RT Environmental Services, Inc.

FORMER SCHOLLER, INC. SITE
eFACTS PF NO. 836850
3320 COLLINS STREET A/K/A
2101-2109 EAST WESTMORELAND STREET
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY, PENNSYLVANIA 19134

REMEDIAL INVESTIGATION REPORT/CLEANUP PLAN

Submitted To:

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Table of Contents

1.0 Executive Summary 1

2.0 Introduction 2

3.0 Site Information 3
- 3.1 Site Description 3
- 3.2 Proposed Re-development Area 3
- 3.3 Topographic Setting 4
- 3.4 Site History 4
- 3.5 Site Geological Conditions 5
- 3.6 Site Hydrological Conditions 5
  - 3.6.1 Surface Water 5
  - 3.6.2 Groundwater 5
  - 3.6.3 Supply Wells/Potable Water Inventory 6
- 3.7 Non-Use Aquifer Determination 6

4.0 Historical Investigations & Remediation Activities 7
- 4.1 Tank Removal/Closure Activities 7
  - 4.1.1 10,000-Gallon Fuel Oil UST Closure 7
- 4.2 Follow-up Soil and Groundwater Investigation 8
- 4.3 Investigation Work Plan 10
- 4.4 Act 2 Final Report 11

5.0 Recent Site Investigations 12
- 5.1 Subsurface Soil Borings 12
  - 5.1.1 Western Portion of the Property (Old Room 01 & 02) 12
  - 5.1.2 Process Area along Amber Street 13
  - 5.1.3 Office Area (Former Scholler Laboratory) 13
  - 5.1.4 Soil Sample Collection 14
  - 5.1.5 Analytical Results (Soil) 14
  - 5.1.6 Proposed Remedial Activity 14
- 5.2 Groundwater Investigation 15
  - 5.2.1 Well Construction Details 15
  - 5.2.2 Waste Materials 17
  - 5.2.3 Groundwater Monitoring 17
  - 5.2.4 Follow-up Groundwater Monitoring 17
- 5.3 Fate and Transport Model 18
  - 5.3.1 Groundwater and Flow Velocity 18
  - 5.3.2 Fate and Transport Analysis 19

6.0 Soil Gas Sampling 21
- 6.1 Onsite Soil Gas Sampling 22
- 6.2 On Site Sub-Slab Sample Results 22
- 6.3 Offsite Soil Gas Sampling 22
- 6.3 Off Site Sub-Slab Sample and Indoor Air Results 22

7.0 Site Conceptual Model 23

7.1 Migration Pathways 24
7.2 Potential Receptors and Completed Exposure Pathways 24

8.0 Ecological Screening 25

9.0 Public Involvement Meeting 27

10.0 Conclusions and Recommendations 28

11.0 Remedial Action Plan 29
11.1 Remedial Action Options 29
11.1.1 Proposed Alternatives 29
11.1.2 Remedy Selection Criteria 30
11.1.3 Alternative Analysis 30
11.1.4 Conceptual Design 30
11.1.5 Impacted Soil Removal Activities 30
11.2 Groundwater/Surface Water Monitoring Activities 31
11.3 Analytical Methods 31
11.4 Attaining Acceptable Soil Concentrations 32
11.5 Attaining Acceptable Groundwater Concentrations 32
11.6 Vapor Barrier (Building 2) 33
11.6.1 Construction Inspection 34
11.7 Indoor Air Sampling (Building 1) 34
11.7.1 Sample Point Installation 34
11.7.2 Sample Point Checks and Collection 34
11.7.3 Sample Analysis 34
11.7.4 Data Evaluation 35

12.0 Contact Information 35
12.1 Professional Seal 36

Figures

Figure 1 Site Location Map
Figure 2 Geologic Map
Figure 3 Soil boring Location Map
Figure 4 Groundwater Flow Map (January 2019 – Shallow)
Figure 5 Groundwater Flow Map (January 2019 – Deep)
Figure 6 Groundwater Flow Map (February 2019 – Shallow)
Figure 7 Groundwater Flow Map (February 2019 – Deep)
Figure 8 Well Receptor Map
Figure 9 TCE Contour Map
Figure 10 Offsite Sub-Slab and Indoor Air Location Map

Tables

Table 1 GeoProbe Soil Sample Results (October 2018)
Table 2 Baseline Groundwater Data (January & February 2019)
Table 3 Groundwater Elevations

Table 4 Sub-Slab Soil Vapor Screening Data
Table 5 Offsite Sub-Slab and Indoor Air Results (January & February 2022)

Appendices

Appendix A Analytical Reports (Groundwater, Soil, Soil/Gas)
Appendix B Field Activity Logs
Appendix C Soil Boring Logs and Sub-Slab Logs
Appendix D Well Construction Logs
Appendix E Quick Domenico Data
Appendix F Re-development Plans
Appendix G Prior Environmental Reports
Appendix H PADEP Correspondence (NIR, Municipal, Legal Advertisements)
Appendix I Public Involvement Plan (Municipal, Legal Advertisement, RT Web Site Documents)
Appendix J PDNI Search Results

1 Executive Summary

On behalf of the current property owner **DGPM1, LLC**, **RT Environmental Services Inc. (RT)** has prepared this **Remedial Investigation Report** - **Cleanup Plan (RIR/CP)** for a portion of the former Scholler, Inc. property which is located at 3320 Collins Street in Philadelphia, Pennsylvania (Site). The purpose of this document is to summarize prior Site investigations and remediation activities completed at this property along with a request for a change in the remedial standards previously attained to allow for a portion of the Site to be used for residential use. This RIR/CP includes available Site historical information, historical investigation and remediation activities, recent Site investigations, along with proposed remedial actions designed to demonstrate attainment of a combination of Statewide Health Standards (SHS) and Site-Specific Standards (SSS) for residential use.

Environmental investigations have been conducted at the former Scholler, Inc. property by RT since 1993 when two underground storage tanks (USTs) were removed from an open yard area on Amber Street (Tanks 002 and 003) on January 4, 1993. Additional work at the facility included a Non-use Aquifer determination for the property which was approved by the Pennsylvania Department of Environmental Protection (PADEP) on May 13, 1998. Upon completion of additional soil and groundwater attainment monitoring, a Combined Remedial Investigation and Act 2 Final Report was submitted in early October of 2002 and subsequently approved. This final report demonstrated attainment of a SSS for number (No.) 2, 4 and 6 fuel oil constituents in soil and groundwater. This Act 2 approval prohibits any form of groundwater utilization and restricts property development to a non-residential use.

Due to on-going revitalization efforts in the Kensington section of Philadelphia, the subject property has been re-zoned as CMX-1 (small scale neighborhood commercial and residential mixed use). Proposed redevelopment plans for a portion of the subject property (2101-2109 E. Westmoreland Street) calls for the demolition of the existing warehouse area (along Amber Street and fronting E. Westmoreland Street) followed by the construction of a new 4-story (48-unit) structure. The shell of the existing 4-story building fronting Amber Street will remain with the interior renovated with 11

contemporary apartment units. All new construction will be fitted with vapor barriers and passive venting systems incorporated into the building design. These engineering controls will prevent any potential vapor intrusion exposure scenarios to the occupants of the buildings.

This report was developed in accordance with applicable sections of the Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Title 25, Chapter 250) and by referencing the Land Recycling Program Technical Guidance Manual (DEP ID: 261-0300-101) which was approved for use on January 19, 2019. Considering the above, as detailed in this RIR/CP, site soil and groundwater will be further evaluated and/or remediated in order to demonstrate attainment of a combination of SHS and SSS for residential use as outlined in Act 2 for both groundwater and soil.

2 Introduction

DGPM1, LLC retained RT to prepare this RIR/CP for a portion of the former Scholler, Inc. facility, located at 2101-2109 E. Westmoreland Street in the Kensington section of Philadelphia, Pennsylvania. The purpose of this investigation was to determine the nature and extent of petroleum hydrocarbon impacts to the subsurface, document the most recent Site investigation activities, evaluate the potential risks posed by residual hydrocarbons in both groundwater and soil, and petition the PADEP for a change in land use (non-residential to residential).

According to a previous Act 2 Final Report approved on October 28, 2002, the property had been restricted to non-residential use due to impacts of residual petroleum hydrocarbons from a prior UST release. Through this report, DGPM1, LLC is requesting a modification to the current use restriction in order to allow for residential development at the Site.

In a letter dated August 21, 2019, the PADEP issued an Environmental Covenant Notice for Scholler, Inc. to Arawak Holding Corporation (refer to **Appendix I**). The PADEP's record review found that the final report approval in 2002 was based upon the property owner's implementation of the following activity and use limitations:

1. Any concrete, asphalt or pavement surfaces used to cap contamination must be preserved.
2. Groundwater use is prohibited; and,
3. The property shall be used solely for non-residential purposes.

The Act 2 approval required the owner of the record to record a notice on the deed documenting the activity and use limitations. This Environmental Covenant will be properly addressed concurrently upon approval of a new Act 2 Final Report followed by the redevelopment of the Site.

3 Site Information

To obtain information regarding the physical Site setting, RT completed a review of reasonably ascertainable published information regarding the geologic and topographic characteristics of the Site. Information reviewed included topographic and geologic maps, geologic reports, and online soil reports. The Site setting is summarized in the following sections.

3.1 Site Description

The Site is located 3320 Collins Street in the Kensington section of the City of Philadelphia. The approximate Site location coordinates are latitude 39° 59' 38.31" North and longitude 75° 06' 23.3" West. The Site is bounded by Collins Street to the southeast, Amber Street to the northwest, E. Westmoreland Street to the southwest, and residential residences to the northeast. Vacant lots are located on the north and south portions of the property. The remaining portions of the Site are occupied by vacant warehouse structures although the four-story brick building on Collins Street (former Scholler, Inc. office/lab) is currently being renovated by the owner. A Site location map is provided as **Figure 1**.

3.2 Proposed Re-Development Area

The portion of the property that will undergo redevelopment is located at 2101-2109 E. Westmoreland Street. According to Harman Deutsch Architecture Site drawings, which are found in **Appendix F**, the lot to be redeveloped consists of 17,085 square feet (0.3922-acres) and is currently occupied with a brick warehouse building (±10,995-

square foot footprint) which will be razed while the existing 4-story structure (±3,570-square foot) will be renovated. The 4-story structure (Building 1) will be gutted and refurbished with 11 apartment units while the brick warehouse (Building 2) will consist of new construction containing 48 apartment units in the 4-story configuration. Both buildings will front on Amber Street while Building 2 will also maintain frontage on E. Westmoreland Street.

3.3 Topographic Setting

According to the Camden, NJ-PA, United States Geological Survey (*USGS*) 7.5-minute series topographic quadrangle map (2013), the Site is located at an elevation of approximately 20-feet above mean sea level (*msl*). Site topography around the property is generally flat with all surface drainage being directed to municipal stormwater sewers. The closest surface water body to the project Site is Frankford Creek, located approximately 1.1-miles east of the Site, while the Delaware River is situated approximately 1.2-miles south of the subject property.

3.4 Site History

The property is located in an area of the City that was considered to be a residential community prior to 1930. The original Scholler Brothers facility was constructed prior to 1940 as a small soap factory. As the operations grew, the building was later expanded on several occasions up through 1940. As a formerly residential tract, the former Scholler property was comprised of what were a number of individual parcels owned by private parties. Most of the subject property was acquired in pieces by Mr. Adolph Scholler, and conveyed to Scholler Brothers, Inc., on July 8, 1930. Additional parcels on the northeast end of the facility were later acquired by Scholler Brothers, Inc., from additional private parties, with approximately half of the present warehouse (garage) area obtained from Owen Letter's Sons, Inc. on April 28, 1939. Scholler Brothers was later renamed Scholler, Inc.

Scholler relocated most of the facility operations, except for a second-floor laboratory and office space, to an off-site location during the 1980's. A portion of the manufacturing area was then leased for a time to a tenant who manufactured flooring adhesives. As of 1998, the building was vacant, except for the newest portion of the facility, which housed the office and lab space (second floor) and parking area on the first floor. Utilities, including the electrical room and boiler room, were located in the older portion of the

facility. The Site was subsequently purchased from Scholler, Inc. by Arawak Holding Corporation in 1998. As of 2001, the owner was redeveloping the Site to be used as a garment assembly facility (Masudo Apparel Group, Inc.) which only operated for a short period of time. A majority of the facility is now vacant with a portion of the four-story brick building on Collins Street undergoing renovations by the owner. The property was transferred from Arawak to DGPM1, LLC on October 25, 2019.

3.5 Site Geological Conditions

According to the "Atlas of Preliminary Geologic Quadrangle Maps of Pennsylvania," Camden, NJ-PA Quadrangle (Page 94), the site overlies the Quaternary-age Trenton Gravel of the Coastal Plain physiographic province. The Trenton Gravel Formation is described as a gray or pale reddish-brown, very gravelly sand interstratified with cross-bedded sand and clay-silt beds and includes area of Holocene-age alluvium and swamp deposits ("Geologic Map of Pennsylvania," 1980). The Geologic Map is presented as **Figure 2**.

Based on soils encountered during the deep monitoring well drilling activities at the Site, Site soils generally consist of light to medium-brown silt and sand, and some gravel to approximately 36-feet below ground surface (bgs). Bedrock was encountered at 36-feet bgs in MW-16D, 37-feet bgs in well MW-18D, and 42-feet bgs in MW-19D. Bedrock consists of a dark to light gray weathered schist and the dominant visible mineral observed was muscovite. At some soil boring and monitoring well locations, inert fill (cut stone, brick, slag, silt clay) was encountered from the surface down to approximately 10-feet bgs. This appears to be historic fill brought to the Site when the original buildings were constructed.

3.6 Site Hydrogeological Conditions

3.6.1 Surface Water

The Site is located in an urban setting where surface runoff is directed to municipal storm water inlets and conveyed to either a sewage disposal treatment facility or is directly discharged to a receiving stream. The primary surface water discharge point is the Delaware River, situated approximately 1.2-miles south of the subject property while the secondary surface water discharge point is the Frankford Creek located approximately 1.1-miles east of the Site (**Figure 1**).

3.6.2 Groundwater

Regional groundwater flow is typically to the south, towards the Delaware River. Past experience in this area of Philadelphia has shown that shallow groundwater flow gradients are usually very shallow, and flow directions may vary somewhat from what may typically be expected. This is probably due to the regional occurrence of fill and re-worked soil, in conjunction with the very flat topography, and high percentage of capped land (by roadways, parking lots, sidewalks, buildings, etc.) in urban areas.

Groundwater beneath the site was encountered at approximately 12.0 to 15.35 feet below grade, as measured in on-site monitoring wells during January and February 2019 (the date of the two most recent groundwater sampling events). The relative groundwater elevations in the on-site wells were calculated using the measured depths to groundwater relative to well casing elevations. Groundwater elevation contour maps using the January 2, 2019 and the February 22, 2019 data (both shallow and deep wells) are presented as **Figures 4 & 6** (Shallow) and **5 & 7** (Deep). Based on these maps, the groundwater flow direction beneath the site is to the south-southeast. This is generally consistent with the observed site topography and expected flow direction towards the Delaware River.

3.6.3 Supply Well/Potable Water Well Inventory

To assess potential groundwater receptors in the area, RT completed an updated review (April 2020) of available state water well database information using the Pennsylvania Department of Conservation Natural Resources (*PADCNR*) online Pennsylvania Groundwater Information System (*PaGWIS*). According to information included in this database, there are no industrial or potable supply wells located within a ½-mile radius of the Site. **Figure 8** – *Well Receptor Map,* depicts the location of the Site in relation to the ½-mile radius investigated. The property owner stated that all newly constructed apartment units will be connected to Philadelphia Water Department's municipal water system.

3.7 Non-Use Aquifer Determination

A Non-use Aquifer designation petition was submitted to the Department on April 16, 1998. This petition addressed the requirements of § 250.303 of the Land Recycling Program regulations and was approved on May 13, 1998. This authorization allows the Non-use Aquifer medium-specific concentrations (MSCs) of the SHS to be used for

groundwater in the surrounding aquifer. Based on the results of the supply well/potable water well inventory assessment, no new wells have been constructed within a ½-mile radius of the subject property since the Non-use Aquifer designation was approved in 1998.

4 Historical Investigations & Remediation Activities

4.1 Tank Removal/Closure Activities

Prior to RT's Act 2 involvement at the Site, the only environmentally related activity known to have been conducted at the property (as obtained from RT file reports) were as follows:

- The in-situ closure of a 1,500-gallon fuel oil UST (Tank 004), used to fuel the Dowtherm boiler, by filling with concrete circa 1960. No soil samples were collected; however, the tank was reported as being only a few years old at the time of closure. Soil samples collected by RT during subsequent Phase II activities indicated no evidence of contamination.
- Two USTs located in an open yard area on Amber Street (Tanks 002 and 003) were removed by RT on January 4, 1993. Based on soil samples collected at the time of their removal, no evidence of a release was detected from either UST. A copy of the tank closure report was previously submitted to PADEP on February 3, 1993.

In December 1997, RT was retained by Scholler, Inc. to assess environmental liabilities at the 3320 Collins Street property and to complete a soil and groundwater investigation. In addition, the scope of work included the preparation of an Act 2 Final Report for the property. RT performed Phase I-II investigations at the Site in preparation for the sale or charitable donation of the property. A total of 10 registered aboveground storage tanks (ASTs) and 4 registered USTs were identified as having historically been present at the Site. Additional unregulated tanks, including mixing tanks and other ASTs were also found. The only environmental issue, related to the tanks, identified during these investigations was a 10,000-gallon fuel oil UST which was found to have leaked.

4.1.1 10,000-Gallon Fuel Oil UST Closure

Subsurface drilling activities, conducted by RT and further discussed in **Section 4.2**, in early 1998 found that the 10,000-gallon fuel oil UST had released product to soils and groundwater based on the results of soil borings placed around the perimeter of the tank. The release was reported and preparations were made to have the tank permanently closed in-place. It should be noted that the UST was located in a portion of the property that is not included in the proposed re-development plan. This information is being provided as historic background information only.

RT conducted oversight on the in-situ closure of the 10,000-gallon UST on May 7, 1998. This tank was found to be registered with the PADEP as an unregulated UST. According to Scholler records, it was originally installed on January 1, 1935 prior to building construction. A City of Philadelphia Operations permit was obtained for the closure operation. No soil excavation was conducted as the tank was located beneath the first floor of the lab/office building making equipment access impractical without razing the structure.

It was noted in the project file that the access port to the tank was opened and the tank interior was inspected, by RT personnel and a representative of the City of Philadelphia Fire Inspectors' office, to verify that it had previously been drained of product and properly cleaned. No residual product or other materials were observed to be present within the tank. Upon approval by the inspector, the tank was filled with a lean concrete mixture to ensure proper filling of all voids. The UST and access port were filled to approximately 1.5-feet bgs in order to allow for a small degree of settling within the tank. In total, approximately 50-cubic yards of concrete were used to fill the tank. Following the closure, the manhole above the access port was replaced to ensure a proper seal which was level with the concrete floor.

4.2 Soil and Groundwater Investigations

Subsurface drilling activities found that the 10,000-gallon fuel oil UST had released product to soils and groundwater based on the results of soil borings conducted around the perimeter of this tank. Additional soil delineation throughout the office and lab building’s perimeter was completed, and none of the analyzed compounds were detected above their applicable non-residential MSC’s.

Four monitoring wells (MW-1, MW-2, and MW-3, and MW-4) were installed on February 10, 1998, via hollow-stem auger drilling method, to assess any impact to groundwater. The depth of these wells was approximately 30-feet bgs with a screened interval from 5-30-feet bgs. No bedrock was encountered in any of the wells. Two groundwater sampling events were completed as part of the Remedial Investigation. Results of these sampling events showed exceedances of PADEP MSCs for several fuel oil parameters in monitoring well MW-4, the source area well.

The property was entered into the Act 2 Land Recycling Program in April 1998. A well search for any potentially sensitive groundwater and surface water receptors was completed at that time. No nearby receptors were found, and RT petitioned the PADEP for a Non-Use Aquifer designation on April 16, 1998. This submission addressed the requirements of § 250.303 of the Land recycling Program regulations and was approved on May 13, 1998.

The Phase I-II studies conducted at the Site revealed the following:

- The leaking 10,000-gallon Fuel Oil UST was considered to be an area of environmental impact;
- No public or private water supply wells were present within a one-mile radius of the site; and,
- The depth to ground water was found to be 14 to 17-feet bgs with a groundwater flow direction from the north to the south.

An additional six groundwater monitoring events were completed at the Site using three of the four monitoring wells (MW-1, MW-2, and MW-3) as required under Act 2 guidelines. All samples were analyzed for fuel oil parameters. Monitoring well MW-2 was destroyed during site clearing activities. Therefore, only six sampling rounds were completed for this well. Groundwater sampling results indicated detected levels of several fuel oil compounds above their respective MSCs in the source area monitoring well (MW-4), as well as free product. No fuel oil constituents were detected at concentrations exceeding their respective MSCs in samples collected from the Point of Compliance (POC) monitoring wells (MW-1, MW-2, and MW-5) in the five most recent sampling events.

Due to the presence of free product, a Site-Specific Standard was selected as an attainment goal. The Site was considered to be non-residential and zoned commercial.

Remediation of groundwater at the source area was attempted by pumping free product from monitoring well MW-4. RT removed product and contaminated groundwater with a downhole pumping system which was initiated in late 1998. The system was ineffective as a result of the high viscosity of the free product. A total of approximately 7.5-gallons of weathered product was recovered prior to cessation of pumping.

4.3 Investigation Work Plan

Additional investigative work was completed at the Site due to the presence of free product in monitoring well MW-4. Scholler, Inc. submitted a Work Plan for the facility on October 25, 2001 which was reviewed and commented on by the PADEP (November 13, 2001). A Supplemental Remedial Work Plan describing the completed work was submitted to the PADEP in January 2002. The Supplemental Remedial Work Plan tasks completed at the Site were as follows:

- On January 3, 2002, RT collected a free product sample from monitoring well MW-4 and submitted it to Freidman & Bruya, Inc. for analysis. Results determined that the material was consistent with No. 2, 4, and 6 fuel oil as well as Bunker C fuel.
- On January 9, 2002, RT installed four new monitoring wells in the downgradient direction (MW-5, MW-6, MW-7 & MW-8). These wells were initially sampled on February 6, 2002. Results found no concentrations of the contaminants of concern above their respective laboratory detection limits.
- From January 31 through February 7, 2002, RT installed GeoProbe soil borings at the Site, adjacent to the UST, to further delineate the horizontal and vertical extent of the free product impact to soil and groundwater. Additionally, RT installed five piezometers (MW-9 through MW-13) in the borings to measure any fluctuations in free product thickness as well as to collect vapor samples. On February 6-7, 2002 and July 19, 2002, RT conducted soil vapor sampling using piezometers and Summa canisters. Five canisters were submitted to Lancaster Laboratories, Inc. for analysis of volatile organics. Results found detectible concentrations of petroleum compounds. Since the area of soils impact is capped

by a six-inch concrete slab, the pathway is eliminated and soil gas was not considered to be of further concern at that time.

- Groundwater samples were also collected from all monitoring wells except MW-2 (collapsed) and MW-4 (which was clogged with free product) on February 6, 2002. Laboratory data indicated that fuel oil constituents were non-detect in the POC monitoring wells.
- On March 20, 2002, to help demonstrate attainment in the tank release impact area, RT installed eight soil borings and submitted five soil samples for analysis. Samples were analyzed for PADEP No. 2, ,4 and 6 fuel oil parameters. Laboratory results indicated that some target analytes were detected with naphthalene being the only compound reported with elevated concentrations

Free product was documented as being present at the Site and was concluded not to present a risk. Attainment under the SSS where free product is present on Site is permissible for the following reasons.

- free product has never been observed in any of the POC wells,
- there is no surface water discharge point, and
- all points of exposure have been eliminated through use of a pathway elimination evaluation, as discussed below.

4.4 Act 2 Final Report

An Act 2 final report was submitted to the PADEP and approved on October 28, 2002 (**Appendix G**). The final report approval was based upon the property owner's implementation of the following activity and use limitations:

1. any concrete, asphalt or pavement surfaces used to cap contamination must be preserved;
2. groundwater use is prohibited; and,
3. the property shall be used solely for nonresidential purposes.

The PADEP notified Arawak Holding Corporation, on August 21, 2019 that the property lacks the required deed notice, and an environmental covenant will need to be submitted to the PADEP for review (**Appendix H**). This issue will be properly addressed concurrently upon approval a new Act 2 Final Report followed by redevelopment of the site.

5 Recent Site Investigations

The site previously obtained a site-specific non-residential soil standard and a non-use aquifer statewide health standard for groundwater related to a petroleum release from a heating oil UST. However, other contamination (chlorinated solvents) was identified in soil borings during the most recent subsurface investigation conducted in 2018. The chlorinated solvents were not part of the previous PADEP Act 2 approval.

5.1 Subsurface Soil Borings

Prior to initiating any of the intrusive work, RT completed a PA One Call subsurface utility notification. RT proceeded to direct the installation of fifteen (15) soil borings on October 2 & 3, 2018 using a combination of a track mounted 54LT GeoProbe direct push unit (used to access various points in the building with a minimum 36-inch width of clearance) and a GeoProbe Model 7822DT for the work conducted in areas of general clearance on October 3, 2018.

5.1.1 Western Portion of the Property (Old Room 01 & 02)

On October 2, 2018 drilling was initiated in the western portion of the property as follows:

- Soil borings SB-300 through SB-304 were drilled to refusal which varied from 4 to 9-feet bgs. Borings SB-300, SB-301 and SB-302 were located in the room adjacent to the former row house at the corner of Amber Street and East Westmoreland Avenue (Old Room 01) while borings SB-303 and SB-304 were located in Old Room 02 (as identified by field technician). Soil boring SB-303 was placed adjacent to the former Downtherm boiler room (see **Figure 3**).
- Each boring was advanced to refusal (SB-300 at 8.0-feet bgs, SB-301 at 6.0-feet bgs, SB-302 at 9.5-feet bgs, SB-303 at 5.25-feet bgs, and SB-304 at 4.25-feet bgs). Refer to Soil Boring Logs in **Appendix C**.
- Each five (5) foot increment was field logged and checked with a PID to screen for VOCs with only background readings and no odors being recorded in any of the borings.

- Two soil samples were obtained from each boring, one from the mid-point of the soil column or highest PID reading and one from the bottom of the boring; and,
- Groundwater was not encountered in any of the borings.

5.1.2 Process Area along Amber Street

Drilling was initiated on October 3, 2018 in the northwestern portion of the property along Amber Street, main process area and below grade pit, as follows:

- Soil borings SB-310 through SB-315 were drilled to a depth of 20-feet bgs with the exception of boring SB-310 which met refusal at 8.0-feet bgs (refer to Soil Boring Logs in **Appendix C)**.
- An attempt was made to access the below grade pit paralleling the sidewalk along Amber Street. Due to the absence of a competent roof, the pit was partially filled with debris and rainwater. In order to access the pit area with hand probe equipment, water in the pit was drained via trash pump. Once drained, the pit bottom was considered inaccessible from a safety standpoint due to the amount of debris and sediment on the pit floor. It was decided that two pit borings would be drilled via GeoProbe on the interior side of the pit. Borings SB-316 and SB-317 were drilled to a depth of 20-feet bgs.
- The final boring (SB-318) was drilled on the exterior of the building (adjacent to the office space wall along Collins Street (refer to **Figure** 3). This boring was also drilled to a depth of 20-feet and is now considered to be an off-site boring (portion of the property not being considered for redevelopment).
- Each five (5) foot increment was field logged and checked with a PID to screen for VOCs. PID readings were recorded in soil boring SB-312 at 16-feet bgs (35 ppm) and 18-feet bgs (57.7 ppm) and boring SB-318 at 19.0-feet bgs (24 ppm). No readings or petroleum odors were observed in any of the other borings;
- Two soil samples were obtained from each boring, one from the interval immediately above the saturated zone and/or the highest PID reading and one from the bottom of the boring; and,
- No groundwater was encountered in soil borings SB-310 and SB-311 while the area between 15.0 and 20.0-feet bgs was saturated or nearly saturated in borings SB-312 through SB-318.

5.1.3 Office Area (Former Scholler Laboratory)

One soil boring / soil vapor sampling point was placed in the 4-story brick building fronting Collins Street (former office/laboratory) which is not part of the proposed re-development project. This boring (SB-305/SV-2) was placed southeast of the closed in-situ 10,000-gallon heating oil UST. Boring SB-318 was drilled on the western side (exterior) of the building in the adjacent empty lot on Collins Street (also off-site). At the time of the subsurface investigation, both of these areas were included in RT's scope of work. Since completion of the drilling program, both of these areas have been excluded from the proposed redevelopment plans due to ownership issues.

5.1.4 Soil Sample Collection

RT collected two discrete soil samples from each of the soil borings described in **Section 5.1.1** through **Section 5.1.3**. All soil samples were placed into laboratory-provided containers, stored in a chilled cooler, and transported to a Pennsylvania-certified laboratory under proper chain of custody on October 2nd & 3rd 2018. The soil samples collected were analyzed for Volatile Organic Compounds (VOCs) and DEP Fuel Oil No's 2 - 6 in accordance with EPA test Methods 8260C and 8270D respectively. Soil sample identification (ex. SB-303-2.5) indicates the soil boring location (refer to **Figure** 3) within the complex along with the depth of sample collection (2.5-feet bgs).

5.1.5 Analytical Results (Soil)

The results of the laboratory analysis for the soil samples (**Table 1**) indicated that all constituents were below the selected residential Statewide Health Standards (rSHS) except for exceedances of tetrachloroethene (PCE) (7.5 mg/kg) and trichloroethene (TCE) (0.89 mg/kg) in soil sample SB-301-1.5, and benzo (b) fluoranthene (4.0 mg/kg) in sample SB-305-4. All other compounds in the soil samples collected in the redevelopment area were reported as either non-detect or below the rSHS medium-specific concentration (MSCs).

The exceedances noted in soil sample SB-301-1.5 were within acceptable limits in the sample obtained immediately below (SB-301-5.5). In this sample, PCE was reported at a concentration of 0.0013 mg/kg and TCE was at 0.00035 mg/kg. Similar results were observed in SB-305-6 where benzo (b) fluoranthene concentration dropped from 4.0 mg/kg (SB-305-4) to <0.010 mg/kg at the lower sample elevation (refer to laboratory reports in **Appendix A**).

5.1.6 Proposed Remedial Activity

Laboratory analytical results indicate that concentrations of PCE (7.5 mg/kg) and TCE (0.89 mg/kg) were detected above the rSHS in soil sample SB-301-1.5. As indicated via sample identifier, this sample was obtained at a depth of 1.5-feet bgs. A subsequent sample was obtained from the same boring at a depth of 5.5-feet which reported values for both of the aforementioned constituents of concern to be below the rSHS MSCs. Therefore, it is proposed that the area surrounding this boring be excavated prior to any demolition activity to a depth of 5-feet bgs or less and the material transported to a licensed facility for disposal. In addition, both sidewall and bottom post-excavation attainment samples will be obtained in the excavation for inclusion in an Act 2 Final Report document. A similar remedial scenario will be performed in the vicinity of boring SB-305 to remove soil impacted with benzo (b) fluoranthene to an approximate depth of 5.5-feet bgs.

5.2 Groundwater Investigation

To further investigate the potential groundwater contamination at the Site, DGPM1, LLC installed seven additional monitoring wells in late November and early December 2018. The location of these wells are depicted in **Figure 4**. Wells MW-16 S/D, MW-18 S/D and MW-19 S/D are nested wells which monitor both the shallow and deeper groundwater regimes. Monitoring point MW-17 S is a shallow well located along Amber Street.

5.2.1 Well Construction Details

Prior to the construction of any new wells at the property, RT conducted a Site visit to inspect and determine which monitoring wells used during the early 2000 monitoring program were still viable sampling points. Only monitoring well MW-1, located on the Collins Street sidewalk in front of the office/laboratory building, was found to be in satisfactory condition and was incorporated into the proposed monitoring program. Wells MW-2 and MW-3 were removed during exterior grading operations while monitoring well MW-4 was removed during building interior renovations. Wells MW-5, MW-6, MW-7 and MW-8 could not be located in the courtyard area, interior of the building or the empty lot adjacent to Amber Street.

The new wells were installed via track GeoProbe hollow stem auger drill rig with air rotary capabilities by Allied Well Drilling. Up-gradient shallow wells MW-16S and MW-17S along with deep well MW-16D were placed on the sidewalk along Amber Street.

Deep well MW-16D was drilled to a depth of ~50.0-feet bgs using a combination of 8¼-inch in diameter (I.D.) augers flights and air rotary drilling. The augers were set to a depth of 35-feet at which time an air percussion rotary drill bit was inserted into the augers and the borehole was completed to a total depth of 50-feet bgs. Once the cuttings were properly extricated and the tools were removed from the augers, the deep well was completed by installing 5-feet of 2-inch I.D. Schedule 40 PVC Well Screen and 45-feet of solid PVC casing. A sand filter pack was set from the bottom of the boring to 2-feet above the well screen interval and a bentonite plug (seal) was installed from 43 to 27-feet bgs. At this point the shallow well screen (25 – 10-feet bgs) was introduced into the augers with 10-feet of solid PVC. A second sand filter pack was installed from 27 to 7-feet bgs with a bentonite seal topping off the sand filter (7 to 4-feet bgs). The remaining void around the well casing was sealed with concrete during installation of the surface casing (refer to Well Construction Logs in **Appendix D**).

The shallow well (MW-17) was drilled to a depth of 26.5-feet bgs with groundwater being encountered at 18-feet bgs. Materials placed in the well borehole consisted of 15-feet of 2-inch I.D. Schedule 40 PVC Well Screen, threaded flush joint with O-rings/bottom cap, and 11-feet of 2-inch I.D. Schedule 40 PVC Riser Pipe. The PVC was backfilled with filler pack sand, #430 or equivalent, to 8-feet below surface grade then capped with 2-feet of bentonite chips. This well was also completed with a protective 8-inch manhole, grouted to the surface, and plugged with a 2-inch expandable cap. The same construction guidelines were used to complete the four downgradient and off-Site nested wells, MW-18S/D and MW-19S/D, which are situated in the vacant lot behind the warehouse building, adjacent to Collins Street (**Figure 4**). The only modification from the Amber Street wells is that the shallow/deep well PVC casings were placed in 8-inch metal casing (stick-up ~3-feet above ground level) rather than flush mount well covers for increased visibility purposes.

Summary of Monitoring Well Construction Details

Well ID	TOC Elevation	Casing and Screen Material	Depth to Screen Top	Screen Length	Depth to Bottom	Filter Pack Interval
*MW-1	100.0	2” Sch 40 PVC	10’ (assumed)	20’ (assumed)	30.0	
MW-16S	98.54	2” Sch 40 PVC	10’	15’	25.0	7’ - 25’
MW-16 D	98.9	2” Sch 40 PVC	45’	5’	49.51	43’ – 50’
MW-17S	96.27	2” Sch 40 PVC	11’	15’	26.5	8’ – 26’

MW-18S	100.64	2" Sch 40 PVC	10'	10'	25.0	7' – 25'
MW-18D	100.74	2" Sch 40 PVC	47'	5'	54.0	45' – 52'
MW-19S	99.95	2" Sch 40 PVC	10'	15'	25.0	7' – 25'
MW-19D	100.04	2" Sch 40 PVC	45'	5'	50.0	43' – 50'

*MW-1 is an existing well which was constructed on February 10, 1998 by B.L. Myers, Inc. Information describing the length of well screen used could not be located in prior reports.

5.2.2 Waste Materials

Drill cuttings generated during the well installation process have been placed in 55-gallon steel drums. These drums are currently staged inside the building and the courtyard area. These drums will be removed by a licensed disposal company with the waste disposal manifests being included in an Act 2 Final Report.

5.2.3 Groundwater Monitoring

Following completion of the subsurface evaluation and the installation of additional monitoring wells, the first of two sampling events took place on January 2, 2019 on the newly installed wells (refer to Field Activity Logs in **Appendix B**). The results of the analysis indicated that a majority of the parameters analyzed were reported below the method detection limits (MDL), with 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and total xylenes being reported as not-detected above the laboratory MDLs. A majority of the compounds reported above 1 µg/L were found in MW-19D. These constituents-of-concern included 1,1-dichloroethane (6.6 µg/L), 1,1-dichloroethene (31 µg/L), benzene (22 µg/L), cis-1,2-dichloroethene (8.5 µg/L) and trichloroethene (TCE) (41 µg/L). However, none of these values exceeded the non-used aquifer rSHS MSCs as found on **Table 2**. Other compounds detected above 1 µg/L include 2-butanone (MEK) at 2.4 µg/L and acetone (58 µg/L) in well MW-18S while methylene chloride (2.1 µg/L), toluene (1.4 µg/L) and trichloroethene (TCE) (1.8 µg/L) were reported in well MW-16D.

The second round of groundwater sampling, which included monitoring well MW-1, took place on February 22, 2019. Similar results were reported for the various compounds analyzed with, once again, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and total xylenes being reported as not-detected above the laboratory MDLs. Constituents-of-concern reported above 1 µg/L in MW-19D included 1,1-dichloroethane (7.8 µg/L), 1,1-dichloroethene (33 µg/L), acetone (6.1 µg/L), benzene (21 µg/L), carbon disulfide (2.7 µg/L), cis-1,2-dichloroethene (9.0 µg/L), trichloroethene (TCE) (49 µg/L) and vinyl chloride (1.0 µg/L). Only acetone (7.2 µg/L) and cis-1,2-dichloroethene (1.8 µg/L) were

reported above 1 µg/L in well MW-1. Once again, none of these values exceeded the non-used aquifer rSHS.

5.2.4 Follow-up Groundwater Monitoring

As outlined in Section 9.0 Remedial Action Plan, DGPM1, LLC will complete a minimum of eight (8) quarterly groundwater sampling events which will begin upon approval of this RIR/CP document. The monitoring program will include collection of groundwater samples from the three on-site monitoring wells along with the five off-site wells. DGPM1, LLC, through its consultant RT, will continue the quarterly groundwater monitoring for the Site and evaluate the monitoring results as they become available. RT will submit further Remedial Action Progress Reports after the monitoring events in accordance with the schedule found in Section 9.2.

5.3 Fate and Transport Model

The Biochlor Natural Attenuation Decision Support System, Version 2.2 spreadsheet was utilized to solve the groundwater transport equation for dissolved contaminants. The model is used to estimate the length of contaminant plumes to assess potential off-site impacts, plume stability, natural attenuation, and water quality issues.

5.3.1 Groundwater and Flow Velocity

As noted in **Table 3,** depth to groundwater ranges from 10.05 to 14.71-feet below ground surface, as recorded during the February 2019 well monitoring event. Groundwater elevation data was used to construct contoured groundwater elevation maps (**Figures 4** through **7**). As shown on these figures, the principal direction of groundwater flow was estimated to be to the south/southeast for both the shallow and deep zones for the January and February 2019 gauging events. A hydraulic gradient of 0.006 ft/ft was calculated between monitoring wells MW-16D and MW-19-D. Groundwater exists under water table conditions and, therefore, flows from an area of higher groundwater elevation towards lower elevation.

With an average hydraulic gradient of 0.006 ft/ft, RT calculated the natural groundwater velocity (V_N) across the Site. V_N is defined as:

$$V_N = Ki/n_\theta$$

where:

K = hydraulic conductivity (feet/day {ft/day}),

i = hydraulic gradient (ft/ft), and

n_θ = effective porosity of geologic material (in percent).

Slug tests were performed on each of the four newly installed monitoring wells. As noted on the soil boring and monitoring well completion logs, soils underlying the Site consist primarily of an orange-brown medium coarse sand with some silt to bedrock, generally about thirty-five (35) feet bgs. The porosity of the underlying schist bedrock was assumed to be 35 percent (0.035) and was used to compute the groundwater velocity. Thus;

$$V_N = \frac{(0.13 \text{ ft/day})(0.006 \text{ ft/ft})}{.035}$$

$$V_N = 0.025 \text{ ft/day}$$

Therefore, the groundwater velocity in the vicinity of MW-19D is 0.025 ft/day (South-southeast).

5.3.2 Fate and Transport Analysis

As discussed above, the results of the analysis for two rounds of groundwater sampling conducted upon completion of the installation of the additional monitoring wells in late November – early December 2018 reported detections of 1,1-Dichloroethane, 1,1-Dichloroethene, Benzene, cis-1,2-Dichloroethene, Tetrachloroethene (PCE), Trichloroethene (TCE) and Vinyl chloride in monitoring well MW-19D along with low level detections of 1,1-Dichloroethane, cis-1,2-Dichloroethene and Trichloroethene in well MW-19S. Each of these constituents were reported below its Act 2 residential non-use aquifer MSC in this off-site shallow and deep monitoring well. Low concentrations of 1,1-Dichloroethane were detected in monitoring well MW-16S (0.38 µg/L); cis-1,2-Dichloroethene in wells MW-16S (0.27 µg/L), MW-16D (0.38 µg/L) and MW-17S (0.33 µg/L); Trichloroethene in monitoring wells MW-16S (0.85 µg/L), MW-16D (1.8 µg/L) and MW-17S (0.49 µg/L). Vinyl chloride was only detected in monitoring well MW-19 (refer to **Table 1**).

