyl ether	1	6.4	U
919-94-8	tert-Amyl ethyl ether	1	6.4	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	64.4	30.7	48	74 - 121	*
1,2-Dichloroethane-d4	64.4	42.4	66	80 - 120	*
Toluene-d8	64.4	39.5	61	81 - 117	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	42112	8.036	46585	8.039	
Chlorobenzene-d5	36879	13.052	42007	13.048	
1,4-Dichlorobenzene-d4	18213	15.566	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
8260B

SB-12 4-5

Laboratory: Envirosystems, Inc. SDG: UGE0202
 Client: Urban Green Environmental, LLC Project: Stadium Square Property
 Matrix: Soil Laboratory ID: 0140202-11 File ID: 0002190-21.D
 Sampled: 02/20/14 11:45 Prepared: 02/24/14 17:25 Analyzed: 02/26/14 03:34
 Solids: 83.44 Preparation: 8260B Initial/Final: 5 g / 5 ml
 Batch: 0B42401 Sequence: 0002190 Calibration: 04C0006 Instrument: HP75H

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	6.0	U
74-87-3	Chloromethane	1	6.0	U
75-01-4	Vinyl chloride	1	6.0	U
74-83-9	Bromomethane	1	6.0	U
75-00-3	Chloroethane	1	6.0	U
75-69-4	Trichlorofluoromethane	1	6.0	U
75-35-4	1,1-Dichloroethene	1	6.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	6.0	U
67-64-1	Acetone	1	12	
75-15-0	Carbon disulfide	1	6.0	U
79-20-9	Methyl acetate	1	6.0	U
75-09-2	Methylene chloride	1	6.0	U
156-60-5	trans-1,2-Dichloroethene	1	6.0	U
1634-04-4	Methyl tert-butyl ether	1	6.0	U
75-34-3	1,1-Dichloroethane	1	6.0	U
156-59-2	cis-1,2-Dichloroethene	1	6.0	U
78-93-3	2-Butanone	1	12	U
67-66-3	Chloroform	1	6.0	U
71-55-6	1,1,1-Trichloroethane	1	6.0	U
110-82-7	Cyclohexane	1	6.0	U
56-23-5	Carbon Tetrachloride	1	6.0	U
71-43-2	Benzene	1	6.0	U
107-06-2	1,2-Dichloroethane	1	6.0	U
79-01-6	Trichloroethene	1	6.0	U
108-87-2	Methylcyclohexane	1	6.0	U
78-87-5	1,2-Dichloropropane	1	6.0	U
75-27-4	Bromodichloromethane	1	6.0	U
10061-01-5	cis-1,3-Dichloropropene	1	6.0	U
108-10-1	4-Methyl-2-pentanone	1	12	U
108-88-3	Toluene	1	6.0	U
10061-02-6	trans-1,3-Dichloropropene	1	6.0	U
79-00-5	1,1,2-Trichloroethane	1	6.0	U
127-18-4	Tetrachloroethene	1	6.0	U
591-78-6	2-Hexanone	1	12	U
124-48-1	Dibromochloromethane	1	6.0	U
106-93-4	1,2-Dibromoethane	1	6.0	U
108-90-7	Chlorobenzene	1	6.0	U
100-41-4	Ethylbenzene	1	6.0	U
95-47-6	o-Xylene	1	6.0	U
179601-23-1	m,p-Xylene	1	12	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-12 4-5

Laboratory: Envirosystems, Inc. SDG: UGE0202
 Client: Urban Green Environmental, LLC Project: Stadium Square Property
 Matrix: Soil Laboratory ID: 0140202-11 File ID: 0002190-21.D
 Sampled: 02/20/14 11:45 Prepared: 02/24/14 17:25 Analyzed: 02/26/14 03:34
 Solids: 83.44 Preparation: 8260B Initial/Final: 5 g / 5 ml
 Batch: 0B42401 Sequence: 0002190 Calibration: 04C0006 Instrument: HP75H

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	12	U
100-42-5	Styrene	1	6.0	U
75-25-2	Bromoform	1	6.0	U
98-82-8	Isopropylbenzene	1	6.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	6.0	U
541-73-1	1,3-Dichlorobenzene	1	6.0	U
106-46-7	1,4-Dichlorobenzene	1	6.0	U
95-50-1	1,2-Dichlorobenzene	1	6.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	6.0	U
120-82-1	1,2,4-Trichlorobenzene	1	6.0	U
91-20-3	Naphthalene	1	6.0	U
75-65-0	tert-Butyl Alcohol	1	30	U
108-20-3	Diisopropyl Ether	1	6.0	U
637-92-3	Ethyl tert-butyl ether	1	6.0	U
994-05-8	tert-Amyl methyl ether	1	6.0	U
919-94-8	tert-Amyl ethyl ether	1	6.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	59.9	25.8	43	74 - 121	*
1,2-Dichloroethane-d4	59.9	36.4	61	80 - 120	*
Toluene-d8	59.9	31.7	53	81 - 117	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	42322	8.045	46585	8.039	
Chlorobenzene-d5	38222	13.052	42007	13.048	
1,4-Dichlorobenzene-d4	18571	15.563	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