As a conservative measure, a Fate & Transport analysis was run on Trichloroethene (TCE) as part of the Site characterization to calculate the maximum distance that this constituent might migrate downgradient from off-site POC well (MW-19D) which was reported at concentrations below its Act 2 non-use aquifer rSHS MSC of 50 µg/L (49 µg/L). The Biochlor model calculates the concentration of a compound at any point and time downgradient of a source area of known size and concentration. Parameters used by RT included the following:

- *Source Concentration* – The concentration of Trichloroethene (49 µg/L), DCE (42 µg/l) and VC (1 µg/l) were input into the model as these are the measured concentration in MW-19D.
- *Longitudinal Dispersivity (A_x)* – *T*he distance to the area of concern was set at 100-feet.
- *Transverse Dispersivity (A_y)* – RT used the default value of 10.
- *Vertical Dispersivity (A_z)* – Dispersion perpendicular to the direction of groundwater and water table. The recommended conservative dispersion of 1 E-99..
- *Lambda* – compound-specific first-order decay value. RT used the λ values found in Appendix A – Table 5 – Physical and Toxicological Properties (Organic Regulated Substances) of the Act 2 regulations.
- *Source Width* – a source width of 40-feet was used in the model.
- *Source Thickness* – As a conservative measure, RT assumed the maximum thickness of soils encountered in original excavation 10 feet).
- *Time* – RT assumes a time of 30-years (10,950 total days) for contaminant migration.
- *Hydraulic Conductivity* – RT used the most conservative measured hydraulic conductivity calculated from slug testing in monitoring the deep wells; 0.13 ft/day.
- *Hydraulic Gradient* – RT used a hydraulic gradient value of 0.006 feet/feet (deep wells).
- *Effective Porosity (n_θ)* – RT assumed a porosity of 35 percent (0.35) for the underlying bedrock aquifer.
- *Soil Bulk Density* – RT assumes a soil bulk density of 1.8.
- K_{oc} – the compound-specific organic carbon partition coefficient. RT used the default value of 93 for Trichloroethene (TCE), 49 for DCE and 10 for VC as listed

in Appendix A – Table 5 – Physical and Toxicological Properties (Organic Regulated Substances) of the Act 2 regulations.

- *Fraction Organic Carbon* – RT used a default value of 0.005 mg/kg.

The Biochlor model output is listed in **Appendix E.** Based on the conservative aquifer characteristics and contaminant data used in the Biochlor model, Trichloroethene (TCE) will migrate approximately 20-feet from the source area or in a south-southwest direction until the model predicts that the TCE concentration will meet the used aquifer MSC for TCE. DCE and VC concentrations are found in groundwater to already be below the used aquifer MSC and the model does not predict an increase in DCE concentrations in the future.

RT recognizes this is not a calibrated model as there is no downgradient monitoring point of MW-19D, but rather, conservative values were used in this evaluation which produced a predictive model indicating that a used aquifer MSC is attained for all constituents of concern within close proximity to the source area monitoring well, MW-19D. It is the opinion of this Professional Geologist that the modeling exercise presented is reasonable. RT will re-run the model post-remediation once field calibration data and site-specific degradation rates are obtained which will be submitted with the Final Report.

An isoconcentration map was prepared for Trichloroethene based on the data obtained during the groundwater sampling event of February 22, 2019 and the Fate and Transport modeling exercise. **Figure 9** illustrates the modeled concentration 20-feet distant from the source well.

6 Soil Gas Sampling

6.1 Onsite Soil Gas Sampling

Three sub-slab soil gas points were installed at the property and sampled during two separate monitoring events. Soil gas point SP-1 (SV-1) was installed in soil boring SB-304 in old room 02, sample point SV-2 was installed in boring SB-305 in the office/laboratory area which is not part of the redevelopment project and sample point

SV-3 (SB-310) is located in the 4-story building (loading dock area). Each vapor point was constructed on October 3, 2018 as follows:

- The GeoProbe borings were filled from the bottom to ~2-feet bgs with granular bentonite;
- ~1-foot granular sand was placed on top of the bentonite then a 6-inch stainless steel vapor point implant, connected to Teflon-line tubing, was inserted into the boring;
- The void space around the implant/tubing was filled with sand then topped with a bentonite seal;
- The remaining void space at the surface was finished flush with a QuickCrete mix to seal the surface;
- The open end of the Teflon tubing was sealed with a cap; and
- A manhole cover was installed on SV-3 due to worker and vehicle traffic in this area.

The three monitoring points were sampled on October 11, 2018 and February 22, 2019. Prior to sample collection, a leak test was performed on each vapor point using a helium shroud as follows:

- Initial measurement of helium below slab (0 ppm);
- Fill shroud with helium (17.6%);
- Check helium level below slab again (0 ppm);
- Confirm no leaks in the system then proceed to perform a shut-in test of the sampling system (purge lines);
- Prior to sampling, each soil vapor point was purged using an SKC pump, set to low air flow mode, in order to remove stagnant air from the collection tubing;
- Upon completion of line purging, a valve on the individual SUMMA canister was open to begin sample collection.

One-liter Summa canisters with pressure gauges were used to collect the sample based on individual canister starting and ending pressures (refer to Field Sampling Logs in **Appendix B**). Upon completion of the sampling period, the canisters were removed from the sample probes, properly labeled with chain of custody protocols and records, and immediately transported to the TestAmerica login facility in King of Prussia, PA for shipment to the Burlington, VT laboratory.

6.2 Sub-Slab Sample Results

Each sampling point reported an exceedance of at least one compound during the initial sampling event for collection points SV-1 and SV-3 (sample point SV-2 is located in the office/laboratory building which is not part of the redevelopment project). Chloroform exceeded the residential sub-slab soil gas criteria of 41 µg/m^3 in point SV-1 (57 µg/m^3) during the first sampling event but was below detection (<10 µg/m^3) in February 2019. This compound was also reported above the Standard in sub-slab point SV-3 for both October 2018 (5600 D µg/m^3) and February 2019 (330 µg/m^3). Carbon tetrachloride (160 µg/m^3) was exceeded in point SV-3 at 5,600 µg/m^3 in October 2018 and 370 µg/m^3 in February 2019. The compounds 1,1-Dichloroethane (590 µg/m^3) and 1,2-Dichloroethane (36 µg/m^3) exceeded the permissible standards in October 2019 at 710 µg/m^3 and 39 µg/m^3, respectively, in sample point SV-3. However, both of these compounds were below the standard in February 2019 (21 µg/m^3 and <8 µg/m^3 respectively. Trichloroethene (TCE) (80 µg/m^3) was exceeded in sub-slab point SV-3 (1,500 µg/m^3) during the initial sampling event but was below the screening standard (46 µg/m^3) in the February sampling event. These results are summarized on **Table 4**, and laboratory reports are included in **Appendix A**.

As part of the cleanup plan following demolition of the warehouse area along Amber Street, the new construction foundation will be installed with a vapor barrier and passive vent system as an engineering control. Additional indoor air quality testing will be conducted in the four-story building, which is to be gutted and refurbished with apartment units, once the installation of all utilities are complete and the concrete floor is restored to grade.

6.3 Offsite Soil Gas Sampling

Based on the soil gas results from onsite sample point SV-2, the vapor intrusion exposure pathway was determined to be a potential concern for the occupants at the adjoining 2330 Collins Street property. On January 5, 2022, RT installed two (2) sub-slab soil vapor points inside the adjoining building at 2330 Collins Street as depicted in **Figure 10**. RT also sampled two (2) indoor air locations and one (1) outdoor air location to further evaluate this pathway. As part of the vapor intrusion evaluation, an inspection of the building was performed and no preferential pathways to the subsurface and indoor air were identified. Thus, RT proceeded with installing the soil vapor points through six

(6) inches of concrete, followed by eight (8) inches of light brown soil. These locations were selected to evaluate the potential for vapor intrusion from impacted soil migrating beneath the building and to sufficiently evaluate the vapor intrusion pathway. Soil boring logs for SV-1 and SV-2 can be found in **Appendix C**. The sampling points were constructed with a stainless-steel mesh screen attached to Teflon-lined tubing. The tubing extends above the elevation of the concrete slab. The screen was installed at 14 inches bgs. Granular sand and was taken from three (3) to fourteen (14) inches bgs followed by bentonite from zero (0) to three (3) inches bgs. A leak check was conducted to confirm the integrity of the vapor point seal. An inert tracer gas (helium) was released into the shroud. The atmosphere under a shroud on the concrete slab and covering the vapor point was monitored using a portable helium detector for presence of helium. The helium concentration in the shroud was taken above 10%. Helium below the slab was subsequently tested and found to 0 ppm indicating leak check had been successful.

On January 5, 2022, and February 22, 2022, RT mobilized to sample the two (2) sub slab points. The soil vapor samples were collected through dedicated Teflon lined tubing utilizing a six-liter summa canister and a 2-hour duration regulator on January 5, 2022, and a six-liter summa canister and a 30-minute sample duration regulator on February 22, 2022. A shut-in test was completed on each sampling point to confirm that the sampling chain was sealed properly. Prior to sample collection, each of the collection lines were purged three times the total volume of the sampling chain, at a rate of approximately 200 milliliters per minute. Thereafter, a soil gas sample was collected utilizing a laboratory-supplied 6-liter summa vacuum. Once the samples were collected, the canisters were transported to Eurofins/Test America, a certified laboratory, under proper chain-of-custody and analyzed for PCE and Breakdown in accordance with EPA method TO-15.

On January 5, 2022 and February 22, 2022, RT mobilized to sample the two (2) indoor air points and one (1) outdoor air point. The samples were collected in a six-liter summa canister with a 24-hour flow regulator. All samples were placed in the breathing zone. On January 5, 2022 and February 23, 2022 samples were collected after approximately 24-hours of sampling. Once the samples were collected, the canisters were transported to Eurofins/Test America, a certified laboratory, under proper chain-of-custody and analyzed for PCE and Breakdown products in accordance with EPA method TO-15.

6.4 Offsite Sub-Slab and Indoor Air Sample Results

There were no detections in any indoor or outdoor air sample for PCE and Breakdown products. All reported laboratory detecting limits were below the Residential and Non-Residential Indoor Air Statewide Health Standard vapor intrusion screening level. Furthermore, all detections in the sub slab soil gas samples were below the Residential and Non-Residential Sub-Slab soil gas Statewide Health Standard vapor intrusion screening levels. These results are summarized on **Table 5**, and laboratory reports are included in **Appendix A**.

The sub slab soil gas and indoor air testing at 2330 Collins Street have documented that the vapor intrusion pathway is not complete and does not require further evaluation at this time.

7 Site Conceptual Model

According to information obtained from the Scholler, Inc. Act 2 Final Report, which was approved by the Department on October 28, 2002, the property has been restricted to non-residential soil and groundwater use due to impacts of residual petroleum hydrocarbons from a prior UST release.

Arawak Holding Corporation permanently closed in-situ an out of service 10,000-gallon heating oil UST during May 1998. No soil excavation was conducted as the tank was located beneath the floor in the former lab/office building making equipment access impractical without razing the structure. This tank was sealed in place by filling with a concrete slurry. The location of the former UST is situated in a section of the complex that is not part of the proposed redevelopment project.

Recent subsurface drilling activity in the western portion of the property, old room 01 & 02 in the vicinity of the former row house at the corner of Amber Street and East Westmoreland Avenue, reported soil concentrations of PCE, TCE, and benzo (b) fluoranthene above the rSHS. Laboratory analytical results indicate that concentrations of PCE (7.5 mg/kg) and TCE (0.89 mg/kg) were detected above the rSHS in SB-301-1.5. As indicated via sample identifier, this sample was obtained at a depth of 1.5-feet below

surface grade. A subsequent sample was obtained from the same boring at a depth of 5.5-feet which reported values for all three of the aforementioned constituents of concern to be below the rSHS MSCs. This soil area is not a source of chlorinated compounds in groundwater based on the soil results. Therefore, it is proposed that the area surrounding this boring be excavated prior to any demolition activity to a depth of 5-feet or less and the material transported to a licensed facility for disposal. In addition, both sidewall and bottom post-excavation attainment samples will be obtained in the excavation for inclusion in an Act 2 Final Report document. A similar remedial scenario will be performed in the vicinity of boring SB-305-4 to remove soil impacted with benzo (b) fluoranthene.

All proposed soil excavation work will be conducted via RT oversight to ensure that all contaminated soil material is removed. Once the existing building is razed, a basement will be excavated and a concrete floor will be installed with appropriate sub-slab ventilation in all “new construction” areas.

7.1 Migration Pathways

In the areas of new construction, underground utilities will be installed prior to the pouring of the foundation walls/floor which will be installed with a sub-slab vapor barrier and passive vent system as an engineering control. Migration pathways at the site will be limited as a majority of the development footprint will be covered with buildings, concrete sidewalks, and asphalt vehicle parking areas. Any utility entrance through the foundation walls in the basement will be adequately sealed in order to eliminate any potential for vapor migration from soil into the structure. Groundwater is one potential migration pathway which will be controlled via the sub-slab vapor barrier and passive vent system previously discussed. Other pathways which may be created at a future date could involve exposed soil uncovered during utility repair.

7.2 Potential Receptors and Completed Exposure Pathways

The site and surrounding properties are designated for a mixed use of industrial, commercial and residential structures. A majority of the properties have previously (historically) been developed with a mix of industrial/commercial buildings which are interspersed with residential (single family) row housing. Re-development has been taking place in the Kensington section of the city through rezoning of industrial buildings and conversion to residential apartments or lofts. Older structures are also being razed

and replaced with new construction consisting of both residential and commercial applications. Migration pathways present at the site are incomplete as the migration of constituents of concern beyond the POC well has been confirmed through Fate & Transport modeling. The modeling demonstrates that TCE does not extend further than twenty (20) feet beyond the point of compliance well (MW-19D). All other compounds were reported at values well below their respective non-used aquifer rSHS MSCs and were not included in the modeling exercise. All properties in this section of the city are serviced by the Philadelphia Water Department. There are no potable or industrial wells within ½-mile of the subject property (refer to **Figure 8**). The indoor air exposure pathway is considered to be incomplete as the "new construction" areas will be installed with a sub-slab vapor barrier and passive vent system and the renovated multi-story building will be screened via indoor air quality testing after construction.

8 Ecological Screening

An Eco Evaluation for the site-specific standard has been assessed as follow:

8.1 Ecological Receptor Evaluation

The Ecological Receptor Evaluation determined that ecological receptors do not occur on or immediately adjacent to the Site and that contaminant exposure routes are incomplete therefore pathways to receptors are not present. The following sections describe the ecological receptor evaluation and incomplete pathways identified at the Site. No present or future exposure pathways exist, as documented in this report by the Biochlor Natural Attenuation Decision Support System spreadsheet.

8.1.1 Threatened or Endangered Species, Species of Concern

A project review was conducted using The Pennsylvania Natural Heritage Program's PNDI Project Environmental Review database. The Pennsylvania Natural Diversity Inventory (PNDI) records indicated no known impacts to threatened and endangered species and/or special concern species and resources on or within close proximity of the Site. Therefore, no further coordination is required with the jurisdictional agencies regarding any species of concern. The PNDI was accessed on February 19, 2021 and the project was assigned a Project Search Identification: PNDI-727949, see ***Attachment J****.*

8.1.2 Exceptional Value Wetlands

The U.S. Fish & Wildlife Service's National Wetlands Inventory (NWI) on-line mapping was reviewed for the Site to identify mapped wetlands within the region. Based on this information, no wetlands were mapped within or immediately adjacent to the Site.

8.1.3 Habitats of Concern

The proposed re-development Site consists of a commercial building and sidewalks 100 percent covered with Buildings and concrete. There are no trees or wild areas on the re-development area although grassed vacant lots are present to the southeast and northeast to the Site. Trees are present along Collins Street and in the vacant lot to the northeast. The Site does not meet the definition of a habitat of concern and does not provide a wildlife habitat function.

8.1.4 Pathway Elimination

Contaminants within the Site occur within the soil and groundwater as previously identified in the report. Ecological communities do not inhabit the Site; therefore, exposure pathways are not present. The re-development Site is 100 percent covered with existing buildings and concrete sidewalks and does not support ecological communities. The contaminants present at the Site are not migrating past the property boundaries and do not have the potential to migrate into ecological communities now or in the future at detectable concentrations that may cause impacts. As a result of this determination under the PADEP Site-Specific Ecological Risk Assessment Guidance, the Site exits the assessment process, and no further evaluation is required.

8.2 Exposure Pathways

The future use of the Site will be residential. Given this intended future use of the site, the likely human receptors will be construction workers. All impacted soils will be removed as part of demolition of the warehouse structure. All future surfaces will be covered by the buildings, concrete sidewalks along Amber Street and an asphalt paved driveway leading to vehicle parking spaces on the eastern side of the complex. There are no apparent potable water wells within a 2,640-foot radius that could be affected by the impacted groundwater at the Site. Ecological communities do not inhabit the Site; therefore, exposure pathways are not present to ecological receptors. Contaminants at the Site that occur within the soil as previously identified in the report will be remediated as part of demolition. All exposure pathways for both soil and groundwater receptors are

eliminated by the Site being 100 percent covered with buildings both prior to and after completion of the proposed re-development. There are no nearby downgradient potable water wells.

An Environmental Covenant will be prepared for the property in accordance with the Uniform Environmental Covenants Act of 2007. Site restrictions, which will be outlined in the Environmental Covenant, will include groundwater use and soil excavation in the area of the proposed new construction will have to be completed as per a written Soil Management Plan.

9 Public Involvement Meeting

The remediator prepared a Public Involvement Plan (PIP) for the 3320 Collins Street a/k/a 2101 – 2109 East Westmoreland Street (eFACTS PF No. 836850) project. A public meeting was held via video conferencing (Zoom Video Communications) on the evening of November 18, 2020. The purpose of the meeting was for the remediator and their representatives to present data collected at the Site and explain the remedial process. A notice of the video conference public meeting was published in *The Philadelphia Weekly* on November 5, 2020 with documents regarding the properties being made available for public review in advance of the meeting on the RT Environmental Services website. Letter's informing the City of Philadelphia and the District 1 Council Member of the meeting are included in **Appendix F.**

The remediator and their representatives participated in the meeting which began at 5:00 pm on the evening of November 18, 2020. No participants joined the video conference and the meeting was ended at 5:35 pm. Information presented on RT's website included the Remedial Investigation Report/Cleanup Plan, a PowerPoint presentation explaining the project, remediation plans and how to access the virtual meeting. In addition, a copy of the re-development plan was also available for review on the website. No questions or project concerns were received from the public either in writing or via email prior to or on the day of the meeting. No other concerns regarding the project have been received by the remediator as of the date of this resubmission

package (March 2, 2021). A copy of the list of attendees has also been included in **Attachment F**.

During the most recent document review by the PADEP, it was determined that a copy of the latest version of the amended RIR/CP should be made available for public review and comments on the RT website. The most up-to-date copy of the amended RIR/CP document was uploaded to the Resource section (www.rtenv.com) on March 2, 2021. Updates to this report will continue to be posted to the website as they become available.

10 Conclusions and Recommendations

Based on the subsurface soil investigation conducted by DGPM1, LLC in October 2018, residual contamination remains in the soil in the western portion of the property. Old rooms 01 & 02 in the vicinity of the former row house at the corner of Amber Street and East Westmoreland Avenue, reported soil concentrations of PCE, TCE, and benzo (b) fluoranthene above the rSHS. Laboratory analytical results indicate that concentrations of PCE (7.5 mg/kg) and TCE (0.89 mg/kg) were detected above the rSHS in soil sample SB-301-1.5. As indicated via sample identifier, this sample was obtained at a depth of 1.5-feet below surface grade. A subsequent sample was obtained from the same boring at a depth of 5.5-feet bgs which reported values for all three of the aforementioned constituents of concern to be below the rSHS MSCs. Therefore, it is proposed that the area surrounding this boring be excavated as part of any demolition activity to a depth of 5-feet bgs or less and the material transported to a licensed facility for disposal. In addition, both sidewall and bottom post-excavation attainment samples will be obtained in the excavation for inclusion in an Act 2 Final Report document. A similar remedial scenario will be performed in the vicinity of boring SB-305 to remove soil impacted with benzo (b) fluoranthene to an approximate depth of 5.5-feet bgs.

It is anticipated that following demolition of the warehouse area along Amber Street, the new construction foundation will be installed with a sub-slab vapor barrier and passive vent system as an engineering control. Additional indoor air quality testing will be conducted in the four-story building, which is to be gutted and refurbished with

apartment units once the installation of all utilities is complete and the concrete floor is restored to grade.

DGPM1, LLC will monitor each of the shallow and deep monitoring wells for eight (8) additional quarters. During each of the 8 sampling events, the wells will be gauged then purged of three volumes via a submersible pump. Upon completion of the purging cycle and stabilization of the field parameters (Temperature, Conductivity, Dissolved Oxygen, pH, and Oxidation Reduction Potential) the wells will be sampled via the submersible pump. Each sample will be immediately placed into laboratory supplied containers, packed in ice, and submitted to the appropriate laboratory under proper chain-of-custody documentation.

11 Remedial Action Plan

11.1 Remedial Action Options

The following remedial alternatives have been evaluated based on recent soil concentration:

11.1.1 Proposed Alternatives

a. **Option 1 – Removal and Landfilling** - The soil investigation shows two very small, focused areas of impact remaining within the redevelopment footprint. These areas can be remediated through the implementation soil excavation in the vicinity of the affected borings. The practicality of this option is favorable provided that it takes place prior to any building demolition.
b. **Option 2 – In-Situ Chemical Injection** - Should Option 1 not be feasible, the next likely remedial option would be in-situ chemical oxidation to remediate the residual soil contamination. This would involve installation of injection points in the area of residual soil impacts and an injection of treatment chemicals (diluted hydrogen peroxide, Fenton's Reagent or activated sodium persulfate). The injection would be monitored over a period of time to determine if the injection was successful.

c. **Option 3 – No Action** – This option would consist of implementing long term institutional controls to restrict access to the property and would be combined with monitored natural attenuation.

11.1.2 Remedy Selection Criteria

In general, the evaluation criteria is directly or indirectly related to the overall site remediation objectives that are to remove/remediate all impacted soil on-site and to assure water quality complies with the residential Statewide Health Standard established for a non-used aquifer. In addition, the remediator aims to reduce the risks posed by any remaining contaminated sediments to human health or the environment.

11.1.3 Alternative Analysis

- **In-situ Chemical Injection** – This technology was eliminated from further consideration based on the low concentrations of remaining constituents-of–concern in the delineated impact areas.
- **No Action** – This No Action option was eliminated from further consideration based on the composition of the proposed residential development.
- **Removal and Landfilling** – was further evaluated and selected as the best available option to remediate the site using a residential Statewide Health Standard for soil.

11.1.4 Conceptual Design

It is the choice of the remediator to remove impacted material from the source area. Delineated material will be removed via backhoe or track hoe depending on the availability of equipment and the scope of the work order. Non-impacted material will be segregated on site, placed on and covered with plastic, and sampled to determine if it meets the criteria for “clean backfill” specific to the project. Impacted material will be placed directly into rolloff’s, sampled, and transported to a licensed facility for permanent disposal.

11.1.5 Impacted Soil Removal Activities

As the characterization activities have shown residual soil impacts are present in two of the October 2018 subsurface investigation soils samples (SB-301 and SB-303) at levels which exceed the selected rSHS, DGPM1, LLC proposes to excavate and properly dispose of the impacted soil at an offsite permitted disposal facility (Clean Earth of

Philadelphia). Excavation activities will be guided by field measurements with a photoionization detector (PID) as well as visual and olfactory indications. Material will be removed from around soil borings SB-301 and SB-303. Upon determining the extent of impacted soil to be removed, post excavation soil samples will be collected. It is anticipated that eight (8) soil samples will be collected from each excavation area. The goal of the post excavation soil samples is to demonstrate attainment of the residential statewide health standards for constituents of concern.

Further, as part of the remedial activities, overburden soils (soils determined not to be impacted based on characterization soil samples, PID, visual and/or olfactory indications) will be stockpiled on plastic and characterized to determine if they can be reused onsite.

Soils determined to be impacted based on PID, visual and olfactory indications will be characterized for waste disposal parameters to obtain disposal facility approved. Once the disposal facility approval is obtained, impacted soils will be placed in lined rolloffs and/or direct loaded into trucks for transportation to the disposal facility.

Upon evaluation of the post excavation soil samples (soil samples which meet the residential statewide health standards), the excavation area will be backfilled with overburden soils (if confirmed to be not impacted) and/or off-site clean fill (quarry stone).

Further groundwater monitoring will be completed as discussed in the following Section.

11.2 Groundwater Monitoring Activities

DGPM1, LLC will complete a minimum of eight (8) quarterly groundwater sampling events which will begin upon approval of the RIR/CP. The monitoring program will include collection of groundwater samples from the three on-site monitoring wells and the five off-site wells. DGPM1, LLC, through its consultant RT, will continue the quarterly groundwater sample collection at the site and evaluate the monitoring results as they become available.

11.3 Analytical Methods

TestAmerica will utilize EPA Method 8260C – Volatile Organic Compounds by GC/MS. This method is used to determine volatile organic compounds in a variety of solid waste

matrices. This method is applicable to nearly all types of samples, regardless of water content, including various air sampling trapping media, ground and surface water, aqueous sludge's, caustic liquors, acid liquors, waste solvents, oily wastes, mousses, tars, fibrous wastes, polymeric emulsions, filter cakes, spent carbons, spent catalysts, soils and sediments.

The volatile compounds are introduced into the gas chromatograph by the purge-and trap method or by other methods. The analytes are introduced directly to a wide bore capillary column, or the effluent from the trap is sent to an injection port operating in the split mode for injection to a narrow-bore capillary column. The column is temperature-programmed to separate the analytes, which are then detected with a mass spectrometer (MS) interfaced to the gas chromatograph (GC).

11.4 Attaining Acceptable Soil Concentrations

Affected soil identified during the subsurface investigation will be excavated during the proposed remedial operations which will take place during August 2020**.** It is estimated that approximately 130-tons (~87 yd^3) of potentially impacted soils, will be removed from the redevelopment footprint prior to the initiation of any demolition work. All material will be handled as non-hazardous waste and will be transported to a licensed facility for disposal.

Once all potentially impacted material has been removed from each excavation, confirmatory soil samples will be obtained based on a systematic random sampling plan. It is anticipated that by using this format, eight soil samples (bottom and sidewall) will be collected from each excavation. All laboratory provided sample containers will be properly identified, packed on ice, and transported to the TestAmerica Laboratory login facility in King of Prussia for analysis of the applicable compound (PCE, TCE and/or benzo (b) fluoranthene). A residential Statewide Health Standard has been selected for the soil media.

11.5 Attaining Acceptable Groundwater Concentrations

A residential non-used aquifer statewide standard has been selected for groundwater media. Following completion of the November/December 2018 groundwater monitoring well installation, the first of two sampling events took place on January 2, 2019. The

results of the analysis indicated that a majority of the parameters analyzed were reported below the method detection limits (MDL), with 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and total xylenes being reported as not-detected above the laboratory reporting limit. A majority of the compounds reported above 1 µg/L were found in MW-19D. These constituents-of-concern included 1,1-dichloroethane (6.6 µg/L), 1,1-dichloroethene (31 µg/L), benzene (22 µg/L), cis-1,2-dichloroethene (8.5 µg/L) and trichloroethene (TCE) (41 µg/L). However, none of these values exceeded the non-used aquifer rSHS MSCs as found on **Table 2**. Other compounds detected above 1 µg/L include 2-butanone (MEK) at 2.4 µg/L and acetone (58 µg/L) in well MW-18S while methylene chloride (2.1 µg/L), toluene (1.4 µg/L) and trichloroethene (TCE) (1.8 µg/L) were reported in well MW-16D.

The second round of groundwater sampling, which included monitoring well MW-1, took place on February 22, 2019. Similar results were reported for the various compounds analyzed with, once again, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and total xylenes being reported as not-detected above the laboratory reporting limit. Constituents-of-concern reported above 1 µg/L in MW-19D included 1,1-dichloroethane (7.8 µg/L), 1,1-dichloroethene (33 µg/L), acetone (6.1 µg/L), benzene (21 µg/L), carbon disulfide (2.7 µg/L), cis-1,2-dichloroethene (9.0 µg/L), trichloroethene (TCE) (49 µg/L) and vinyl chloride (1.0 µg/L). Only acetone (7.2 µg/L) and cis-1,2-dichloroethene (1.8 µg/L) were reported above 1 µg/L in well MW-1. None of these values exceeded the non-used aquifer rSHS.

Therefore, once this RIR/CP document is approved by the PADEP, an additional eight (8) quarters of groundwater sampling will be conducted on the three (3) on-site and five (5) off-site groundwater monitoring wells to demonstrate attainment of the residential statewide health standard for constituents in groundwater (non-use aquifer).

11.6 Vapor Barrier (Building 2)

A vapor barrier will be installed as an engineering control beneath the concrete floor in the basement of building #2 (new construction). Below the vapor barrier will be a passive venting system. A foundation design has not been finalized at this time. Once the foundation design is completed, the vapor barrier and passive venting system will be designed. It is anticipated that the vapor barrier will be MonoShield® or equivalent and

the passive vents will be Vapor Vent™ or equivalent to be extended above the roof line with PVC piping. The presence of a vapor barrier and passive venting system will eliminate the VI pathway of potential concern.

11.6.1 Construction Inspection

Upon installation of the vapor barrier and passive venting system, an engineering inspection will be completed to document the installation and perform smoke testing to confirm the system is sealed. This inspection and smoke testing will be completed prior to installing the concrete floor.

11.7 Indoor Air Sampling (Building 1)

The general architectural plans illustrate a utility room and two stair wells on the first floor of renovated building # 1. Proposed post-construction indoor air sampling will be conducted in the stair wells and the utility room once the new underground chase ways have been completed and the final floor grade has been restored prior to occupancy. At the direction of the PADEP, Follow Through Capital will also conduct indoor air sampling in each of the two (2) first floor apartments.

11.7.1 Sample Point Installation

RT will utilize 6-Litter SUMMA Canisters to conduct the indoor air sampling. One (1) canister will be set up in each of the first-floor stair wells, apartments, and the utility room. A sixth canister will be placed in a secure area outside the building in order to obtain background data.

11.7.2 Sample Points Checks and Collection

Prior to the staging of the individual canisters, the area to be tested will be inspected in order to ensure that there are no potential volatile compounds remaining from the construction process which could affect the results of the air sampling program. As an added precaution, RT will screen each area with a photoionization detector (PID) to record any volatile organic compounds (VOCs) which may be present. Each SUMMA canister will be placed on an elevated surface and the air sample will be collected over a 24-hour period.

11.7.3 Sample Analysis

Once the samples are collected and the sample record information has been completed, the canisters will shipped to a certified laboratory under proper chain-of-custody and

analyzed for volatile organic compounds in accordance with EPA method TO-15 Target Compound List. A second sampling event will take place approximately 45 days after the first event.

11.7.4 Data Evaluation

Once the two sampling events are completed, the data will be evaluated to document if there is a suspect vapor intrusion concern. If there is a suspect vapor intrusion concern upon completion of the testing, a mitigation system will be installed below the concrete slab to actively remove vapors.

12 Contact Information

The contact information for the 2101-09 E. Westmoreland Street (former Scholler, Inc.) development located at 3320 Collins Street in Philadelphia, Pennsylvania, is as follows:

REMEDIATOR

The Remediator of the site is as follows:

Mr. David Goldstein
Follow Through Capital
20 Conshohocken State Road, Apt. 312
Bala Cynwyd, PA 19004
215-771-2000
david@followthroughcapital.com

CONSULTANT

The Consultant to the Remediator and Owner's Representative for the site is as follows:

Walter H. Hungarter, III, P.E.
RT Environmental Services, Inc.
215 West Church Road, Suite 300
King of Prussia, Pennsylvania 19406-3207
Phone: 610-265-1510 ext. 238
Cell: 610-952-8824
Whungarter@rtenv.com

12.1 PROFESSIONAL SEAL

Pursuant to the requirements of the Land Recycling and Environmental Remediation Standards Act (Act 2), 25 Pa. Code Chapter 250, (adopted on August 16, 1997), I hereby attest that, as a Professional Geologist licensed in the Commonwealth of Pennsylvania, I am familiar with and have reviewed the following:

REVISED REMEDIAL INVESTIGATION REPORT/CLEANUP PLAN

Date: April 1, 2022

eFACTS PF No. 836850

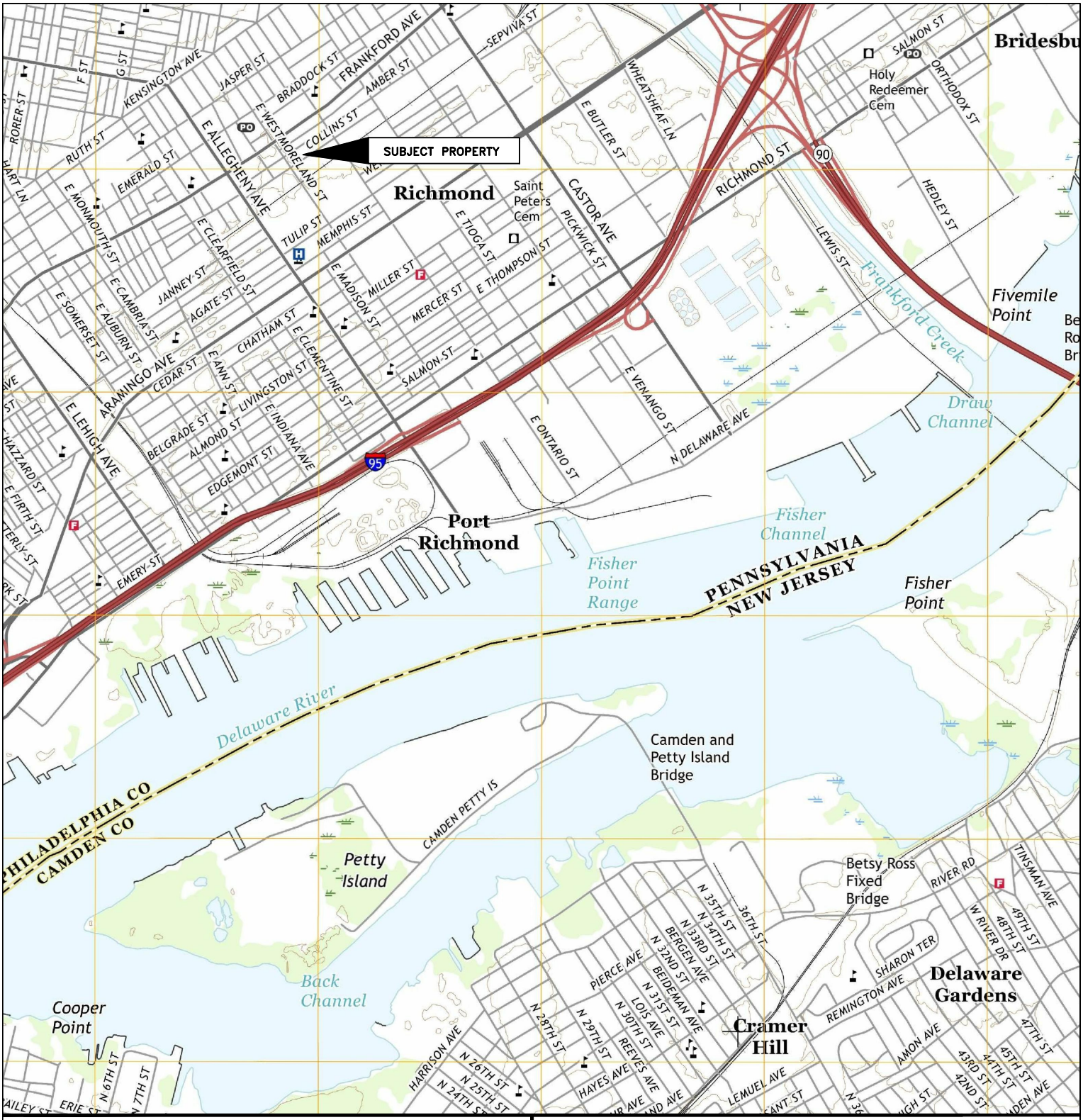
2101-1009 E. Westmoreland Street which is a portion of the Former Scholler, Inc. Site located at 3320 Collins Street in Philadelphia County, Philadelphia, Pennsylvania 19134

Nicholas Lippincott

Nicholas Lippincott, P.G.
Geologist
RT Environmental Services, Inc.
Pennsylvania Registered Professional Geologist No. PG 005510

"By affixing my seal to this document, I am certifying that the information contained herein is true and correct. I further certify that I am licensed to practice geology in the Commonwealth of Pennsylvania and that it is within my professional area of expertise to verify the correctness of this information."