SB-13 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-12</u>	File ID: <u>0002190-22.D</u>
Sampled: <u>02/20/14 15:45</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 04:03</u>
Solids: <u>83.14</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
75-71-8	Dichlorodifluoromethane	1	6.0	U
74-87-3	Chloromethane	1	6.0	U
75-01-4	Vinyl chloride	1	6.0	U
74-83-9	Bromomethane	1	6.0	U
75-00-3	Chloroethane	1	6.0	U
75-69-4	Trichlorofluoromethane	1	6.0	U
75-35-4	1,1-Dichloroethene	1	6.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	6.0	U
67-64-1	Acetone	1	11	J
75-15-0	Carbon disulfide	1	6.0	U
79-20-9	Methyl acetate	1	6.0	U
75-09-2	Methylene chloride	1	6.0	U
156-60-5	trans-1,2-Dichloroethene	1	6.0	U
1634-04-4	Methyl tert-butyl ether	1	6.0	U
75-34-3	1,1-Dichloroethane	1	6.0	U
156-59-2	cis-1,2-Dichloroethene	1	6.0	U
78-93-3	2-Butanone	1	12	U
67-66-3	Chloroform	1	6.0	U
71-55-6	1,1,1-Trichloroethane	1	6.0	U
110-82-7	Cyclohexane	1	6.0	U
56-23-5	Carbon Tetrachloride	1	6.0	U
71-43-2	Benzene	1	6.0	U
107-06-2	1,2-Dichloroethane	1	6.0	U
79-01-6	Trichloroethene	1	6.0	U
108-87-2	Methylcyclohexane	1	6.0	U
78-87-5	1,2-Dichloropropane	1	6.0	U
75-27-4	Bromodichloromethane	1	6.0	U
10061-01-5	cis-1,3-Dichloropropene	1	6.0	U
108-10-1	4-Methyl-2-pentanone	1	12	U
108-88-3	Toluene	1	6.0	U
10061-02-6	trans-1,3-Dichloropropene	1	6.0	U
79-00-5	1,1,2-Trichloroethane	1	6.0	U
127-18-4	Tetrachloroethene	1	6.0	U
591-78-6	2-Hexanone	1	12	U
124-48-1	Dibromochloromethane	1	6.0	U
106-93-4	1,2-Dibromoethane	1	6.0	U
108-90-7	Chlorobenzene	1	6.0	U
100-41-4	Ethylbenzene	1	6.0	U
95-47-6	o-Xylene	1	6.0	U
179601-23-1	m,p-Xylene	1	12	U

ORGANIC ANALYSIS DATA SHEET

8260B

SB-13 4-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0140202-12</u>	File ID: <u>0002190-22.D</u>
Sampled: <u>02/20/14 15:45</u>	Prepared: <u>02/24/14 17:25</u>	Analyzed: <u>02/26/14 04:03</u>
Solids: <u>83.14</u>	Preparation: <u>8260B</u>	Initial/Final: <u>5 g / 5 ml</u>
Batch: <u>0B42401</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
1330-20-7	Xylene (Total)	1	12	U
100-42-5	Styrene	1	6.0	U
75-25-2	Bromoform	1	6.0	U
98-82-8	Isopropylbenzene	1	6.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	6.0	U
541-73-1	1,3-Dichlorobenzene	1	6.0	U
106-46-7	1,4-Dichlorobenzene	1	6.0	U
95-50-1	1,2-Dichlorobenzene	1	6.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	6.0	U
120-82-1	1,2,4-Trichlorobenzene	1	6.0	U
91-20-3	Naphthalene	1	6.0	U
75-65-0	tert-Butyl Alcohol	1	30	U
108-20-3	Diisopropyl Ether	1	6.0	U
637-92-3	Ethyl tert-butyl ether	1	6.0	U
994-05-8	tert-Amyl methyl ether	1	6.0	U
919-94-8	tert-Amyl ethyl ether	1	6.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	60.1	23.5	39	74 - 121	*
1,2-Dichloroethane-d4	60.1	40.5	67	80 - 120	*
Toluene-d8	60.1	33.5	56	81 - 117	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	43667	8.039	46585	8.039	
Chlorobenzene-d5	38071	13.052	42007	13.048	
1,4-Dichlorobenzene-d4	18167	15.566	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