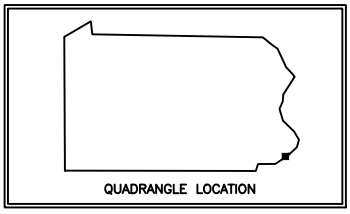
FIGURES



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
CAMDEN, NJ–PA
CONTOUR INTERVAL 10 FEET

SCALE (feet)

0 2000′ 4000′



RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

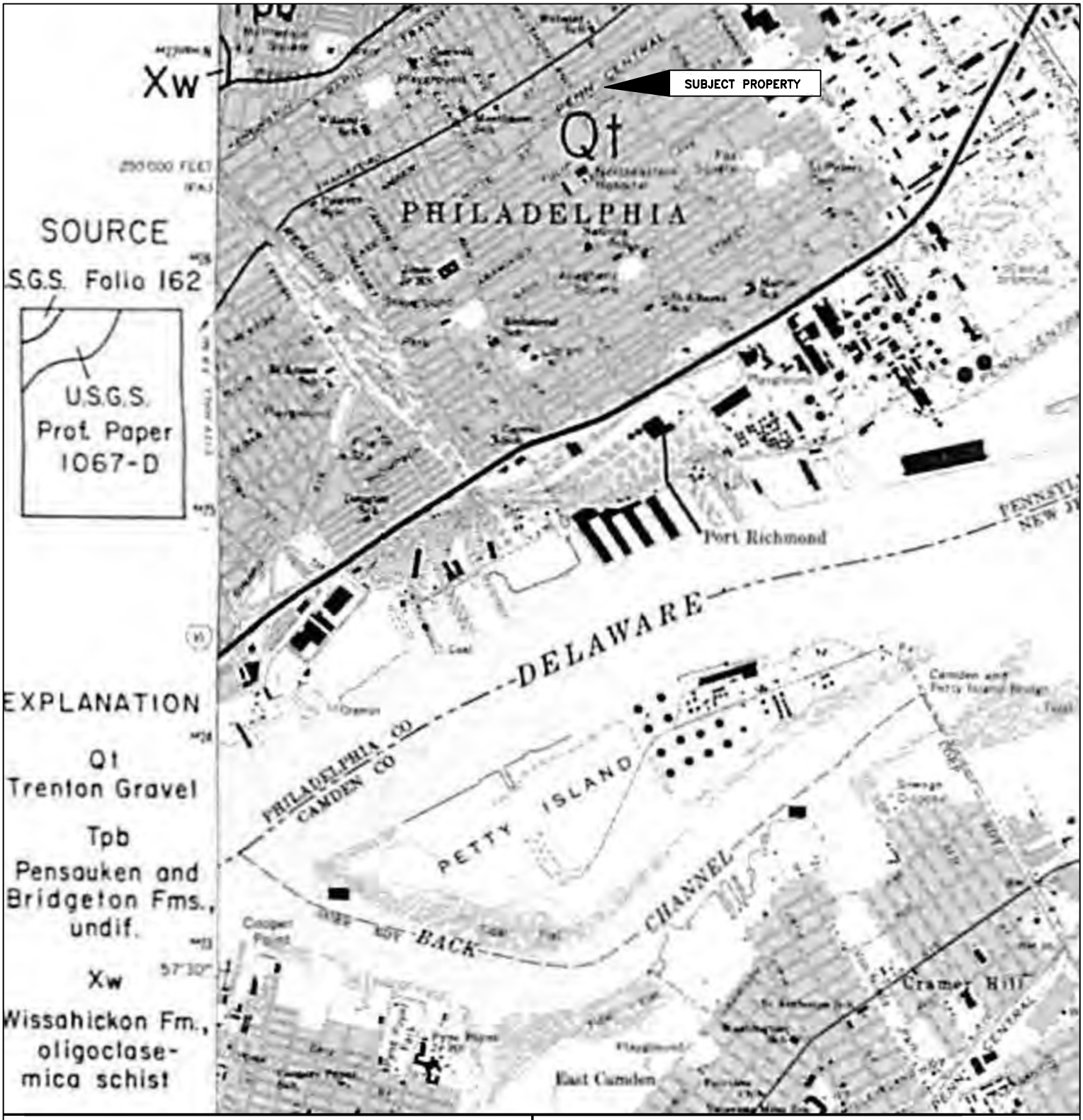
FIGURE 1
SITE LOCATION MAP

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:

FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

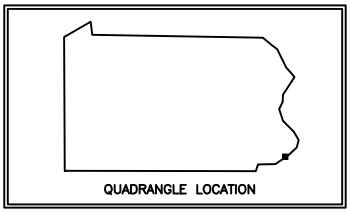
CHARGE	2043–20	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON	VL
SCALE	1" = 2000'	DRAWING NUMBER				REVISION
DATE	4/4/19	y:\rt projects\2000 series\2043-20\figures\figures.dwg				



SOURCE: USGS 7.5 MINUTE GEOLOGIC QUADRANGLE
CAMDEN, NJ–PA
CONTOUR INTERVAL 10 FEET

SCALE (feet)

0 2000′ 4000′



RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

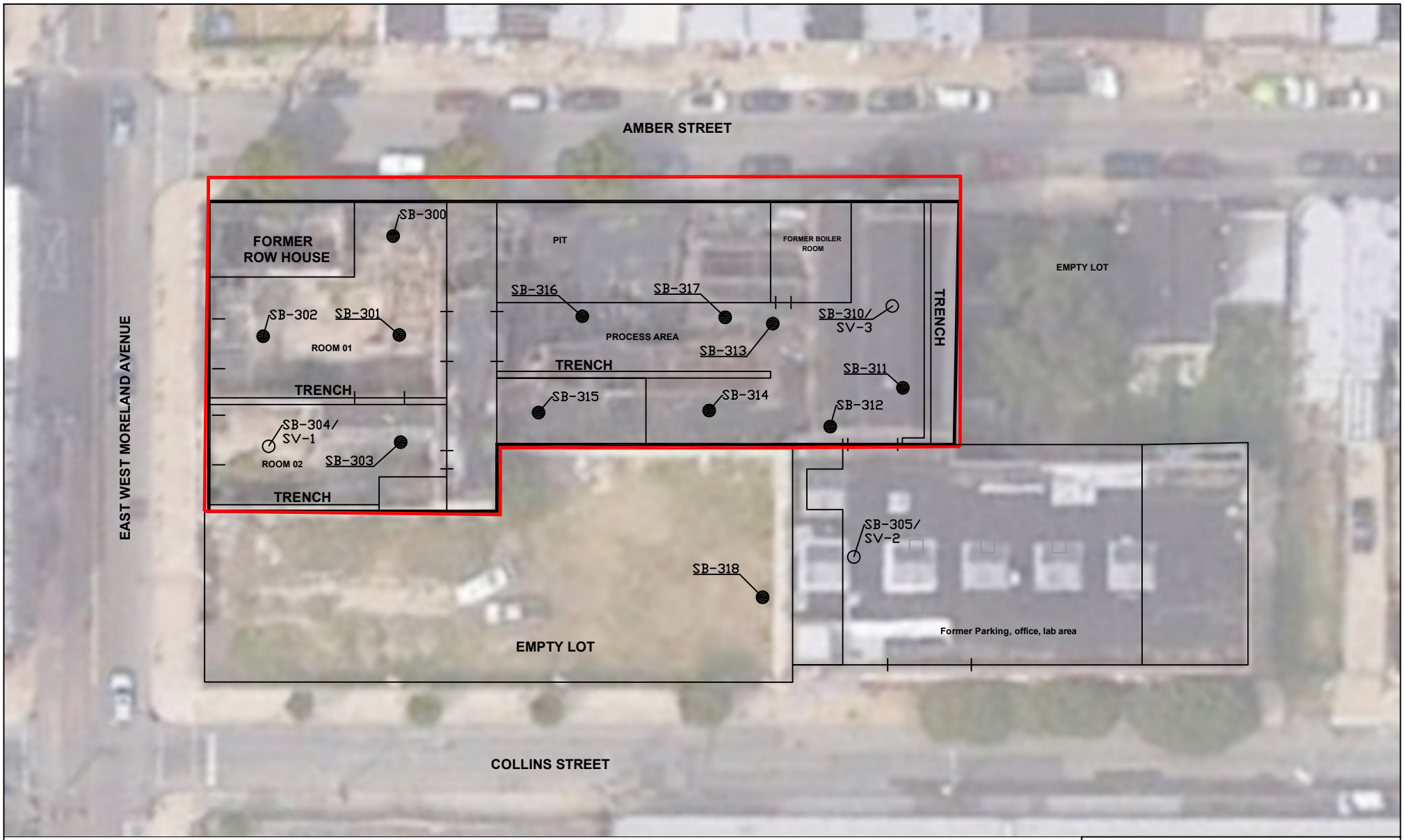
FIGURE 2
GEOLOGIC QUADRANGLE MAP

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:

FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	2043–20	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON	AS
SCALE	1" = 2000′	DRAWING NUMBER				REVISION
DATE	4/6/2020	y:\rt projects\2000 series\2043-20\figures\figures.dwg				



LEGEND

- SOIL BORING - OCT. 2018
- SOIL BORING CONVERTED TO SUB-SLAB SOIL GAS SAMPLE POINT - OCT. 2018
- WAREHOUSE AREA TO BE REDEVELOPED

0 40′ 80′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 3
SOIL BORING LOCATION MAP

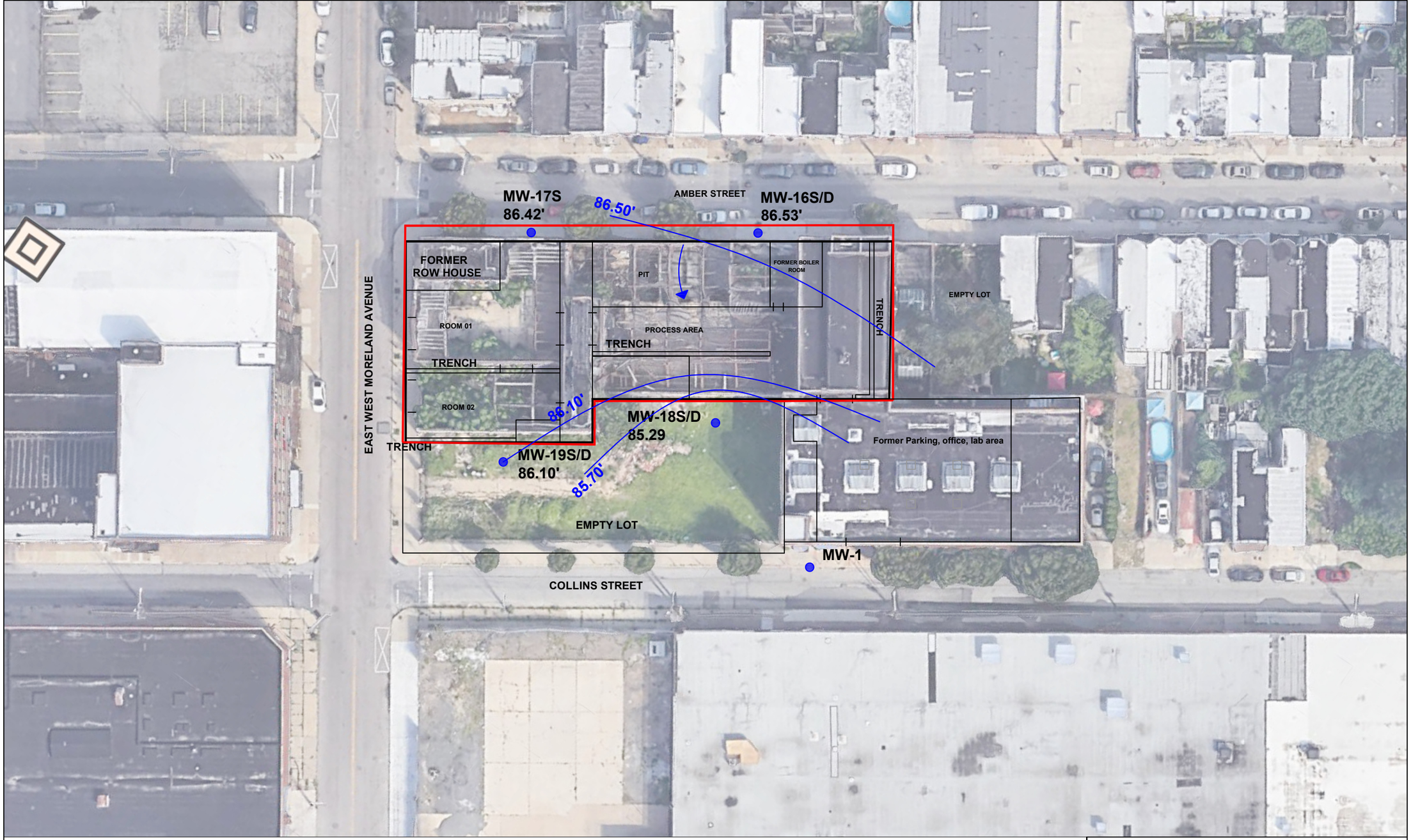
3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
2043-20				VJL

SCALE	DRAWING NUMBER	REVISION
1" = 40'	y:\rt projects\2000 series\2043-20\figures\figures.dwg	1

DATE 4/4/19



LEGEND

MONITORING WELL

GROUNDWATER ELEVATION CONTOUR

0 60′ 120′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 4
GW FLOW MAP – SHALLOW
JANUARY 2, 2019
3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
2043–20				VJL

SCALE	DRAWING NUMBER	REVISION
1" = 60'	y:\rt projects\2000 series\2043–20\figures\figures.dwg	1

DATE 4/26/2022



LEGEND

- MONITORING WELL
- GROUNDWATER FLOW DIRECTION
- WAREHOUSE AREA TO BE REDEVELOPED

0 60′ 120′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 5
GW FLOW MAP – DEEP
January 2, 2019

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
2043–20				VJL

SCALE	DRAWING NUMBER	REVISION
1" = 60'	y:\rt projects\2000 series\2043–20\figures\figures.dwg	1

DATE 4/4/19



LEGEND

- MONITORING WELL
- GROUNDWATER FLOW DIRECTION
- WAREHOUSE AREA TO BE REDEVELOPED

0 60′ 120′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 6
GW FLOW MAP – SHALLOW
February 22, 2019

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
2043–20				VJL

SCALE	DRAWING NUMBER	REVISION
1" = 60'	y:\rt projects\2000 series\2043–20\figures\figures.dwg	1

DATE 4/4/19



LEGEND

- MONITORING WELL
- GROUNDWATER FLOW DIRECTION
- WAREHOUSE AREA TO BE REDEVELOPED

0 60′ 120′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 7
GW FLOW MAP – DEEP
February 22, 2019

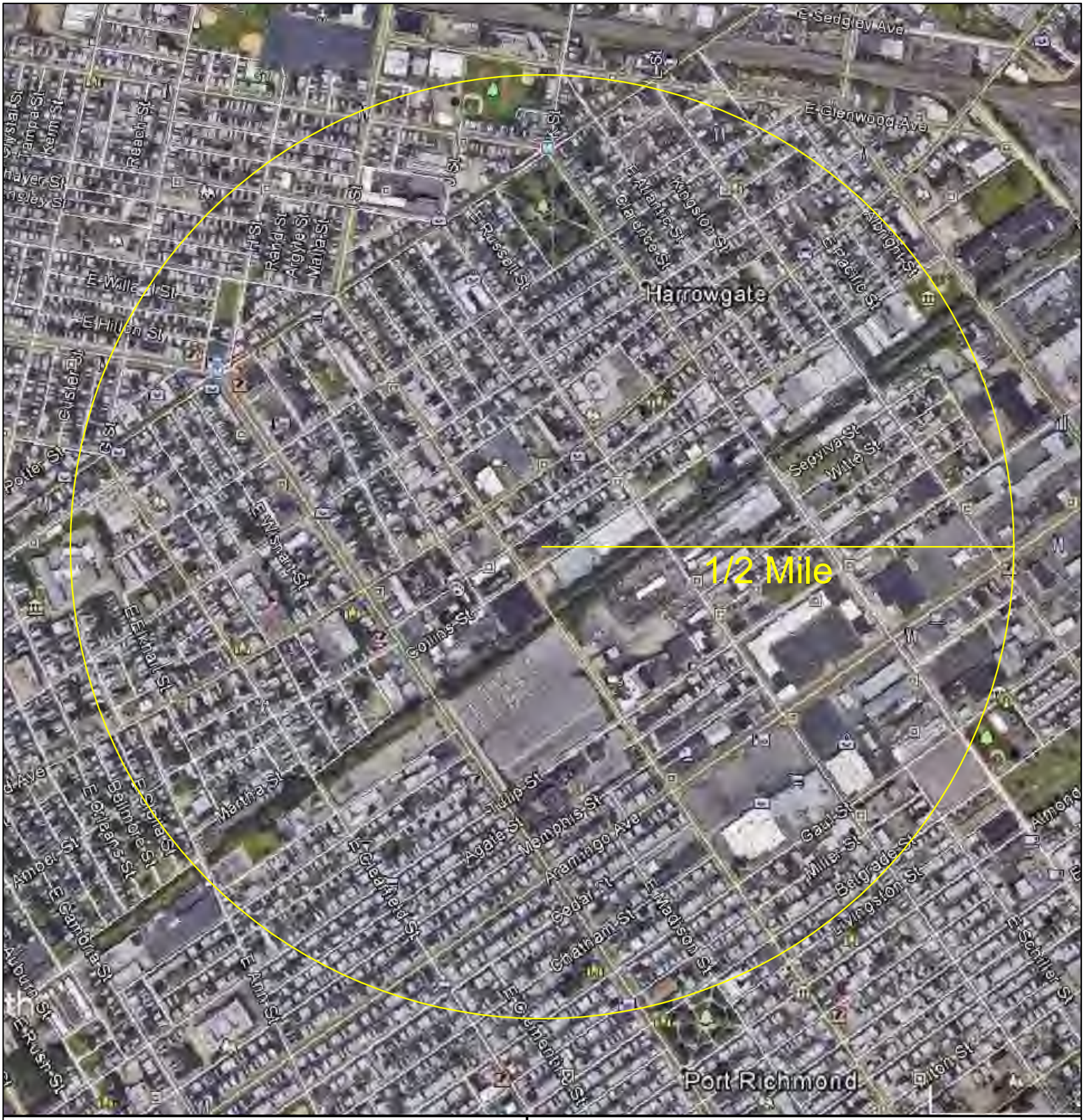
3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
2043–20				VJL

SCALE	DRAWING NUMBER	REVISION
1" = 60'	y:\rt projects\2000 series\2043–20\figures\figures.dwg	1

DATE 4/4/19



LEGEND:

GROUNWATER WELL

NOTE:
NO DOMESTIC OR INDUSTRIAL GROUNDWATER WELLS ARE PRESENT WITHIN 0.5 MILE FROM THE SUBJECT PROPERTY

0 750' 1500'

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

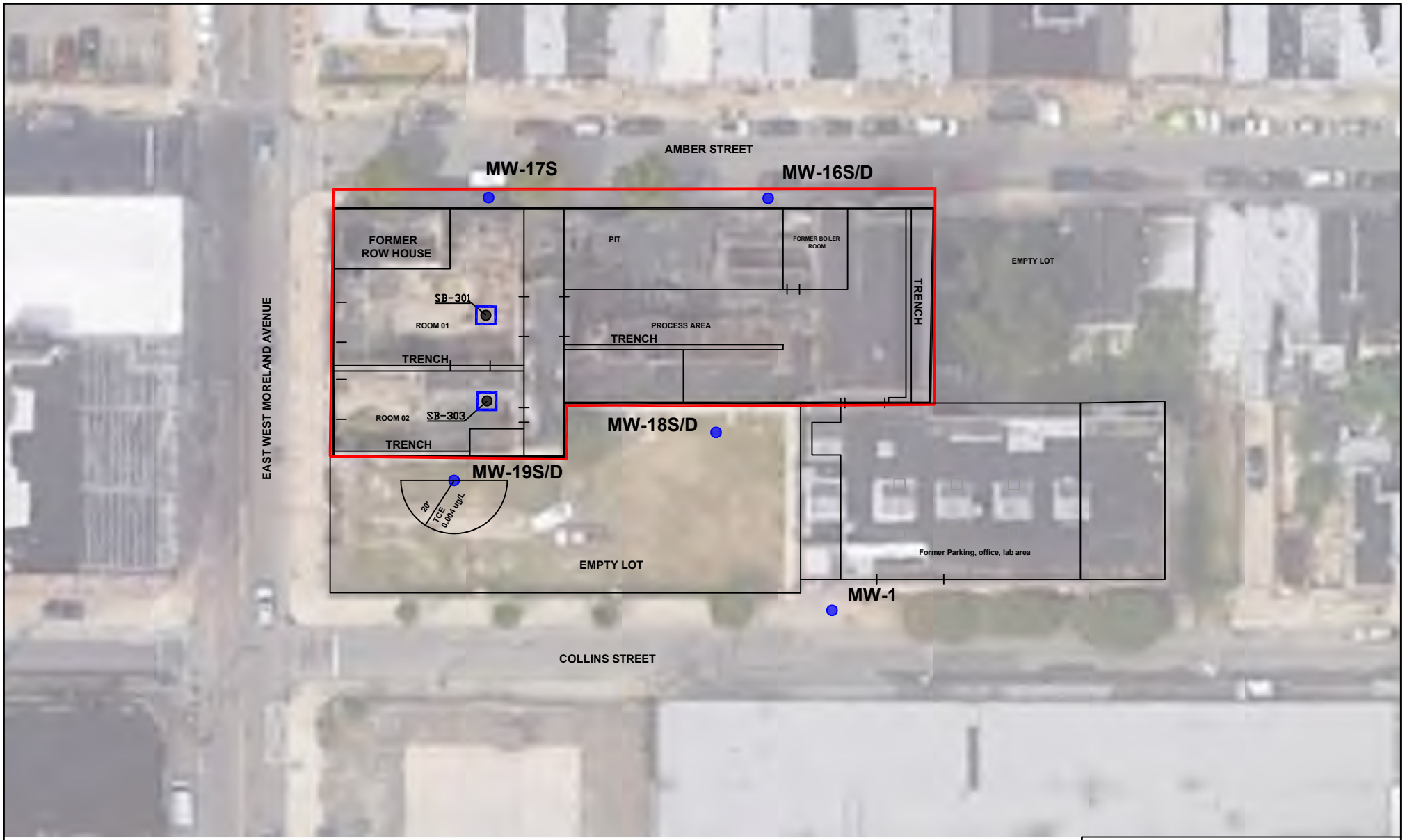
FIGURE 8:

WELL RECEPTOR MAP

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	2043-20	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON	JX
SCALE	1" = 1000'	DRAWING NUMBER			REVISION	
DATE	4/10/2020	y:\rt projects\2000 series\2043-20\figures\well search\figures.dwg				



LEGEND

MONITORING WELL

WAREHOUSE AREA TO BE REDEVELOPED

0 50′ 100′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 9
SOIL EXCAVATION MAP

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
2043-20				JX/ VJL

SCALE	DRAWING NUMBER	REVISION
1" = 50'	y:\rt projects\2000 series\2043-20\figures\figures.dwg	1

DATE 12/10/2020



LEGEND

- MONITORING WELL
- WAREHOUSE AREA TO BE REDEVELOPED
- SUB-SLAB SOIL GAS POINT
- INDOOR AIR POINT

0 60′ 120′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

Figure 10
Offsite Soil Vapor Sample Location Map
3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
2043-20				CEC

SCALE	DRAWING NUMBER	REVISION
1" = 60'	y:\rt projects\2000 series\2043-20\figures\figures.dwg	1

DATE 1/14/2022

TABLES

RT Project # 2043-20

Table 1
Soil Analytical Results

3320 Collins Street
Philadelphia PA

Analyte	Direct Contact (Residential)	Soil to GW (Residential)	SB-300-3	SB-300-7.5	SB-301-1.5	SB-301-5.5	SB-302-4	SB-302-9	SB-303-2.5	SB-303-4.5	SB-304-2	SB-304-4
			10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
1,1,1-Trichloroethane	10000	20	< 0.00024	< 0.00019	0.041	< 0.00020	0.00097	< 0.00021	< 0.00022	< 0.00022	< 0.00019	< 0.00015
1,1,2,2-Tetrachloroethane	7.6	0.084	< 0.00022	< 0.00017	< 0.0086	< 0.00018	< 0.00032	< 0.00019	< 0.00021	< 0.00020	< 0.00018	< 0.00014
1,1,2-Trichloroethane	3.8	0.5	< 0.00018	< 0.00014	< 0.0036	< 0.00015	< 0.00026	< 0.00016	< 0.00017	< 0.00016	< 0.00015	< 0.00012
1,1-Dichloroethane	280	3.1	< 0.00021	< 0.00017	< 0.011	< 0.00017	< 0.00031	< 0.00019	< 0.00020	< 0.00019	< 0.00017	< 0.00013
1,1-Dichloroethene	3800	0.7	< 0.00023	< 0.00018	< 0.015	< 0.00019	< 0.00033	< 0.00020	< 0.00022	< 0.00021	< 0.00019	< 0.00015
1,2,4-Trichlorobenzene	39	27	< 0.000093	< 0.000074	< 0.012	< 0.000078	< 0.00014	< 0.000083	< 0.000089	< 0.000085	< 0.000077	< 0.000059
1,2,4-Trimethylbenzene	1100	73	< 0.000096	< 0.000076	< 0.010	< 0.000079	< 0.00014	< 0.000085	< 0.000090	< 0.000087	< 0.000078	< 0.000061
1,2-Dibromo-3-Chloropropane	0.029	0.02	< 0.00047	< 0.00037	< 0.010	< 0.00039	< 0.00068	< 0.00042	< 0.00044	< 0.00043	< 0.00038	< 0.00030
1,2-Dibromoethane	0.74	0.005	< 0.00018	< 0.00015	< 0.0086	< 0.00015	< 0.00027	< 0.00016	< 0.00017	< 0.00017	< 0.00015	< 0.00012
1,2-Dichlorobenzene	3800	60	< 0.00015	< 0.00012	< 0.0099	< 0.00012	< 0.00021	< 0.00013	< 0.00014	< 0.00013	< 0.00012	< 0.000093
1,2-Dichloroethane	17	0.5	< 0.00030	< 0.00024	< 0.011	< 0.00025	0.00048	< 0.00027	< 0.00028	< 0.00027	< 0.00025	< 0.00019
1,2-Dichloropropane	0.12	0.5	< 0.00043	< 0.00034	< 0.0081	< 0.00036	< 0.00063	< 0.00038	< 0.00041	< 0.00039	< 0.00035	< 0.00027
1,3,5-Trimethylbenzene	1100	23	< 0.00012	< 0.000093	< 0.011	< 0.000097	< 0.00017	< 0.00010	< 0.00011	< 0.00011	< 0.000096	< 0.000074
1,3-Dichlorobenzene	10000	61	< 0.00016	< 0.00013	< 0.015	< 0.00013	< 0.00024	< 0.00014	< 0.00015	< 0.00015	< 0.00013	< 0.00010
1,4-Dichlorobenzene	40	10	< 0.00010	< 0.000081	< 0.015	< 0.000084	< 0.00015	< 0.000091	< 0.000096	< 0.000092	< 0.000083	< 0.000065
2-Butanone	10000	400	< 0.0011	< 0.00090	< 0.099	< 0.00094	0.019	< 0.0010	< 0.0011	< 0.0010	< 0.00093	< 0.00072
2-Hexanone	570	6.3	< 0.00079	< 0.00063	< 0.033	< 0.00066	0.0029	< 0.00071	< 0.00075	< 0.00072	< 0.00065	< 0.00050
4-Methyl-2-pentanone	10000	280	< 0.00067	< 0.00054	< 0.028	< 0.00056	< 0.00098	< 0.00060	< 0.00064	< 0.00061	< 0.00055	< 0.00043
Acetone	10000	3100	< 0.0039	0.0036	< 0.048	< 0.0032	0.089	0.0067	< 0.0036	0.0056	0.0041	< 0.0024
Benzene	57	0.5	< 0.00026	0.00022	< 0.0086	< 0.00022	0.0019	< 0.00023	< 0.00025	0.0017	< 0.00022	0.00031
Bromodichloromethane	12	8	< 0.00026	< 0.00021	< 0.0068	< 0.00022	< 0.00038	< 0.00023	< 0.00025	< 0.00024	< 0.00021	< 0.00017
Bromoform	400	8	< 0.00043	< 0.00034	< 0.0081	< 0.00036	< 0.00063	< 0.00038	< 0.00041	< 0.00039	< 0.00035	< 0.00027
Bromomethane	95	1	< 0.00048	< 0.00038	< 0.0081	< 0.00040	< 0.00070	< 0.00043	< 0.00046	< 0.00044	< 0.00040	< 0.00031
Carbon disulfide	10000	150	< 0.00027	< 0.00021	< 0.0099	< 0.00022	< 0.00039	< 0.00024	< 0.00026	< 0.00025	< 0.00022	< 0.00017
Carbon tetrachloride	75	0.5	< 0.00018	< 0.00015	0.039	< 0.00015	< 0.00027	< 0.00016	< 0.00017	< 0.00017	< 0.00015	< 0.00012
Chlorobenzene	950	10	< 0.00018	< 0.00014	< 0.011	< 0.00015	< 0.00026	< 0.00016	< 0.00017	< 0.00016	< 0.00015	< 0.00011
Chloroethane	10000	2100	< 0.00053	< 0.00042	< 0.017	< 0.00044	< 0.00077	< 0.00047	< 0.00050	< 0.00048	< 0.00044	< 0.00034
Chloroform	19	8	< 0.00032	< 0.00026	0.049	< 0.00027	0.00057	< 0.00029	< 0.00031	< 0.00029	< 0.00027	< 0.00021
Chloromethane	250	3	< 0.00044	< 0.00035	< 0.0099	< 0.00037	< 0.00065	< 0.00039	< 0.00042	< 0.00040	< 0.00036	< 0.00028
cis-1,2-Dichloroethene	440	7	< 0.00015	< 0.00012	< 0.012	< 0.00013	< 0.00023	< 0.00014	< 0.00015	< 0.00014	< 0.00013	< 0.000098
cis-1,3-Dichloropropene	NA	NA	< 0.00028	< 0.00022	< 0.0072	< 0.00023	< 0.00040	< 0.00025	< 0.00026	< 0.00025	< 0.00023	< 0.00018
Cyclohexane	10000	1700	< 0.00022	< 0.00018	< 0.012	< 0.00019	< 0.00033	< 0.00020	< 0.00021	0.00031	< 0.00018	< 0.00014
Dibromochloromethane	220	8	< 0.00020	< 0.00016	< 0.0099	< 0.00016	< 0.00029	< 0.00018	< 0.00019	< 0.00018	< 0.00016	< 0.00013
Dichlorodifluoromethane	1900	100	< 0.00034	< 0.00027	< 0.0063	< 0.00028	< 0.00050	< 0.00031	< 0.00033	< 0.00031	< 0.00028	< 0.00022
Ethylbenzene	180	70	< 0.00020	< 0.00016	< 0.014	< 0.00017	< 0.00030	< 0.00018	< 0.00019	0.00061	< 0.00017	< 0.00013
Freon TF	10000	3400	< 0.00031	< 0.00024	< 0.015	< 0.00025	< 0.00045	< 0.00027	< 0.00029	< 0.00028	< 0.00025	< 0.00019
Isopropylbenzene	7600	600	< 0.00013	< 0.00010	< 0.014	< 0.00011	< 0.00019	< 0.00011	< 0.00012	< 0.00012	< 0.00011	< 0.000081
Methyl acetate	10000	3500	< 0.0044	< 0.0035	0.032	< 0.0036	< 0.0064	< 0.0039	< 0.0041	< 0.0040	< 0.0036	< 0.0028
Methylcyclohexane	NA	NA	0.00017	< 0.00013	< 0.0099	< 0.00013	0.00043	< 0.00014	< 0.00015	0.00044	< 0.00013	< 0.00010
Methylene Chloride	1300	0.5	0.0033	0.0046	< 0.0095	0.0046	0.0045	0.014	0.0045	0.0073	0.0030	0.0033
MTBE	1700	2	< 0.00013	< 0.00010	< 0.0059	< 0.00011	< 0.00019	< 0.00011	< 0.00012	< 0.00012	< 0.00010	< 0.000081
Naphthalene	13	25	< 0.00019	< 0.00015	< 0.012	< 0.00016	< 0.00028	< 0.00017	< 0.00018	< 0.00018	< 0.00016	< 0.00012
Styrene	10000	24	< 0.00012	< 0.000099	< 0.0077	< 0.00010	< 0.00018	< 0.00011	< 0.00012	< 0.00011	< 0.00010	< 0.000079

RT Project # 2043-20

Table 1
Soil Analytical Results

3320 Collins Street
Philadelphia PA

Analyte	Direct Contact (Residential)	Soil to GW (Residential)	SB-300-3	SB-300-7.5	SB-301-1.5	SB-301-5.5	SB-302-4	SB-302-9	SB-303-2.5	SB-303-4.5	SB-304-2	SB-304-4
			10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018	10/2/2018
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Tetrachloroethene (PCE)	760	0.5	0.0011	0.00012	7.5	0.0013	0.0057	< 0.00013	0.0041	0.00097	0.0020	0.00085
Toluene	10000	100	< 0.00063	0.0013	< 0.011	< 0.00053	0.0011	0.0011	< 0.00060	0.015	< 0.00052	0.0016
trans-1,2-Dichloroethene	4400	10	< 0.00025	< 0.00020	< 0.0081	< 0.00021	< 0.00036	< 0.00022	< 0.00024	< 0.00023	< 0.00021	< 0.00016
trans-1,3-Dichloropropene	NA	NA	< 0.00027	< 0.00021	< 0.0086	< 0.00022	< 0.00039	< 0.00024	< 0.00026	< 0.00025	< 0.00022	< 0.00017
Trichloroethene (TCE)	38	0.5	0.00068	< 0.00012	0.89	0.00035	0.010	< 0.00013	0.00025	< 0.00013	< 0.00012	< 0.000093
Trichlorofluoromethane	10000	200	< 0.00041	< 0.00033	< 0.0068	< 0.00034	< 0.00060	< 0.00037	< 0.00039	< 0.00038	< 0.00034	< 0.00026
Vinyl chloride	0.93	0.2	< 0.00055	< 0.00044	< 0.0090	< 0.00046	< 0.00081	< 0.00049	< 0.00053	< 0.00050	< 0.00046	< 0.00035
Xylenes, Total	1900	1000	< 0.00026	< 0.00020	< 0.013	< 0.00021	< 0.00038	< 0.00023	< 0.00024	0.00086	< 0.00021	< 0.00016
Anthracene	66000	350	< 0.0045	< 0.0043	0.60	< 0.0041	< 0.0042	< 0.0039	0.50	0.0059	0.052	0.014
Benzo[a]anthracene	6.1	26	< 0.014	< 0.013	1.5	< 0.013	< 0.013	< 0.012	2.0	0.025	0.24	0.033
Benzo[a]pyrene	4.2	46	0.029	< 0.010	1.3	< 0.0098	< 0.010	< 0.0092	1.4	0.018	0.24	0.020
Benzo[b]fluoranthene	3.5	25	0.038	< 0.0098	1.6	< 0.0095	< 0.0098	0.0094	2.0	0.028	0.37	0.023
Benzo[g,h,i]perylene	13000	180	0.023	< 0.011	0.73	< 0.011	< 0.011	< 0.010	0.70	< 0.011	0.17	0.014
Chrysene	35	220	0.038	< 0.0064	1.6	< 0.0062	0.050	0.0067	2.1	0.021	0.41	0.024
Fluorene	8800	2800	< 0.0054	< 0.0052	0.24	< 0.0050	< 0.0051	< 0.0047	0.068	< 0.0053	0.021	< 0.0053
Phenanthrene	66000	10000	0.038	< 0.0067	3.0	< 0.0065	0.060	0.011	3.3	0.021	0.48	0.067
Pyrene	6600	2200	0.050	< 0.0095	2.9	< 0.0092	0.020	0.013	3.7	0.035	0.56	0.061

Notes:
Direct Contact R = MSC (Residential Direct Contact 0-15')
Soil to Groundwater R = MSC (Residential Soil to Groundwater Used Aquifer TDS =<2500)
higher of the 100x GW MSC or the Generic Value
Green Highlighted values = Detection over the Direct Contact
Yellow Highlighted values=Dection over Soil to Groundwater

RT Project # 2043-20

Table 1
Soil Analytical Results

3320 Collins Street
Philadelphia PA

Analyte	Direct Contact (Residential)	Soil to GW (Residential)	SB-305-4	SB-305-6	SB-310-2	SB-310-7.5	SB-311-13	SB-311-19.5	SB-312-18	SB-312-19.5	SB-313-14	SB-313-19.5
			10/2/2018	10/2/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
1,1,1-Trichloroethane	10000	20	< 0.00048	< 0.00019	0.0016	0.00038	< 0.00025	< 0.00028	< 0.014	< 0.00020	< 0.00021	< 0.00025
1,1,2,2-Tetrachloroethane	7.6	0.084	< 0.00044	< 0.00018	< 0.00018	< 0.00018	< 0.00023	< 0.00026	< 0.0097	< 0.00018	< 0.00019	< 0.00023
1,1,2-Trichloroethane	3.8	0.5	< 0.00037	< 0.00015	< 0.00015	< 0.00015	< 0.00019	< 0.00022	< 0.0041	< 0.00015	< 0.00016	< 0.00019
1,1-Dichloroethane	280	3.1	< 0.00043	< 0.00017	0.00047	< 0.00018	< 0.00022	< 0.00025	< 0.012	< 0.00018	< 0.00019	< 0.00022
1,1-Dichloroethene	3800	0.7	< 0.00046	< 0.00019	< 0.00019	< 0.00019	< 0.00024	< 0.00027	< 0.017	< 0.00019	< 0.00020	< 0.00024
1,2,4-Trichlorobenzene	39	27	< 0.00019	< 0.000077	< 0.000079	< 0.000079	< 0.000097	< 0.00011	< 0.014	< 0.000079	< 0.000083	< 0.000099
1,2,4-Trimethylbenzene	1100	73	< 0.00019	< 0.000078	< 0.000081	< 0.000081	< 0.000099	< 0.00011	0.66	0.0028	< 0.000085	< 0.00010
1,2-Dibromo-3-Chloropropane	0.029	0.02	< 0.00095	< 0.00038	< 0.00039	< 0.00039	< 0.00049	< 0.00056	< 0.012	< 0.00040	< 0.00042	< 0.00050
1,2-Dibromoethane	0.74	0.005	< 0.00037	< 0.00015	< 0.00015	< 0.00015	< 0.00019	< 0.00022	< 0.0097	< 0.00016	< 0.00016	< 0.00019
1,2-Dichlorobenzene	3800	60	< 0.00030	< 0.00012	< 0.00012	< 0.00012	< 0.00015	< 0.00018	< 0.011	< 0.00012	< 0.00013	< 0.00016
1,2-Dichloroethane	17	0.5	< 0.00061	< 0.00025	0.00042	< 0.00025	< 0.00031	< 0.00036	< 0.013	< 0.00026	< 0.00027	< 0.00032
1,2-Dichloropropane	0.12	0.5	< 0.00087	< 0.00035	< 0.00036	< 0.00036	< 0.00045	< 0.00052	< 0.0092	< 0.00037	< 0.00038	< 0.00046
1,3,5-Trimethylbenzene	1100	23	< 0.00024	< 0.000096	< 0.000099	< 0.000099	< 0.00012	< 0.00014	0.70	0.00024	< 0.00010	< 0.00012
1,3-Dichlorobenzene	10000	61	< 0.00033	< 0.00013	< 0.00014	< 0.00014	< 0.00017	< 0.00019	< 0.017	< 0.00014	< 0.00014	< 0.00017
1,4-Dichlorobenzene	40	10	< 0.00021	< 0.000083	< 0.000086	< 0.000086	< 0.00011	< 0.00012	< 0.017	< 0.000086	< 0.000091	< 0.00011
2-Butanone	10000	400	< 0.0023	< 0.00092	< 0.00095	< 0.00095	< 0.0012	< 0.0014	< 0.11	< 0.00096	< 0.0010	< 0.0012
2-Hexanone	570	6.3	< 0.0016	< 0.00065	< 0.00067	< 0.00067	< 0.00082	< 0.00095	< 0.037	< 0.00067	< 0.00071	< 0.00084
4-Methyl-2-pentanone	10000	280	< 0.0014	< 0.00055	< 0.00057	< 0.00057	< 0.00070	< 0.00081	< 0.032	< 0.00057	< 0.00060	< 0.00072
Acetone	10000	3100	0.019	< 0.0032	< 0.0032	< 0.0032	0.0048	0.034	< 0.055	0.0038	0.0040	< 0.0041
Benzene	57	0.5	< 0.00053	0.00024	< 0.00022	< 0.00022	< 0.00027	< 0.00031	0.056	< 0.00022	0.00034	0.00029
Bromodichloromethane	12	8	< 0.00053	< 0.00021	< 0.00022	< 0.00022	< 0.00027	< 0.00031	< 0.0077	< 0.00022	< 0.00023	< 0.00028
Bromoform	400	8	< 0.00088	< 0.00035	< 0.00036	< 0.00036	< 0.00045	< 0.00052	< 0.0092	< 0.00037	< 0.00038	< 0.00046
Bromomethane	95	1	< 0.00098	< 0.00039	< 0.00041	< 0.00041	< 0.00050	< 0.00058	< 0.0092	< 0.00041	< 0.00043	< 0.00051
Carbon disulfide	10000	150	< 0.00055	< 0.00022	< 0.00023	< 0.00023	< 0.00028	< 0.00032	< 0.011	< 0.00023	< 0.00024	< 0.00029
Carbon tetrachloride	75	0.5	< 0.00037	< 0.00015	0.0015	0.00019	< 0.00019	< 0.00022	< 0.017	< 0.00016	< 0.00016	< 0.00020
Chlorobenzene	950	10	< 0.00037	< 0.00015	< 0.00015	< 0.00015	< 0.00019	< 0.00022	< 0.012	< 0.00015	< 0.00016	< 0.00019
Chloroethane	10000	2100	< 0.0011	< 0.00043	< 0.00045	< 0.00045	< 0.00055	< 0.00064	< 0.019	< 0.00045	< 0.00047	< 0.00056
Chloroform	19	8	< 0.00066	< 0.00027	0.0054	0.0022	< 0.00034	< 0.00039	< 0.011	< 0.00028	< 0.00029	< 0.00034
Chloromethane	250	3	< 0.00090	< 0.00036	< 0.00037	< 0.00037	< 0.00046	< 0.00053	< 0.011	< 0.00038	< 0.00039	< 0.00047
cis-1,2-Dichloroethene	440	7	< 0.00031	< 0.00013	0.00019	< 0.00013	< 0.00016	< 0.00019	0.035	< 0.00013	< 0.00014	0.0014
cis-1,3-Dichloropropene	NA	NA	< 0.00056	< 0.00023	< 0.00023	< 0.00023	< 0.00029	< 0.00033	< 0.0082	< 0.00024	< 0.00025	< 0.00029
Cyclohexane	10000	1700	< 0.00046	< 0.00018	< 0.00019	< 0.00019	< 0.00023	< 0.00027	0.35	0.00032	< 0.00020	< 0.00024
Dibromochloromethane	220	8	< 0.00040	< 0.00016	< 0.00017	< 0.00017	< 0.00020	< 0.00024	< 0.011	< 0.00017	< 0.00018	< 0.00021
Dichlorodifluoromethane	1900	100	< 0.00070	< 0.00028	< 0.00029	< 0.00029	< 0.00036	< 0.00041	< 0.0072	< 0.00029	< 0.00031	< 0.00037
Ethylbenzene	180	70	< 0.00041	< 0.00017	< 0.00017	< 0.00017	< 0.00021	< 0.00024	0.46	0.00071	< 0.00018	< 0.00021
Freon TF	10000	3400	< 0.00062	< 0.00025	< 0.00026	< 0.00026	< 0.00032	< 0.00037	< 0.017	< 0.00026	< 0.00027	< 0.00033
Isopropylbenzene	7600	600	< 0.00026	< 0.00010	< 0.00011	< 0.00011	< 0.00013	< 0.00015	0.46	0.0011	< 0.00011	0.00014
Methyl acetate	10000	3500	< 0.0089	< 0.0036	< 0.0037	< 0.0037	< 0.0045	< 0.0052	< 0.030	< 0.0037	< 0.0039	< 0.0046
Methylcyclohexane	NA	NA	< 0.00033	< 0.00013	< 0.00014	< 0.00014	< 0.00017	< 0.00019	1.1	0.0015	< 0.00014	< 0.00017
Methylene Chloride	1300	0.5	0.019	0.0047	0.0044	0.0040	0.0048	0.0098	< 0.011	0.0044	0.0050	0.0052
MTBE	1700	2	< 0.00026	< 0.00010	< 0.00011	< 0.00011	< 0.00013	< 0.00015	< 0.0067	< 0.00011	< 0.00011	< 0.00013
Naphthalene	13	25	< 0.00039	< 0.00016	0.00052	< 0.00016	< 0.00020	< 0.00023	14	0.034	< 0.00017	< 0.00021
Styrene	10000	24	< 0.00025	< 0.00010	< 0.00011	< 0.00011	< 0.00013	< 0.00015	< 0.0087	< 0.00011	< 0.00011	< 0.00013

RT Project # 2043-20

Table 1
Soil Analytical Results

3320 Collins Street
Philadelphia PA

Analyte	Direct Contact (Residential)	Soil to GW (Residential)	SB-305-4	SB-305-6	SB-310-2	SB-310-7.5	SB-311-13	SB-311-19.5	SB-312-18	SB-312-19.5	SB-313-14	SB-313-19.5
			10/2/2018	10/2/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Tetrachloroethene (PCE)	760	0.5	0.0068	0.00020	0.0013	0.00045	< 0.00015	< 0.00017	< 0.018	0.00025	< 0.00013	0.0019
Toluene	10000	100	< 0.0013	0.0012	< 0.00054	< 0.00054	0.0011	< 0.00076	< 0.013	0.00059	0.0018	0.0014
trans-1,2-Dichloroethene	4400	10	< 0.00051	< 0.00020	< 0.00021	< 0.00021	< 0.00026	< 0.00030	< 0.0092	< 0.00021	< 0.00022	< 0.00027
trans-1,3-Dichloropropene	NA	NA	< 0.00055	< 0.00022	< 0.00023	< 0.00023	< 0.00028	< 0.00032	< 0.0097	< 0.00023	< 0.00024	< 0.00029
Trichloroethene (TCE)	38	0.5	0.0025	< 0.00012	0.0058	0.0016	< 0.00015	< 0.00018	< 0.011	< 0.00012	0.00043	0.00072
Trichlorofluoromethane	10000	200	< 0.00084	< 0.00034	< 0.00035	< 0.00035	< 0.00043	< 0.00049	< 0.0077	< 0.00035	< 0.00037	< 0.00044
Vinyl chloride	0.93	0.2	< 0.0011	< 0.00045	< 0.00047	< 0.00047	< 0.00058	< 0.00066	< 0.010	< 0.00047	< 0.00049	< 0.00059
Xylenes, Total	1900	1000	< 0.00052	< 0.00021	< 0.00022	< 0.00022	< 0.00027	< 0.00031	0.059	0.00027	< 0.00023	< 0.00027
Anthracene	66000	350	0.15	< 0.0045	0.027	< 0.0043	< 0.0040	< 0.0044	1.0	< 0.0043	< 0.0042	< 0.0044
Benzo[a]anthracene	6.1	26	2.0	< 0.014	0.14	< 0.013	< 0.013	< 0.014	1.6	< 0.014	< 0.013	< 0.014
Benzo[a]pyrene	4.2	46	2.8	< 0.011	0.14	< 0.010	< 0.0096	< 0.010	0.86	< 0.010	< 0.0099	< 0.010
Benzo[b]fluoranthene	3.5	25	4.0	< 0.010	0.21	< 0.010	< 0.0093	< 0.010	0.50	< 0.010	< 0.0096	< 0.010
Benzo[g,h,i]perylene	13000	180	2.5	< 0.012	0.099	< 0.011	< 0.011	< 0.011	0.36	< 0.011	< 0.011	< 0.011
Chrysene	35	220	2.5	< 0.0068	0.16	< 0.0065	< 0.0061	< 0.0066	2.9	< 0.0066	< 0.0063	< 0.0066
Fluorene	8800	2800	0.050	< 0.0055	< 0.0052	< 0.0052	< 0.0049	< 0.0053	2.3	< 0.0053	< 0.0051	< 0.0053
Phenanthrene	66000	10000	0.89	< 0.0071	0.15	< 0.0068	< 0.0063	< 0.0068	9.7	< 0.0068	< 0.0065	< 0.0068
Pyrene	6600	2200	2.4	< 0.010	0.27	< 0.0096	< 0.0090	< 0.0097	2.9	< 0.0096	< 0.0093	< 0.0097

Notes:
Direct Contact R = MSC (Residential Direct Contact 0-15')
Soil to Groundwater R = MSC (Residential Soil to Groundwater Used Aquifer TDS =<2500)
higher of the 100x GW MSC or the Generic Value
Highlighted values = Detection over the lowest standard

RT Project # 2043-20

Table 1
Soil Analytical Results

3320 Collins Street
Philadelphia PA

Analyte	Direct Contact (Residential)	Soil to GW (Residential)	SB-314-13.5	SB-314-19.5	SB-315-14	SB-315-19.5	SB-316-12.5	SB-316-19.5	SB-317-13	SB-317-19.5	SB-318-18	SB-318-19.5
			10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
1,1,1-Trichloroethane	10000	20	< 0.00021	< 0.00022	< 0.00019	< 0.00027	< 0.00017	< 0.00028	< 0.00019	< 0.00029	< 0.013	< 0.00024
1,1,2,2-Tetrachloroethane	7.6	0.084	< 0.00019	< 0.00020	< 0.00017	< 0.00025	< 0.00016	< 0.00026	< 0.00017	< 0.00027	< 0.0089	< 0.00022
1,1,2-Trichloroethane	3.8	0.5	< 0.00016	< 0.00017	< 0.00014	< 0.00021	< 0.00013	< 0.00021	< 0.00014	< 0.00022	< 0.0037	< 0.00018
1,1-Dichloroethane	280	3.1	< 0.00018	< 0.00019	< 0.00017	< 0.00024	< 0.00015	< 0.00025	< 0.00017	< 0.00026	< 0.011	< 0.00021
1,1-Dichloroethene	3800	0.7	< 0.00020	< 0.00021	< 0.00018	< 0.00026	< 0.00017	< 0.00027	< 0.00018	< 0.00028	< 0.016	< 0.00023
1,2,4-Trichlorobenzene	39	27	< 0.000082	< 0.000086	< 0.000075	< 0.00011	< 0.000069	< 0.00011	< 0.000074	< 0.00012	< 0.013	< 0.000094
1,2,4-Trimethylbenzene	1100	73	< 0.000084	< 0.000087	< 0.000077	< 0.00011	< 0.000070	< 0.00011	< 0.000075	< 0.00012	0.061	< 0.000096
1,2-Dibromo-3-Chloropropane	0.029	0.02	< 0.00041	< 0.00043	< 0.00037	< 0.00053	< 0.00034	< 0.00055	< 0.00037	< 0.00058	< 0.011	< 0.00047
1,2-Dibromoethane	0.74	0.005	< 0.00016	< 0.00017	< 0.00015	< 0.00021	< 0.00013	< 0.00022	< 0.00014	< 0.00023	< 0.0089	< 0.00018
1,2-Dichlorobenzene	3800	60	< 0.00013	< 0.00013	< 0.00012	< 0.00017	< 0.00011	< 0.00017	< 0.00012	< 0.00018	< 0.010	< 0.00015
1,2-Dichloroethane	17	0.5	< 0.00026	< 0.00028	< 0.00024	< 0.00034	< 0.00022	< 0.00036	< 0.00024	< 0.00037	< 0.012	< 0.00030
1,2-Dichloropropane	0.12	0.5	< 0.00038	< 0.00039	< 0.00034	< 0.00049	< 0.00032	< 0.00051	< 0.00034	< 0.00053	< 0.0084	< 0.00043
1,3,5-Trimethylbenzene	1100	23	< 0.00010	< 0.00011	< 0.000094	< 0.00013	< 0.000086	< 0.00014	< 0.000092	< 0.00015	< 0.012	< 0.00012
1,3-Dichlorobenzene	10000	61	< 0.00014	< 0.00015	< 0.00013	< 0.00018	< 0.00012	< 0.00019	< 0.00013	< 0.00020	< 0.015	< 0.00016
1,4-Dichlorobenzene	40	10	< 0.000089	< 0.000093	< 0.000081	< 0.00012	< 0.000074	< 0.00012	< 0.000080	< 0.00013	< 0.015	< 0.00010
2-Butanone	10000	400	< 0.00099	< 0.0010	< 0.00090	< 0.0013	< 0.00083	< 0.0013	< 0.00089	< 0.0014	< 0.10	< 0.0011
2-Hexanone	570	6.3	< 0.00069	< 0.00073	< 0.00063	< 0.00090	< 0.00058	< 0.00094	< 0.00063	< 0.00098	< 0.034	< 0.00080
4-Methyl-2-pentanone	10000	280	< 0.00059	< 0.00062	< 0.00054	< 0.00077	< 0.00049	< 0.00080	< 0.00053	< 0.00084	< 0.029	< 0.00068
Acetone	10000	3100	0.0054	< 0.0035	< 0.0031	0.0061	0.0032	< 0.0046	0.0033	0.0053	< 0.050	0.018
Benzene	57	0.5	< 0.00023	0.00026	< 0.00021	< 0.00030	< 0.00019	< 0.00031	0.00030	< 0.00033	< 0.0089	< 0.00026
Bromodichloromethane	12	8	< 0.00023	< 0.00024	< 0.00021	< 0.00030	< 0.00019	< 0.00031	< 0.00021	< 0.00032	< 0.0070	< 0.00026
Bromoform	400	8	< 0.00038	< 0.00040	< 0.00035	< 0.00049	< 0.00032	< 0.00051	< 0.00034	< 0.00054	< 0.0084	< 0.00044
Bromomethane	95	1	< 0.00042	< 0.00044	< 0.00039	< 0.00055	< 0.00035	< 0.00057	< 0.00038	< 0.00060	< 0.0084	< 0.00049
Carbon disulfide	10000	150	< 0.00024	< 0.00025	< 0.00022	< 0.00031	< 0.00020	< 0.00032	< 0.00021	< 0.00034	< 0.010	< 0.00027
Carbon tetrachloride	75	0.5	< 0.00016	< 0.00017	< 0.00015	< 0.00021	< 0.00013	< 0.00022	< 0.00015	< 0.00023	< 0.015	< 0.00019
Chlorobenzene	950	10	< 0.00016	< 0.00016	< 0.00014	< 0.00021	< 0.00013	< 0.00021	< 0.00014	< 0.00022	< 0.011	< 0.00018
Chloroethane	10000	2100	< 0.00047	< 0.00049	< 0.00042	< 0.00060	< 0.00039	< 0.00063	< 0.00042	< 0.00066	< 0.017	< 0.00053
Chloroform	19	8	< 0.00028	< 0.00030	< 0.00026	< 0.00037	< 0.00024	< 0.00038	< 0.00026	< 0.00040	< 0.010	< 0.00033
Chloromethane	250	3	< 0.00039	< 0.00040	< 0.00035	< 0.00050	< 0.00032	< 0.00052	< 0.00035	< 0.00055	< 0.010	< 0.00045
cis-1,2-Dichloroethene	440	7	< 0.00014	0.00098	< 0.00012	< 0.00018	< 0.00011	0.00024	< 0.00012	0.0031	< 0.012	< 0.00016
cis-1,3-Dichloropropene	NA	NA	< 0.00024	< 0.00025	< 0.00022	< 0.00032	< 0.00020	< 0.00033	< 0.00022	< 0.00034	< 0.0075	< 0.00028
Cyclohexane	10000	1700	< 0.00020	< 0.00021	< 0.00018	< 0.00026	< 0.00016	< 0.00027	< 0.00018	< 0.00028	0.071	< 0.00023
Dibromochloromethane	220	8	< 0.00017	< 0.00018	< 0.00016	< 0.00022	< 0.00014	< 0.00023	< 0.00016	< 0.00024	< 0.010	< 0.00020
Dichlorodifluoromethane	1900	100	< 0.00030	< 0.00031	< 0.00028	< 0.00039	< 0.00025	< 0.00041	< 0.00027	< 0.00043	< 0.0065	< 0.00035
Ethylbenzene	180	70	< 0.00018	0.00020	< 0.00016	< 0.00023	< 0.00015	< 0.00024	< 0.00016	< 0.00025	< 0.014	< 0.00020
Freon TF	10000	3400	< 0.00027	< 0.00028	< 0.00024	< 0.00035	< 0.00022	< 0.00036	< 0.00024	< 0.00038	< 0.016	< 0.00031
Isopropylbenzene	7600	600	< 0.00011	< 0.00012	< 0.00010	< 0.00015	< 0.000094	< 0.00015	< 0.00010	< 0.00016	0.041	< 0.00013
Methyl acetate	10000	3500	< 0.0038	< 0.0040	< 0.0035	< 0.0050	< 0.0032	< 0.0052	< 0.0035	< 0.0054	< 0.027	< 0.0044
Methylcyclohexane	NA	NA	< 0.00014	0.00028	< 0.00013	< 0.00019	< 0.00012	< 0.00019	< 0.00013	< 0.00020	0.11	< 0.00016
Methylene Chloride	1300	0.5	0.0048	0.0049	0.0036	0.0020	0.0030	0.0060	0.0036	0.0083	< 0.0098	0.0015
MTBE	1700	2	< 0.00011	< 0.00012	< 0.00010	< 0.00014	< 0.000093	< 0.00015	< 0.00010	< 0.00016	< 0.0061	< 0.00013
Naphthalene	13	25	< 0.00017	< 0.00018	< 0.00015	< 0.00022	< 0.00014	< 0.00023	< 0.00015	< 0.00024	0.33	< 0.00019
Styrene	10000	24	< 0.00011	< 0.00011	< 0.00010	< 0.00014	< 0.000092	< 0.00015	< 0.000099	< 0.00016	< 0.0079	< 0.00013

RT Project # 2043-20

Table 1
Soil Analytical Results

3320 Collins Street
Philadelphia PA

Analyte	Direct Contact (Residential)	Soil to GW (Residential)	SB-314-13.5	SB-314-19.5	SB-315-14	SB-315-19.5	SB-316-12.5	SB-316-19.5	SB-317-13	SB-317-19.5	SB-318-18	SB-318-19.5
			10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018	10/3/2018
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Tetrachloroethene (PCE)	760	0.5	< 0.00013	0.00021	0.00029	< 0.00017	< 0.00011	0.0011	< 0.00011	0.0030	< 0.017	< 0.00015
Toluene	10000	100	< 0.00056	0.0015	0.00068	< 0.00072	< 0.00047	0.00088	0.0018	< 0.00079	< 0.012	< 0.00064
trans-1,2-Dichloroethene	4400	10	< 0.00022	< 0.00023	< 0.00020	< 0.00028	< 0.00018	< 0.00030	< 0.00020	< 0.00031	< 0.0084	< 0.00025
trans-1,3-Dichloropropene	NA	NA	< 0.00024	< 0.00025	< 0.00022	< 0.00031	< 0.00020	< 0.00032	< 0.00021	< 0.00034	< 0.0089	< 0.00027
Trichloroethene (TCE)	38	0.5	< 0.00013	0.00097	< 0.00012	< 0.00017	< 0.00011	0.00027	< 0.00012	0.0018	< 0.010	< 0.00015
Trichlorofluoromethane	10000	200	< 0.00036	< 0.00038	< 0.00033	< 0.00047	< 0.00030	< 0.00049	< 0.00033	< 0.00051	< 0.0070	< 0.00042
Vinyl chloride	0.93	0.2	< 0.00049	< 0.00051	< 0.00044	< 0.00063	< 0.00041	< 0.00066	< 0.00044	< 0.00069	< 0.0093	< 0.00056
Xylenes, Total	1900	1000	< 0.00023	0.00043	< 0.00021	< 0.00029	< 0.00019	< 0.00030	< 0.00020	< 0.00032	< 0.013	< 0.00026
Anthracene	66000	350	< 0.0039	< 0.0045	< 0.0041	< 0.0044	< 0.0039	< 0.0046	< 0.0039	< 0.0045	1.4	< 0.0043
Benzo[a]anthracene	6.1	26	< 0.012	< 0.014	< 0.013	< 0.014	< 0.012	< 0.014	< 0.012	< 0.014	2.7	< 0.013
Benzo[a]pyrene	4.2	46	< 0.0092	< 0.011	< 0.0099	< 0.011	< 0.0093	< 0.011	< 0.0094	< 0.011	1.3	< 0.010
Benzo[b]fluoranthene	3.5	25	< 0.0089	< 0.010	< 0.0096	< 0.010	< 0.0090	< 0.011	< 0.0091	< 0.010	0.74	< 0.0099
Benzo[g,h,i]perylene	13000	180	< 0.010	< 0.012	< 0.011	< 0.012	< 0.010	< 0.012	< 0.010	< 0.012	0.58	< 0.011
Chrysene	35	220	< 0.0058	< 0.0068	< 0.0063	< 0.0067	< 0.0059	< 0.0069	< 0.0059	< 0.0068	4.4	< 0.0065
Fluorene	8800	2800	< 0.0047	< 0.0055	0.016	< 0.0054	< 0.0047	< 0.0056	< 0.0048	< 0.0055	1.2	< 0.0052
Phenanthrene	66000	10000	< 0.0061	< 0.0071	0.044	< 0.0070	< 0.0061	< 0.0072	< 0.0062	< 0.0071	7.0	< 0.0067
Pyrene	6600	2200	< 0.0086	< 0.010	0.022	< 0.0099	< 0.0086	< 0.010	< 0.0087	< 0.010	7.7	< 0.0095

Notes:
Direct Contact R = MSC (Residential Direct Contact 0-15')
Soil to Groundwater R = MSC (Residential Soil to Groundwater Used Aquifer TDS =<2500)
higher of the 100x GW MSC or the Generic Value
Highlighted values = Detection over the lowest standard

Table 2
Groundwater Analytical Results

Monitoring Well:	PADEP rSHS MSCs (Non-use Aquifer)	MW-1	MW-16S		MW-16D		MW-17S		MW-18S		MW-18D		MW-19S		MW-19D	
Sample Date:		2/22/2019	1/2/2019	2/22/2019	1/2/2019	2/22/2019	1/2/2019	2/22/2019	1/2/2019	2/22/2019	1/2/2019	2/22/2019	1/2/2019	2/22/2019	1/2/2019	2/22/2019
Lab ID:		460-175965-1	460-172581-2	460-175965-7	460-172581-3	460-175965-8	460-172581-1	460-175965-6	460-172581-4	460-175965-2	460-172581-5	460-175965-3	460-172581-6	460-175965-4	460-172581-7	460-175965-5
1,1,1-Trichloroethane	2000	<0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
1,1,2,2-Tetrachloroethane	84	<0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
1,1,2-Trichloroethane	50	<0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
1,1-Dichloroethane	310	<0.26	< 0.26	0.38	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	0.40	< 0.26	6.6	7.8
1,1-Dichloroethene	70	<0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	31	33
1,2,3-Trichlorobenzene	NS	-	< 0.36	-	< 0.36	-	< 0.36	-	< 0.36	-	< 0.36	-	< 0.36	-	< 0.36	-
1,2,4-Trichlorobenzene	7000	<0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
1,2,4-Trimethylbenzene	13000	<0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
1,2-Dibromo-3-Chloropropane	20	<0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
1,2-Dibromoethane(Ethylene Dibromide)	5	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	60000	<0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
1,2-Dichloroethane	50	<0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	0.83	< 0.43
1,2-Dichloropropane	50	<0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,3,5-Trimethylbenzene	130	<0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,3-Dichlorobenzene	60000	<0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,4-Dichlorobenzene	7500	<0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76
1,4-Dioxane	65	-	< 28	-	< 28	-	< 28	-	< 28	-	< 28	-	< 28	-	< 28	-
2-Butanone (MEK)	400000	<1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	2.4	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9
2-Hexanone	63	<2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9
4-Methyl-2-pentanone (MIBK)	280000	<2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7
Acetone	310000	7.2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	58	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.1
Benzene	500	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	22	21
Bromoform	8000	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
Bromomethane	1000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon disulfide	1500	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	0.54	1.0	0.24	< 0.16	0.40	2.7
Carbon tetrachloride	50	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
Chlorobenzene	10000	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
Chlorobromomethane	90	-	< 0.41	-	< 0.41	-	< 0.41	-	< 0.41	-	< 0.41	-	< 0.41	-	< 0.41	-
Chlorodibromomethane	8000	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Chloroethane	2100000	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Chloroform	800	< 0.33	< 0.33	< 0.33	0.44	< 0.33	< 0.33	< 0.33	0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chloromethane	3000	<0.14	0.23	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
cis-1,2-Dichloroethene	700	1.8	0.27	< 0.22	0.38	< 0.22	0.33	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	0.50	0.95	8.5	9.0
cis-1,3-Dichloropropene	NS	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
Cyclohexane	13000	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Dichlorobromomethane	80	<0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
Dichlorodifluoromethane	100000	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Ethylbenzene	70000	<0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Freon TF	170000	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Isopropylbenzene	50000	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
Methyl acetate	35000	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Methylcyclohexane	NS	-	< 0.26	-	< 0.26	-	< 0.26	-	< 0.26	-	< 0.26	-	< 0.26	-	< 0.26	-
Methylene Chloride	500	<0.32	0.46	< 0.32	2.1	0.7	0.38	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
MTBE	200	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
Naphthalene	10000	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	0.85	< 0.41
Styrene	10000	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
Tetrachloroethene (PCE)	50	0.34	1.2	<0.25	< 0.25	<0.25	< 0.25	<0.25	0.30	<0.25	< 0.25	<0.25	< 0.25	<0.25	0.25	0.41
Toluene	100000	< 0.38	< 0.38	< 0.38	1.4	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	1000	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
trans-1,3-Dichloropropene	NS	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49
Trichloroethene (TCE)	50	0.60	0.85	< 0.31	1.8	< 0.31	0.49	0.34	< 0.31	< 0.31	< 0.31	< 0.31	0.59	1.2	41	49
Trichlorofluoromethane	200000	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
Vinyl chloride	20	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	0.71	1.0
Xylenes, Total	180000	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Notes:
NS: No PADEP Standard
Concentrations in µg/m^3
"<" indicates that the analyte was not detected above the laboratory method detection limit
"-" indicates analyte was not analyzed

Monitoring Well	Date	TOC Elevation (ft)	Depth to GW (ft)	GW Elevation (ft)
MW-1	1/2/2019	100	-	-
	1/15/2019		14.05	85.95
	1/23/2019		14.14	85.86
	2/22/2019		14.21	85.79
MW-16S	1/2/2019	98.54	12.01	86.53
	1/15/2019		12.16	86.38
	1/23/2019		12.04	86.5
	2/22/2019		12.3	86.24
MW-16D	1/2/2019	98.90	12.41	86.49
	1/15/2019		12.62	86.28
	1/23/2019		12.46	86.44
	2/22/2019		12.71	86.19
MW-17S	1/2/2019	96.27	9.85	86.42
	1/15/2019		10.06	86.21
	1/23/2019		10.04	86.23
	2/22/2019		10.05	86.22
MW-18S	1/2/2019	100.64	15.35	85.29
	1/15/2019		14.55	86.09
	1/23/2019		14.65	85.99
	2/22/2019		14.62	86.02
MW-18D	1/2/2019	100.74	15.15	85.59
	1/15/2019		14.64	86.10
	1/23/2019		14.71	86.03
	2/22/2019		14.71	86.03
MW-19S	1/2/2019	99.95	13.85	86.1
	1/15/2019		13.97	85.98
	1/23/2019		14.01	85.94
	2/22/2019		14.01	85.94
MW-19D	1/2/2019	100.04	14.45	85.59
	1/15/2019		14.11	85.93
	1/23/2019		14.16	85.88
	2/22/2019		14.55	85.49

Table 4
Onsite Soil Vapor Results

Client ID:	PA DEP Residential	PA DEP Nonresidential	Cas Number	SV-1		SV-2		SV-3	
Lab ID:				200-45699-1	200-47571-1	200-45699-2	200-47571-2	200-45699-3	200-47571-3
Sample Date:	$SS_{SV}(\mu g/m^3)$	$SS_{SV}(\mu g/m^3)$		10/11/2018	2/22/2019	10/11/2018	2/22/2019	10/11/2018	2/22/2019
EPA Method TO-15 VOCs									
Acetone	1,200,000	17,000,000	67-64-1	<120	<120	<120	<120	<120	<120
Benzene	120	2,000	71-43-2	<6	<6	<6	<6	**7**	<6
Benzyl chloride	19	320	100-44-7	<10	<10	<10	<10	<10	<10
Bromodichloromethane	25	430	75-27-4	<13	<13	<13	<13	<13	<13
Bromoform	850	14,000	75-25-2	<21	<21	<21	<21	<21	<21
Bromomethane	200	2,800	74-83-9	<16	<16	<16	<16	<16	<16
Bromomethene (Vinyl Bromide)	29	490	593-60-2	<9	<9	<9	<9	<9	<9
1,3-Butadiene	31	520	106-99-0	<4	<4	<4	<4	<4	<4
n-Butane	NS	NS	106-97-8	<12	<12	**25**	<12	**13**	<12
tert-Butyl alcohol	NS	NS	75-65-0	<150	<150	<150	<150	<150	<150
n-Butylbenzene	NS	NS	104-51-8	<11	<11	<11	<11	<11	<11
sec-Butylbenzene	NS	NS	135-98-8	<11	<11	<11	<11	<11	<11
tert-Butylbenzene	NS	NS	98-06-6	<11	<11	<11	<11	<11	<11
Carbon disulfide	28,000	390,000	75-15-0	<16	<16	<16	<16	<16	<16
Carbon tetrachloride	160	2,600	56-23-5	**88**	**20**	<13	<13	**5600 D**	**370**
Chlorobenzene	2,000	28,000	108-90-7	<9	<9	<9	<9	<9	<9
Chlorodifluromethane (Freon 22)	2,000,000	28,000,000	75-45-6	<18	<18	<18	<18	**85**	<18
Chloroethane	400,000	5,600,000	75-00-3	<13	<13	<13	<13	**17**	<13
Chloroform	41	680	67-66-3	**57**	<10	<10	<10	**5600 D**	**330**
Chloromethane	520	8,700	74-87-3	<10	<10	<10	<10	<10	<10
3-Chloropropene	40	560	107-05-1	<16	<16	<16	<16	<16	<16
2-Chlorotoluene	NS	NS	95-49-8	<10	<10	<10	<10	<10	<10
Cumene	16,000	220,000	98-82-8	<10	<10	<10	<10	<10	<10
Cyclohexane	240,000	3,400,000	110-82-7	<7	<7	<7	<7	<7	<7
Dibromochloromethane	NS	NS	124-48-1	<17	<17	<17	<17	<17	<17
1,2-Dibromoethane	1.6	26	106-93-4	<15	<15	<15	<15	<15	<15
1,2-Dichlorobenzene	8,000	110,000	95-50-1	<12	<12	<12	<12	<12	<12
1,3-Dichlorobenzene	NS	NS	541-73-1	<12	<12	<12	<12	<12	<12
1,4-Dichlorobenzene	85	1,400	106-46-7	<12	<12	<12	<12	<12	<12
Dichlorodifluoromethane (Freon 12)	4,000	56,000	75-71-8	<25	<25	<25	<25	<25	<25
1,1-Dichloroethane	590	9,800	74-34-3	<8	<8	<8	<8	**710**	**21**
1,2-Dichloroethane	36	610	107-06-2	<8	<8	<8	<8	**39**	<8
1,2-Dichloroethene, Total	NS	NS	-	<16	<16	<16	<16	**56**	<16
1,1-Dichloroethene	8,000	110,000	75-35-4	<8	<8	<8	<8	**57**	<8
cis-1,2-Dichloroethene	NS	NS	156-59-2	<8	<8	<8	<8	**54**	<8
trans-1,2-Dichloroethene	NS	NS	156-60-5	<8	<8	<8	<8	<8	<8
1,2-Dichloropropane	0.25	1,600	78-87-5	<9	<9	<9	<9	<9	<9
cis-1,3-Dichloropropene	NS	NS	10061-01-5	<9	<9	<9	<9	<9	<9
trans-1,3-Dichloropropene	NS	NS	10061-02-6	<9	<9	<9	<9	<9	<9
1,2-Dichlorotetrafluoethane (Freon 114)	NS	NS	76-14-2	<14	<14	<14	<14	<14	<14
1,4-Dioxane	190	3,100	123-91-1	<180	<180	<180	<180	<180	<180
Ethylbenzene	370	6,300	100-41-4	<9	<9	<9	<9	<9	<9
4-Ethyltoluene	NS	NS	300-96-8	<10	<10	<10	<10	<10	<10
Freon TF	200,000	2,800,000	76-13-1	<15	<15	<15	<15	<15	<15
Heptane	NS	NS	142-82-5	<8	<8	<8	<8	<8	<8
Hexachlorobutadiene	NS	NS	87-68-3	<21	<21	<21	<21	<21	<21
Hexane	28,000	390,000	110-54-3	<7	<7	**17**	<7	**7**	<7
Isopropyl alcohol	8,000	110,000	67-63-0	<120	<120	<120	<120	<120	<120
4-Isopropyltoluene	NS	NS	99-87-6	<11	<11	<11	<11	<11	<11
4-Methyl-2-pentanone(MIBK)	120,000	1,700,000	108-10-1	<20	<20	<20	<20	<20	<20
Methyl Butyl Ketone (2-Hexanone)	1,200	17,000	597-78-6	<20	<20	<20	<20	<20	<20
Methyl Ethyl Ketone (2-butanone)	200,000	2,800,000	78-93-3	<15	<15	<15	<15	<15	<15
Methyl methacrylate	28,000	390,000	80-62-6	<20	<20	<20	<20	<20	<20
Methyl tert butyl ether (MTBE)	3,600	61,000	1634-04-4	<7	<7	<7	<7	<7	<7
Methylene chloride	24,000	340,000	75-09-2	<17	<17	<17	<17	<17	<17
Naphthalene	28	460	91-20-3	<26	<26	<26	<26	<26	<26
n-Propylbenzene	40,000	560,000	103-65-1	<10	<10	<10	<10	<10	<10
Styrene	40,000	560,000	100-42-5	<9	<9	<9	<9	<9	<9
1,1,2,2-Tetrachloroethane	16	270	79-34-5	<14	<14	<14	<14	<14	<14
Tetrachloroethene (PCE)	1,600	22,000	127-18-4	**1500**	**340**	**970**	**52**	**440**	**13**
Tetrahydrofuran	480	8,100	109-99-9	<150	<150	<150	<150	<150	<150
Toluene	200,000	2,800,000	108-88-3	<8	<8	**22**	<8	**34**	<8
1,2,4-Trichlorobenzene	80	1,100	120-82-1	<37	<37	<37	<37	<37	<37
1,1,1-Trichloroethane	200,000	2,800,000	71-55-6	**48**	**11**	**66**	<11	**5400 D**	**290**
1,1,2-Trichloroethane	8.0	110	79-00-5	<11	<11	<11	<11	<11	<11
Trichloroethene (TCE)	80	1,100	79-01-6	<11	<11	**260**	<11	**1500**	**46**
Trichlorofluoromethane (Freon 11)	28,000	390,000	75-69-4	<11	<11	<11	<11	<11	<11
1,2,4-Trimethylbenzene	2400	34,000	95-63-6	<10	<10	<10	<10	<10	<10
1,3,5-Trimethylbenzene	2400	34,000	108-67-8	<10	<10	<10	<10	<10	<10
2,2,4-Trimethylpentane (Isooctane)	NS	NS	540-84-1	<9	<9	<9	<9	<9	<9
Vinyl chloride	31	1,800	75-01-4	<5	<5	<5	<5	<5	<5
Xylene (m,p)	NS	NS	179601-23-1	<22	<22	<22	<22	<22	<22
Xylene, o-	NS	NS	95-47-6	<9	<9	<9	<9	<9	<9
Xylene (total)	4,000	56000	1330-20-7	<30	<30	<30	<30	<30	<30

Notes:
NS: No PADEP Standard
Concentrations in $\mu g/m^3$
"<": indicates that the analyte was not detected above the laboratory method detection limit
Bold = Detection
Bold & Highlighted = Exceedance of the standard
D : Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

RT Project: 2043-20

Table 5

Offsite Sub-Slab Soil Gas and Indoor Air Analytical Results

3320 Collins Street
Philadelphia Pennsylvania

Compounds		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane (Total)	cis-1,2-Dichloroethene	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl chloride	Xylene (total)
Residential PADEP SV_{ss}		200000	590	8000	36	NS	1600	NS	80	31	4000
NR PADEP SV_{ss}		2800000	9800	110000	610	NS	22000	NS	1100	1800	56000
Residential PADEP SV_{IA}		5200	15	210	0.94	NS	42	NS	2.1	0.81	100
NR PADEP SV_{IA}		22000	77	880	4.7	NS	180	NS	8.8	14	440
Date	**Sample Location**	**Units: ug/m^3**									
1/5/2022	SV-1	**2**	<0.8	<0.8	<2	<0.8	**10**	<0.8	<1	<0.5	**6**
2/22/2022		<1	<0.8	<0.8	<2	<0.8	**4**	<0.8	<1	<0.5	<3
1/5/2022	SV-2	<1	<0.8	<0.8	<2	<0.8	**3**	<0.8	<1	<0.5	<3
2/22/2022		<1	<0.8	<0.8	<2	<0.8	**2**	<0.8	<1	<0.5	<3
1/5/2022	IA-1	<1	<0.8	<0.8	<2	<0.8	<1	<0.8	<1	<0.5	<3
2/22/2022		<1	<0.8	<0.8	<2	<0.8	<1	<0.8	<1	<0.5	<3
1/5/2022	IA-2	<1	<0.8	<0.8	<2	<0.8	<1	<0.8	<1	<0.5	<3
2/22/2022		<1	<0.8	<0.8	<2	<0.8	<1	<0.8	<1	<0.5	<3
1/5/2022	OA-1	<1	<0.8	<0.8	<2	<0.8	<1	<0.8	<1	<0.5	<3
2/22/2022		<1	<0.8	<0.8	<2	<0.8	<1	<0.8	<1	<0.5	<3

Bold: Detected over laboratory reporting limit

Yellow: Dectected over PADEP Vapor intrusion screening values

Residential PADEP SV_{ss}: Residential Sub-Slab soil gas Statewide health standard vapor intrusion screening values

NR PADEP SV_{ss}: Non-Residential Sub-Slab soil gas Statewide health standard vapor intrusion screening values

Residential PADEP SV_{IA}: Residential Indoor Air Statewide Health Standard vapor intrusion screening values

NR PADEP SV_{IA}: Non-Residential Indoor Air Statewide Health Standard vapor intrusion screening values

APPENDIX A

LABORATORY REPORTS

ANALYTICAL REPORTS (GROUNDWATER)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-172581-1
Client Project/Site: Collins Street

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: Walter Hungarter

Jill Miller

Authorized for release by:
1/10/2019 3:46:17 PM

Jill Miller, Senior Project Manager
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Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Lab Chronicle 15
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 22

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-172581-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-172581-1

Job ID: 460-172581-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative
460-172581-1

Comments
No additional comments.

Receipt
The samples were received on 1/3/2019 9:52 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: MW-17S

Date Collected: 01/02/19 10:00
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	U	1.0	0.43	ug/L			01/08/19 03:01	1
Toluene	0.38	U	1.0	0.38	ug/L			01/08/19 03:01	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			01/08/19 03:01	1
MTBE	0.47	U	1.0	0.47	ug/L			01/08/19 03:01	1
Naphthalene	0.41	U	1.0	0.41	ug/L			01/08/19 03:01	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			01/08/19 03:01	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			01/08/19 03:01	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			01/08/19 03:01	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/19 03:01	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			01/08/19 03:01	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			01/08/19 03:01	1
Chlorobromomethane	0.41	U	1.0	0.41	ug/L			01/08/19 03:01	1
Bromoform	0.54	U	1.0	0.54	ug/L			01/08/19 03:01	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			01/08/19 03:01	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			01/08/19 03:01	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 03:01	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			01/08/19 03:01	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 03:01	1
Acetone	5.0	U	5.0	5.0	ug/L			01/08/19 03:01	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			01/08/19 03:01	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			01/08/19 03:01	1
4-Methyl-2-pentanone (MIBK)	2.7	U	5.0	2.7	ug/L			01/08/19 03:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			01/08/19 03:01	1
Methylene Chloride	**0.38**	**J**	1.0	0.32	ug/L			01/08/19 03:01	1
Chloromethane	0.14	U	1.0	0.14	ug/L			01/08/19 03:01	1
Bromomethane	1.0	U	1.0	1.0	ug/L			01/08/19 03:01	1
Chlorodibromomethane	0.28	U	1.0	0.28	ug/L			01/08/19 03:01	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			01/08/19 03:01	1
o-Xylene	0.36	U	1.0	0.36	ug/L			01/08/19 03:01	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			01/08/19 03:01	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			01/08/19 03:01	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			01/08/19 03:01	1
Styrene	0.42	U	1.0	0.42	ug/L			01/08/19 03:01	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			01/08/19 03:01	1
1,4-Dioxane	28	U	50	28	ug/L			01/08/19 03:01	1
1,2,3-Trichlorobenzene	0.36	U	1.0	0.36	ug/L			01/08/19 03:01	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			01/08/19 03:01	1
Chloroethane	0.32	U	1.0	0.32	ug/L			01/08/19 03:01	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			01/08/19 03:01	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			01/08/19 03:01	1
Trichloroethene	**0.49**	**J**	1.0	0.31	ug/L			01/08/19 03:01	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			01/08/19 03:01	1
2-Butanone (MEK)	1.9	U	5.0	1.9	ug/L			01/08/19 03:01	1
Methylcyclohexane	0.26	U	1.0	0.26	ug/L			01/08/19 03:01	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			01/08/19 03:01	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			01/08/19 03:01	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			01/08/19 03:01	1
cis-1,2-Dichloroethene	**0.33**	**J**	1.0	0.22	ug/L			01/08/19 03:01	1
Chloroform	0.33	U	1.0	0.33	ug/L			01/08/19 03:01	1

Client Sample ID: MW-17S

Date Collected: 01/02/19 10:00
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	0.30	U	1.0	0.30	ug/L			01/08/19 03:01	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			01/08/19 03:01	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			01/08/19 03:01	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			01/08/19 03:01	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			01/08/19 03:01	1
Dichlorobromomethane	0.34	U	1.0	0.34	ug/L			01/08/19 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*74 - 132*		*01/08/19 03:01*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*01/08/19 03:01*	*1*
Bromofluorobenzene	*101*		*77 - 124*		*01/08/19 03:01*	*1*
Dibromofluoromethane (Surr)	*104*		*72 - 131*		*01/08/19 03:01*	*1*

Client Sample ID: MW-16S

Date Collected: 01/02/19 12:07
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	U	1.0	0.43	ug/L			01/08/19 03:26	1
Toluene	0.38	U	1.0	0.38	ug/L			01/08/19 03:26	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			01/08/19 03:26	1
MTBE	0.47	U	1.0	0.47	ug/L			01/08/19 03:26	1
Naphthalene	0.41	U	1.0	0.41	ug/L			01/08/19 03:26	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			01/08/19 03:26	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			01/08/19 03:26	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			01/08/19 03:26	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/19 03:26	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			01/08/19 03:26	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			01/08/19 03:26	1
Chlorobromomethane	0.41	U	1.0	0.41	ug/L			01/08/19 03:26	1
Bromoform	0.54	U	1.0	0.54	ug/L			01/08/19 03:26	1
Tetrachloroethene	**1.2**		1.0	0.25	ug/L			01/08/19 03:26	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			01/08/19 03:26	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 03:26	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			01/08/19 03:26	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 03:26	1
Acetone	5.0	U	5.0	5.0	ug/L			01/08/19 03:26	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			01/08/19 03:26	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			01/08/19 03:26	1
4-Methyl-2-pentanone (MIBK)	2.7	U	5.0	2.7	ug/L			01/08/19 03:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			01/08/19 03:26	1
Methylene Chloride	**0.46**	**J**	1.0	0.32	ug/L			01/08/19 03:26	1
Chloromethane	**0.23**	**J**	1.0	0.14	ug/L			01/08/19 03:26	1
Bromomethane	1.0	U	1.0	1.0	ug/L			01/08/19 03:26	1
Chlorodibromomethane	0.28	U	1.0	0.28	ug/L			01/08/19 03:26	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			01/08/19 03:26	1
o-Xylene	0.36	U	1.0	0.36	ug/L			01/08/19 03:26	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			01/08/19 03:26	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			01/08/19 03:26	1

Client Sample ID: MW-16S

Date Collected: 01/02/19 12:07
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			01/08/19 03:26	1
Styrene	0.42	U	1.0	0.42	ug/L			01/08/19 03:26	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			01/08/19 03:26	1
1,4-Dioxane	28	U	50	28	ug/L			01/08/19 03:26	1
1,2,3-Trichlorobenzene	0.36	U	1.0	0.36	ug/L			01/08/19 03:26	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			01/08/19 03:26	1
Chloroethane	0.32	U	1.0	0.32	ug/L			01/08/19 03:26	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			01/08/19 03:26	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			01/08/19 03:26	1
Trichloroethene	**0.85**	**J**	1.0	0.31	ug/L			01/08/19 03:26	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			01/08/19 03:26	1
2-Butanone (MEK)	1.9	U	5.0	1.9	ug/L			01/08/19 03:26	1
Methylcyclohexane	0.26	U	1.0	0.26	ug/L			01/08/19 03:26	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			01/08/19 03:26	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			01/08/19 03:26	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			01/08/19 03:26	1
cis-1,2-Dichloroethene	**0.27**	**J**	1.0	0.22	ug/L			01/08/19 03:26	1
Chloroform	0.33	U	1.0	0.33	ug/L			01/08/19 03:26	1
m-Xylene & p-Xylene	0.30	U	1.0	0.30	ug/L			01/08/19 03:26	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			01/08/19 03:26	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			01/08/19 03:26	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			01/08/19 03:26	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			01/08/19 03:26	1
Dichlorobromomethane	0.34	U	1.0	0.34	ug/L			01/08/19 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*74 - 132*		*01/08/19 03:26*	*1*
Toluene-d8 (Surr)	*82*		*80 - 120*		*01/08/19 03:26*	*1*
Bromofluorobenzene	*80*		*77 - 124*		*01/08/19 03:26*	*1*
Dibromofluoromethane (Surr)	*84*		*72 - 131*		*01/08/19 03:26*	*1*

Client Sample ID: MW-16D

Date Collected: 01/02/19 10:50
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	U	1.0	0.43	ug/L			01/08/19 03:50	1
Toluene	0.38	U	1.0	0.38	ug/L			01/08/19 03:50	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			01/08/19 03:50	1
MTBE	0.47	U	1.0	0.47	ug/L			01/08/19 03:50	1
Naphthalene	0.41	U	1.0	0.41	ug/L			01/08/19 03:50	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			01/08/19 03:50	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			01/08/19 03:50	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			01/08/19 03:50	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/19 03:50	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			01/08/19 03:50	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			01/08/19 03:50	1
Chlorobromomethane	0.41	U	1.0	0.41	ug/L			01/08/19 03:50	1
Bromoform	0.54	U	1.0	0.54	ug/L			01/08/19 03:50	1