TW-5

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Water</u>	Laboratory ID: <u>0140202-14</u>	File ID: <u>0002190-11.D</u>
Sampled: <u>02/20/14 14:45</u>	Prepared: <u>02/24/14 17:26</u>	Analyzed: <u>02/25/14 22:38</u>
Solids:	Preparation: <u>8260B</u>	Initial/Final: <u>5 ml / 5 mL</u>
Batch: <u>0B42402</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
75-71-8	Dichlorodifluoromethane	1	5.0	U
74-87-3	Chloromethane	1	5.0	U
75-01-4	Vinyl chloride	1	5.0	U
74-83-9	Bromomethane	1	5.0	U
75-00-3	Chloroethane	1	5.0	U
75-69-4	Trichlorofluoromethane	1	5.0	U
75-35-4	1,1-Dichloroethene	1	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	5.0	U
67-64-1	Acetone	1	26	
75-15-0	Carbon disulfide	1	5.0	U
79-20-9	Methyl acetate	1	5.0	U
75-09-2	Methylene chloride	1	5.0	U
156-60-5	trans-1,2-Dichloroethene	1	5.0	U
1634-04-4	Methyl tert-butyl ether	1	5.0	U
75-34-3	1,1-Dichloroethane	1	5.0	U
156-59-2	cis-1,2-Dichloroethene	1	5.0	U
78-93-3	2-Butanone	1	10	U
67-66-3	Chloroform	1	5.0	U
71-55-6	1,1,1-Trichloroethane	1	5.0	U
110-82-7	Cyclohexane	1	5.0	U
56-23-5	Carbon Tetrachloride	1	5.0	U
71-43-2	Benzene	1	5.0	U
107-06-2	1,2-Dichloroethane	1	5.0	U
79-01-6	Trichloroethene	1	5.0	U
108-87-2	Methylcyclohexane	1	5.0	U
78-87-5	1,2-Dichloropropane	1	5.0	U
75-27-4	Bromodichloromethane	1	5.0	U
10061-01-5	cis-1,3-Dichloropropene	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	10	U
108-88-3	Toluene	1	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1	5.0	U
79-00-5	1,1,2-Trichloroethane	1	5.0	U
127-18-4	Tetrachloroethene	1	5.0	U
591-78-6	2-Hexanone	1	10	U
124-48-1	Dibromochloromethane	1	5.0	U
106-93-4	1,2-Dibromoethane	1	5.0	U
108-90-7	Chlorobenzene	1	5.0	U
100-41-4	Ethylbenzene	1	5.0	U
95-47-6	o-Xylene	1	5.0	U
179601-23-1	m,p-Xylene	1	10	U

ORGANIC ANALYSIS DATA SHEET
8260B

TW-5

Laboratory: EnviroSystems, Inc. SDG: UGE0202
 Client: Urban Green Environmental, LLC Project: Stadium Square Property
 Matrix: Water Laboratory ID: 0140202-14 File ID: 0002190-11.D
 Sampled: 02/20/14 14:45 Prepared: 02/24/14 17:26 Analyzed: 02/25/14 22:38
 Solids: Preparation: 8260B Initial/Final: 5 ml / 5 mL
 Batch: 0B42402 Sequence: 0002190 Calibration: 04C0006 Instrument: HP75H

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
1330-20-7	Xylene (Total)	1	10	U
100-42-5	Styrene	1	5.0	U
75-25-2	Bromoform	1	5.0	U
98-82-8	Isopropylbenzene	1	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	5.0	U
541-73-1	1,3-Dichlorobenzene	1	5.0	U
106-46-7	1,4-Dichlorobenzene	1	5.0	U
95-50-1	1,2-Dichlorobenzene	1	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	5.0	U
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U
91-20-3	Naphthalene	1	5.0	U
75-65-0	tert-Butyl Alcohol	1	25	U
108-20-3	Diisopropyl Ether	1	5.0	U
637-92-3	Ethyl tert-butyl ether	1	5.0	U
994-05-8	tert-Amyl methyl ether	1	5.0	U
919-94-8	tert-Amyl ethyl ether	1	5.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	50.0	52.2	104	74 - 121	
1,2-Dichloroethane-d4	50.0	50.6	101	80 - 120	
Toluene-d8	50.0	53.3	107	81 - 117	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	45699	8.045	46585	8.039	
Chlorobenzene-d5	39850	13.052	42007	13.048	
1,4-Dichlorobenzene-d4	20950	15.566	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

TW-8

Laboratory:	<u>Envirosystems, Inc.</u>	SDG:	<u>UGE0202</u>
Client:	<u>Urban Green Environmental, LLC</u>	Project:	<u>Stadium Square Property</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>0140202-15</u>
		File ID:	<u>0002190-12.D</u>
Sampled:	<u>02/20/14 11:15</u>	Prepared:	<u>02/24/14 17:26</u>
		Analyzed:	<u>02/25/14 23:07</u>
Solids:		Preparation:	<u>8260B</u>
		Initial/Final:	<u>5 ml / 5 mL</u>
Batch:	<u>0B42402</u>	Sequence:	<u>0002190</u>
		Calibration:	<u>04C0006</u>
		Instrument:	<u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
75-71-8	Dichlorodifluoromethane	1	5.0	U
74-87-3	Chloromethane	1	5.0	U
75-01-4	Vinyl chloride	1	5.0	U
74-83-9	Bromomethane	1	5.0	U
75-00-3	Chloroethane	1	5.0	U
75-69-4	Trichlorofluoromethane	1	5.0	U
75-35-4	1,1-Dichloroethene	1	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	5.0	U
67-64-1	Acetone	1	23	
75-15-0	Carbon disulfide	1	5.0	U
79-20-9	Methyl acetate	1	5.0	U
75-09-2	Methylene chloride	1	5.0	U
156-60-5	trans-1,2-Dichloroethene	1	5.0	U
1634-04-4	Methyl tert-butyl ether	1	5.0	U
75-34-3	1,1-Dichloroethane	1	5.0	U
156-59-2	cis-1,2-Dichloroethene	1	5.0	U
78-93-3	2-Butanone	1	10	U
67-66-3	Chloroform	1	5.0	U
71-55-6	1,1,1-Trichloroethane	1	5.0	U
110-82-7	Cyclohexane	1	5.0	U
56-23-5	Carbon Tetrachloride	1	5.0	U
71-43-2	Benzene	1	5.0	U
107-06-2	1,2-Dichloroethane	1	5.0	U
79-01-6	Trichloroethene	1	5.0	U
108-87-2	Methylcyclohexane	1	5.0	U
78-87-5	1,2-Dichloropropane	1	5.0	U
75-27-4	Bromodichloromethane	1	5.0	U
10061-01-5	cis-1,3-Dichloropropene	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	10	U
108-88-3	Toluene	1	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1	5.0	U
79-00-5	1,1,2-Trichloroethane	1	5.0	U
127-18-4	Tetrachloroethene	1	5.0	U
591-78-6	2-Hexanone	1	10	U
124-48-1	Dibromochloromethane	1	5.0	U
106-93-4	1,2-Dibromoethane	1	5.0	U
108-90-7	Chlorobenzene	1	5.0	U
100-41-4	Ethylbenzene	1	5.0	U
95-47-6	o-Xylene	1	5.0	U
179601-23-1	m,p-Xylene	1	10	U

ORGANIC ANALYSIS DATA SHEET

8260B

TW-8

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Water</u>	Laboratory ID: <u>0140202-15</u>	File ID: <u>0002190-12.D</u>
Sampled: <u>02/20/14 11:15</u>	Prepared: <u>02/24/14 17:26</u>	Analyzed: <u>02/25/14 23:07</u>
Solids:	Preparation: <u>8260B</u>	Initial/Final: <u>5 ml / 5 mL</u>
Batch: <u>0B42402</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
1330-20-7	Xylene (Total)	1	10	U
100-42-5	Styrene	1	5.0	U
75-25-2	Bromoform	1	5.0	U
98-82-8	Isopropylbenzene	1	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	5.0	U
541-73-1	1,3-Dichlorobenzene	1	5.0	U
106-46-7	1,4-Dichlorobenzene	1	5.0	U
95-50-1	1,2-Dichlorobenzene	1	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	5.0	U
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U
91-20-3	Naphthalene	1	5.0	U
75-65-0	tert-Butyl Alcohol	1	25	U
108-20-3	Diisopropyl Ether	1	5.0	U
637-92-3	Ethyl tert-butyl ether	1	5.0	U
994-05-8	tert-Amyl methyl ether	1	5.0	U
919-94-8	tert-Amyl ethyl ether	1	5.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	50.0	49.2	98	74 - 121	
1,2-Dichloroethane-d4	50.0	47.7	95	80 - 120	
Toluene-d8	50.0	47.3	95	81 - 117	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	44969	8.042	46585	8.039	
Chlorobenzene-d5	41104	13.048	42007	13.048	
1,4-Dichlorobenzene-d4	20762	15.563	22669	15.563	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