Client Sample ID: MW-16D
Date Collected: 01/02/19 10:50
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			01/08/19 03:50	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			01/08/19 03:50	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 03:50	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			01/08/19 03:50	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 03:50	1
Acetone	5.0	U	5.0	5.0	ug/L			01/08/19 03:50	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			01/08/19 03:50	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			01/08/19 03:50	1
4-Methyl-2-pentanone (MIBK)	2.7	U	5.0	2.7	ug/L			01/08/19 03:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			01/08/19 03:50	1
Methylene Chloride	**2.1**		1.0	0.32	ug/L			01/08/19 03:50	1
Chloromethane	0.14	U	1.0	0.14	ug/L			01/08/19 03:50	1
Bromomethane	1.0	U	1.0	1.0	ug/L			01/08/19 03:50	1
Chlorodibromomethane	0.28	U	1.0	0.28	ug/L			01/08/19 03:50	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			01/08/19 03:50	1
o-Xylene	0.36	U	1.0	0.36	ug/L			01/08/19 03:50	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			01/08/19 03:50	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			01/08/19 03:50	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			01/08/19 03:50	1
Styrene	0.42	U	1.0	0.42	ug/L			01/08/19 03:50	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			01/08/19 03:50	1
1,4-Dioxane	28	U	50	28	ug/L			01/08/19 03:50	1
1,2,3-Trichlorobenzene	0.36	U	1.0	0.36	ug/L			01/08/19 03:50	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			01/08/19 03:50	1
Chloroethane	0.32	U	1.0	0.32	ug/L			01/08/19 03:50	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			01/08/19 03:50	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			01/08/19 03:50	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			01/08/19 03:50	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			01/08/19 03:50	1
2-Butanone (MEK)	1.9	U	5.0	1.9	ug/L			01/08/19 03:50	1
Methylcyclohexane	0.26	U	1.0	0.26	ug/L			01/08/19 03:50	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			01/08/19 03:50	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			01/08/19 03:50	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			01/08/19 03:50	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			01/08/19 03:50	1
Chloroform	0.33	U	1.0	0.33	ug/L			01/08/19 03:50	1
m-Xylene & p-Xylene	0.30	U	1.0	0.30	ug/L			01/08/19 03:50	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			01/08/19 03:50	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			01/08/19 03:50	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			01/08/19 03:50	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			01/08/19 03:50	1
Dichlorobromomethane	0.34	U	1.0	0.34	ug/L			01/08/19 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*74 - 132*		*01/08/19 03:50*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*01/08/19 03:50*	*1*
Bromofluorobenzene	*111*		*77 - 124*		*01/08/19 03:50*	*1*
Dibromofluoromethane (Surr)	*118*		*72 - 131*		*01/08/19 03:50*	*1*

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-172581-1

Client Sample ID: MW-18S
Date Collected: 01/02/19 16:20
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	U	1.0	0.43	ug/L			01/08/19 04:15	1
Toluene	0.38	U	1.0	0.38	ug/L			01/08/19 04:15	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			01/08/19 04:15	1
MTBE	0.47	U	1.0	0.47	ug/L			01/08/19 04:15	1
Naphthalene	0.41	U	1.0	0.41	ug/L			01/08/19 04:15	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			01/08/19 04:15	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			01/08/19 04:15	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			01/08/19 04:15	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/19 04:15	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			01/08/19 04:15	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			01/08/19 04:15	1
Chlorobromomethane	0.41	U	1.0	0.41	ug/L			01/08/19 04:15	1
Bromoform	0.54	U	1.0	0.54	ug/L			01/08/19 04:15	1
Tetrachloroethene	**0.30**	**J**	1.0	0.25	ug/L			01/08/19 04:15	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			01/08/19 04:15	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 04:15	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			01/08/19 04:15	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 04:15	1
Acetone	**58**		5.0	5.0	ug/L			01/08/19 04:15	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			01/08/19 04:15	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			01/08/19 04:15	1
4-Methyl-2-pentanone (MIBK)	2.7	U	5.0	2.7	ug/L			01/08/19 04:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			01/08/19 04:15	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			01/08/19 04:15	1
Chloromethane	0.14	U	1.0	0.14	ug/L			01/08/19 04:15	1
Bromomethane	1.0	U	1.0	1.0	ug/L			01/08/19 04:15	1
Chlorodibromomethane	0.28	U	1.0	0.28	ug/L			01/08/19 04:15	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			01/08/19 04:15	1
o-Xylene	0.36	U	1.0	0.36	ug/L			01/08/19 04:15	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			01/08/19 04:15	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			01/08/19 04:15	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			01/08/19 04:15	1
Styrene	0.42	U	1.0	0.42	ug/L			01/08/19 04:15	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			01/08/19 04:15	1
1,4-Dioxane	28	U	50	28	ug/L			01/08/19 04:15	1
1,2,3-Trichlorobenzene	0.36	U	1.0	0.36	ug/L			01/08/19 04:15	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			01/08/19 04:15	1
Chloroethane	0.32	U	1.0	0.32	ug/L			01/08/19 04:15	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			01/08/19 04:15	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			01/08/19 04:15	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			01/08/19 04:15	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			01/08/19 04:15	1
2-Butanone (MEK)	**2.4**	**J**	5.0	1.9	ug/L			01/08/19 04:15	1
Methylcyclohexane	0.26	U	1.0	0.26	ug/L			01/08/19 04:15	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			01/08/19 04:15	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			01/08/19 04:15	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			01/08/19 04:15	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			01/08/19 04:15	1
Chloroform	**0.35**	**J**	1.0	0.33	ug/L			01/08/19 04:15	1

Client Sample ID: MW-18S

Date Collected: 01/02/19 16:20
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	0.30	U	1.0	0.30	ug/L			01/08/19 04:15	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			01/08/19 04:15	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			01/08/19 04:15	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			01/08/19 04:15	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			01/08/19 04:15	1
Dichlorobromomethane	0.34	U	1.0	0.34	ug/L			01/08/19 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*74 - 132*		*01/08/19 04:15*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*01/08/19 04:15*	*1*
Bromofluorobenzene	*106*		*77 - 124*		*01/08/19 04:15*	*1*
Dibromofluoromethane (Surr)	*110*		*72 - 131*		*01/08/19 04:15*	*1*

Client Sample ID: MW-18D

Date Collected: 01/02/19 13:15
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	U	1.0	0.43	ug/L			01/08/19 22:30	1
Toluene	0.38	U	1.0	0.38	ug/L			01/08/19 22:30	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			01/08/19 22:30	1
MTBE	0.47	U	1.0	0.47	ug/L			01/08/19 22:30	1
Naphthalene	0.41	U	1.0	0.41	ug/L			01/08/19 22:30	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			01/08/19 22:30	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			01/08/19 22:30	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			01/08/19 22:30	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/19 22:30	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			01/08/19 22:30	1
Carbon disulfide	**0.54**	**J**	1.0	0.16	ug/L			01/08/19 22:30	1
Chlorobromomethane	0.41	U	1.0	0.41	ug/L			01/08/19 22:30	1
Bromoform	0.54	U	1.0	0.54	ug/L			01/08/19 22:30	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			01/08/19 22:30	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			01/08/19 22:30	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 22:30	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			01/08/19 22:30	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 22:30	1
Acetone	5.0	U	5.0	5.0	ug/L			01/08/19 22:30	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			01/08/19 22:30	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			01/08/19 22:30	1
4-Methyl-2-pentanone (MIBK)	2.7	U	5.0	2.7	ug/L			01/08/19 22:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			01/08/19 22:30	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			01/08/19 22:30	1
Chloromethane	0.14	U	1.0	0.14	ug/L			01/08/19 22:30	1
Bromomethane	1.0	U	1.0	1.0	ug/L			01/08/19 22:30	1
Chlorodibromomethane	0.28	U	1.0	0.28	ug/L			01/08/19 22:30	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			01/08/19 22:30	1
o-Xylene	0.36	U	1.0	0.36	ug/L			01/08/19 22:30	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			01/08/19 22:30	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			01/08/19 22:30	1

Client Sample ID: MW-18D

Date Collected: 01/02/19 13:15
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			01/08/19 22:30	1
Styrene	0.42	U	1.0	0.42	ug/L			01/08/19 22:30	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			01/08/19 22:30	1
1,4-Dioxane	28	U	50	28	ug/L			01/08/19 22:30	1
1,2,3-Trichlorobenzene	0.36	U	1.0	0.36	ug/L			01/08/19 22:30	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			01/08/19 22:30	1
Chloroethane	0.32	U	1.0	0.32	ug/L			01/08/19 22:30	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			01/08/19 22:30	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			01/08/19 22:30	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			01/08/19 22:30	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			01/08/19 22:30	1
2-Butanone (MEK)	1.9	U	5.0	1.9	ug/L			01/08/19 22:30	1
Methylcyclohexane	0.26	U	1.0	0.26	ug/L			01/08/19 22:30	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			01/08/19 22:30	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			01/08/19 22:30	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			01/08/19 22:30	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			01/08/19 22:30	1
Chloroform	0.33	U	1.0	0.33	ug/L			01/08/19 22:30	1
m-Xylene & p-Xylene	0.30	U	1.0	0.30	ug/L			01/08/19 22:30	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			01/08/19 22:30	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			01/08/19 22:30	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			01/08/19 22:30	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			01/08/19 22:30	1
Dichlorobromomethane	0.34	U	1.0	0.34	ug/L			01/08/19 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*74 - 132*		*01/08/19 22:30*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*01/08/19 22:30*	*1*
Bromofluorobenzene	*96*		*77 - 124*		*01/08/19 22:30*	*1*
Dibromofluoromethane (Surr)	*97*		*72 - 131*		*01/08/19 22:30*	*1*

Client Sample ID: MW-19S

Date Collected: 01/02/19 15:00
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	U	1.0	0.43	ug/L			01/08/19 09:31	1
Toluene	0.38	U	1.0	0.38	ug/L			01/08/19 09:31	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			01/08/19 09:31	1
MTBE	0.47	U	1.0	0.47	ug/L			01/08/19 09:31	1
Naphthalene	0.41	U	1.0	0.41	ug/L			01/08/19 09:31	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			01/08/19 09:31	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			01/08/19 09:31	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			01/08/19 09:31	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/19 09:31	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			01/08/19 09:31	1
Carbon disulfide	**0.24**	**J**	1.0	0.16	ug/L			01/08/19 09:31	1
Chlorobromomethane	0.41	U	1.0	0.41	ug/L			01/08/19 09:31	1
Bromoform	0.54	U	1.0	0.54	ug/L			01/08/19 09:31	1

Client Sample ID: MW-19S
Date Collected: 01/02/19 15:00
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			01/08/19 09:31	1
1,1-Dichloroethane	**0.40**	**J**	1.0	0.26	ug/L			01/08/19 09:31	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 09:31	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			01/08/19 09:31	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 09:31	1
Acetone	5.0	U	5.0	5.0	ug/L			01/08/19 09:31	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			01/08/19 09:31	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			01/08/19 09:31	1
4-Methyl-2-pentanone (MIBK)	2.7	U	5.0	2.7	ug/L			01/08/19 09:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			01/08/19 09:31	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			01/08/19 09:31	1
Chloromethane	0.14	U	1.0	0.14	ug/L			01/08/19 09:31	1
Bromomethane	1.0	U	1.0	1.0	ug/L			01/08/19 09:31	1
Chlorodibromomethane	0.28	U	1.0	0.28	ug/L			01/08/19 09:31	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			01/08/19 09:31	1
o-Xylene	0.36	U	1.0	0.36	ug/L			01/08/19 09:31	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			01/08/19 09:31	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			01/08/19 09:31	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			01/08/19 09:31	1
Styrene	0.42	U	1.0	0.42	ug/L			01/08/19 09:31	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			01/08/19 09:31	1
1,4-Dioxane	28	U	50	28	ug/L			01/08/19 09:31	1
1,2,3-Trichlorobenzene	0.36	U	1.0	0.36	ug/L			01/08/19 09:31	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			01/08/19 09:31	1
Chloroethane	0.32	U	1.0	0.32	ug/L			01/08/19 09:31	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			01/08/19 09:31	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			01/08/19 09:31	1
Trichloroethene	**0.59**	**J**	1.0	0.31	ug/L			01/08/19 09:31	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			01/08/19 09:31	1
2-Butanone (MEK)	1.9	U	5.0	1.9	ug/L			01/08/19 09:31	1
Methylcyclohexane	0.26	U	1.0	0.26	ug/L			01/08/19 09:31	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			01/08/19 09:31	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			01/08/19 09:31	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			01/08/19 09:31	1
cis-1,2-Dichloroethene	**0.50**	**J**	1.0	0.22	ug/L			01/08/19 09:31	1
Chloroform	0.33	U	1.0	0.33	ug/L			01/08/19 09:31	1
m-Xylene & p-Xylene	0.30	U	1.0	0.30	ug/L			01/08/19 09:31	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			01/08/19 09:31	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			01/08/19 09:31	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			01/08/19 09:31	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			01/08/19 09:31	1
Dichlorobromomethane	0.34	U	1.0	0.34	ug/L			01/08/19 09:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*74 - 132*		*01/08/19 09:31*	*1*
Toluene-d8 (Surr)	*113*		*80 - 120*		*01/08/19 09:31*	*1*
Bromofluorobenzene	*111*		*77 - 124*		*01/08/19 09:31*	*1*
Dibromofluoromethane (Surr)	*118*		*72 - 131*		*01/08/19 09:31*	*1*

Client Sample ID: MW-19D

Date Collected: 01/02/19 15:50
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**22**		1.0	0.43	ug/L			01/08/19 09:56	1
Toluene	0.38	U	1.0	0.38	ug/L			01/08/19 09:56	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			01/08/19 09:56	1
MTBE	0.47	U	1.0	0.47	ug/L			01/08/19 09:56	1
Naphthalene	**0.85**	**J**	1.0	0.41	ug/L			01/08/19 09:56	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			01/08/19 09:56	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			01/08/19 09:56	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			01/08/19 09:56	1
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/19 09:56	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			01/08/19 09:56	1
Carbon disulfide	**0.40**	**J**	1.0	0.16	ug/L			01/08/19 09:56	1
Chlorobromomethane	0.41	U	1.0	0.41	ug/L			01/08/19 09:56	1
Bromoform	0.54	U	1.0	0.54	ug/L			01/08/19 09:56	1
Tetrachloroethene	**0.25**	**J**	1.0	0.25	ug/L			01/08/19 09:56	1
1,1-Dichloroethane	**6.6**		1.0	0.26	ug/L			01/08/19 09:56	1
1,2-Dichloroethane	**0.83**	**J**	1.0	0.43	ug/L			01/08/19 09:56	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			01/08/19 09:56	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			01/08/19 09:56	1
Acetone	5.0	U	5.0	5.0	ug/L			01/08/19 09:56	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			01/08/19 09:56	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			01/08/19 09:56	1
4-Methyl-2-pentanone (MIBK)	2.7	U	5.0	2.7	ug/L			01/08/19 09:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			01/08/19 09:56	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			01/08/19 09:56	1
Chloromethane	0.14	U	1.0	0.14	ug/L			01/08/19 09:56	1
Bromomethane	1.0	U	1.0	1.0	ug/L			01/08/19 09:56	1
Chlorodibromomethane	0.28	U	1.0	0.28	ug/L			01/08/19 09:56	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			01/08/19 09:56	1
o-Xylene	0.36	U	1.0	0.36	ug/L			01/08/19 09:56	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			01/08/19 09:56	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			01/08/19 09:56	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			01/08/19 09:56	1
Styrene	0.42	U	1.0	0.42	ug/L			01/08/19 09:56	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			01/08/19 09:56	1
1,4-Dioxane	28	U	50	28	ug/L			01/08/19 09:56	1
1,2,3-Trichlorobenzene	0.36	U	1.0	0.36	ug/L			01/08/19 09:56	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			01/08/19 09:56	1
Chloroethane	0.32	U	1.0	0.32	ug/L			01/08/19 09:56	1
1,1-Dichloroethene	**31**		1.0	0.12	ug/L			01/08/19 09:56	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			01/08/19 09:56	1
Trichloroethene	**41**		1.0	0.31	ug/L			01/08/19 09:56	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			01/08/19 09:56	1
2-Butanone (MEK)	1.9	U	5.0	1.9	ug/L			01/08/19 09:56	1
Methylcyclohexane	0.26	U	1.0	0.26	ug/L			01/08/19 09:56	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			01/08/19 09:56	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			01/08/19 09:56	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			01/08/19 09:56	1
cis-1,2-Dichloroethene	**8.5**		1.0	0.22	ug/L			01/08/19 09:56	1
Chloroform	0.33	U	1.0	0.33	ug/L			01/08/19 09:56	1

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-172581-1

Client Sample ID: MW-19D
Date Collected: 01/02/19 15:50
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	0.30	U	1.0	0.30	ug/L			01/08/19 09:56	1
Vinyl chloride	**0.71**	**J**	1.0	0.17	ug/L			01/08/19 09:56	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			01/08/19 09:56	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			01/08/19 09:56	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			01/08/19 09:56	1
Dichlorobromomethane	0.34	U	1.0	0.34	ug/L			01/08/19 09:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*74 - 132*		*01/08/19 09:56*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*01/08/19 09:56*	*1*
Bromofluorobenzene	*96*		*77 - 124*		*01/08/19 09:56*	*1*
Dibromofluoromethane (Surr)	*101*		*72 - 131*		*01/08/19 09:56*	*1*

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-172581-1

Client Sample ID: MW-17S
Date Collected: 01/02/19 10:00
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	581018	01/08/19 03:01	AAT	TAL EDI

Client Sample ID: MW-16S
Date Collected: 01/02/19 12:07
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	581018	01/08/19 03:26	AAT	TAL EDI

Client Sample ID: MW-16D
Date Collected: 01/02/19 10:50
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	581018	01/08/19 03:50	AAT	TAL EDI

Client Sample ID: MW-18S
Date Collected: 01/02/19 16:20
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	581018	01/08/19 04:15	AAT	TAL EDI

Client Sample ID: MW-18D
Date Collected: 01/02/19 13:15
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	581259	01/08/19 22:30	VBP	TAL EDI

Client Sample ID: MW-19S
Date Collected: 01/02/19 15:00
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	581096	01/08/19 09:31	AAT	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-172581-1

Client Sample ID: MW-19D

Date Collected: 01/02/19 15:50
Date Received: 01/03/19 09:52

Lab Sample ID: 460-172581-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	581096	01/08/19 09:56	AAT	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. TestAmerica Job ID: 460-172581-1
Project/Site: Collins Street

Laboratory: TestAmerica Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-19
New Jersey	NELAP	2	12028	06-30-19
New York	NELAP	2	11452	04-01-19
Pennsylvania	NELAP	3	68-00522	02-28-19
Rhode Island	State Program	1	LAO00132	12-30-19
USDA	Federal		NJCA-003-08	06-13-20

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-172581-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-172581-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-172581-1	MW-17S	Water	01/02/19 10:00	01/03/19 09:52
460-172581-2	MW-16S	Water	01/02/19 12:07	01/03/19 09:52
460-172581-3	MW-16D	Water	01/02/19 10:50	01/03/19 09:52
460-172581-4	MW-18S	Water	01/02/19 16:20	01/03/19 09:52
460-172581-5	MW-18D	Water	01/02/19 13:15	01/03/19 09:52
460-172581-6	MW-19S	Water	01/02/19 15:00	01/03/19 09:52
460-172581-7	MW-19D	Water	01/02/19 15:50	01/03/19 09:52

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

1.2 KOP1

1/10/2019

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THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page ____ of ____

Name (for report and invoice) W. Hungerter, J. Lyzinski, V. Long	Samplers Name (Printed) Aaron Schneider	Site/Project Identification Collins St
Company RT ENV	P. O. # 2043-20-14	State (Location of site): NJ: ☐ NY: ☐ Other: PA
		Regulatory Program: DKQP: ☐
Address	Analysis Turnaround Time: Standard ☒	
City KOP State PA	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	PA Fuel #2	VOCs	LAB USE ONLY Sample Numbers
MW 17S	1/2/19	10:00	GW	3	X	X	
MW 16S		12:07		3	X	X	
MW 16D		10:50		3	X	X	
MW 18S		16:20		3	X	X	
MW 18D		13:15		3	X	X	
MW 19S		15:00		3	X	X	
MW 19D		15:50		3	X	X	

LAB USE ONLY Project No:
Job No: 172581

460-172581 Chain of Custody

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil:
6 = Other _____, 7 = Other _____ — Water: 1

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1) A. Schneider	RT ENV	1/3/19 8:56	1)	KOP 1/3/19 0952
2)	TAKOP	1/3/19 18:15	2) Ken Lucas	TAKOP
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 172581

Number of Coolers: 1 IR Gun #: 2091

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	°C	°C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* *Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: JG Date: 1/3

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 460-172581-1

Login Number: 172581
List Number: 1
Creator: Gilmore, Julie L

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-175965-1
Client Project/Site: Collins Street

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: Aaron Schneider

Jill Miller

Authorized for release by:
3/1/2019 4:54:16 PM

Jill Miller, Senior Project Manager
(484)685-0871
jill.miller@testamericainc.com

LINKS
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Have a Question? Ask The Expert
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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Lab Chronicle 15
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 22

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-175965-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-175965-1

Job ID: 460-175965-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative
460-175965-1

Comments
No additional comments.

Receipt
The samples were received on 2/22/2019 4:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.5º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-592192 was outside the method criteria for the following analytes: Bromoform (bias low) and Chloromethane (bias high). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: MW 1

Date Collected: 02/22/19 08:00
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			03/01/19 02:17	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			03/01/19 02:17	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			03/01/19 02:17	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			03/01/19 02:17	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			03/01/19 02:17	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			03/01/19 02:17	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			03/01/19 02:17	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			03/01/19 02:17	1
1,2-Dibromoethane	0.50	U	1.0	0.50	ug/L			03/01/19 02:17	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			03/01/19 02:17	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			03/01/19 02:17	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			03/01/19 02:17	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			03/01/19 02:17	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			03/01/19 02:17	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			03/01/19 02:17	1
2-Butanone	1.9	U	5.0	1.9	ug/L			03/01/19 02:17	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			03/01/19 02:17	1
4-Methyl-2-pentanone	2.7	U	5.0	2.7	ug/L			03/01/19 02:17	1
Acetone	**7.2**		5.0	5.0	ug/L			03/01/19 02:17	1
Benzene	0.43	U	1.0	0.43	ug/L			03/01/19 02:17	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			03/01/19 02:17	1
Bromoform	0.54	U	1.0	0.54	ug/L			03/01/19 02:17	1
Bromomethane	1.0	U	1.0	1.0	ug/L			03/01/19 02:17	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			03/01/19 02:17	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			03/01/19 02:17	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			03/01/19 02:17	1
Chloroethane	0.32	U	1.0	0.32	ug/L			03/01/19 02:17	1
Chloroform	0.33	U	1.0	0.33	ug/L			03/01/19 02:17	1
Chloromethane	0.14	U	1.0	0.14	ug/L			03/01/19 02:17	1
cis-1,2-Dichloroethene	**1.8**		1.0	0.22	ug/L			03/01/19 02:17	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			03/01/19 02:17	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			03/01/19 02:17	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			03/01/19 02:17	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			03/01/19 02:17	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			03/01/19 02:17	1
Freon TF	0.31	U	1.0	0.31	ug/L			03/01/19 02:17	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			03/01/19 02:17	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			03/01/19 02:17	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			03/01/19 02:17	1
MTBE	0.47	U	1.0	0.47	ug/L			03/01/19 02:17	1
Naphthalene	0.41	U	1.0	0.41	ug/L			03/01/19 02:17	1
Styrene	0.42	U	1.0	0.42	ug/L			03/01/19 02:17	1
Tetrachloroethene	**0.34**	**J**	1.0	0.25	ug/L			03/01/19 02:17	1
Toluene	0.38	U	1.0	0.38	ug/L			03/01/19 02:17	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			03/01/19 02:17	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			03/01/19 02:17	1
Trichloroethene	**0.60**	**J**	1.0	0.31	ug/L			03/01/19 02:17	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			03/01/19 02:17	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			03/01/19 02:17	1

Client Sample ID: MW 1

Date Collected: 02/22/19 08:00
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.30	U	2.0	0.30	ug/L			03/01/19 02:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*74 - 132*		*03/01/19 02:17*	*1*
Bromofluorobenzene	*92*		*77 - 124*		*03/01/19 02:17*	*1*
Dibromofluoromethane (Surr)	*97*		*72 - 131*		*03/01/19 02:17*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/01/19 02:17*	*1*

Client Sample ID: MW 18S

Date Collected: 02/22/19 09:40
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			03/01/19 02:44	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			03/01/19 02:44	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			03/01/19 02:44	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			03/01/19 02:44	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			03/01/19 02:44	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			03/01/19 02:44	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			03/01/19 02:44	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			03/01/19 02:44	1
1,2-Dibromoethane	0.50	U	1.0	0.50	ug/L			03/01/19 02:44	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			03/01/19 02:44	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			03/01/19 02:44	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			03/01/19 02:44	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			03/01/19 02:44	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			03/01/19 02:44	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			03/01/19 02:44	1
2-Butanone	1.9	U	5.0	1.9	ug/L			03/01/19 02:44	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			03/01/19 02:44	1
4-Methyl-2-pentanone	2.7	U	5.0	2.7	ug/L			03/01/19 02:44	1
Acetone	5.0	U	5.0	5.0	ug/L			03/01/19 02:44	1
Benzene	0.43	U	1.0	0.43	ug/L			03/01/19 02:44	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			03/01/19 02:44	1
Bromoform	0.54	U	1.0	0.54	ug/L			03/01/19 02:44	1
Bromomethane	1.0	U	1.0	1.0	ug/L			03/01/19 02:44	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			03/01/19 02:44	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			03/01/19 02:44	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			03/01/19 02:44	1
Chloroethane	0.32	U	1.0	0.32	ug/L			03/01/19 02:44	1
Chloroform	0.33	U	1.0	0.33	ug/L			03/01/19 02:44	1
Chloromethane	0.14	U	1.0	0.14	ug/L			03/01/19 02:44	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			03/01/19 02:44	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			03/01/19 02:44	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			03/01/19 02:44	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			03/01/19 02:44	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			03/01/19 02:44	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			03/01/19 02:44	1
Freon TF	0.31	U	1.0	0.31	ug/L			03/01/19 02:44	1

Client Sample ID: MW 18S

Date Collected: 02/22/19 09:40
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			03/01/19 02:44	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			03/01/19 02:44	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			03/01/19 02:44	1
MTBE	0.47	U	1.0	0.47	ug/L			03/01/19 02:44	1
Naphthalene	0.41	U	1.0	0.41	ug/L			03/01/19 02:44	1
Styrene	0.42	U	1.0	0.42	ug/L			03/01/19 02:44	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			03/01/19 02:44	1
Toluene	0.38	U	1.0	0.38	ug/L			03/01/19 02:44	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			03/01/19 02:44	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			03/01/19 02:44	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			03/01/19 02:44	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			03/01/19 02:44	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			03/01/19 02:44	1
Xylenes, Total	0.30	U	2.0	0.30	ug/L			03/01/19 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*74 - 132*		*03/01/19 02:44*	*1*
Bromofluorobenzene	*93*		*77 - 124*		*03/01/19 02:44*	*1*
Dibromofluoromethane (Surr)	*99*		*72 - 131*		*03/01/19 02:44*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*03/01/19 02:44*	*1*

Client Sample ID: MW 18D

Date Collected: 02/22/19 10:31
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			03/01/19 03:11	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			03/01/19 03:11	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			03/01/19 03:11	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			03/01/19 03:11	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			03/01/19 03:11	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			03/01/19 03:11	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			03/01/19 03:11	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			03/01/19 03:11	1
1,2-Dibromoethane	0.50	U	1.0	0.50	ug/L			03/01/19 03:11	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			03/01/19 03:11	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			03/01/19 03:11	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			03/01/19 03:11	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			03/01/19 03:11	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			03/01/19 03:11	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			03/01/19 03:11	1
2-Butanone	1.9	U	5.0	1.9	ug/L			03/01/19 03:11	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			03/01/19 03:11	1
4-Methyl-2-pentanone	2.7	U	5.0	2.7	ug/L			03/01/19 03:11	1
Acetone	5.0	U	5.0	5.0	ug/L			03/01/19 03:11	1
Benzene	0.43	U	1.0	0.43	ug/L			03/01/19 03:11	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			03/01/19 03:11	1
Bromoform	0.54	U	1.0	0.54	ug/L			03/01/19 03:11	1
Bromomethane	1.0	U	1.0	1.0	ug/L			03/01/19 03:11	1

Client Sample ID: MW 18D

Date Collected: 02/22/19 10:31
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	**1.0**		1.0	0.16	ug/L			03/01/19 03:11	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			03/01/19 03:11	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			03/01/19 03:11	1
Chloroethane	0.32	U	1.0	0.32	ug/L			03/01/19 03:11	1
Chloroform	0.33	U	1.0	0.33	ug/L			03/01/19 03:11	1
Chloromethane	0.14	U	1.0	0.14	ug/L			03/01/19 03:11	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			03/01/19 03:11	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			03/01/19 03:11	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			03/01/19 03:11	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			03/01/19 03:11	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			03/01/19 03:11	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			03/01/19 03:11	1
Freon TF	0.31	U	1.0	0.31	ug/L			03/01/19 03:11	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			03/01/19 03:11	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			03/01/19 03:11	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			03/01/19 03:11	1
MTBE	0.47	U	1.0	0.47	ug/L			03/01/19 03:11	1
Naphthalene	0.41	U	1.0	0.41	ug/L			03/01/19 03:11	1
Styrene	0.42	U	1.0	0.42	ug/L			03/01/19 03:11	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			03/01/19 03:11	1
Toluene	0.38	U	1.0	0.38	ug/L			03/01/19 03:11	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			03/01/19 03:11	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			03/01/19 03:11	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			03/01/19 03:11	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			03/01/19 03:11	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			03/01/19 03:11	1
Xylenes, Total	0.30	U	2.0	0.30	ug/L			03/01/19 03:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*74 - 132*		*03/01/19 03:11*	*1*
Bromofluorobenzene	*92*		*77 - 124*		*03/01/19 03:11*	*1*
Dibromofluoromethane (Surr)	*97*		*72 - 131*		*03/01/19 03:11*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/01/19 03:11*	*1*

Client Sample ID: MW 19S

Date Collected: 02/22/19 11:55
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			02/27/19 16:52	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			02/27/19 16:52	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			02/27/19 16:52	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			02/27/19 16:52	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			02/27/19 16:52	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			02/27/19 16:52	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			02/27/19 16:52	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			02/27/19 16:52	1
1,2-Dibromoethane	0.50	U	1.0	0.50	ug/L			02/27/19 16:52	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			02/27/19 16:52	1

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-175965-1

Client Sample ID: MW 19S
Date Collected: 02/22/19 11:55
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			02/27/19 16:52	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			02/27/19 16:52	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			02/27/19 16:52	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			02/27/19 16:52	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			02/27/19 16:52	1
2-Butanone	1.9	U	5.0	1.9	ug/L			02/27/19 16:52	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			02/27/19 16:52	1
4-Methyl-2-pentanone	2.7	U	5.0	2.7	ug/L			02/27/19 16:52	1
Acetone	5.0	U	5.0	5.0	ug/L			02/27/19 16:52	1
Benzene	0.43	U	1.0	0.43	ug/L			02/27/19 16:52	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			02/27/19 16:52	1
Bromoform	0.54	U	1.0	0.54	ug/L			02/27/19 16:52	1
Bromomethane	1.0	U	1.0	1.0	ug/L			02/27/19 16:52	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			02/27/19 16:52	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			02/27/19 16:52	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			02/27/19 16:52	1
Chloroethane	0.32	U	1.0	0.32	ug/L			02/27/19 16:52	1
Chloroform	0.33	U	1.0	0.33	ug/L			02/27/19 16:52	1
Chloromethane	0.14	U	1.0	0.14	ug/L			02/27/19 16:52	1
cis-1,2-Dichloroethene	**0.95**	**J**	1.0	0.22	ug/L			02/27/19 16:52	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			02/27/19 16:52	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			02/27/19 16:52	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			02/27/19 16:52	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			02/27/19 16:52	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			02/27/19 16:52	1
Freon TF	0.31	U	1.0	0.31	ug/L			02/27/19 16:52	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			02/27/19 16:52	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			02/27/19 16:52	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			02/27/19 16:52	1
MTBE	0.47	U	1.0	0.47	ug/L			02/27/19 16:52	1
Naphthalene	0.41	U	1.0	0.41	ug/L			02/27/19 16:52	1
Styrene	0.42	U	1.0	0.42	ug/L			02/27/19 16:52	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			02/27/19 16:52	1
Toluene	0.38	U	1.0	0.38	ug/L			02/27/19 16:52	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			02/27/19 16:52	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			02/27/19 16:52	1
Trichloroethene	**1.2**		1.0	0.31	ug/L			02/27/19 16:52	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			02/27/19 16:52	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			02/27/19 16:52	1
Xylenes, Total	0.30	U	2.0	0.30	ug/L			02/27/19 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*74 - 132*		*02/27/19 16:52*	*1*
Bromofluorobenzene	*95*		*77 - 124*		*02/27/19 16:52*	*1*
Dibromofluoromethane (Surr)	*110*		*72 - 131*		*02/27/19 16:52*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*02/27/19 16:52*	*1*

Client Sample ID: MW 19D

Date Collected: 02/22/19 12:57
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			02/27/19 17:19	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			02/27/19 17:19	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			02/27/19 17:19	1
1,1-Dichloroethane	**7.8**		1.0	0.26	ug/L			02/27/19 17:19	1
1,1-Dichloroethene	**33**		1.0	0.12	ug/L			02/27/19 17:19	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			02/27/19 17:19	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			02/27/19 17:19	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			02/27/19 17:19	1
1,2-Dibromoethane	0.50	U	1.0	0.50	ug/L			02/27/19 17:19	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			02/27/19 17:19	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			02/27/19 17:19	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			02/27/19 17:19	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			02/27/19 17:19	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			02/27/19 17:19	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			02/27/19 17:19	1
2-Butanone	1.9	U	5.0	1.9	ug/L			02/27/19 17:19	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			02/27/19 17:19	1
4-Methyl-2-pentanone	2.7	U	5.0	2.7	ug/L			02/27/19 17:19	1
Acetone	**6.1**		5.0	5.0	ug/L			02/27/19 17:19	1
Benzene	**21**		1.0	0.43	ug/L			02/27/19 17:19	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			02/27/19 17:19	1
Bromoform	0.54	U	1.0	0.54	ug/L			02/27/19 17:19	1
Bromomethane	1.0	U	1.0	1.0	ug/L			02/27/19 17:19	1
Carbon disulfide	**2.7**		1.0	0.16	ug/L			02/27/19 17:19	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			02/27/19 17:19	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			02/27/19 17:19	1
Chloroethane	0.32	U	1.0	0.32	ug/L			02/27/19 17:19	1
Chloroform	0.33	U	1.0	0.33	ug/L			02/27/19 17:19	1
Chloromethane	0.14	U	1.0	0.14	ug/L			02/27/19 17:19	1
cis-1,2-Dichloroethene	**9.0**		1.0	0.22	ug/L			02/27/19 17:19	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			02/27/19 17:19	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			02/27/19 17:19	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			02/27/19 17:19	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			02/27/19 17:19	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			02/27/19 17:19	1
Freon TF	0.31	U	1.0	0.31	ug/L			02/27/19 17:19	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			02/27/19 17:19	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			02/27/19 17:19	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			02/27/19 17:19	1
MTBE	0.47	U	1.0	0.47	ug/L			02/27/19 17:19	1
Naphthalene	0.41	U	1.0	0.41	ug/L			02/27/19 17:19	1
Styrene	0.42	U	1.0	0.42	ug/L			02/27/19 17:19	1
Tetrachloroethene	**0.41**	**J**	1.0	0.25	ug/L			02/27/19 17:19	1
Toluene	0.38	U	1.0	0.38	ug/L			02/27/19 17:19	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			02/27/19 17:19	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			02/27/19 17:19	1
Trichloroethene	**49**		1.0	0.31	ug/L			02/27/19 17:19	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			02/27/19 17:19	1
Vinyl chloride	**1.0**		1.0	0.17	ug/L			02/27/19 17:19	1

Client Sample ID: MW 19D

Date Collected: 02/22/19 12:57
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.30	U	2.0	0.30	ug/L			02/27/19 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*74 - 132*		*02/27/19 17:19*	*1*
Bromofluorobenzene	*97*		*77 - 124*		*02/27/19 17:19*	*1*
Dibromofluoromethane (Surr)	*108*		*72 - 131*		*02/27/19 17:19*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*02/27/19 17:19*	*1*

Client Sample ID: MW 17S

Date Collected: 02/22/19 14:50
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			03/01/19 03:38	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			03/01/19 03:38	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			03/01/19 03:38	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			03/01/19 03:38	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			03/01/19 03:38	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			03/01/19 03:38	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			03/01/19 03:38	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			03/01/19 03:38	1
1,2-Dibromoethane	0.50	U	1.0	0.50	ug/L			03/01/19 03:38	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			03/01/19 03:38	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			03/01/19 03:38	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			03/01/19 03:38	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			03/01/19 03:38	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			03/01/19 03:38	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			03/01/19 03:38	1
2-Butanone	1.9	U	5.0	1.9	ug/L			03/01/19 03:38	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			03/01/19 03:38	1
4-Methyl-2-pentanone	2.7	U	5.0	2.7	ug/L			03/01/19 03:38	1
Acetone	5.0	U	5.0	5.0	ug/L			03/01/19 03:38	1
Benzene	0.43	U	1.0	0.43	ug/L			03/01/19 03:38	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			03/01/19 03:38	1
Bromoform	0.54	U	1.0	0.54	ug/L			03/01/19 03:38	1
Bromomethane	1.0	U	1.0	1.0	ug/L			03/01/19 03:38	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			03/01/19 03:38	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			03/01/19 03:38	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			03/01/19 03:38	1
Chloroethane	0.32	U	1.0	0.32	ug/L			03/01/19 03:38	1
Chloroform	0.33	U	1.0	0.33	ug/L			03/01/19 03:38	1
Chloromethane	0.14	U	1.0	0.14	ug/L			03/01/19 03:38	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			03/01/19 03:38	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			03/01/19 03:38	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			03/01/19 03:38	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			03/01/19 03:38	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			03/01/19 03:38	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			03/01/19 03:38	1
Freon TF	0.31	U	1.0	0.31	ug/L			03/01/19 03:38	1

Client Sample ID: MW 17S

Date Collected: 02/22/19 14:50
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			03/01/19 03:38	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			03/01/19 03:38	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			03/01/19 03:38	1
MTBE	0.47	U	1.0	0.47	ug/L			03/01/19 03:38	1
Naphthalene	0.41	U	1.0	0.41	ug/L			03/01/19 03:38	1
Styrene	0.42	U	1.0	0.42	ug/L			03/01/19 03:38	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			03/01/19 03:38	1
Toluene	0.38	U	1.0	0.38	ug/L			03/01/19 03:38	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			03/01/19 03:38	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			03/01/19 03:38	1
Trichloroethene	**0.34**	**J**	1.0	0.31	ug/L			03/01/19 03:38	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			03/01/19 03:38	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			03/01/19 03:38	1
Xylenes, Total	0.30	U	2.0	0.30	ug/L			03/01/19 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*74 - 132*		*03/01/19 03:38*	*1*
Bromofluorobenzene	*92*		*77 - 124*		*03/01/19 03:38*	*1*
Dibromofluoromethane (Surr)	*99*		*72 - 131*		*03/01/19 03:38*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/01/19 03:38*	*1*

Client Sample ID: MW 16S

Date Collected: 02/22/19 15:15
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			02/27/19 18:12	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			02/27/19 18:12	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			02/27/19 18:12	1
1,1-Dichloroethane	**0.38**	**J**	1.0	0.26	ug/L			02/27/19 18:12	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			02/27/19 18:12	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			02/27/19 18:12	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			02/27/19 18:12	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			02/27/19 18:12	1
1,2-Dibromoethane	0.50	U	1.0	0.50	ug/L			02/27/19 18:12	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			02/27/19 18:12	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			02/27/19 18:12	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			02/27/19 18:12	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			02/27/19 18:12	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			02/27/19 18:12	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			02/27/19 18:12	1
2-Butanone	1.9	U	5.0	1.9	ug/L			02/27/19 18:12	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			02/27/19 18:12	1
4-Methyl-2-pentanone	2.7	U	5.0	2.7	ug/L			02/27/19 18:12	1
Acetone	5.0	U	5.0	5.0	ug/L			02/27/19 18:12	1
Benzene	0.43	U	1.0	0.43	ug/L			02/27/19 18:12	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			02/27/19 18:12	1
Bromoform	0.54	U	1.0	0.54	ug/L			02/27/19 18:12	1
Bromomethane	1.0	U	1.0	1.0	ug/L			02/27/19 18:12	1

Client Sample ID: MW 16S

Date Collected: 02/22/19 15:15
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	0.16	U	1.0	0.16	ug/L			02/27/19 18:12	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			02/27/19 18:12	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			02/27/19 18:12	1
Chloroethane	0.32	U	1.0	0.32	ug/L			02/27/19 18:12	1
Chloroform	**0.44**	**J**	1.0	0.33	ug/L			02/27/19 18:12	1
Chloromethane	0.14	U	1.0	0.14	ug/L			02/27/19 18:12	1
cis-1,2-Dichloroethene	**0.38**	**J**	1.0	0.22	ug/L			02/27/19 18:12	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			02/27/19 18:12	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			02/27/19 18:12	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			02/27/19 18:12	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			02/27/19 18:12	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			02/27/19 18:12	1
Freon TF	0.31	U	1.0	0.31	ug/L			02/27/19 18:12	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			02/27/19 18:12	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			02/27/19 18:12	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			02/27/19 18:12	1
MTBE	0.47	U	1.0	0.47	ug/L			02/27/19 18:12	1
Naphthalene	0.41	U	1.0	0.41	ug/L			02/27/19 18:12	1
Styrene	0.42	U	1.0	0.42	ug/L			02/27/19 18:12	1
Tetrachloroethene	**1.4**		1.0	0.25	ug/L			02/27/19 18:12	1
Toluene	0.38	U	1.0	0.38	ug/L			02/27/19 18:12	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			02/27/19 18:12	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			02/27/19 18:12	1
Trichloroethene	**1.8**		1.0	0.31	ug/L			02/27/19 18:12	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			02/27/19 18:12	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			02/27/19 18:12	1
Xylenes, Total	0.30	U	2.0	0.30	ug/L			02/27/19 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*74 - 132*		*02/27/19 18:12*	*1*
Bromofluorobenzene	*95*		*77 - 124*		*02/27/19 18:12*	*1*
Dibromofluoromethane (Surr)	*110*		*72 - 131*		*02/27/19 18:12*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*02/27/19 18:12*	*1*