8260B

TW-9

Laboratory: <u>Envirosystems, Inc.</u>	SDG: <u>UGE0202</u>	
Client: <u>Urban Green Environmental, LLC</u>	Project: <u>Stadium Square Property</u>	
Matrix: <u>Water</u>	Laboratory ID: <u>0140202-16</u>	File ID: <u>0002190-13.D</u>
Sampled: <u>02/20/14 13:05</u>	Prepared: <u>02/24/14 17:26</u>	Analyzed: <u>02/25/14 23:37</u>
Solids:	Preparation: <u>8260B</u>	Initial/Final: <u>5 ml / 5 mL</u>
Batch: <u>0B42402</u>	Sequence: <u>0002190</u>	Calibration: <u>04C0006</u>
		Instrument: <u>HP75H</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
75-71-8	Dichlorodifluoromethane	1	5.0	U
74-87-3	Chloromethane	1	5.0	U
75-01-4	Vinyl chloride	1	5.0	U
74-83-9	Bromomethane	1	5.0	U
75-00-3	Chloroethane	1	5.0	U
75-69-4	Trichlorofluoromethane	1	5.0	U
75-35-4	1,1-Dichloroethene	1	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	5.0	U
67-64-1	Acetone	1	15	
75-15-0	Carbon disulfide	1	5.0	U
79-20-9	Methyl acetate	1	5.0	U
75-09-2	Methylene chloride	1	5.0	U
156-60-5	trans-1,2-Dichloroethene	1	5.0	U
1634-04-4	Methyl tert-butyl ether	1	5.0	U
75-34-3	1,1-Dichloroethane	1	5.0	U
156-59-2	cis-1,2-Dichloroethene	1	5.0	U
78-93-3	2-Butanone	1	10	U
67-66-3	Chloroform	1	5.0	U
71-55-6	1,1,1-Trichloroethane	1	5.0	U
110-82-7	Cyclohexane	1	5.0	U
56-23-5	Carbon Tetrachloride	1	5.0	U
71-43-2	Benzene	1	5.0	U
107-06-2	1,2-Dichloroethane	1	5.0	U
79-01-6	Trichloroethene	1	5.0	U
108-87-2	Methylcyclohexane	1	5.0	U
78-87-5	1,2-Dichloropropane	1	5.0	U
75-27-4	Bromodichloromethane	1	5.0	U
10061-01-5	cis-1,3-Dichloropropene	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	10	U
108-88-3	Toluene	1	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1	5.0	U
79-00-5	1,1,2-Trichloroethane	1	5.0	U
127-18-4	Tetrachloroethene	1	5.0	U
591-78-6	2-Hexanone	1	10	U
124-48-1	Dibromochloromethane	1	5.0	U
106-93-4	1,2-Dibromoethane	1	5.0	U
108-90-7	Chlorobenzene	1	5.0	U
100-41-4	Ethylbenzene	1	5.0	U
95-47-6	o-Xylene	1	5.0	U
179601-23-1	m,p-Xylene	1	10	U

ORGANIC ANALYSIS DATA SHEET
8260B

TW-9

Laboratory: Envirosystems, Inc. SDG: UGE0202
 Client: Urban Green Environmental, LLC Project: Stadium Square Property
 Matrix: Water Laboratory ID: 0140202-16 File ID: 0002190-13.D
 Sampled: 02/20/14 13:05 Prepared: 02/24/14 17:26 Analyzed: 02/25/14 23:37
 Solids: Preparation: 8260B Initial/Final: 5 ml / 5 mL
 Batch: 0B42402 Sequence: 0002190 Calibration: 04C0006 Instrument: HP75H

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
1330-20-7	Xylene (Total)	1	10	U
100-42-5	Styrene	1	5.0	U
75-25-2	Bromoform	1	5.0	U
98-82-8	Isopropylbenzene	1	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	5.0	U
541-73-1	1,3-Dichlorobenzene	1	5.0	U
106-46-7	1,4-Dichlorobenzene	1	5.0	U
95-50-1	1,2-Dichlorobenzene	1	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	5.0	U
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U
91-20-3	Naphthalene	1	5.0	U
75-65-0	tert-Butyl Alcohol	1	25	U
108-20-3	Diisopropyl Ether	1	5.0	U
637-92-3	Ethyl tert-butyl ether	1	5.0	U
994-05-8	tert-Amyl methyl ether	1	5.0	U
919-94-8	tert-Amyl ethyl ether	1	5.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	50.0	47.9	96	74 - 121	
1,2-Dichloroethane-d4	50.0	46.1	92	80 - 120	
Toluene-d8	50.0	48.8	98	81 - 117	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	45315	8.033	46585	8.039	
Chlorobenzene-d5	39837	13.045	42007	13.048	
1,4-Dichlorobenzene-d4	20230	15.563	22669	15.563	

* Values outside of QC limits

4. GC Organics

FORM 1A-OR
ORGANICS ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

SB-13 0-1

Lab Name: EnviroSystems, Inc.
 Lab Code: ENVSYS Case No.: 0140202
 Analytical Method:
 Matrix: SOIL
 Sample wt/vol: 30.0 (g/mL) g
 % Solids: 86.8
 GC Column: RTXCLP ID: 0.32 (mm)
 GC Column: RTXCLP2 ID: 0.32 (mm)
 Extract Concentrated: (Y/N) Y
 Soil Aliquot (VOA): (uL)
 Heated Purge: Y/N
 Purge Volume: (mL)
 Cleanup Types: Florisil
 Concentration Units: ($\mu\text{g/L}$, $\mu\text{g/kg}$): ug/kg

Contract: 0140202
 MA No.: SDG No.: UGE0202
 Level:
 Lab Sample ID: 0140202-13
 Lab File ID: 0002195-06.d
 Date Received: 02/21/2014
 Date Extracted: 02/25/2014
 Date Analyzed: 03/04/2014
 Extract Volume: 10000 (uL)
 Extraction Type: SONC
 Injection Volume: 0.5
 pH: Dilution Factor: 1.0
 Cleanup Factor: 1

CAS NO.	ANALYTE	CONCENTRATION	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.8	U
72-55-9	4,4'-DDE	3.8	U
72-20-8	Endrin	3.8	U
33213-65-9	Endosulfan II	3.8	U
72-54-8	4,4'-DDD	3.8	U
1031-07-8	Endosulfan sulfate	3.8	U
50-29-3	4,4'-DDT	3.8	U
72-43-5	Methoxychlor	5.3	JP
53494-70-5	Endrin ketone	3.8	U
7421-93-4	Endrin aldehyde	3.8	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U

FORM 1A-OR
 ORGANICS ANALYSIS DATA SHEET
 TARGET ANALYTE LIST

EPA SAMPLE NO.

SB-6 0-1

Lab Name: EnviroSystems, Inc.
 Lab Code: ENVSYS Case No.: 0140202
 Analytical Method:
 Matrix: SOIL
 Sample wt/vol: 30.0 (g/mL) g
 % Solids: 93.7
 GC Column: RTXCLP ID: 0.32 (mm)
 GC Column: RTXCLP2 ID: 0.32 (mm)
 Extract Concentrated: (Y/N) Y
 Soil Aliquot (VOA): (uL)
 Heated Purge: Y/N
 Purge Volume: (mL)
 Cleanup Types: Florisil
 Concentration Units: ($\mu\text{g/L}$, $\mu\text{g/kg}$): ug/kg

Contract: 0140202
 MA No.: SDG No.: UGE0202
 Level:
 Lab Sample ID: 0140202-01
 Lab File ID: 0002195-05.d
 Date Received: 02/21/2014
 Date Extracted: 02/25/2014
 Date Analyzed: 03/04/2014
 Extract Volume: 10000 (uL)
 Extraction Type: SONC
 Injection Volume: 0.5
 pH: Dilution Factor: 1.0
 Cleanup Factor: 1

CAS NO.	ANALYTE	CONCENTRATION	Q
319-84-6	alpha-BHC	1.8	U
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	3.5	U
72-55-9	4,4'-DDE	3.5	U
72-20-8	Endrin	3.5	U
33213-65-9	Endosulfan II	3.5	U
72-54-8	4,4'-DDD	3.5	U
1031-07-8	Endosulfan sulfate	3.5	U
50-29-3	4,4'-DDT	7.3	
72-43-5	Methoxychlor	18	U
53494-70-5	Endrin ketone	3.5	U
7421-93-4	Endrin aldehyde	3.5	U
5103-71-9	alpha-Chlordane	1.8	U
5103-74-2	gamma-Chlordane	1.8	U
8001-35-2	Toxaphene	180	U

Certificate of Analysis

Sample #: L14021498-01	PrePrep Method: N/A	Instrument: HP17
Client ID: SB-6 0-1	Prep Method: METHOD	Prep Date: 03/04/2014 08:46
Matrix: Soil	Analytical Method: 8151A	Cal Date: 01/30/2014 19:51
Workgroup #: WG465741	Analyst: ECL	Run Date: 03/05/2014 21:57
Collect Date: 02/20/2014 14:35	Dilution: 1	File ID: 17G16601.R
Sample Tag: 01	Units: ug/kg	Percent Solid: 81.1

Analyte	CAS #	Result	Qual	RL	MDL
2,4-D	94-75-7		ND	37.4	18.7
2,4-DB	94-82-6		ND	37.4	18.7
2,4,5-T	93-76-5		ND	3.74	1.87
2,4,5-TP (Silvex)	93-72-1		ND	2.81	1.40
Dalapon	75-99-0		ND	93.6	46.8
Dicamba	1918-00-9		ND	3.74	1.87
Dichloroprop	120-36-5		ND	37.4	18.7
Dinoseb	88-85-7		ND	18.7	9.36
MCPA	94-74-6		ND	3740	1870
MCPP	93-65-2		ND	3740	1870
Pentachlorophenol	87-86-5		ND	3.74	1.87
Surrogate	Recovery	Lower Limit	Upper Limit	Q	
2,4-Dichlorophenylacetic acid	52.0	25	110		
ND	Not detected at or above the reporting limit (RL/MDL).				