Client Sample ID: MW 16D

Date Collected: 02/22/19 15:40
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			02/28/19 00:48	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			02/28/19 00:48	1
1,1,2-Trichloroethane	0.43	U	1.0	0.43	ug/L			02/28/19 00:48	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			02/28/19 00:48	1
1,1-Dichloroethene	0.12	U	1.0	0.12	ug/L			02/28/19 00:48	1
1,2,4-Trichlorobenzene	0.37	U	1.0	0.37	ug/L			02/28/19 00:48	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			02/28/19 00:48	1
1,2-Dibromo-3-Chloropropane	0.38	U	1.0	0.38	ug/L			02/28/19 00:48	1
1,2-Dibromoethane	0.50	U	1.0	0.50	ug/L			02/28/19 00:48	1
1,2-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			02/28/19 00:48	1

Client Sample ID: MW 16D
Date Collected: 02/22/19 15:40
Date Received: 02/22/19 16:55

Lab Sample ID: 460-175965-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			02/28/19 00:48	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			02/28/19 00:48	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			02/28/19 00:48	1
1,3-Dichlorobenzene	0.34	U	1.0	0.34	ug/L			02/28/19 00:48	1
1,4-Dichlorobenzene	0.76	U	1.0	0.76	ug/L			02/28/19 00:48	1
2-Butanone	1.9	U	5.0	1.9	ug/L			02/28/19 00:48	1
2-Hexanone	2.9	U	5.0	2.9	ug/L			02/28/19 00:48	1
4-Methyl-2-pentanone	2.7	U	5.0	2.7	ug/L			02/28/19 00:48	1
Acetone	5.0	U	5.0	5.0	ug/L			02/28/19 00:48	1
Benzene	0.43	U	1.0	0.43	ug/L			02/28/19 00:48	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			02/28/19 00:48	1
Bromoform	0.54	U	1.0	0.54	ug/L			02/28/19 00:48	1
Bromomethane	1.0	U	1.0	1.0	ug/L			02/28/19 00:48	1
Carbon disulfide	0.16	U	1.0	0.16	ug/L			02/28/19 00:48	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			02/28/19 00:48	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			02/28/19 00:48	1
Chloroethane	0.32	U	1.0	0.32	ug/L			02/28/19 00:48	1
Chloroform	0.33	U	1.0	0.33	ug/L			02/28/19 00:48	1
Chloromethane	0.14	U	1.0	0.14	ug/L			02/28/19 00:48	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			02/28/19 00:48	1
cis-1,3-Dichloropropene	0.46	U	1.0	0.46	ug/L			02/28/19 00:48	1
Cyclohexane	0.32	U	1.0	0.32	ug/L			02/28/19 00:48	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			02/28/19 00:48	1
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			02/28/19 00:48	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			02/28/19 00:48	1
Freon TF	0.31	U	1.0	0.31	ug/L			02/28/19 00:48	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			02/28/19 00:48	1
Methyl acetate	0.31	U	5.0	0.31	ug/L			02/28/19 00:48	1
Methylene Chloride	**0.70**	**J**	1.0	0.32	ug/L			02/28/19 00:48	1
MTBE	0.47	U	1.0	0.47	ug/L			02/28/19 00:48	1
Naphthalene	0.41	U	1.0	0.41	ug/L			02/28/19 00:48	1
Styrene	0.42	U	1.0	0.42	ug/L			02/28/19 00:48	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			02/28/19 00:48	1
Toluene	0.38	U	1.0	0.38	ug/L			02/28/19 00:48	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			02/28/19 00:48	1
trans-1,3-Dichloropropene	0.49	U	1.0	0.49	ug/L			02/28/19 00:48	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			02/28/19 00:48	1
Trichlorofluoromethane	0.14	U	1.0	0.14	ug/L			02/28/19 00:48	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			02/28/19 00:48	1
Xylenes, Total	0.30	U	2.0	0.30	ug/L			02/28/19 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*74 - 132*		*02/28/19 00:48*	*1*
Bromofluorobenzene	*95*		*77 - 124*		*02/28/19 00:48*	*1*
Dibromofluoromethane (Surr)	*110*		*72 - 131*		*02/28/19 00:48*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*02/28/19 00:48*	*1*

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-175965-1

Client Sample ID: MW 1
Lab Sample ID: 460-175965-1
Date Collected: 02/22/19 08:00
Matrix: Water
Date Received: 02/22/19 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	592443	03/01/19 02:17	GXY	TAL EDI

Client Sample ID: MW 18S
Lab Sample ID: 460-175965-2
Date Collected: 02/22/19 09:40
Matrix: Water
Date Received: 02/22/19 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	592443	03/01/19 02:44	GXY	TAL EDI

Client Sample ID: MW 18D
Lab Sample ID: 460-175965-3
Date Collected: 02/22/19 10:31
Matrix: Water
Date Received: 02/22/19 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	592443	03/01/19 03:11	GXY	TAL EDI

Client Sample ID: MW 19S
Lab Sample ID: 460-175965-4
Date Collected: 02/22/19 11:55
Matrix: Water
Date Received: 02/22/19 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	591998	02/27/19 16:52	CJM	TAL EDI

Client Sample ID: MW 19D
Lab Sample ID: 460-175965-5
Date Collected: 02/22/19 12:57
Matrix: Water
Date Received: 02/22/19 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	591998	02/27/19 17:19	CJM	TAL EDI

Client Sample ID: MW 17S
Lab Sample ID: 460-175965-6
Date Collected: 02/22/19 14:50
Matrix: Water
Date Received: 02/22/19 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	592443	03/01/19 03:38	GXY	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-175965-1

Client Sample ID: MW 16S

Lab Sample ID: 460-175965-7

Date Collected: 02/22/19 15:15

Matrix: Water

Date Received: 02/22/19 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	591998	02/27/19 18:12	CJM	TAL EDI

Client Sample ID: MW 16D

Lab Sample ID: 460-175965-8

Date Collected: 02/22/19 15:40

Matrix: Water

Date Received: 02/22/19 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	592192	02/28/19 00:48	GXY	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. TestAmerica Job ID: 460-175965-1
Project/Site: Collins Street

Laboratory: TestAmerica Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-19
New Jersey	NELAP	2	12028	06-30-19
New York	NELAP	2	11452	04-01-19
Pennsylvania	NELAP	3	68-00522	02-28-20
Rhode Island	State Program	1	LAO00132	12-30-19
USDA	Federal		NJCA-003-08	05-03-21

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-175965-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 460-175965-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-175965-1	MW 1	Water	02/22/19 08:00	02/22/19 16:55
460-175965-2	MW 18S	Water	02/22/19 09:40	02/22/19 16:55
460-175965-3	MW 18D	Water	02/22/19 10:31	02/22/19 16:55
460-175965-4	MW 19S	Water	02/22/19 11:55	02/22/19 16:55
460-175965-5	MW 19D	Water	02/22/19 12:57	02/22/19 16:55
460-175965-6	MW 17S	Water	02/22/19 14:50	02/22/19 16:55
460-175965-7	MW 16S	Water	02/22/19 15:15	02/22/19 16:55
460-175965-8	MW 16D	Water	02/22/19 15:40	02/22/19 16:55

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

4.5 KOP1

Page 1 of 1

Name (for report and invoice) A. Schneider, V. Lom, J. Lyzinski	Samplers Name (Printed) Aaron Schneider	Site/Project Identification Collins St	
Company RT ENV	P. O. # 2043-020-02	State (Location of site): NJ: ☐ NY: ☐ Other: PA	
		Regulatory Program:	DKQP: ☐
Address	Analysis Turnaround Time: Standard ☑		LAB USE ONLY Project No:
City KOP State PA	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		Job No: 175965
Phone Fax			Sample Numbers

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	8260 full #2	VOC									
MW 1	2/22/19	8:00	GW	3	X	X									
MW 18S		9:40		3	X	X									
MW 18D		10:31		3	X	X									
MW 19S		11:55		3	X	X									
MW 19D		12:57		3	X	X									
MW 17S		14:50		3	X	X									
MW 16S		15:15		3	X	X									
MW 16D		15:40		3	X	X									
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH				Soil:											
6 = Other _____, 7 = Other _____				Water:	1	1									

460-175965 Chain of Custody

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

Relinquished by: A. Schneider	Company: RT ENV	Date / Time: 2/22/19 4:55	Received by: [signature]	Company: TAKOP
Relinquished by 2): [signature]	Company: To KOP	Date / Time: 2/25 1120	Received by 2): [signature]	Company: TA
Relinquished by 3): [signature]	Company: TA	Date / Time: 2/25 19:15	Received by 3): [signature]	Company: TAL
Relinquished by 4):	Company:	Date / Time:	Received by 4):	Company:

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 175965

Number of Coolers: 1 IR Gun # Lot-1

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	4.5 °C	4.5 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: JL Date: 2/25/19

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 460-175965-1

Login Number: 175965
List Number: 1
Creator: Keehn, Jeffrey S

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	4.5c IR#KOP-1
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORTS (SOIL)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-166026-1
Client Project/Site: Collins St Act 2

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: John Lydzinski

Jill Miller

Authorized for release by:
10/10/2018 2:44:23 PM

Jill Miller, Project Manager II
(484)685-0871
jill.miller@testamericainc.com

LINKS
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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 6
Lab Chronicle 37
Certification Summary 45
Method Summary 46
Sample Summary 47
Chain of Custody 48
Receipt Checklists 51

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 460-166026-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative
460-166026-1

Comments
No additional comments.

Receipt
The samples were received on 10/3/2018 3:34 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-557796 was outside the method criteria for the following analyte: Dichlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 460-557927 recovered above the upper control limit for Vinyl chloride. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-558270 was outside the method criteria for the following analyte: Dichlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 460-558671 recovered above the upper control limit for 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene. The following samples are impacted: SB-312-18 (460-166026-5) and (CCVIS 460-558671/2).

Method(s) 8260C: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 460-558671 recovered outside control limits for the following analytes: 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene and Naphthalene. These analytes were biased high in the LCS/LCSD; the data have been flagged and reported.

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: SB-312-18 (460-166026-5). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-558891 was outside the method criteria for the following analytes: Trichlorofluoromethane, 1,1,1-Trichloroethane, Carbon tetrachloride, 1,2-Dichloroethane, 1,1,2-Trichloro-1,2,2-trifluoroethane and Dichlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 460-558891 recovered outside control limits for the following analytes: Trichlorofluoromethane, 1,2-Dichloroethane, Naphthalene and Carbon tetrachloride. The data has been flagged and reported.

Method(s) 8260C: The following sample was diluted due to the abundance of non-target analytes: SB-318-18 (460-166026-17). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: Surrogate recovery for the following sample was outside the upper control limit: SB-312-19.5 (460-166026-6). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D: 3 surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance

Job ID: 460-166026-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SB-312-18 (460-166026-5). These results have been reported and qualified.

Method(s) 8270D: The following sample was diluted due to the abundance of target analytes: SB-312-18 (460-166026-5). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: Surrogate recovery for the following sample was outside the upper control limit: SB-316-12.5 (460-166026-13). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: SB-312-18 (460-166026-5) and SB-318-18 (460-166026-17). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: SB-310-2
Date Collected: 10/03/18 08:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-1
Matrix: Solid
Percent Solids: 85.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00037	U	0.00086	0.00037	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Bromomethane	0.00041	U	0.00086	0.00041	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Vinyl chloride	0.00047	U	0.00086	0.00047	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Chloroethane	0.00045	U	0.00086	0.00045	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Methylene Chloride	**0.0044**		0.00086	0.00014	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Acetone	0.0032	U	0.0043	0.0032	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Carbon disulfide	0.00023	U	0.00086	0.00023	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Trichlorofluoromethane	0.00035	U	0.00086	0.00035	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,1-Dichloroethene	0.00019	U	0.00086	0.00019	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,1-Dichloroethane	**0.00047**	**J**	0.00086	0.00018	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
trans-1,2-Dichloroethene	0.00021	U	0.00086	0.00021	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
cis-1,2-Dichloroethene	**0.00019**	**J**	0.00086	0.00013	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Chloroform	**0.0054**		0.00086	0.00027	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,2-Dichloroethane	**0.00042**	**J**	0.00086	0.00025	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
2-Butanone	0.00095	U	0.0043	0.00095	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,1,1-Trichloroethane	**0.0016**		0.00086	0.00020	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Carbon tetrachloride	**0.0015**		0.00086	0.00016	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Bromodichloromethane	0.00022	U	0.00086	0.00022	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,2-Dichloropropane	0.00036	U	0.00086	0.00036	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
cis-1,3-Dichloropropene	0.00023	U	0.00086	0.00023	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Trichloroethene	**0.0058**		0.00086	0.00012	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Dibromochloromethane	0.00017	U	0.00086	0.00017	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,1,2-Trichloroethane	0.00015	U	0.00086	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Benzene	0.00022	U	0.00086	0.00022	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
trans-1,3-Dichloropropene	0.00023	U	0.00086	0.00023	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Bromoform	0.00036	U	0.00086	0.00036	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
4-Methyl-2-pentanone	0.00057	U	0.0043	0.00057	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
2-Hexanone	0.00067	U	0.0043	0.00067	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Tetrachloroethene	**0.0013**		0.00086	0.00012	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,1,2,2-Tetrachloroethane	0.00018	U	0.00086	0.00018	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Toluene	0.00054	U	0.00086	0.00054	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Chlorobenzene	0.00015	U	0.00086	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Ethylbenzene	0.00017	U	0.00086	0.00017	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Styrene	0.00011	U	0.00086	0.00011	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Xylenes, Total	0.00022	U	0.0017	0.00022	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Freon TF	0.00026	U	0.00086	0.00026	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
MTBE	0.00011	U	0.00086	0.00011	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Cyclohexane	0.00019	U	0.00086	0.00019	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,2-Dibromoethane	0.00015	U	0.00086	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,3-Dichlorobenzene	0.00014	U	0.00086	0.00014	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,4-Dichlorobenzene	0.000086	U	0.00086	0.000086	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,2-Dichlorobenzene	0.00012	U	0.00086	0.00012	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Naphthalene	**0.00052**	**J**	0.00086	0.00016	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Dichlorodifluoromethane	0.00029	U	0.00086	0.00029	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,2,4-Trichlorobenzene	0.000079	U	0.00086	0.000079	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,2,4-Trimethylbenzene	0.000081	U	0.00086	0.000081	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,2-Dibromo-3-Chloropropane	0.00039	U	0.00086	0.00039	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
1,3,5-Trimethylbenzene	0.000099	U	0.00086	0.000099	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Isopropylbenzene	0.00011	U	0.00086	0.00011	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1

Client Sample ID: SB-310-2

Date Collected: 10/03/18 08:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-1

Matrix: Solid
Percent Solids: 85.8

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	0.0037	U	0.0043	0.0037	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1
Methylcyclohexane	0.00014	U	0.00086	0.00014	mg/Kg	☼	10/05/18 00:10	10/06/18 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*78 - 135*	*10/05/18 00:10*	*10/06/18 01:06*	*1*
Toluene-d8 (Surr)	*96*		*73 - 121*	*10/05/18 00:10*	*10/06/18 01:06*	*1*
Bromofluorobenzene	*103*		*67 - 126*	*10/05/18 00:10*	*10/06/18 01:06*	*1*
Dibromofluoromethane (Surr)	*109*		*61 - 149*	*10/05/18 00:10*	*10/06/18 01:06*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0052	U	0.38	0.0052	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1
Phenanthrene	**0.15**	**J**	0.38	0.0068	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1
Anthracene	**0.027**	**J**	0.38	0.0043	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1
Pyrene	**0.27**	**J**	0.38	0.0096	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1
Benzo[a]anthracene	**0.14**		0.038	0.013	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1
Chrysene	**0.16**	**J**	0.38	0.0065	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1
Benzo[b]fluoranthene	**0.21**		0.038	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1
Benzo[a]pyrene	**0.14**		0.038	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1
Benzo[g,h,i]perylene	**0.099**	**J**	0.38	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*48*		*37 - 94*	*10/05/18 09:25*	*10/06/18 17:32*	*1*
Terphenyl-d14	*63*		*24 - 109*	*10/05/18 09:25*	*10/06/18 17:32*	*1*
2-Fluorobiphenyl	*46*		*38 - 95*	*10/05/18 09:25*	*10/06/18 17:32*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**14.2**		1.0	1.0	%			10/05/18 19:41	1
Percent Solids	**85.8**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-310-7.5

Date Collected: 10/03/18 08:40
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-2

Matrix: Solid
Percent Solids: 85.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00037	U	0.00086	0.00037	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Bromomethane	0.00041	U	0.00086	0.00041	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Vinyl chloride	0.00047	U	0.00086	0.00047	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Chloroethane	0.00045	U	0.00086	0.00045	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Methylene Chloride	**0.0040**		0.00086	0.00014	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Acetone	0.0032	U	0.0043	0.0032	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Carbon disulfide	0.00023	U	0.00086	0.00023	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Trichlorofluoromethane	0.00035	U	0.00086	0.00035	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,1-Dichloroethene	0.00019	U	0.00086	0.00019	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,1-Dichloroethane	0.00018	U	0.00086	0.00018	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
trans-1,2-Dichloroethene	0.00021	U	0.00086	0.00021	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
cis-1,2-Dichloroethene	0.00013	U	0.00086	0.00013	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Chloroform	**0.0022**		0.00086	0.00027	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,2-Dichloroethane	0.00025	U	0.00086	0.00025	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1

Client Sample ID: SB-310-7.5
Date Collected: 10/03/18 08:40
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-2
Matrix: Solid
Percent Solids: 85.5

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	0.00095	U	0.0043	0.00095	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,1,1-Trichloroethane	**0.00038**	**J**	0.00086	0.00020	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Carbon tetrachloride	**0.00019**	**J**	0.00086	0.00016	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Bromodichloromethane	0.00022	U	0.00086	0.00022	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,2-Dichloropropane	0.00036	U	0.00086	0.00036	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
cis-1,3-Dichloropropene	0.00023	U	0.00086	0.00023	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Trichloroethene	**0.0016**		0.00086	0.00012	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Dibromochloromethane	0.00017	U	0.00086	0.00017	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,1,2-Trichloroethane	0.00015	U	0.00086	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Benzene	0.00022	U	0.00086	0.00022	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
trans-1,3-Dichloropropene	0.00023	U	0.00086	0.00023	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Bromoform	0.00036	U	0.00086	0.00036	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
4-Methyl-2-pentanone	0.00057	U	0.0043	0.00057	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
2-Hexanone	0.00067	U	0.0043	0.00067	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Tetrachloroethene	**0.00045**	**J**	0.00086	0.00012	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,1,2,2-Tetrachloroethane	0.00018	U	0.00086	0.00018	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Toluene	0.00054	U	0.00086	0.00054	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Chlorobenzene	0.00015	U	0.00086	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Ethylbenzene	0.00017	U	0.00086	0.00017	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Styrene	0.00011	U	0.00086	0.00011	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Xylenes, Total	0.00022	U	0.0017	0.00022	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Freon TF	0.00026	U	0.00086	0.00026	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
MTBE	0.00011	U	0.00086	0.00011	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Cyclohexane	0.00019	U	0.00086	0.00019	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,2-Dibromoethane	0.00015	U	0.00086	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,3-Dichlorobenzene	0.00014	U	0.00086	0.00014	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,4-Dichlorobenzene	0.000086	U	0.00086	0.000086	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,2-Dichlorobenzene	0.00012	U	0.00086	0.00012	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Naphthalene	0.00016	U	0.00086	0.00016	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Dichlorodifluoromethane	0.00029	U	0.00086	0.00029	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,2,4-Trichlorobenzene	0.000079	U	0.00086	0.000079	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,2,4-Trimethylbenzene	0.000081	U	0.00086	0.000081	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,2-Dibromo-3-Chloropropane	0.00039	U	0.00086	0.00039	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
1,3,5-Trimethylbenzene	0.000099	U	0.00086	0.000099	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Isopropylbenzene	0.00011	U	0.00086	0.00011	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Methyl acetate	0.0037	U	0.0043	0.0037	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1
Methylcyclohexane	0.00014	U	0.00086	0.00014	mg/Kg	☼	10/05/18 00:10	10/06/18 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*78 - 135*	*10/05/18 00:10*	*10/06/18 01:30*	*1*
Toluene-d8 (Surr)	*97*		*73 - 121*	*10/05/18 00:10*	*10/06/18 01:30*	*1*
Bromofluorobenzene	*105*		*67 - 126*	*10/05/18 00:10*	*10/06/18 01:30*	*1*
Dibromofluoromethane (Surr)	*109*		*61 - 149*	*10/05/18 00:10*	*10/06/18 01:30*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0052	U	0.39	0.0052	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1
Phenanthrene	0.0068	U	0.39	0.0068	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1
Anthracene	0.0043	U	0.39	0.0043	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1
Pyrene	0.0096	U	0.39	0.0096	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1

Client Sample ID: SB-310-7.5

Lab Sample ID: 460-166026-2

Date Collected: 10/03/18 08:40
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 85.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.013	U	0.039	0.013	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1
Chrysene	0.0065	U	0.39	0.0065	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1
Benzo[b]fluoranthene	0.010	U	0.039	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1
Benzo[a]pyrene	0.010	U	0.039	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1
Benzo[g,h,i]perylene	0.011	U	0.39	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 10:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*53*		*37 - 94*	*10/05/18 09:25*	*10/06/18 10:14*	*1*
Terphenyl-d14	*58*		*24 - 109*	*10/05/18 09:25*	*10/06/18 10:14*	*1*
2-Fluorobiphenyl	*48*		*38 - 95*	*10/05/18 09:25*	*10/06/18 10:14*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**14.5**		1.0	1.0	%			10/05/18 19:41	1
Percent Solids	**85.5**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-311-13

Lab Sample ID: 460-166026-3

Date Collected: 10/03/18 09:00
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 91.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00046	U	0.0011	0.00046	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Bromomethane	0.00050	U	0.0011	0.00050	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Vinyl chloride	0.00058	U	0.0011	0.00058	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Chloroethane	0.00055	U	0.0011	0.00055	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Methylene Chloride	**0.0048**		0.0011	0.00017	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Acetone	**0.0048**	**J**	0.0053	0.0040	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Carbon disulfide	0.00028	U	0.0011	0.00028	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Trichlorofluoromethane	0.00043	U	0.0011	0.00043	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,1-Dichloroethene	0.00024	U	0.0011	0.00024	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,1-Dichloroethane	0.00022	U	0.0011	0.00022	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
trans-1,2-Dichloroethene	0.00026	U	0.0011	0.00026	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
cis-1,2-Dichloroethene	0.00016	U	0.0011	0.00016	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Chloroform	0.00034	U	0.0011	0.00034	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,2-Dichloroethane	0.00031	U	0.0011	0.00031	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
2-Butanone	0.0012	U	0.0053	0.0012	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,1,1-Trichloroethane	0.00025	U	0.0011	0.00025	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Carbon tetrachloride	0.00019	U	0.0011	0.00019	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Bromodichloromethane	0.00027	U	0.0011	0.00027	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,2-Dichloropropane	0.00045	U	0.0011	0.00045	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
cis-1,3-Dichloropropene	0.00029	U	0.0011	0.00029	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Trichloroethene	0.00015	U	0.0011	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Dibromochloromethane	0.00020	U	0.0011	0.00020	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,1,2-Trichloroethane	0.00019	U	0.0011	0.00019	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Benzene	0.00027	U	0.0011	0.00027	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
trans-1,3-Dichloropropene	0.00028	U	0.0011	0.00028	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Bromoform	0.00045	U	0.0011	0.00045	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
4-Methyl-2-pentanone	0.00070	U	0.0053	0.00070	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
2-Hexanone	0.00082	U	0.0053	0.00082	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1

Client Sample ID: SB-311-13
Date Collected: 10/03/18 09:00
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-3
Matrix: Solid
Percent Solids: 91.8

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.00015	U	0.0011	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,1,2,2-Tetrachloroethane	0.00023	U	0.0011	0.00023	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Toluene	**0.0011**		0.0011	0.00066	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Chlorobenzene	0.00019	U	0.0011	0.00019	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Ethylbenzene	0.00021	U	0.0011	0.00021	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Styrene	0.00013	U	0.0011	0.00013	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Xylenes, Total	0.00027	U	0.0021	0.00027	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Freon TF	0.00032	U	0.0011	0.00032	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
MTBE	0.00013	U	0.0011	0.00013	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Cyclohexane	0.00023	U	0.0011	0.00023	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,2-Dibromoethane	0.00019	U	0.0011	0.00019	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,3-Dichlorobenzene	0.00017	U	0.0011	0.00017	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,4-Dichlorobenzene	0.00011	U	0.0011	0.00011	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,2-Dichlorobenzene	0.00015	U	0.0011	0.00015	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Naphthalene	0.00020	U	0.0011	0.00020	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Dichlorodifluoromethane	0.00036	U	0.0011	0.00036	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,2,4-Trichlorobenzene	0.000097	U	0.0011	0.000097	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,2,4-Trimethylbenzene	0.000099	U	0.0011	0.000099	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,2-Dibromo-3-Chloropropane	0.00049	U	0.0011	0.00049	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
1,3,5-Trimethylbenzene	0.00012	U	0.0011	0.00012	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Isopropylbenzene	0.00013	U	0.0011	0.00013	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Methyl acetate	0.0045	U	0.0053	0.0045	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1
Methylcyclohexane	0.00017	U	0.0011	0.00017	mg/Kg	☼	10/05/18 00:10	10/06/18 01:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*78 - 135*	*10/05/18 00:10*	*10/06/18 01:54*	*1*
Toluene-d8 (Surr)	*96*		*73 - 121*	*10/05/18 00:10*	*10/06/18 01:54*	*1*
Bromofluorobenzene	*104*		*67 - 126*	*10/05/18 00:10*	*10/06/18 01:54*	*1*
Dibromofluoromethane (Surr)	*107*		*61 - 149*	*10/05/18 00:10*	*10/06/18 01:54*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0049	U	0.36	0.0049	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1
Phenanthrene	0.0063	U	0.36	0.0063	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1
Anthracene	0.0040	U	0.36	0.0040	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1
Pyrene	0.0090	U	0.36	0.0090	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1
Benzo[a]anthracene	0.013	U	0.036	0.013	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1
Chrysene	0.0061	U	0.36	0.0061	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1
Benzo[b]fluoranthene	0.0093	U	0.036	0.0093	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1
Benzo[a]pyrene	0.0096	U	0.036	0.0096	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1
Benzo[g,h,i]perylene	0.011	U	0.36	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 10:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*47*		*37 - 94*	*10/05/18 09:25*	*10/06/18 10:37*	*1*
Terphenyl-d14	*59*		*24 - 109*	*10/05/18 09:25*	*10/06/18 10:37*	*1*
2-Fluorobiphenyl	*44*		*38 - 95*	*10/05/18 09:25*	*10/06/18 10:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**8.2**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-311-13

Date Collected: 10/03/18 09:00
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-3

Matrix: Solid
Percent Solids: 91.8

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**91.8**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-311-19.5

Date Collected: 10/03/18 09:05
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-4

Matrix: Solid
Percent Solids: 84.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00053	U	0.0012	0.00053	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Bromomethane	0.00058	U	0.0012	0.00058	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Vinyl chloride	0.00066	U	0.0012	0.00066	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Chloroethane	0.00064	U	0.0012	0.00064	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Methylene Chloride	**0.0098**		0.0012	0.00020	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Acetone	**0.034**		0.0061	0.0046	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Carbon disulfide	0.00032	U	0.0012	0.00032	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Trichlorofluoromethane	0.00049	U	0.0012	0.00049	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,1-Dichloroethene	0.00027	U	0.0012	0.00027	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,1-Dichloroethane	0.00025	U	0.0012	0.00025	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
trans-1,2-Dichloroethene	0.00030	U	0.0012	0.00030	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
cis-1,2-Dichloroethene	0.00019	U	0.0012	0.00019	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Chloroform	0.00039	U	0.0012	0.00039	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,2-Dichloroethane	0.00036	U	0.0012	0.00036	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
2-Butanone	0.0014	U	0.0061	0.0014	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,1,1-Trichloroethane	0.00028	U	0.0012	0.00028	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Carbon tetrachloride	0.00022	U	0.0012	0.00022	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Bromodichloromethane	0.00031	U	0.0012	0.00031	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,2-Dichloropropane	0.00052	U	0.0012	0.00052	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
cis-1,3-Dichloropropene	0.00033	U	0.0012	0.00033	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Trichloroethene	0.00018	U	0.0012	0.00018	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Dibromochloromethane	0.00024	U	0.0012	0.00024	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,1,2-Trichloroethane	0.00022	U	0.0012	0.00022	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Benzene	0.00031	U	0.0012	0.00031	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
trans-1,3-Dichloropropene	0.00032	U	0.0012	0.00032	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Bromoform	0.00052	U	0.0012	0.00052	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
4-Methyl-2-pentanone	0.00081	U	0.0061	0.00081	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
2-Hexanone	0.00095	U	0.0061	0.00095	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Tetrachloroethene	0.00017	U	0.0012	0.00017	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,1,2,2-Tetrachloroethane	0.00026	U	0.0012	0.00026	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Toluene	0.00076	U	0.0012	0.00076	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Chlorobenzene	0.00022	U	0.0012	0.00022	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Ethylbenzene	0.00024	U	0.0012	0.00024	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Styrene	0.00015	U	0.0012	0.00015	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Xylenes, Total	0.00031	U	0.0024	0.00031	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Freon TF	0.00037	U	0.0012	0.00037	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
MTBE	0.00015	U	0.0012	0.00015	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Cyclohexane	0.00027	U	0.0012	0.00027	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,2-Dibromoethane	0.00022	U	0.0012	0.00022	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,3-Dichlorobenzene	0.00019	U	0.0012	0.00019	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,4-Dichlorobenzene	0.00012	U	0.0012	0.00012	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,2-Dichlorobenzene	0.00018	U	0.0012	0.00018	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1

Client Sample ID: SB-311-19.5

Lab Sample ID: 460-166026-4

Date Collected: 10/03/18 09:05

Matrix: Solid

Date Received: 10/03/18 15:34

Percent Solids: 84.8

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00023	U	0.0012	0.00023	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Dichlorodifluoromethane	0.00041	U	0.0012	0.00041	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,2,4-Trichlorobenzene	0.00011	U	0.0012	0.00011	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,2,4-Trimethylbenzene	0.00011	U	0.0012	0.00011	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,2-Dibromo-3-Chloropropane	0.00056	U	0.0012	0.00056	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
1,3,5-Trimethylbenzene	0.00014	U	0.0012	0.00014	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Isopropylbenzene	0.00015	U	0.0012	0.00015	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Methyl acetate	0.0052	U	0.0061	0.0052	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1
Methylcyclohexane	0.00019	U	0.0012	0.00019	mg/Kg	☼	10/05/18 00:11	10/06/18 02:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*78 - 135*	*10/05/18 00:11*	*10/06/18 02:18*	*1*
Toluene-d8 (Surr)	*97*		*73 - 121*	*10/05/18 00:11*	*10/06/18 02:18*	*1*
Bromofluorobenzene	*104*		*67 - 126*	*10/05/18 00:11*	*10/06/18 02:18*	*1*
Dibromofluoromethane (Surr)	*110*		*61 - 149*	*10/05/18 00:11*	*10/06/18 02:18*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0053	U	0.39	0.0053	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1
Phenanthrene	0.0068	U	0.39	0.0068	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1
Anthracene	0.0044	U	0.39	0.0044	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1
Pyrene	0.0097	U	0.39	0.0097	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1
Benzo[a]anthracene	0.014	U	0.039	0.014	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1
Chrysene	0.0066	U	0.39	0.0066	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1
Benzo[b]fluoranthene	0.010	U	0.039	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1
Benzo[a]pyrene	0.010	U	0.039	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1
Benzo[g,h,i]perylene	0.011	U	0.39	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*53*		*37 - 94*	*10/05/18 09:25*	*10/06/18 11:00*	*1*
Terphenyl-d14	*64*		*24 - 109*	*10/05/18 09:25*	*10/06/18 11:00*	*1*
2-Fluorobiphenyl	*47*		*38 - 95*	*10/05/18 09:25*	*10/06/18 11:00*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**15.2**		1.0	1.0	%			10/05/18 19:41	1
Percent Solids	**84.8**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-312-18

Lab Sample ID: 460-166026-5

Date Collected: 10/03/18 09:40

Matrix: Solid

Date Received: 10/03/18 15:34

Percent Solids: 88.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.011	U	0.051	0.011	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Bromomethane	0.0092	U	0.051	0.0092	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Vinyl chloride	0.010	U	0.051	0.010	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Chloroethane	0.019	U	0.051	0.019	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Methylene Chloride	0.011	U	0.051	0.011	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Acetone	0.055	U	0.26	0.055	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Carbon disulfide	0.011	U	0.051	0.011	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50

Client Sample ID: SB-312-18
Date Collected: 10/03/18 09:40
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-5
Matrix: Solid
Percent Solids: 88.0

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0077	U	0.051	0.0077	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,1-Dichloroethene	0.017	U	0.051	0.017	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,1-Dichloroethane	0.012	U	0.051	0.012	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
trans-1,2-Dichloroethene	0.0092	U	0.051	0.0092	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
cis-1,2-Dichloroethene	**0.035**	**J**	0.051	0.013	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Chloroform	0.011	U	0.051	0.011	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,2-Dichloroethane	0.013	U	0.051	0.013	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
2-Butanone	0.11	U	0.26	0.11	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,1,1-Trichloroethane	0.014	U	0.051	0.014	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Carbon tetrachloride	0.017	U	0.051	0.017	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Bromodichloromethane	0.0077	U	0.051	0.0077	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,2-Dichloropropane	0.0092	U	0.051	0.0092	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
cis-1,3-Dichloropropene	0.0082	U	0.051	0.0082	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Trichloroethene	0.011	U	0.051	0.011	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Dibromochloromethane	0.011	U	0.051	0.011	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,1,2-Trichloroethane	0.0041	U	0.051	0.0041	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Benzene	**0.056**		0.051	0.0097	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
trans-1,3-Dichloropropene	0.0097	U	0.051	0.0097	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Bromoform	0.0092	U	0.051	0.0092	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
4-Methyl-2-pentanone	0.032	U	0.26	0.032	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
2-Hexanone	0.037	U	0.26	0.037	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Tetrachloroethene	0.018	U	0.051	0.018	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,1,2,2-Tetrachloroethane	0.0097	U	0.051	0.0097	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Toluene	0.013	U	0.051	0.013	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Chlorobenzene	0.012	U	0.051	0.012	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Ethylbenzene	**0.46**		0.051	0.015	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Styrene	0.0087	U	0.051	0.0087	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Xylenes, Total	**0.059**	**J**	0.10	0.014	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Freon TF	0.017	U	0.051	0.017	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
MTBE	0.0067	U	0.051	0.0067	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Cyclohexane	**0.35**		0.051	0.013	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,2-Dibromoethane	0.0097	U	0.051	0.0097	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,3-Dichlorobenzene	0.017	U	0.051	0.017	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,4-Dichlorobenzene	0.017	U	0.051	0.017	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,2-Dichlorobenzene	0.011	U	0.051	0.011	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Naphthalene	**14**	*****	0.051	0.013	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Dichlorodifluoromethane	0.0072	U	0.051	0.0072	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,2,4-Trichlorobenzene	0.014	U	0.051	0.014	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,2,4-Trimethylbenzene	**0.66**	*****	0.051	0.012	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,2-Dibromo-3-Chloropropane	0.012	U	0.051	0.012	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
1,3,5-Trimethylbenzene	**0.70**	*****	0.051	0.013	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Isopropylbenzene	**0.46**		0.051	0.016	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Methyl acetate	0.030	U	0.26	0.030	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50
Methylcyclohexane	**1.1**		0.051	0.011	mg/Kg	☼	10/05/18 00:05	10/09/18 14:09	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*69 - 143*	*10/05/18 00:05*	*10/09/18 14:09*	*50*
Toluene-d8 (Surr)	*102*		*67 - 127*	*10/05/18 00:05*	*10/09/18 14:09*	*50*
Bromofluorobenzene	*83*		*61 - 137*	*10/05/18 00:05*	*10/09/18 14:09*	*50*
Dibromofluoromethane (Surr)	*82*		*61 - 135*	*10/05/18 00:05*	*10/09/18 14:09*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**2.3**		0.75	0.010	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2
Phenanthrene	**9.7**		0.75	0.013	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2
Anthracene	**1.0**		0.75	0.0084	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2
Pyrene	**2.9**		0.75	0.019	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2
Benzo[a]anthracene	**1.6**		0.075	0.026	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2
Chrysene	**2.9**		0.75	0.013	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2
Benzo[b]fluoranthene	**0.50**		0.075	0.019	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2
Benzo[a]pyrene	**0.86**		0.075	0.020	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2
Benzo[g,h,i]perylene	**0.36**	**J**	0.75	0.022	mg/Kg	☼	10/05/18 09:25	10/08/18 08:44	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*100*	*X*	*37 - 94*	*10/05/18 09:25*	*10/08/18 08:44*	*2*
Terphenyl-d14	*80*		*24 - 109*	*10/05/18 09:25*	*10/08/18 08:44*	*2*
2-Fluorobiphenyl	*85*		*38 - 95*	*10/05/18 09:25*	*10/08/18 08:44*	*2*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**12.0**		1.0	1.0	%			10/05/18 19:41	1
Percent Solids	**88.0**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-312-19.5

Date Collected: 10/03/18 09:45
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-6

Matrix: Solid
Percent Solids: 85.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00038	U	0.00086	0.00038	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Bromomethane	0.00041	U	0.00086	0.00041	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Vinyl chloride	0.00047	U	0.00086	0.00047	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Chloroethane	0.00045	U	0.00086	0.00045	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Methylene Chloride	**0.0044**		0.00086	0.00014	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Acetone	**0.0038**	**J**	0.0043	0.0033	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Carbon disulfide	0.00023	U	0.00086	0.00023	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Trichlorofluoromethane	0.00035	U	0.00086	0.00035	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,1-Dichloroethene	0.00019	U	0.00086	0.00019	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,1-Dichloroethane	0.00018	U	0.00086	0.00018	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
trans-1,2-Dichloroethene	0.00021	U	0.00086	0.00021	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
cis-1,2-Dichloroethene	0.00013	U	0.00086	0.00013	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Chloroform	0.00028	U	0.00086	0.00028	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,2-Dichloroethane	0.00026	U	0.00086	0.00026	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
2-Butanone	0.00096	U	0.0043	0.00096	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,1,1-Trichloroethane	0.00020	U	0.00086	0.00020	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Carbon tetrachloride	0.00016	U	0.00086	0.00016	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Bromodichloromethane	0.00022	U	0.00086	0.00022	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,2-Dichloropropane	0.00037	U	0.00086	0.00037	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
cis-1,3-Dichloropropene	0.00024	U	0.00086	0.00024	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Trichloroethene	0.00012	U	0.00086	0.00012	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Dibromochloromethane	0.00017	U	0.00086	0.00017	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,1,2-Trichloroethane	0.00015	U	0.00086	0.00015	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Benzene	0.00022	U	0.00086	0.00022	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
trans-1,3-Dichloropropene	0.00023	U	0.00086	0.00023	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Bromoform	0.00037	U	0.00086	0.00037	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
4-Methyl-2-pentanone	0.00057	U	0.0043	0.00057	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
2-Hexanone	0.00067	U	0.0043	0.00067	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1

Client Sample ID: SB-312-19.5
Date Collected: 10/03/18 09:45
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-6
Matrix: Solid
Percent Solids: 85.2

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**0.00025**	**J**	0.00086	0.00012	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,1,2,2-Tetrachloroethane	0.00018	U	0.00086	0.00018	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Toluene	**0.00059**	**J**	0.00086	0.00054	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Chlorobenzene	0.00015	U	0.00086	0.00015	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Ethylbenzene	**0.00071**	**J**	0.00086	0.00017	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Styrene	0.00011	U	0.00086	0.00011	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Xylenes, Total	**0.00027**	**J**	0.0017	0.00022	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Freon TF	0.00026	U	0.00086	0.00026	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
MTBE	0.00011	U	0.00086	0.00011	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Cyclohexane	**0.00032**	**J**	0.00086	0.00019	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,2-Dibromoethane	0.00016	U	0.00086	0.00016	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,3-Dichlorobenzene	0.00014	U	0.00086	0.00014	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,4-Dichlorobenzene	0.000086	U	0.00086	0.000086	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,2-Dichlorobenzene	0.00012	U	0.00086	0.00012	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Naphthalene	**0.034**		0.00086	0.00016	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Dichlorodifluoromethane	0.00029	U	0.00086	0.00029	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,2,4-Trichlorobenzene	0.000079	U	0.00086	0.000079	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,2,4-Trimethylbenzene	**0.0028**		0.00086	0.000081	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,2-Dibromo-3-Chloropropane	0.00040	U	0.00086	0.00040	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
1,3,5-Trimethylbenzene	**0.00024**	**J**	0.00086	0.000099	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Isopropylbenzene	**0.0011**		0.00086	0.00011	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Methyl acetate	0.0037	U	0.0043	0.0037	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1
Methylcyclohexane	**0.0015**		0.00086	0.00014	mg/Kg	☼	10/05/18 00:11	10/06/18 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*78 - 135*	*10/05/18 00:11*	*10/06/18 02:41*	*1*
Toluene-d8 (Surr)	*97*		*73 - 121*	*10/05/18 00:11*	*10/06/18 02:41*	*1*
Bromofluorobenzene	*106*		*67 - 126*	*10/05/18 00:11*	*10/06/18 02:41*	*1*
Dibromofluoromethane (Surr)	*109*		*61 - 149*	*10/05/18 00:11*	*10/06/18 02:41*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0053	U	0.39	0.0053	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1
Phenanthrene	0.0068	U	0.39	0.0068	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1
Anthracene	0.0043	U	0.39	0.0043	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1
Pyrene	0.0096	U	0.39	0.0096	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1
Benzo[a]anthracene	0.014	U	0.039	0.014	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1
Chrysene	0.0066	U	0.39	0.0066	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1
Benzo[b]fluoranthene	0.010	U	0.039	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1
Benzo[a]pyrene	0.010	U	0.039	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1
Benzo[g,h,i]perylene	0.011	U	0.39	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*122*	*X*	*37 - 94*	*10/05/18 09:25*	*10/06/18 11:23*	*1*
Terphenyl-d14	*89*		*24 - 109*	*10/05/18 09:25*	*10/06/18 11:23*	*1*
2-Fluorobiphenyl	*113*	*X*	*38 - 95*	*10/05/18 09:25*	*10/06/18 11:23*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**14.8**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-312-19.5

Date Collected: 10/03/18 09:45
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-6

Matrix: Solid
Percent Solids: 85.2

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**85.2**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-313-14

Date Collected: 10/03/18 10:15
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-7

Matrix: Solid
Percent Solids: 88.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00039	U	0.00091	0.00039	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Bromomethane	0.00043	U	0.00091	0.00043	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Vinyl chloride	0.00049	U	0.00091	0.00049	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Chloroethane	0.00047	U	0.00091	0.00047	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Methylene Chloride	**0.0050**		0.00091	0.00015	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Acetone	**0.0040**	**J**	0.0045	0.0034	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Carbon disulfide	0.00024	U	0.00091	0.00024	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Trichlorofluoromethane	0.00037	U	0.00091	0.00037	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,1-Dichloroethene	0.00020	U	0.00091	0.00020	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,1-Dichloroethane	0.00019	U	0.00091	0.00019	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
trans-1,2-Dichloroethene	0.00022	U	0.00091	0.00022	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
cis-1,2-Dichloroethene	0.00014	U	0.00091	0.00014	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Chloroform	0.00029	U	0.00091	0.00029	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,2-Dichloroethane	0.00027	U	0.00091	0.00027	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
2-Butanone	0.0010	U	0.0045	0.0010	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,1,1-Trichloroethane	0.00021	U	0.00091	0.00021	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Carbon tetrachloride	0.00016	U	0.00091	0.00016	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Bromodichloromethane	0.00023	U	0.00091	0.00023	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,2-Dichloropropane	0.00038	U	0.00091	0.00038	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
cis-1,3-Dichloropropene	0.00025	U	0.00091	0.00025	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Trichloroethene	**0.00043**	**J**	0.00091	0.00013	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Dibromochloromethane	0.00018	U	0.00091	0.00018	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,1,2-Trichloroethane	0.00016	U	0.00091	0.00016	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Benzene	**0.00034**	**J**	0.00091	0.00023	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
trans-1,3-Dichloropropene	0.00024	U	0.00091	0.00024	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Bromoform	0.00038	U	0.00091	0.00038	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
4-Methyl-2-pentanone	0.00060	U	0.0045	0.00060	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
2-Hexanone	0.00071	U	0.0045	0.00071	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Tetrachloroethene	0.00013	U	0.00091	0.00013	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,1,2,2-Tetrachloroethane	0.00019	U	0.00091	0.00019	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Toluene	**0.0018**		0.00091	0.00057	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Chlorobenzene	0.00016	U	0.00091	0.00016	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Ethylbenzene	0.00018	U	0.00091	0.00018	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Styrene	0.00011	U	0.00091	0.00011	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Xylenes, Total	0.00023	U	0.0018	0.00023	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Freon TF	0.00027	U	0.00091	0.00027	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
MTBE	0.00011	U	0.00091	0.00011	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Cyclohexane	0.00020	U	0.00091	0.00020	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,2-Dibromoethane	0.00016	U	0.00091	0.00016	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,3-Dichlorobenzene	0.00014	U	0.00091	0.00014	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,4-Dichlorobenzene	0.000091	U	0.00091	0.000091	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,2-Dichlorobenzene	0.00013	U	0.00091	0.00013	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1

Client Sample ID: SB-313-14

Lab Sample ID: 460-166026-7
Date Collected: 10/03/18 10:15
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 88.6

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00017	U	0.00091	0.00017	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Dichlorodifluoromethane	0.00031	U	0.00091	0.00031	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,2,4-Trichlorobenzene	0.000083	U	0.00091	0.000083	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,2,4-Trimethylbenzene	0.000085	U	0.00091	0.000085	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,2-Dibromo-3-Chloropropane	0.00042	U	0.00091	0.00042	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
1,3,5-Trimethylbenzene	0.00010	U	0.00091	0.00010	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Isopropylbenzene	0.00011	U	0.00091	0.00011	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Methyl acetate	0.0039	U	0.0045	0.0039	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1
Methylcyclohexane	0.00014	U	0.00091	0.00014	mg/Kg	☼	10/05/18 00:12	10/06/18 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*78 - 135*	*10/05/18 00:12*	*10/06/18 12:33*	*1*
Toluene-d8 (Surr)	*98*		*73 - 121*	*10/05/18 00:12*	*10/06/18 12:33*	*1*
Bromofluorobenzene	*105*		*67 - 126*	*10/05/18 00:12*	*10/06/18 12:33*	*1*
Dibromofluoromethane (Surr)	*111*		*61 - 149*	*10/05/18 00:12*	*10/06/18 12:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0051	U	0.37	0.0051	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1
Phenanthrene	0.0065	U	0.37	0.0065	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1
Anthracene	0.0042	U	0.37	0.0042	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1
Pyrene	0.0093	U	0.37	0.0093	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1
Benzo[a]anthracene	0.013	U	0.037	0.013	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1
Chrysene	0.0063	U	0.37	0.0063	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1
Benzo[b]fluoranthene	0.0096	U	0.037	0.0096	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1
Benzo[a]pyrene	0.0099	U	0.037	0.0099	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1
Benzo[g,h,i]perylene	0.011	U	0.37	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*52*		*37 - 94*	*10/05/18 09:25*	*10/06/18 11:46*	*1*
Terphenyl-d14	*62*		*24 - 109*	*10/05/18 09:25*	*10/06/18 11:46*	*1*
2-Fluorobiphenyl	*46*		*38 - 95*	*10/05/18 09:25*	*10/06/18 11:46*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**11.4**		1.0	1.0	%			10/05/18 19:41	1
Percent Solids	**88.6**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-313-19.5

Lab Sample ID: 460-166026-8
Date Collected: 10/03/18 10:20
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 84.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00047	U	0.0011	0.00047	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Bromomethane	0.00051	U	0.0011	0.00051	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Vinyl chloride	0.00059	U	0.0011	0.00059	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Chloroethane	0.00056	U	0.0011	0.00056	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Methylene Chloride	**0.0052**		0.0011	0.00018	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Acetone	0.0041	U	0.0054	0.0041	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Carbon disulfide	0.00029	U	0.0011	0.00029	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1

Client Sample ID: SB-313-19.5
Date Collected: 10/03/18 10:20
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-8
Matrix: Solid
Percent Solids: 84.8

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.00044	U	0.0011	0.00044	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,1-Dichloroethene	0.00024	U	0.0011	0.00024	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,1-Dichloroethane	0.00022	U	0.0011	0.00022	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
trans-1,2-Dichloroethene	0.00027	U	0.0011	0.00027	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
cis-1,2-Dichloroethene	**0.0014**		0.0011	0.00016	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Chloroform	0.00034	U	0.0011	0.00034	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,2-Dichloroethane	0.00032	U	0.0011	0.00032	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
2-Butanone	0.0012	U	0.0054	0.0012	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,1,1-Trichloroethane	0.00025	U	0.0011	0.00025	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Carbon tetrachloride	0.00020	U	0.0011	0.00020	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Bromodichloromethane	0.00028	U	0.0011	0.00028	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,2-Dichloropropane	0.00046	U	0.0011	0.00046	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
cis-1,3-Dichloropropene	0.00029	U	0.0011	0.00029	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Trichloroethene	**0.00072**	**J**	0.0011	0.00016	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Dibromochloromethane	0.00021	U	0.0011	0.00021	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,1,2-Trichloroethane	0.00019	U	0.0011	0.00019	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Benzene	**0.00029**	**J**	0.0011	0.00028	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
trans-1,3-Dichloropropene	0.00029	U	0.0011	0.00029	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Bromoform	0.00046	U	0.0011	0.00046	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
4-Methyl-2-pentanone	0.00072	U	0.0054	0.00072	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
2-Hexanone	0.00084	U	0.0054	0.00084	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Tetrachloroethene	**0.0019**		0.0011	0.00015	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,1,2,2-Tetrachloroethane	0.00023	U	0.0011	0.00023	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Toluene	**0.0014**		0.0011	0.00067	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Chlorobenzene	0.00019	U	0.0011	0.00019	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Ethylbenzene	0.00021	U	0.0011	0.00021	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Styrene	0.00013	U	0.0011	0.00013	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Xylenes, Total	0.00027	U	0.0022	0.00027	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Freon TF	0.00033	U	0.0011	0.00033	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
MTBE	0.00013	U	0.0011	0.00013	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Cyclohexane	0.00024	U	0.0011	0.00024	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,2-Dibromoethane	0.00019	U	0.0011	0.00019	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,3-Dichlorobenzene	0.00017	U	0.0011	0.00017	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,4-Dichlorobenzene	0.00011	U	0.0011	0.00011	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,2-Dichlorobenzene	0.00016	U	0.0011	0.00016	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Naphthalene	0.00021	U	0.0011	0.00021	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Dichlorodifluoromethane	0.00037	U	0.0011	0.00037	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,2,4-Trichlorobenzene	0.000099	U	0.0011	0.000099	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,2,4-Trimethylbenzene	0.00010	U	0.0011	0.00010	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,2-Dibromo-3-Chloropropane	0.00050	U	0.0011	0.00050	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
1,3,5-Trimethylbenzene	0.00012	U	0.0011	0.00012	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Isopropylbenzene	**0.00014**	**J**	0.0011	0.00014	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Methyl acetate	0.0046	U	0.0054	0.0046	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1
Methylcyclohexane	0.00017	U	0.0011	0.00017	mg/Kg	☼	10/05/18 00:12	10/06/18 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*78 - 135*	*10/05/18 00:12*	*10/06/18 12:57*	*1*
Toluene-d8 (Surr)	*98*		*73 - 121*	*10/05/18 00:12*	*10/06/18 12:57*	*1*
Bromofluorobenzene	*108*		*67 - 126*	*10/05/18 00:12*	*10/06/18 12:57*	*1*
Dibromofluoromethane (Surr)	*111*		*61 - 149*	*10/05/18 00:12*	*10/06/18 12:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0053	U	0.39	0.0053	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1
Phenanthrene	0.0068	U	0.39	0.0068	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1
Anthracene	0.0044	U	0.39	0.0044	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1
Pyrene	0.0097	U	0.39	0.0097	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1
Benzo[a]anthracene	0.014	U	0.039	0.014	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1
Chrysene	0.0066	U	0.39	0.0066	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1
Benzo[b]fluoranthene	0.010	U	0.039	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1
Benzo[a]pyrene	0.010	U	0.039	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1
Benzo[g,h,i]perylene	0.011	U	0.39	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*		*37 - 94*	*10/05/18 09:25*	*10/06/18 12:09*	*1*
Terphenyl-d14	*67*		*24 - 109*	*10/05/18 09:25*	*10/06/18 12:09*	*1*
2-Fluorobiphenyl	*56*		*38 - 95*	*10/05/18 09:25*	*10/06/18 12:09*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**15.2**		1.0	1.0	%			10/05/18 19:41	1
Percent Solids	**84.8**		1.0	1.0	%			10/05/18 19:41	1

Client Sample ID: SB-314-13.5

Date Collected: 10/03/18 10:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-9

Matrix: Solid
Percent Solids: 95.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00039	U	0.00089	0.00039	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Bromomethane	0.00042	U	0.00089	0.00042	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Vinyl chloride	0.00049	U	0.00089	0.00049	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Chloroethane	0.00047	U	0.00089	0.00047	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Methylene Chloride	**0.0048**		0.00089	0.00015	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Acetone	**0.0054**		0.0045	0.0034	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Carbon disulfide	0.00024	U	0.00089	0.00024	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Trichlorofluoromethane	0.00036	U	0.00089	0.00036	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,1-Dichloroethene	0.00020	U	0.00089	0.00020	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,1-Dichloroethane	0.00018	U	0.00089	0.00018	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
trans-1,2-Dichloroethene	0.00022	U	0.00089	0.00022	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
cis-1,2-Dichloroethene	0.00014	U	0.00089	0.00014	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Chloroform	0.00028	U	0.00089	0.00028	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,2-Dichloroethane	0.00026	U	0.00089	0.00026	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
2-Butanone	0.00099	U	0.0045	0.00099	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,1,1-Trichloroethane	0.00021	U	0.00089	0.00021	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Carbon tetrachloride	0.00016	U	0.00089	0.00016	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Bromodichloromethane	0.00023	U	0.00089	0.00023	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,2-Dichloropropane	0.00038	U	0.00089	0.00038	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
cis-1,3-Dichloropropene	0.00024	U	0.00089	0.00024	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Trichloroethene	0.00013	U	0.00089	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Dibromochloromethane	0.00017	U	0.00089	0.00017	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,1,2-Trichloroethane	0.00016	U	0.00089	0.00016	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Benzene	0.00023	U	0.00089	0.00023	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
trans-1,3-Dichloropropene	0.00024	U	0.00089	0.00024	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Bromoform	0.00038	U	0.00089	0.00038	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
4-Methyl-2-pentanone	0.00059	U	0.0045	0.00059	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
2-Hexanone	0.00069	U	0.0045	0.00069	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1

Client Sample ID: SB-314-13.5
Date Collected: 10/03/18 10:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-9
Matrix: Solid
Percent Solids: 95.9

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.00013	U	0.00089	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,1,2,2-Tetrachloroethane	0.00019	U	0.00089	0.00019	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Toluene	0.00056	U	0.00089	0.00056	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Chlorobenzene	0.00016	U	0.00089	0.00016	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Ethylbenzene	0.00018	U	0.00089	0.00018	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Styrene	0.00011	U	0.00089	0.00011	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Xylenes, Total	0.00023	U	0.0018	0.00023	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Freon TF	0.00027	U	0.00089	0.00027	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
MTBE	0.00011	U	0.00089	0.00011	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Cyclohexane	0.00020	U	0.00089	0.00020	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,2-Dibromoethane	0.00016	U	0.00089	0.00016	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,3-Dichlorobenzene	0.00014	U	0.00089	0.00014	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,4-Dichlorobenzene	0.000089	U	0.00089	0.000089	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,2-Dichlorobenzene	0.00013	U	0.00089	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Naphthalene	0.00017	U	0.00089	0.00017	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Dichlorodifluoromethane	0.00030	U	0.00089	0.00030	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,2,4-Trichlorobenzene	0.000082	U	0.00089	0.000082	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,2,4-Trimethylbenzene	0.000084	U	0.00089	0.000084	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,2-Dibromo-3-Chloropropane	0.00041	U	0.00089	0.00041	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
1,3,5-Trimethylbenzene	0.00010	U	0.00089	0.00010	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Isopropylbenzene	0.00011	U	0.00089	0.00011	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Methyl acetate	0.0038	U	0.0045	0.0038	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1
Methylcyclohexane	0.00014	U	0.00089	0.00014	mg/Kg	☼	10/05/18 00:13	10/06/18 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*78 - 135*	*10/05/18 00:13*	*10/06/18 13:21*	*1*
Toluene-d8 (Surr)	*96*		*73 - 121*	*10/05/18 00:13*	*10/06/18 13:21*	*1*
Bromofluorobenzene	*103*		*67 - 126*	*10/05/18 00:13*	*10/06/18 13:21*	*1*
Dibromofluoromethane (Surr)	*109*		*61 - 149*	*10/05/18 00:13*	*10/06/18 13:21*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0047	U	0.34	0.0047	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1
Phenanthrene	0.0061	U	0.34	0.0061	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1
Anthracene	0.0039	U	0.34	0.0039	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1
Pyrene	0.0086	U	0.34	0.0086	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1
Benzo[a]anthracene	0.012	U	0.034	0.012	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1
Chrysene	0.0058	U	0.34	0.0058	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1
Benzo[b]fluoranthene	0.0089	U	0.034	0.0089	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1
Benzo[a]pyrene	0.0092	U	0.034	0.0092	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1
Benzo[g,h,i]perylene	0.010	U	0.34	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*69*		*37 - 94*	*10/05/18 09:25*	*10/06/18 12:32*	*1*
Terphenyl-d14	*78*		*24 - 109*	*10/05/18 09:25*	*10/06/18 12:32*	*1*
2-Fluorobiphenyl	*64*		*38 - 95*	*10/05/18 09:25*	*10/06/18 12:32*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**4.1**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-314-13.5

Lab Sample ID: 460-166026-9

Date Collected: 10/03/18 10:35
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 95.9

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**95.9**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-314-19.5

Lab Sample ID: 460-166026-10

Date Collected: 10/03/18 10:40
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 81.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00040	U	0.00093	0.00040	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Bromomethane	0.00044	U	0.00093	0.00044	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Vinyl chloride	0.00051	U	0.00093	0.00051	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Chloroethane	0.00049	U	0.00093	0.00049	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Methylene Chloride	**0.0049**		0.00093	0.00015	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Acetone	0.0035	U	0.0046	0.0035	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Carbon disulfide	0.00025	U	0.00093	0.00025	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Trichlorofluoromethane	0.00038	U	0.00093	0.00038	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,1-Dichloroethene	0.00021	U	0.00093	0.00021	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,1-Dichloroethane	0.00019	U	0.00093	0.00019	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
trans-1,2-Dichloroethene	0.00023	U	0.00093	0.00023	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
cis-1,2-Dichloroethene	**0.00098**		0.00093	0.00014	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Chloroform	0.00030	U	0.00093	0.00030	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,2-Dichloroethane	0.00028	U	0.00093	0.00028	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
2-Butanone	0.0010	U	0.0046	0.0010	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,1,1-Trichloroethane	0.00022	U	0.00093	0.00022	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Carbon tetrachloride	0.00017	U	0.00093	0.00017	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Bromodichloromethane	0.00024	U	0.00093	0.00024	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,2-Dichloropropane	0.00039	U	0.00093	0.00039	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
cis-1,3-Dichloropropene	0.00025	U	0.00093	0.00025	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Trichloroethene	**0.00097**		0.00093	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Dibromochloromethane	0.00018	U	0.00093	0.00018	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,1,2-Trichloroethane	0.00017	U	0.00093	0.00017	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Benzene	**0.00026**	**J**	0.00093	0.00024	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
trans-1,3-Dichloropropene	0.00025	U	0.00093	0.00025	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Bromoform	0.00040	U	0.00093	0.00040	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
4-Methyl-2-pentanone	0.00062	U	0.0046	0.00062	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
2-Hexanone	0.00073	U	0.0046	0.00073	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Tetrachloroethene	**0.00021**	**J**	0.00093	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,1,2,2-Tetrachloroethane	0.00020	U	0.00093	0.00020	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Toluene	**0.0015**		0.00093	0.00058	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Chlorobenzene	0.00016	U	0.00093	0.00016	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Ethylbenzene	**0.00020**	**J**	0.00093	0.00018	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Styrene	0.00011	U	0.00093	0.00011	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Xylenes, Total	**0.00043**	**J**	0.0019	0.00024	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Freon TF	0.00028	U	0.00093	0.00028	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
MTBE	0.00012	U	0.00093	0.00012	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Cyclohexane	0.00021	U	0.00093	0.00021	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,2-Dibromoethane	0.00017	U	0.00093	0.00017	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,3-Dichlorobenzene	0.00015	U	0.00093	0.00015	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,4-Dichlorobenzene	0.000093	U	0.00093	0.000093	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,2-Dichlorobenzene	0.00013	U	0.00093	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1

Client Sample ID: SB-314-19.5

Lab Sample ID: 460-166026-10
Date Collected: 10/03/18 10:40
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 81.6

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00018	U	0.00093	0.00018	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Dichlorodifluoromethane	0.00031	U	0.00093	0.00031	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,2,4-Trichlorobenzene	0.000086	U	0.00093	0.000086	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,2,4-Trimethylbenzene	0.000087	U	0.00093	0.000087	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,2-Dibromo-3-Chloropropane	0.00043	U	0.00093	0.00043	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
1,3,5-Trimethylbenzene	0.00011	U	0.00093	0.00011	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Isopropylbenzene	0.00012	U	0.00093	0.00012	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Methyl acetate	0.0040	U	0.0046	0.0040	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1
Methylcyclohexane	**0.00028**	**J**	0.00093	0.00015	mg/Kg	☼	10/05/18 00:13	10/06/18 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*78 - 135*	*10/05/18 00:13*	*10/06/18 13:45*	*1*
Toluene-d8 (Surr)	*97*		*73 - 121*	*10/05/18 00:13*	*10/06/18 13:45*	*1*
Bromofluorobenzene	*103*		*67 - 126*	*10/05/18 00:13*	*10/06/18 13:45*	*1*
Dibromofluoromethane (Surr)	*114*		*61 - 149*	*10/05/18 00:13*	*10/06/18 13:45*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0055	U	0.40	0.0055	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1
Phenanthrene	0.0071	U	0.40	0.0071	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1
Anthracene	0.0045	U	0.40	0.0045	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1
Pyrene	0.010	U	0.40	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1
Benzo[a]anthracene	0.014	U	0.040	0.014	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1
Chrysene	0.0068	U	0.40	0.0068	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1
Benzo[b]fluoranthene	0.010	U	0.040	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1
Benzo[a]pyrene	0.011	U	0.040	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1
Benzo[g,h,i]perylene	0.012	U	0.40	0.012	mg/Kg	☼	10/05/18 09:25	10/06/18 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*69*		*37 - 94*	*10/05/18 09:25*	*10/06/18 12:55*	*1*
Terphenyl-d14	*78*		*24 - 109*	*10/05/18 09:25*	*10/06/18 12:55*	*1*
2-Fluorobiphenyl	*66*		*38 - 95*	*10/05/18 09:25*	*10/06/18 12:55*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**18.4**		1.0	1.0	%			10/08/18 03:34	1
Percent Solids	**81.6**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-315-14

Lab Sample ID: 460-166026-11
Date Collected: 10/03/18 11:05
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 89.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00035	U	0.00081	0.00035	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Bromomethane	0.00039	U	0.00081	0.00039	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Vinyl chloride	0.00044	U	0.00081	0.00044	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Chloroethane	0.00042	U	0.00081	0.00042	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Methylene Chloride	**0.0036**		0.00081	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Acetone	0.0031	U	0.0041	0.0031	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Carbon disulfide	0.00022	U	0.00081	0.00022	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1

Client Sample ID: SB-315-14
Date Collected: 10/03/18 11:05
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-11
Matrix: Solid
Percent Solids: 89.2

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.00033	U	0.00081	0.00033	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,1-Dichloroethene	0.00018	U	0.00081	0.00018	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,1-Dichloroethane	0.00017	U	0.00081	0.00017	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
trans-1,2-Dichloroethene	0.00020	U	0.00081	0.00020	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
cis-1,2-Dichloroethene	0.00012	U	0.00081	0.00012	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Chloroform	0.00026	U	0.00081	0.00026	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,2-Dichloroethane	0.00024	U	0.00081	0.00024	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
2-Butanone	0.00090	U	0.0041	0.00090	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,1,1-Trichloroethane	0.00019	U	0.00081	0.00019	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Carbon tetrachloride	0.00015	U	0.00081	0.00015	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Bromodichloromethane	0.00021	U	0.00081	0.00021	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,2-Dichloropropane	0.00034	U	0.00081	0.00034	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
cis-1,3-Dichloropropene	0.00022	U	0.00081	0.00022	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Trichloroethene	0.00012	U	0.00081	0.00012	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Dibromochloromethane	0.00016	U	0.00081	0.00016	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,1,2-Trichloroethane	0.00014	U	0.00081	0.00014	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Benzene	0.00021	U	0.00081	0.00021	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
trans-1,3-Dichloropropene	0.00022	U	0.00081	0.00022	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Bromoform	0.00035	U	0.00081	0.00035	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
4-Methyl-2-pentanone	0.00054	U	0.0041	0.00054	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
2-Hexanone	0.00063	U	0.0041	0.00063	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Tetrachloroethene	**0.00029**	**J**	0.00081	0.00012	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,1,2,2-Tetrachloroethane	0.00017	U	0.00081	0.00017	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Toluene	**0.00068**	**J**	0.00081	0.00051	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Chlorobenzene	0.00014	U	0.00081	0.00014	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Ethylbenzene	0.00016	U	0.00081	0.00016	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Styrene	0.00010	U	0.00081	0.00010	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Xylenes, Total	0.00021	U	0.0016	0.00021	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Freon TF	0.00024	U	0.00081	0.00024	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
MTBE	0.00010	U	0.00081	0.00010	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Cyclohexane	0.00018	U	0.00081	0.00018	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,2-Dibromoethane	0.00015	U	0.00081	0.00015	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,3-Dichlorobenzene	0.00013	U	0.00081	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,4-Dichlorobenzene	0.000081	U	0.00081	0.000081	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,2-Dichlorobenzene	0.00012	U	0.00081	0.00012	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Naphthalene	0.00015	U	0.00081	0.00015	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Dichlorodifluoromethane	0.00028	U	0.00081	0.00028	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,2,4-Trichlorobenzene	0.000075	U	0.00081	0.000075	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,2,4-Trimethylbenzene	0.000077	U	0.00081	0.000077	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,2-Dibromo-3-Chloropropane	0.00037	U	0.00081	0.00037	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
1,3,5-Trimethylbenzene	0.000094	U	0.00081	0.000094	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Isopropylbenzene	0.00010	U	0.00081	0.00010	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Methyl acetate	0.0035	U	0.0041	0.0035	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1
Methylcyclohexane	0.00013	U	0.00081	0.00013	mg/Kg	☼	10/05/18 00:13	10/06/18 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*78 - 135*	*10/05/18 00:13*	*10/06/18 14:09*	*1*
Toluene-d8 (Surr)	*99*		*73 - 121*	*10/05/18 00:13*	*10/06/18 14:09*	*1*
Bromofluorobenzene	*108*		*67 - 126*	*10/05/18 00:13*	*10/06/18 14:09*	*1*
Dibromofluoromethane (Surr)	*115*		*61 - 149*	*10/05/18 00:13*	*10/06/18 14:09*	*1*

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**0.016**	**J**	0.37	0.0050	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1
Phenanthrene	**0.044**	**J**	0.37	0.0065	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1
Anthracene	0.0041	U	0.37	0.0041	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1
Pyrene	**0.022**	**J**	0.37	0.0092	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1
Benzo[a]anthracene	0.013	U	0.037	0.013	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1
Chrysene	0.0063	U	0.37	0.0063	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1
Benzo[b]fluoranthene	0.0096	U	0.037	0.0096	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1
Benzo[a]pyrene	0.0099	U	0.037	0.0099	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1
Benzo[g,h,i]perylene	0.011	U	0.37	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*68*		*37 - 94*	*10/05/18 09:25*	*10/06/18 13:18*	*1*
Terphenyl-d14	*70*		*24 - 109*	*10/05/18 09:25*	*10/06/18 13:18*	*1*
2-Fluorobiphenyl	*63*		*38 - 95*	*10/05/18 09:25*	*10/06/18 13:18*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**10.8**		1.0	1.0	%			10/08/18 03:34	1
Percent Solids	**89.2**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-315-19.5

Date Collected: 10/03/18 11:10
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-12

Matrix: Solid
Percent Solids: 83.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00050	U	0.0012	0.00050	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Bromomethane	0.00055	U	0.0012	0.00055	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Vinyl chloride	0.00063	U	0.0012	0.00063	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Chloroethane	0.00060	U	0.0012	0.00060	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Methylene Chloride	**0.0020**		0.0012	0.00019	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Acetone	**0.0061**		0.0058	0.0044	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Carbon disulfide	0.00031	U	0.0012	0.00031	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Trichlorofluoromethane	0.00047	U	0.0012	0.00047	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,1-Dichloroethene	0.00026	U	0.0012	0.00026	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,1-Dichloroethane	0.00024	U	0.0012	0.00024	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
trans-1,2-Dichloroethene	0.00028	U	0.0012	0.00028	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
cis-1,2-Dichloroethene	0.00018	U	0.0012	0.00018	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Chloroform	0.00037	U	0.0012	0.00037	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,2-Dichloroethane	0.00034	U	0.0012	0.00034	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
2-Butanone	0.0013	U	0.0058	0.0013	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,1,1-Trichloroethane	0.00027	U	0.0012	0.00027	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Carbon tetrachloride	0.00021	U	0.0012	0.00021	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Bromodichloromethane	0.00030	U	0.0012	0.00030	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,2-Dichloropropane	0.00049	U	0.0012	0.00049	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
cis-1,3-Dichloropropene	0.00032	U	0.0012	0.00032	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Trichloroethene	0.00017	U	0.0012	0.00017	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Dibromochloromethane	0.00022	U	0.0012	0.00022	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,1,2-Trichloroethane	0.00021	U	0.0012	0.00021	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Benzene	0.00030	U	0.0012	0.00030	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
trans-1,3-Dichloropropene	0.00031	U	0.0012	0.00031	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Bromoform	0.00049	U	0.0012	0.00049	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
4-Methyl-2-pentanone	0.00077	U	0.0058	0.00077	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
2-Hexanone	0.00090	U	0.0058	0.00090	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1

Client Sample ID: SB-315-19.5
Date Collected: 10/03/18 11:10
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-12
Matrix: Solid
Percent Solids: 83.3

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.00017	U	0.0012	0.00017	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,1,2,2-Tetrachloroethane	0.00025	U	0.0012	0.00025	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Toluene	0.00072	U	0.0012	0.00072	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Chlorobenzene	0.00021	U	0.0012	0.00021	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Ethylbenzene	0.00023	U	0.0012	0.00023	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Styrene	0.00014	U	0.0012	0.00014	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Xylenes, Total	0.00029	U	0.0023	0.00029	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Freon TF	0.00035	U	0.0012	0.00035	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
MTBE	0.00014	U	0.0012	0.00014	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Cyclohexane	0.00026	U	0.0012	0.00026	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,2-Dibromoethane	0.00021	U	0.0012	0.00021	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,3-Dichlorobenzene	0.00018	U	0.0012	0.00018	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,4-Dichlorobenzene	0.00012	U	0.0012	0.00012	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,2-Dichlorobenzene	0.00017	U	0.0012	0.00017	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Naphthalene	0.00022	U	0.0012	0.00022	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Dichlorodifluoromethane	0.00039	U	0.0012	0.00039	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,2,4-Trichlorobenzene	0.00011	U	0.0012	0.00011	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,2,4-Trimethylbenzene	0.00011	U	0.0012	0.00011	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,2-Dibromo-3-Chloropropane	0.00053	U	0.0012	0.00053	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
1,3,5-Trimethylbenzene	0.00013	U	0.0012	0.00013	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Isopropylbenzene	0.00015	U	0.0012	0.00015	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Methyl acetate	0.0050	U	0.0058	0.0050	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1
Methylcyclohexane	0.00019	U	0.0012	0.00019	mg/Kg	☼	10/05/18 00:14	10/06/18 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*78 - 135*	*10/05/18 00:14*	*10/06/18 14:33*	*1*
Toluene-d8 (Surr)	*97*		*73 - 121*	*10/05/18 00:14*	*10/06/18 14:33*	*1*
Bromofluorobenzene	*106*		*67 - 126*	*10/05/18 00:14*	*10/06/18 14:33*	*1*
Dibromofluoromethane (Surr)	*113*		*61 - 149*	*10/05/18 00:14*	*10/06/18 14:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0054	U	0.40	0.0054	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1
Phenanthrene	0.0070	U	0.40	0.0070	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1
Anthracene	0.0044	U	0.40	0.0044	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1
Pyrene	0.0099	U	0.40	0.0099	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1
Benzo[a]anthracene	0.014	U	0.040	0.014	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1
Chrysene	0.0067	U	0.40	0.0067	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1
Benzo[b]fluoranthene	0.010	U	0.040	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1
Benzo[a]pyrene	0.011	U	0.040	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1
Benzo[g,h,i]perylene	0.012	U	0.40	0.012	mg/Kg	☼	10/05/18 09:25	10/06/18 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*64*		*37 - 94*	*10/05/18 09:25*	*10/06/18 13:41*	*1*
Terphenyl-d14	*64*		*24 - 109*	*10/05/18 09:25*	*10/06/18 13:41*	*1*
2-Fluorobiphenyl	*58*		*38 - 95*	*10/05/18 09:25*	*10/06/18 13:41*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**16.7**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-315-19.5

Lab Sample ID: 460-166026-12
Date Collected: 10/03/18 11:10
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 83.3

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**83.3**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-316-12.5

Lab Sample ID: 460-166026-13
Date Collected: 10/03/18 11:30
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 95.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00032	U	0.00074	0.00032	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Bromomethane	0.00035	U	0.00074	0.00035	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Vinyl chloride	0.00041	U	0.00074	0.00041	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Chloroethane	0.00039	U	0.00074	0.00039	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Methylene Chloride	**0.0030**		0.00074	0.00012	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Acetone	**0.0032**	**J**	0.0037	0.0028	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Carbon disulfide	0.00020	U	0.00074	0.00020	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Trichlorofluoromethane	0.00030	U	0.00074	0.00030	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,1-Dichloroethene	0.00017	U	0.00074	0.00017	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,1-Dichloroethane	0.00015	U	0.00074	0.00015	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
trans-1,2-Dichloroethene	0.00018	U	0.00074	0.00018	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
cis-1,2-Dichloroethene	0.00011	U	0.00074	0.00011	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Chloroform	0.00024	U	0.00074	0.00024	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,2-Dichloroethane	0.00022	U	0.00074	0.00022	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
2-Butanone	0.00083	U	0.0037	0.00083	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,1,1-Trichloroethane	0.00017	U	0.00074	0.00017	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Carbon tetrachloride	0.00013	U	0.00074	0.00013	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Bromodichloromethane	0.00019	U	0.00074	0.00019	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,2-Dichloropropane	0.00032	U	0.00074	0.00032	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
cis-1,3-Dichloropropene	0.00020	U	0.00074	0.00020	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Trichloroethene	0.00011	U	0.00074	0.00011	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Dibromochloromethane	0.00014	U	0.00074	0.00014	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,1,2-Trichloroethane	0.00013	U	0.00074	0.00013	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Benzene	0.00019	U	0.00074	0.00019	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
trans-1,3-Dichloropropene	0.00020	U	0.00074	0.00020	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Bromoform	0.00032	U	0.00074	0.00032	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
4-Methyl-2-pentanone	0.00049	U	0.0037	0.00049	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
2-Hexanone	0.00058	U	0.0037	0.00058	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Tetrachloroethene	0.00011	U	0.00074	0.00011	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,1,2,2-Tetrachloroethane	0.00016	U	0.00074	0.00016	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Toluene	0.00047	U	0.00074	0.00047	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Chlorobenzene	0.00013	U	0.00074	0.00013	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Ethylbenzene	0.00015	U	0.00074	0.00015	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Styrene	0.000092	U	0.00074	0.000092	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Xylenes, Total	0.00019	U	0.0015	0.00019	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Freon TF	0.00022	U	0.00074	0.00022	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
MTBE	0.000093	U	0.00074	0.000093	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Cyclohexane	0.00016	U	0.00074	0.00016	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,2-Dibromoethane	0.00013	U	0.00074	0.00013	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,3-Dichlorobenzene	0.00012	U	0.00074	0.00012	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,4-Dichlorobenzene	0.000074	U	0.00074	0.000074	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,2-Dichlorobenzene	0.00011	U	0.00074	0.00011	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1

Client Sample ID: SB-316-12.5

Date Collected: 10/03/18 11:30
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-13

Matrix: Solid
Percent Solids: 95.1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00014	U	0.00074	0.00014	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Dichlorodifluoromethane	0.00025	U	0.00074	0.00025	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,2,4-Trichlorobenzene	0.000069	U	0.00074	0.000069	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,2,4-Trimethylbenzene	0.000070	U	0.00074	0.000070	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,2-Dibromo-3-Chloropropane	0.00034	U	0.00074	0.00034	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
1,3,5-Trimethylbenzene	0.000086	U	0.00074	0.000086	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Isopropylbenzene	0.000094	U	0.00074	0.000094	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Methyl acetate	0.0032	U	0.0037	0.0032	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1
Methylcyclohexane	0.00012	U	0.00074	0.00012	mg/Kg	☼	10/05/18 00:14	10/06/18 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*78 - 135*	*10/05/18 00:14*	*10/06/18 14:57*	*1*
Toluene-d8 (Surr)	*96*		*73 - 121*	*10/05/18 00:14*	*10/06/18 14:57*	*1*
Bromofluorobenzene	*106*		*67 - 126*	*10/05/18 00:14*	*10/06/18 14:57*	*1*
Dibromofluoromethane (Surr)	*112*		*61 - 149*	*10/05/18 00:14*	*10/06/18 14:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0047	U	0.35	0.0047	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1
Phenanthrene	0.0061	U	0.35	0.0061	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1
Anthracene	0.0039	U	0.35	0.0039	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1
Pyrene	0.0086	U	0.35	0.0086	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1
Benzo[a]anthracene	0.012	U	0.035	0.012	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1
Chrysene	0.0059	U	0.35	0.0059	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1
Benzo[b]fluoranthene	0.0090	U	0.035	0.0090	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1
Benzo[a]pyrene	0.0093	U	0.035	0.0093	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1
Benzo[g,h,i]perylene	0.010	U	0.35	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*115*	*X*	*37 - 94*	*10/05/18 09:25*	*10/06/18 14:04*	*1*
Terphenyl-d14	*129*	*X*	*24 - 109*	*10/05/18 09:25*	*10/06/18 14:04*	*1*
2-Fluorobiphenyl	*106*	*X*	*38 - 95*	*10/05/18 09:25*	*10/06/18 14:04*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**4.9**		1.0	1.0	%			10/08/18 03:34	1
Percent Solids	**95.1**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-316-19.5

Date Collected: 10/03/18 11:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-14

Matrix: Solid
Percent Solids: 80.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00052	U	0.0012	0.00052	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Bromomethane	0.00057	U	0.0012	0.00057	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Vinyl chloride	0.00066	U	0.0012	0.00066	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Chloroethane	0.00063	U	0.0012	0.00063	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Methylene Chloride	**0.0060**		0.0012	0.00020	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Acetone	0.0046	U	0.0060	0.0046	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Carbon disulfide	0.00032	U	0.0012	0.00032	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1

Client Sample ID: SB-316-19.5
Date Collected: 10/03/18 11:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-14
Matrix: Solid
Percent Solids: 80.5