Sample #: L14021498-02	PrePrep Method: N/A	Instrument: HP17
Client ID: SB-13 0-1	Prep Method: METHOD	Prep Date: 03/04/2014 08:46
Matrix: Soil	Analytical Method: 8151A	Cal Date: 01/30/2014 19:51
Workgroup #: WG465741	Analyst: ECL	Run Date: 03/05/2014 22:23
Collect Date: 02/20/2014 15:50	Dilution: 1	File ID: 17G16602.R
Sample Tag: 01	Units: ug/kg	Percent Solid: 83.2

Analyte	CAS #	Result	Qual	RL	MDL
2,4-D	94-75-7		ND	42.4	21.2
2,4-DB	94-82-6		ND	42.4	21.2
2,4,5-T	93-76-5		ND	4.24	2.12
2,4,5-TP (Silvex)	93-72-1		ND	3.18	1.59
Dalapon	75-99-0		ND	106	53.0
Dicamba	1918-00-9		ND	4.24	2.12
Dichloroprop	120-36-5		ND	42.4	21.2
Dinoseb	88-85-7		ND	21.2	10.6
MCPA	94-74-6		ND	4240	2120
MCPP	93-65-2		ND	4240	2120

Certificate of Analysis

Analyte	CAS #	Result	Qual	RL	MDL
Pentachlorophenol	87-86-5		ND	4.24	2.12
Surrogate	Recovery	Lower Limit	Upper Limit	Q	
2,4-Dichlorophenylacetic acid	39.6	25	110		
ND	Not detected at or above the reporting limit (RL/MDL).				

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: STADIUM SQUARE

Project Number: N/A

Urban Green Environmental, LLC

Project Manager: Kathy Christensen

1700 Beason St

Report Issued: 02/26/14 16:02

Baltimore MD, 21230

CLIENT SAMPLE ID:	SG-7	SG-8	SG-9
LAB SAMPLE ID:	4022105-01	4022105-02	4022105-03
SAMPLE DATE:	02/21/14	02/21/14	02/21/14
RECEIVED DATE:	02/21/14	02/21/14	02/21/14
MATRIX	Units	Vapor	Vapor

VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (Vapor)

Compound	Units	SG-7	SG-8	SG-9
Acetone	ug/m ³	1280 [2]	79.9	128
Benzene	ug/m ³	4.34	5.88	6.01
Benzyl chloride	ug/m ³	<4.00	<4.00	<4.00
Bromodichloromethane	ug/m ³	<5.20	<5.20	<5.20
Bromoform	ug/m ³	<8.40	<8.40	<8.40
Bromomethane	ug/m ³	<3.12	<3.12	<3.12
1,3-Butadiene	ug/m ³	<1.76	<1.76	<1.76
Carbon disulfide	ug/m ³	<2.48	8.10	17.1
Carbon tetrachloride	ug/m ³	<5.20	<5.20	<5.20
Chlorobenzene	ug/m ³	<3.68	<3.68	<3.68
Chloroethane	ug/m ³	<2.12	<2.12	<2.12
Chloroform	ug/m ³	<3.88	<3.88	4.88
Chloromethane	ug/m ³	1.65	<1.64	<1.64
3-Chloropropene	ug/m ³	<2.52	<2.52	<2.52
Cyclohexane	ug/m ³	<2.76	18.6	36.6
Dibromochloromethane	ug/m ³	<5.20	<5.20	<5.20
1,2-Dibromoethane (EDB)	ug/m ³	<5.60	<5.60	<5.60
1,2-Dichlorobenzene	ug/m ³	<4.80	<4.80	<4.80
1,3-Dichlorobenzene	ug/m ³	<4.80	<4.80	<4.80
1,4-Dichlorobenzene	ug/m ³	<4.80	<4.80	<4.80
Dichlorodifluoromethane	ug/m ³	<3.96	<3.96	<3.96
1,1-Dichloroethane	ug/m ³	<3.24	<3.24	<3.24
1,2-Dichloroethane	ug/m ³	<3.24	<3.24	<3.24
1,1-Dichloroethene	ug/m ³	<3.16	<3.16	<3.16
cis-1,2-Dichloroethene	ug/m ³	<3.16	<3.16	<3.16
trans-1,2-Dichloroethene	ug/m ³	<3.16	<3.16	<3.16
1,2-Dichloropropane	ug/m ³	<3.68	<3.68	<3.68
cis-1,3-Dichloropropene	ug/m ³	<3.64	<3.64	<3.64
trans-1,3-Dichloropropene	ug/m ³	<3.64	<3.64	<3.64
1,4-Dioxane	ug/m ³	<2.88	<2.88	<2.88
Ethyl acetate	ug/m ³	<2.88	<2.88	<2.88
Ethylbenzene	ug/m ³	<3.48	<3.48	<3.48
4-Ethyltoluene	ug/m ³	<3.92	<3.92	5.11
Freon 113	ug/m ³	<6.00	<6.00	<6.00
Freon 114	ug/m ³	<5.60	<5.60	<5.60
n-Heptane	ug/m ³	3.44	78.4	14.1