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.00049	U	0.0012	0.00049	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,1-Dichloroethene	0.00027	U	0.0012	0.00027	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,1-Dichloroethane	0.00025	U	0.0012	0.00025	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
trans-1,2-Dichloroethene	0.00030	U	0.0012	0.00030	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
cis-1,2-Dichloroethene	**0.00024**	**J**	0.0012	0.00018	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Chloroform	0.00038	U	0.0012	0.00038	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,2-Dichloroethane	0.00036	U	0.0012	0.00036	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
2-Butanone	0.0013	U	0.0060	0.0013	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,1,1-Trichloroethane	0.00028	U	0.0012	0.00028	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Carbon tetrachloride	0.00022	U	0.0012	0.00022	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Bromodichloromethane	0.00031	U	0.0012	0.00031	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,2-Dichloropropane	0.00051	U	0.0012	0.00051	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
cis-1,3-Dichloropropene	0.00033	U	0.0012	0.00033	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Trichloroethene	**0.00027**	**J**	0.0012	0.00017	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Dibromochloromethane	0.00023	U	0.0012	0.00023	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,1,2-Trichloroethane	0.00021	U	0.0012	0.00021	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Benzene	0.00031	U	0.0012	0.00031	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
trans-1,3-Dichloropropene	0.00032	U	0.0012	0.00032	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Bromoform	0.00051	U	0.0012	0.00051	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
4-Methyl-2-pentanone	0.00080	U	0.0060	0.00080	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
2-Hexanone	0.00094	U	0.0060	0.00094	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Tetrachloroethene	**0.0011**	**J**	0.0012	0.00017	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,1,2,2-Tetrachloroethane	0.00026	U	0.0012	0.00026	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Toluene	**0.00088**	**J**	0.0012	0.00075	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Chlorobenzene	0.00021	U	0.0012	0.00021	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Ethylbenzene	0.00024	U	0.0012	0.00024	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Styrene	0.00015	U	0.0012	0.00015	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Xylenes, Total	0.00030	U	0.0024	0.00030	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Freon TF	0.00036	U	0.0012	0.00036	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
MTBE	0.00015	U	0.0012	0.00015	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Cyclohexane	0.00027	U	0.0012	0.00027	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,2-Dibromoethane	0.00022	U	0.0012	0.00022	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,3-Dichlorobenzene	0.00019	U	0.0012	0.00019	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,4-Dichlorobenzene	0.00012	U	0.0012	0.00012	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,2-Dichlorobenzene	0.00017	U	0.0012	0.00017	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Naphthalene	0.00023	U	0.0012	0.00023	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Dichlorodifluoromethane	0.00041	U	0.0012	0.00041	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,2,4-Trichlorobenzene	0.00011	U	0.0012	0.00011	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,2,4-Trimethylbenzene	0.00011	U	0.0012	0.00011	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,2-Dibromo-3-Chloropropane	0.00055	U	0.0012	0.00055	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
1,3,5-Trimethylbenzene	0.00014	U	0.0012	0.00014	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Isopropylbenzene	0.00015	U	0.0012	0.00015	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Methyl acetate	0.0052	U	0.0060	0.0052	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1
Methylcyclohexane	0.00019	U	0.0012	0.00019	mg/Kg	☼	10/05/18 00:15	10/06/18 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*78 - 135*	*10/05/18 00:15*	*10/06/18 15:21*	*1*
Toluene-d8 (Surr)	*99*		*73 - 121*	*10/05/18 00:15*	*10/06/18 15:21*	*1*
Bromofluorobenzene	*107*		*67 - 126*	*10/05/18 00:15*	*10/06/18 15:21*	*1*
Dibromofluoromethane (Surr)	*116*		*61 - 149*	*10/05/18 00:15*	*10/06/18 15:21*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0056	U	0.41	0.0056	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1
Phenanthrene	0.0072	U	0.41	0.0072	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1
Anthracene	0.0046	U	0.41	0.0046	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1
Pyrene	0.010	U	0.41	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1
Benzo[a]anthracene	0.014	U	0.041	0.014	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1
Chrysene	0.0069	U	0.41	0.0069	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1
Benzo[b]fluoranthene	0.011	U	0.041	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1
Benzo[a]pyrene	0.011	U	0.041	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1
Benzo[g,h,i]perylene	0.012	U	0.41	0.012	mg/Kg	☼	10/05/18 09:25	10/06/18 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*64*		*37 - 94*	*10/05/18 09:25*	*10/06/18 14:27*	*1*
Terphenyl-d14	*71*		*24 - 109*	*10/05/18 09:25*	*10/06/18 14:27*	*1*
2-Fluorobiphenyl	*57*		*38 - 95*	*10/05/18 09:25*	*10/06/18 14:27*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**19.5**		1.0	1.0	%			10/08/18 03:34	1
Percent Solids	**80.5**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-317-13

Date Collected: 10/03/18 12:00
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-15

Matrix: Solid
Percent Solids: 94.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00035	U	0.00080	0.00035	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Bromomethane	0.00038	U	0.00080	0.00038	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Vinyl chloride	0.00044	U	0.00080	0.00044	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Chloroethane	0.00042	U	0.00080	0.00042	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Methylene Chloride	**0.0036**		0.00080	0.00013	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Acetone	**0.0033**	**J**	0.0040	0.0030	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Carbon disulfide	0.00021	U	0.00080	0.00021	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Trichlorofluoromethane	0.00033	U	0.00080	0.00033	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,1-Dichloroethene	0.00018	U	0.00080	0.00018	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,1-Dichloroethane	0.00017	U	0.00080	0.00017	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
trans-1,2-Dichloroethene	0.00020	U	0.00080	0.00020	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
cis-1,2-Dichloroethene	0.00012	U	0.00080	0.00012	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Chloroform	0.00026	U	0.00080	0.00026	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,2-Dichloroethane	0.00024	U	0.00080	0.00024	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
2-Butanone	0.00089	U	0.0040	0.00089	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,1,1-Trichloroethane	0.00019	U	0.00080	0.00019	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Carbon tetrachloride	0.00015	U	0.00080	0.00015	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Bromodichloromethane	0.00021	U	0.00080	0.00021	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,2-Dichloropropane	0.00034	U	0.00080	0.00034	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
cis-1,3-Dichloropropene	0.00022	U	0.00080	0.00022	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Trichloroethene	0.00012	U	0.00080	0.00012	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Dibromochloromethane	0.00016	U	0.00080	0.00016	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,1,2-Trichloroethane	0.00014	U	0.00080	0.00014	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Benzene	**0.00030**	**J**	0.00080	0.00021	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
trans-1,3-Dichloropropene	0.00021	U	0.00080	0.00021	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Bromoform	0.00034	U	0.00080	0.00034	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
4-Methyl-2-pentanone	0.00053	U	0.0040	0.00053	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
2-Hexanone	0.00063	U	0.0040	0.00063	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1

Client Sample ID: SB-317-13
Date Collected: 10/03/18 12:00
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-15
Matrix: Solid
Percent Solids: 94.1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.00011	U	0.00080	0.00011	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,1,2,2-Tetrachloroethane	0.00017	U	0.00080	0.00017	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Toluene	**0.0018**		0.00080	0.00050	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Chlorobenzene	0.00014	U	0.00080	0.00014	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Ethylbenzene	0.00016	U	0.00080	0.00016	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Styrene	0.000099	U	0.00080	0.000099	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Xylenes, Total	0.00020	U	0.0016	0.00020	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Freon TF	0.00024	U	0.00080	0.00024	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
MTBE	0.00010	U	0.00080	0.00010	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Cyclohexane	0.00018	U	0.00080	0.00018	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,2-Dibromoethane	0.00014	U	0.00080	0.00014	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,3-Dichlorobenzene	0.00013	U	0.00080	0.00013	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,4-Dichlorobenzene	0.000080	U	0.00080	0.000080	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,2-Dichlorobenzene	0.00012	U	0.00080	0.00012	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Naphthalene	0.00015	U	0.00080	0.00015	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Dichlorodifluoromethane	0.00027	U	0.00080	0.00027	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,2,4-Trichlorobenzene	0.000074	U	0.00080	0.000074	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,2,4-Trimethylbenzene	0.000075	U	0.00080	0.000075	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,2-Dibromo-3-Chloropropane	0.00037	U	0.00080	0.00037	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
1,3,5-Trimethylbenzene	0.000092	U	0.00080	0.000092	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Isopropylbenzene	0.00010	U	0.00080	0.00010	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Methyl acetate	0.0035	U	0.0040	0.0035	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1
Methylcyclohexane	0.00013	U	0.00080	0.00013	mg/Kg	☼	10/05/18 00:15	10/06/18 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*78 - 135*	*10/05/18 00:15*	*10/06/18 15:45*	*1*
Toluene-d8 (Surr)	*93*		*73 - 121*	*10/05/18 00:15*	*10/06/18 15:45*	*1*
Bromofluorobenzene	*102*		*67 - 126*	*10/05/18 00:15*	*10/06/18 15:45*	*1*
Dibromofluoromethane (Surr)	*111*		*61 - 149*	*10/05/18 00:15*	*10/06/18 15:45*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0048	U	0.35	0.0048	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1
Phenanthrene	0.0062	U	0.35	0.0062	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1
Anthracene	0.0039	U	0.35	0.0039	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1
Pyrene	0.0087	U	0.35	0.0087	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1
Benzo[a]anthracene	0.012	U	0.035	0.012	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1
Chrysene	0.0059	U	0.35	0.0059	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1
Benzo[b]fluoranthene	0.0091	U	0.035	0.0091	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1
Benzo[a]pyrene	0.0094	U	0.035	0.0094	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1
Benzo[g,h,i]perylene	0.010	U	0.35	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*75*		*37 - 94*	*10/05/18 09:25*	*10/06/18 14:51*	*1*
Terphenyl-d14	*72*		*24 - 109*	*10/05/18 09:25*	*10/06/18 14:51*	*1*
2-Fluorobiphenyl	*68*		*38 - 95*	*10/05/18 09:25*	*10/06/18 14:51*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**5.9**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-317-13

Date Collected: 10/03/18 12:00
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-15

Matrix: Solid
Percent Solids: 94.1

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**94.1**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-317-19.5

Date Collected: 10/03/18 12:05
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-16

Matrix: Solid
Percent Solids: 82.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00055	U	0.0013	0.00055	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Bromomethane	0.00060	U	0.0013	0.00060	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Vinyl chloride	0.00069	U	0.0013	0.00069	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Chloroethane	0.00066	U	0.0013	0.00066	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Methylene Chloride	**0.0083**		0.0013	0.00021	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Acetone	**0.0053**	**J**	0.0063	0.0048	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Carbon disulfide	0.00034	U	0.0013	0.00034	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Trichlorofluoromethane	0.00051	U	0.0013	0.00051	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,1-Dichloroethene	0.00028	U	0.0013	0.00028	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,1-Dichloroethane	0.00026	U	0.0013	0.00026	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
trans-1,2-Dichloroethene	0.00031	U	0.0013	0.00031	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
cis-1,2-Dichloroethene	**0.0031**		0.0013	0.00019	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Chloroform	0.00040	U	0.0013	0.00040	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,2-Dichloroethane	0.00037	U	0.0013	0.00037	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
2-Butanone	0.0014	U	0.0063	0.0014	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,1,1-Trichloroethane	0.00029	U	0.0013	0.00029	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Carbon tetrachloride	0.00023	U	0.0013	0.00023	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Bromodichloromethane	0.00032	U	0.0013	0.00032	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,2-Dichloropropane	0.00053	U	0.0013	0.00053	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
cis-1,3-Dichloropropene	0.00034	U	0.0013	0.00034	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Trichloroethene	**0.0018**		0.0013	0.00018	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Dibromochloromethane	0.00024	U	0.0013	0.00024	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,1,2-Trichloroethane	0.00022	U	0.0013	0.00022	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Benzene	0.00033	U	0.0013	0.00033	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
trans-1,3-Dichloropropene	0.00034	U	0.0013	0.00034	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Bromoform	0.00054	U	0.0013	0.00054	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
4-Methyl-2-pentanone	0.00084	U	0.0063	0.00084	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
2-Hexanone	0.00098	U	0.0063	0.00098	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Tetrachloroethene	**0.0030**		0.0013	0.00018	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,1,2,2-Tetrachloroethane	0.00027	U	0.0013	0.00027	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Toluene	0.00079	U	0.0013	0.00079	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Chlorobenzene	0.00022	U	0.0013	0.00022	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Ethylbenzene	0.00025	U	0.0013	0.00025	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Styrene	0.00016	U	0.0013	0.00016	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Xylenes, Total	0.00032	U	0.0025	0.00032	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Freon TF	0.00038	U	0.0013	0.00038	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
MTBE	0.00016	U	0.0013	0.00016	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Cyclohexane	0.00028	U	0.0013	0.00028	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,2-Dibromoethane	0.00023	U	0.0013	0.00023	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,3-Dichlorobenzene	0.00020	U	0.0013	0.00020	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,4-Dichlorobenzene	0.00013	U	0.0013	0.00013	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,2-Dichlorobenzene	0.00018	U	0.0013	0.00018	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1

Client Sample ID: SB-317-19.5

Lab Sample ID: 460-166026-16

Date Collected: 10/03/18 12:05

Matrix: Solid

Date Received: 10/03/18 15:34

Percent Solids: 82.2

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00024	U	0.0013	0.00024	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Dichlorodifluoromethane	0.00043	U	0.0013	0.00043	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,2,4-Trichlorobenzene	0.00012	U	0.0013	0.00012	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,2,4-Trimethylbenzene	0.00012	U	0.0013	0.00012	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,2-Dibromo-3-Chloropropane	0.00058	U	0.0013	0.00058	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
1,3,5-Trimethylbenzene	0.00015	U	0.0013	0.00015	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Isopropylbenzene	0.00016	U	0.0013	0.00016	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Methyl acetate	0.0054	U	0.0063	0.0054	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1
Methylcyclohexane	0.00020	U	0.0013	0.00020	mg/Kg	☼	10/05/18 00:15	10/06/18 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*78 - 135*	*10/05/18 00:15*	*10/06/18 16:09*	*1*
Toluene-d8 (Surr)	*94*		*73 - 121*	*10/05/18 00:15*	*10/06/18 16:09*	*1*
Bromofluorobenzene	*102*		*67 - 126*	*10/05/18 00:15*	*10/06/18 16:09*	*1*
Dibromofluoromethane (Surr)	*114*		*61 - 149*	*10/05/18 00:15*	*10/06/18 16:09*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0055	U	0.40	0.0055	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1
Phenanthrene	0.0071	U	0.40	0.0071	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1
Anthracene	0.0045	U	0.40	0.0045	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1
Pyrene	0.010	U	0.40	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1
Benzo[a]anthracene	0.014	U	0.040	0.014	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1
Chrysene	0.0068	U	0.40	0.0068	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1
Benzo[b]fluoranthene	0.010	U	0.040	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1
Benzo[a]pyrene	0.011	U	0.040	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1
Benzo[g,h,i]perylene	0.012	U	0.40	0.012	mg/Kg	☼	10/05/18 09:25	10/06/18 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*44*		*37 - 94*	*10/05/18 09:25*	*10/06/18 15:14*	*1*
Terphenyl-d14	*48*		*24 - 109*	*10/05/18 09:25*	*10/06/18 15:14*	*1*
2-Fluorobiphenyl	*38*		*38 - 95*	*10/05/18 09:25*	*10/06/18 15:14*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**17.8**		1.0	1.0	%			10/08/18 03:34	1
Percent Solids	**82.2**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-318-18

Lab Sample ID: 460-166026-17

Date Collected: 10/03/18 13:30

Matrix: Solid

Date Received: 10/03/18 15:34

Percent Solids: 91.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.010	U	0.047	0.010	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Bromomethane	0.0084	U	0.047	0.0084	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Vinyl chloride	0.0093	U	0.047	0.0093	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Chloroethane	0.017	U	0.047	0.017	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Methylene Chloride	0.0098	U	0.047	0.0098	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Acetone	0.050	U	0.23	0.050	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Carbon disulfide	0.010	U	0.047	0.010	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50

Client Sample ID: SB-318-18
Date Collected: 10/03/18 13:30
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-17
Matrix: Solid
Percent Solids: 91.0

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.0070	U *	0.047	0.0070	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,1-Dichloroethene	0.016	U	0.047	0.016	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,1-Dichloroethane	0.011	U	0.047	0.011	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
trans-1,2-Dichloroethene	0.0084	U	0.047	0.0084	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
cis-1,2-Dichloroethene	0.012	U	0.047	0.012	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Chloroform	0.010	U	0.047	0.010	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,2-Dichloroethane	0.012	U *	0.047	0.012	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
2-Butanone	0.10	U	0.23	0.10	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,1,1-Trichloroethane	0.013	U	0.047	0.013	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Carbon tetrachloride	0.015	U *	0.047	0.015	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Bromodichloromethane	0.0070	U	0.047	0.0070	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,2-Dichloropropane	0.0084	U	0.047	0.0084	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
cis-1,3-Dichloropropene	0.0075	U	0.047	0.0075	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Trichloroethene	0.010	U	0.047	0.010	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Dibromochloromethane	0.010	U	0.047	0.010	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,1,2-Trichloroethane	0.0037	U	0.047	0.0037	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Benzene	0.0089	U	0.047	0.0089	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
trans-1,3-Dichloropropene	0.0089	U	0.047	0.0089	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Bromoform	0.0084	U	0.047	0.0084	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
4-Methyl-2-pentanone	0.029	U	0.23	0.029	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
2-Hexanone	0.034	U	0.23	0.034	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Tetrachloroethene	0.017	U	0.047	0.017	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,1,2,2-Tetrachloroethane	0.0089	U	0.047	0.0089	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Toluene	0.012	U	0.047	0.012	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Chlorobenzene	0.011	U	0.047	0.011	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Ethylbenzene	0.014	U	0.047	0.014	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Styrene	0.0079	U	0.047	0.0079	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Xylenes, Total	0.013	U	0.093	0.013	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Freon TF	0.016	U	0.047	0.016	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
MTBE	0.0061	U	0.047	0.0061	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Cyclohexane	**0.071**		0.047	0.012	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,2-Dibromoethane	0.0089	U	0.047	0.0089	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,3-Dichlorobenzene	0.015	U	0.047	0.015	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,4-Dichlorobenzene	0.015	U	0.047	0.015	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,2-Dichlorobenzene	0.010	U	0.047	0.010	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Naphthalene	**0.33**	*	0.047	0.012	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Dichlorodifluoromethane	0.0065	U	0.047	0.0065	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,2,4-Trichlorobenzene	0.013	U	0.047	0.013	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,2,4-Trimethylbenzene	**0.061**		0.047	0.011	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,2-Dibromo-3-Chloropropane	0.011	U	0.047	0.011	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
1,3,5-Trimethylbenzene	0.012	U	0.047	0.012	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Isopropylbenzene	**0.041**	**J**	0.047	0.015	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Methyl acetate	0.027	U	0.23	0.027	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50
Methylcyclohexane	**0.11**		0.047	0.010	mg/Kg	☼	10/05/18 00:08	10/10/18 12:16	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*69 - 143*	*10/05/18 00:08*	*10/10/18 12:16*	*50*
Toluene-d8 (Surr)	*108*		*67 - 127*	*10/05/18 00:08*	*10/10/18 12:16*	*50*
Bromofluorobenzene	*90*		*61 - 137*	*10/05/18 00:08*	*10/10/18 12:16*	*50*
Dibromofluoromethane (Surr)	*86*		*61 - 135*	*10/05/18 00:08*	*10/10/18 12:16*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**1.2**		0.72	0.0098	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2
Phenanthrene	**7.0**		0.72	0.013	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2
Anthracene	**1.4**		0.72	0.0081	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2
Pyrene	**7.7**		0.72	0.018	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2
Benzo[a]anthracene	**2.7**		0.072	0.025	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2
Chrysene	**4.4**		0.72	0.012	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2
Benzo[b]fluoranthene	**0.74**		0.072	0.019	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2
Benzo[a]pyrene	**1.3**		0.072	0.019	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2
Benzo[g,h,i]perylene	**0.58**	**J**	0.72	0.021	mg/Kg	☼	10/05/18 09:25	10/08/18 08:21	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*37 - 94*	*10/05/18 09:25*	*10/08/18 08:21*	*2*
Terphenyl-d14	*71*		*24 - 109*	*10/05/18 09:25*	*10/08/18 08:21*	*2*
2-Fluorobiphenyl	*82*		*38 - 95*	*10/05/18 09:25*	*10/08/18 08:21*	*2*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**9.0**		1.0	1.0	%			10/08/18 03:34	1
Percent Solids	**91.0**		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-318-19.5

Date Collected: 10/03/18 13:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-18

Matrix: Solid
Percent Solids: 86.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00045	U	0.0010	0.00045	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Bromomethane	0.00049	U	0.0010	0.00049	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Vinyl chloride	0.00056	U	0.0010	0.00056	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Chloroethane	0.00053	U	0.0010	0.00053	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Methylene Chloride	**0.0015**		0.0010	0.00017	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Acetone	**0.018**		0.0051	0.0039	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Carbon disulfide	0.00027	U	0.0010	0.00027	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Trichlorofluoromethane	0.00042	U	0.0010	0.00042	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,1-Dichloroethene	0.00023	U	0.0010	0.00023	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,1-Dichloroethane	0.00021	U	0.0010	0.00021	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
trans-1,2-Dichloroethene	0.00025	U	0.0010	0.00025	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
cis-1,2-Dichloroethene	0.00016	U	0.0010	0.00016	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Chloroform	0.00033	U	0.0010	0.00033	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,2-Dichloroethane	0.00030	U	0.0010	0.00030	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
2-Butanone	0.0011	U	0.0051	0.0011	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,1,1-Trichloroethane	0.00024	U	0.0010	0.00024	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Carbon tetrachloride	0.00019	U	0.0010	0.00019	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Bromodichloromethane	0.00026	U	0.0010	0.00026	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,2-Dichloropropane	0.00043	U	0.0010	0.00043	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
cis-1,3-Dichloropropene	0.00028	U	0.0010	0.00028	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Trichloroethene	0.00015	U	0.0010	0.00015	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Dibromochloromethane	0.00020	U	0.0010	0.00020	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,1,2-Trichloroethane	0.00018	U	0.0010	0.00018	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Benzene	0.00026	U	0.0010	0.00026	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
trans-1,3-Dichloropropene	0.00027	U	0.0010	0.00027	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Bromoform	0.00044	U	0.0010	0.00044	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
4-Methyl-2-pentanone	0.00068	U	0.0051	0.00068	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
2-Hexanone	0.00080	U	0.0051	0.00080	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1

Client Sample ID: SB-318-19.5
Date Collected: 10/03/18 13:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-18
Matrix: Solid
Percent Solids: 86.3

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.00015	U	0.0010	0.00015	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,1,2,2-Tetrachloroethane	0.00022	U	0.0010	0.00022	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Toluene	0.00064	U	0.0010	0.00064	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Chlorobenzene	0.00018	U	0.0010	0.00018	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Ethylbenzene	0.00020	U	0.0010	0.00020	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Styrene	0.00013	U	0.0010	0.00013	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Xylenes, Total	0.00026	U	0.0020	0.00026	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Freon TF	0.00031	U	0.0010	0.00031	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
MTBE	0.00013	U	0.0010	0.00013	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Cyclohexane	0.00023	U	0.0010	0.00023	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,2-Dibromoethane	0.00018	U	0.0010	0.00018	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,3-Dichlorobenzene	0.00016	U	0.0010	0.00016	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,4-Dichlorobenzene	0.00010	U	0.0010	0.00010	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,2-Dichlorobenzene	0.00015	U	0.0010	0.00015	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Naphthalene	0.00019	U	0.0010	0.00019	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Dichlorodifluoromethane	0.00035	U	0.0010	0.00035	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,2,4-Trichlorobenzene	0.000094	U	0.0010	0.000094	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,2,4-Trimethylbenzene	0.000096	U	0.0010	0.000096	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,2-Dibromo-3-Chloropropane	0.00047	U	0.0010	0.00047	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
1,3,5-Trimethylbenzene	0.00012	U	0.0010	0.00012	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Isopropylbenzene	0.00013	U	0.0010	0.00013	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Methyl acetate	0.0044	U	0.0051	0.0044	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1
Methylcyclohexane	0.00016	U	0.0010	0.00016	mg/Kg	☼	10/05/18 00:16	10/08/18 08:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*78 - 135*	*10/05/18 00:16*	*10/08/18 08:36*	*1*
Toluene-d8 (Surr)	*99*		*73 - 121*	*10/05/18 00:16*	*10/08/18 08:36*	*1*
Bromofluorobenzene	*104*		*67 - 126*	*10/05/18 00:16*	*10/08/18 08:36*	*1*
Dibromofluoromethane (Surr)	*117*		*61 - 149*	*10/05/18 00:16*	*10/08/18 08:36*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0052	U	0.38	0.0052	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1
Phenanthrene	0.0067	U	0.38	0.0067	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1
Anthracene	0.0043	U	0.38	0.0043	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1
Pyrene	0.0095	U	0.38	0.0095	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1
Benzo[a]anthracene	0.013	U	0.038	0.013	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1
Chrysene	0.0065	U	0.38	0.0065	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1
Benzo[b]fluoranthene	0.0099	U	0.038	0.0099	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1
Benzo[a]pyrene	0.010	U	0.038	0.010	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1
Benzo[g,h,i]perylene	0.011	U	0.38	0.011	mg/Kg	☼	10/05/18 09:25	10/06/18 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*70*		*37 - 94*	*10/05/18 09:25*	*10/06/18 15:37*	*1*
Terphenyl-d14	*71*		*24 - 109*	*10/05/18 09:25*	*10/06/18 15:37*	*1*
2-Fluorobiphenyl	*64*		*38 - 95*	*10/05/18 09:25*	*10/06/18 15:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**13.7**		1.0	1.0	%			10/08/18 03:34	1

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Client Sample ID: SB-318-19.5
Date Collected: 10/03/18 13:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-18
Matrix: Solid
Percent Solids: 86.3

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86.3		1.0	1.0	%			10/08/18 03:34	1

Client Sample ID: SB-310-2
Date Collected: 10/03/18 08:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557825	10/05/18 19:41	RWC	TAL EDI

Client Sample ID: SB-310-2
Date Collected: 10/03/18 08:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-1
Matrix: Solid
Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:10	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557796	10/06/18 01:06	AAT	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 17:32	DAN	TAL EDI

Client Sample ID: SB-310-7.5
Date Collected: 10/03/18 08:40
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557825	10/05/18 19:41	RWC	TAL EDI

Client Sample ID: SB-310-7.5
Date Collected: 10/03/18 08:40
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-2
Matrix: Solid
Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:10	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557796	10/06/18 01:30	AAT	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 10:14	DAN	TAL EDI

Client Sample ID: SB-311-13
Date Collected: 10/03/18 09:00
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557825	10/05/18 19:41	RWC	TAL EDI

Client Sample ID: SB-311-13
Date Collected: 10/03/18 09:00
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-3
Matrix: Solid
Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:10	AVM	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Client Sample ID: SB-311-13

Date Collected: 10/03/18 09:00
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-3
Matrix: Solid
Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557796	10/06/18 01:54	AAT	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 10:37	DAN	TAL EDI

Client Sample ID: SB-311-19.5

Date Collected: 10/03/18 09:05
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557825	10/05/18 19:41	RWC	TAL EDI

Client Sample ID: SB-311-19.5

Date Collected: 10/03/18 09:05
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-4
Matrix: Solid
Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:11	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557796	10/06/18 02:18	AAT	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 11:00	DAN	TAL EDI

Client Sample ID: SB-312-18

Date Collected: 10/03/18 09:40
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557825	10/05/18 19:41	RWC	TAL EDI

Client Sample ID: SB-312-18

Date Collected: 10/03/18 09:40
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-5
Matrix: Solid
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557553	10/05/18 00:05	AVM	TAL EDI
Total/NA	Analysis	8260C		50	558671	10/09/18 14:09	AAT	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		2	558238	10/08/18 08:44	FAM	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Client Sample ID: SB-312-19.5
Date Collected: 10/03/18 09:45
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557825	10/05/18 19:41	RWC	TAL EDI

Client Sample ID: SB-312-19.5
Date Collected: 10/03/18 09:45
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-6
Matrix: Solid
Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:11	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557796	10/06/18 02:41	AAT	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 11:23	DAN	TAL EDI

Client Sample ID: SB-313-14
Date Collected: 10/03/18 10:15
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557825	10/05/18 19:41	RWC	TAL EDI

Client Sample ID: SB-313-14
Date Collected: 10/03/18 10:15
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-7
Matrix: Solid
Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:12	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557927	10/06/18 12:33	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 11:46	DAN	TAL EDI

Client Sample ID: SB-313-19.5
Date Collected: 10/03/18 10:20
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557825	10/05/18 19:41	RWC	TAL EDI

Client Sample ID: SB-313-19.5
Date Collected: 10/03/18 10:20
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-8
Matrix: Solid
Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:12	AVM	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Client Sample ID: SB-313-19.5

Lab Sample ID: 460-166026-8
Date Collected: 10/03/18 10:20
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557927	10/06/18 12:57	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 12:09	DAN	TAL EDI

Client Sample ID: SB-314-13.5

Lab Sample ID: 460-166026-9
Date Collected: 10/03/18 10:35
Matrix: Solid
Date Received: 10/03/18 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-314-13.5

Lab Sample ID: 460-166026-9
Date Collected: 10/03/18 10:35
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:13	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557927	10/06/18 13:21	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 12:32	DAN	TAL EDI

Client Sample ID: SB-314-19.5

Lab Sample ID: 460-166026-10
Date Collected: 10/03/18 10:40
Matrix: Solid
Date Received: 10/03/18 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-314-19.5

Lab Sample ID: 460-166026-10
Date Collected: 10/03/18 10:40
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:13	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557927	10/06/18 13:45	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 12:55	DAN	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Client Sample ID: SB-315-14
Date Collected: 10/03/18 11:05
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-315-14
Date Collected: 10/03/18 11:05
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-11
Matrix: Solid
Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:13	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557927	10/06/18 14:09	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 13:18	DAN	TAL EDI

Client Sample ID: SB-315-19.5
Date Collected: 10/03/18 11:10
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-315-19.5
Date Collected: 10/03/18 11:10
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-12
Matrix: Solid
Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:14	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557927	10/06/18 14:33	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 13:41	DAN	TAL EDI

Client Sample ID: SB-316-12.5
Date Collected: 10/03/18 11:30
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-316-12.5
Date Collected: 10/03/18 11:30
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-13
Matrix: Solid
Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:14	AVM	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Client Sample ID: SB-316-12.5

Lab Sample ID: 460-166026-13
Date Collected: 10/03/18 11:30
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557927	10/06/18 14:57	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 14:04	DAN	TAL EDI

Client Sample ID: SB-316-19.5

Lab Sample ID: 460-166026-14
Date Collected: 10/03/18 11:35
Matrix: Solid
Date Received: 10/03/18 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-316-19.5

Lab Sample ID: 460-166026-14
Date Collected: 10/03/18 11:35
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:15	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557927	10/06/18 15:21	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 14:27	DAN	TAL EDI

Client Sample ID: SB-317-13

Lab Sample ID: 460-166026-15
Date Collected: 10/03/18 12:00
Matrix: Solid
Date Received: 10/03/18 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-317-13

Lab Sample ID: 460-166026-15
Date Collected: 10/03/18 12:00
Matrix: Solid
Date Received: 10/03/18 15:34
Percent Solids: 94.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:15	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557927	10/06/18 15:45	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 14:51	DAN	TAL EDI

Client Sample ID: SB-317-19.5 — **Lab Sample ID: 460-166026-16**
Date Collected: 10/03/18 12:05 — **Matrix: Solid**
Date Received: 10/03/18 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-317-19.5 — **Lab Sample ID: 460-166026-16**
Date Collected: 10/03/18 12:05 — **Matrix: Solid**
Date Received: 10/03/18 15:34 — **Percent Solids: 82.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:15	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557927	10/06/18 16:09	DAS	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 15:14	DAN	TAL EDI

Client Sample ID: SB-318-18 — **Lab Sample ID: 460-166026-17**
Date Collected: 10/03/18 13:30 — **Matrix: Solid**
Date Received: 10/03/18 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-318-18 — **Lab Sample ID: 460-166026-17**
Date Collected: 10/03/18 13:30 — **Matrix: Solid**
Date Received: 10/03/18 15:34 — **Percent Solids: 91.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557553	10/05/18 00:08	AVM	TAL EDI
Total/NA	Analysis	8260C		50	558891	10/10/18 12:16	KLB	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		2	558238	10/08/18 08:21	FAM	TAL EDI

Client Sample ID: SB-318-19.5 — **Lab Sample ID: 460-166026-18**
Date Collected: 10/03/18 13:35 — **Matrix: Solid**
Date Received: 10/03/18 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	558284	10/08/18 03:34	APV	TAL EDI

Client Sample ID: SB-318-19.5 — **Lab Sample ID: 460-166026-18**
Date Collected: 10/03/18 13:35 — **Matrix: Solid**
Date Received: 10/03/18 15:34 — **Percent Solids: 86.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557555	10/05/18 00:16	AVM	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Client Sample ID: SB-318-19.5
Date Collected: 10/03/18 13:35
Date Received: 10/03/18 15:34

Lab Sample ID: 460-166026-18
Matrix: Solid
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	558270	10/08/18 08:36	AAT	TAL EDI
Total/NA	Prep	3546			557690	10/05/18 09:25	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557864	10/06/18 15:37	DAN	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. TestAmerica Job ID: 460-166026-1
Project/Site: Collins St Act 2

Laboratory: TestAmerica Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-18
New Jersey	NELAP	2	12028	06-30-19
New York	NELAP	2	11452	04-01-19
Pennsylvania	NELAP	3	68-00522	02-28-19
Rhode Island	State Program	1	LAO00132	12-30-18
USDA	Federal		NJCA-003-08	06-13-20

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins St Act 2

TestAmerica Job ID: 460-166026-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-166026-1	SB-310-2	Solid	10/03/18 08:35	10/03/18 15:34
460-166026-2	SB-310-7.5	Solid	10/03/18 08:40	10/03/18 15:34
460-166026-3	SB-311-13	Solid	10/03/18 09:00	10/03/18 15:34
460-166026-4	SB-311-19.5	Solid	10/03/18 09:05	10/03/18 15:34
460-166026-5	SB-312-18	Solid	10/03/18 09:40	10/03/18 15:34
460-166026-6	SB-312-19.5	Solid	10/03/18 09:45	10/03/18 15:34
460-166026-7	SB-313-14	Solid	10/03/18 10:15	10/03/18 15:34
460-166026-8	SB-313-19.5	Solid	10/03/18 10:20	10/03/18 15:34
460-166026-9	SB-314-13.5	Solid	10/03/18 10:35	10/03/18 15:34
460-166026-10	SB-314-19.5	Solid	10/03/18 10:40	10/03/18 15:34
460-166026-11	SB-315-14	Solid	10/03/18 11:05	10/03/18 15:34
460-166026-12	SB-315-19.5	Solid	10/03/18 11:10	10/03/18 15:34
460-166026-13	SB-316-12.5	Solid	10/03/18 11:30	10/03/18 15:34
460-166026-14	SB-316-19.5	Solid	10/03/18 11:35	10/03/18 15:34
460-166026-15	SB-317-13	Solid	10/03/18 12:00	10/03/18 15:34
460-166026-16	SB-317-19.5	Solid	10/03/18 12:05	10/03/18 15:34
460-166026-17	SB-318-18	Solid	10/03/18 13:30	10/03/18 15:34
460-166026-18	SB-318-19.5	Solid	10/03/18 13:35	10/03/18 15:34

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

1.2 KOP1

Name (for report and invoice) J.Lydzinski, V.Long, N.Hungarter	Samplers Name (Printed) V. James Long	Site/Project Identification Collins St Act 2
Company RT Environmental	P. O. # 2043-20-02	State (Location of site): NJ: NY: Other: PA
Address	Analysis Turnaround Time: Standard [X]	Regulatory Program: DKQP:
City KOP State PA	Rush Charges Authorized For: 2 Week [ ] 1 Week [ ] Other [ ]	LAB USE ONLY Project No:
Phone Fax		Job No: 1616026

Sample Identification	Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED: UNDEP FUEL NO 2,4,5,6	VOCs	Sample Numbers
SB-310-2	10/3/18	835	Soil	5	X	X	
SB-310-7.5		840			X	X	
SB-311-13		900			X	X	
SB-311-19.5		905			X	X	
SB-312-18		940			X	X	
SB-312-19.5		945			X	X	
SB-313-14		1015			X	X	
SB-313-19.5		1020			X	X	
SB-314-13.5		1035			X	X	
SB-314-19.5		1040			X	X	

460-166026 Chain of Custody

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other DI H2O, 7 = Other MeOH

Soil: 16,7 16,7
Water:

Special Instructions Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1)	RTEN	10/3/18 1534	1)	TAKP
2)	TAKP	10/4/18 1800	2)	
3)		10-4-18 2115	3)	TAKP 10/4/18 2115
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

1.2 KQP1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
J. Lydanski, V. Long, W. Tungueter	V. Jones Cons	Collins St. Act 2
Company: RT Environmental	P. O. #: 2043-20-12	State (Location of site): NJ: ☐ NY: ☐ Other: PA
Address:	Analysis Turnaround Time: Standard ☒	Regulatory Program: DKQP: ☐
City: Kop State: PA	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No: Job No: 116602G
Phone: Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	TAL-8260B (EDD) NJ-2,4,5,6	VOCs	Sample Numbers
SB-315-14	10/3/18	1105	Soil	5	X	X	
SB-315-19.5		1110			X	X	
SB-316-12.5		1130			X	X	
SB-316-19.5		1135			X	X	
SB-317-13		1200			X	X	
SB-317-19.5		1205			X	X	
SB-318-18		1330			X	X	
SB-318-19.5		1335			X	X	

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other DI H2O, 0 = Other MeOH

Soil: 16,7 16,7

Water:

Special Instructions Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1)	RTEN.	10/3/18 1534	1)	TALK
Relinquished by 2)	Company TALK	Date / Time 10/4/18 1800	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 10-4-18 2115	Received by 3)	Company TALK 10/4/18 2113
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 1661026

Number of Coolers: 1 IR Gun # KOP1

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	1.2 °C	1.2 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: JG Date: 10/3

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 460-166026-1

Login Number: 166026
List Number: 1
Creator: Gilmore, Julie L

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 1.2
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-165942-1
Client Project/Site: Collins St. Act 2

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: John Lydzinski

Jill Miller

Authorized for release by:
10/14/2018 12:46:05 PM

Jill Miller, Project Manager II
(484)685-0871
jill.miller@testamericainc.com

LINKS
Review your project results through TotalAccess
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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Lab Chronicle 26
Certification Summary 31
Method Summary 32
Sample Summary 33
Chain of Custody 34
Receipt Checklists 37

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 460-165942-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative
460-165942-1

Comments
No additional comments.

Receipt
The samples were received on 10/2/2018 2:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 9.5º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 460-557233 recovered above the upper control limit for Freon TF. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 460-557233 recovered outside control limits for the following analytes: MTBE and Methyl acetate. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-557808 was outside the method criteria for the following analyte(s): Dichlorodifluoromethane, 1,1,2-Trichloro-1,2,2-trifluoroethane, Bromoform and Trichlorofluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 460-557808 recovered outside control limits for the following analytes: Trichlorofluoromethane, 1,1,2-Trichloro-1,2,2-trifluoroethane and Carbon tetrachloride. These analytes were biased low in the LCSD and were within control limits in the LCS. The associated sample data has been flagged and reported.

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: SB-301-1.5 (460-165942-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: Surrogates recoveries for the following laboratory control sample (LCS) associated with batch 460-557276 were outside the upper control limits. All spike recoveries were within limits. Sample has been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: SB-300-3
Date Collected: 10/02/18 09:15
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-1
Matrix: Solid
Percent Solids: 82.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00044	U	0.0010	0.00044	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Bromomethane	0.00048	U	0.0010	0.00048	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Vinyl chloride	0.00055	U	0.0010	0.00055	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Chloroethane	0.00053	U	0.0010	0.00053	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Methylene Chloride	**0.0033**		0.0010	0.00017	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Acetone	0.0039	U	0.0051	0.0039	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Carbon disulfide	0.00027	U	0.0010	0.00027	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Trichlorofluoromethane	0.00041	U	0.0010	0.00041	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,1-Dichloroethene	0.00023	U	0.0010	0.00023	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,1-Dichloroethane	0.00021	U	0.0010	0.00021	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
trans-1,2-Dichloroethene	0.00025	U	0.0010	0.00025	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
cis-1,2-Dichloroethene	0.00015	U	0.0010	0.00015	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Chloroform	0.00032	U	0.0010	0.00032	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,2-Dichloroethane	0.00030	U	0.0010	0.00030	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
2-Butanone	0.0011	U	0.0051	0.0011	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,1,1-Trichloroethane	0.00024	U	0.0010	0.00024	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Carbon tetrachloride	0.00018	U	0.0010	0.00018	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Bromodichloromethane	0.00026	U	0.0010	0.00026	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,2-Dichloropropane	0.00043	U	0.0010	0.00043	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
cis-1,3-Dichloropropene	0.00028	U	0.0010	0.00028	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Trichloroethene	**0.00068**	**J**	0.0010	0.00015	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Dibromochloromethane	0.00020	U	0.0010	0.00020	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,1,2-Trichloroethane	0.00018	U	0.0010	0.00018	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Benzene	0.00026	U	0.0010	0.00026	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
trans-1,3-Dichloropropene	0.00027	U	0.0010	0.00027	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Bromoform	0.00043	U	0.0010	0.00043	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
4-Methyl-2-pentanone	0.00067	U	0.0051	0.00067	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
2-Hexanone	0.00079	U	0.0051	0.00079	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Tetrachloroethene	**0.0011**		0.0010	0.00015	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,1,2,2-Tetrachloroethane	0.00022	U	0.0010	0.00022	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Toluene	0.00063	U	0.0010	0.00063	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Chlorobenzene	0.00018	U	0.0010	0.00018	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Ethylbenzene	0.00020	U	0.0010	0.00020	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Styrene	0.00012	U	0.0010	0.00012	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Xylenes, Total	0.00026	U	0.0020	0.00026	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Freon TF	0.00031	U	0.0010	0.00031	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
MTBE	0.00013	U *	0.0010	0.00013	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Cyclohexane	0.00022	U	0.0010	0.00022	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,2-Dibromoethane	0.00018	U	0.0010	0.00018	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,3-Dichlorobenzene	0.00016	U	0.0010	0.00016	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,4-Dichlorobenzene	0.00010	U	0.0010	0.00010	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,2-Dichlorobenzene	0.00015	U	0.0010	0.00015	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Naphthalene	0.00019	U	0.0010	0.00019	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Dichlorodifluoromethane	0.00034	U	0.0010	0.00034	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,2,4-Trichlorobenzene	0.000093	U	0.0010	0.000093	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,2,4-Trimethylbenzene	0.000096	U	0.0010	0.000096	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,2-Dibromo-3-Chloropropane	0.00047	U	0.0010	0.00047	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
1,3,5-Trimethylbenzene	0.00012	U	0.0010	0.00012	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Isopropylbenzene	0.00013	U	0.0010	0.00013	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1

Client Sample ID: SB-300-3

Lab Sample ID: 460-165942-1
Date Collected: 10/02/18 09:15
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 82.4

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	0.0044	U *	0.0051	0.0044	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1
Methylcyclohexane	**0.00017**	**J