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Analyte is a possible laboratory contaminant

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: STADIUM SQUARE

Project Number: N/A

Urban Green Environmental, LLC

Project Manager: Kathy Christensen

1700 Beason St

Report Issued: 02/26/14 16:02

Baltimore MD, 21230

CLIENT SAMPLE ID:	SG-7	SG-8	SG-9
LAB SAMPLE ID:	4022105-01	4022105-02	4022105-03
SAMPLE DATE:	02/21/14	02/21/14	02/21/14
RECEIVED DATE:	02/21/14	02/21/14	02/21/14
MATRIX	Units Vapor	Vapor	Vapor

VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)

Hexachlorobutadiene	ug/m ³	<8.40	<8.40	<8.40
Hexane	ug/m ³	<56.0	280	<56.0
2-Hexanone	ug/m ³	<3.28	18.8	<3.28
Isopropylbenzene (Cumene)	ug/m ³	<4.40	<4.40	<4.40
Methyl tert-butyl ether (MTBE)	ug/m ³	<2.88	<2.88	<2.88
Methylene chloride	ug/m ³	86.4 [2]	<56.0	<56.0
Methyl ethyl ketone (2-Butanone)	ug/m ³	6.49	4.72	13.4
Methyl isobutyl ketone	ug/m ³	4.75	3.60	14.7
Naphthalene	ug/m ³	<4.40	<4.40	<4.40
Propene	ug/m ³	<1.36	<1.36	389 [1]
n-Propylbenzene	ug/m ³	<3.92	<3.92	<3.92
Styrene	ug/m ³	74.5	<3.40	<3.40
1,1,2,2-Tetrachloroethane	ug/m ³	<5.60	<5.60	<5.60
Tetrachloroethene	ug/m ³	<5.60	<5.60	<5.60
Tetrahydrofuran	ug/m ³	<2.36	<2.36	<2.36
Toluene	ug/m ³	10.9	3.01	4.52
1,2,4-Trichlorobenzene	ug/m ³	<6.00	<6.00	<6.00
1,1,1-Trichloroethane	ug/m ³	<4.40	<4.40	<4.40
1,1,2-Trichloroethane	ug/m ³	<4.40	10.5	<4.40
Trichloroethene	ug/m ³	<4.40	<4.40	<4.40
Trichlorofluoromethane (Freon 11)	ug/m ³	<4.40	<4.40	<4.40
1,2,4-Trimethylbenzene	ug/m ³	<3.92	<3.92	<3.92
1,3,5-Trimethylbenzene	ug/m ³	<3.92	<3.92	<3.92
2,2,4-Trimethylpentane	ug/m ³	7.10	<3.72	418
Vinyl acetate	ug/m ³	2.82	<2.80	<2.80
Vinyl bromide	ug/m ³	<3.48	<3.48	<3.48
Vinyl chloride	ug/m ³	<2.04	<2.04	<2.04
o-Xylene	ug/m ³	<3.48	<3.48	<3.48
m- & p-Xylenes	ug/m ³	<6.80	<6.80	<6.80
4-Bromofluorobenzene	[surr]	97.3%	102%	109%

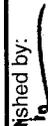
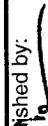
1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Analyte is a possible laboratory contaminant

Air Analysis by TO-15

Client Contact Information		Project Manager: Kathy Schuster		Carrier:		1 of 1 COCs									
Company: Urban Green Environmental		Phone: 410-244-7215		Samplers Name(s)		Analysis/ Matrix									
Address: 1700 Beach Street		Site Contact: Kathy Schuster				TO-15 FULL LIST									
City/State/Zip: Baltimore, MD 21280						TO-15 ABRVIATED LIST									
Phone: 410-244-7215						Indoor / Ambient Air									
FAX:						Soil Gas / Subslab									
Project Name: Stadium Square		Analysis Turnaround Time													
Site: Baltimore, MD 21230		Standard (Specify) <input checked="" type="checkbox"/>													
PO #		Rush (Specify)													
Client Sample ID	Sample Date Start	Time Start (24 hr clock)	Sample Date Stop	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size (L)	TO-15 FULL LIST	TO-15 ABRVIATED LIST	Indoor / Ambient Air	Soil Gas / Subslab	Comments
JG-7	2/21/14	0805	2/21/14	1552	-30	-13		J-9	101	1.4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4022105-01
JG-8	2/21/14	0750	2/21/14	1547	-30	-1		J-5T	083	1.4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	-02
JG-9	2/21/14	0755	2/21/14	1542	-30	0		J-5T	037	1.4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	-03

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time:
	2/21/14 1624		2/21/14 1624
Samples Relinquished by:	Date/Time:	Received by:	Date/Time:
	2/21/14 1624		2/21/14 1624
Relinquished by:	Date/Time:	Received by:	Date/Time: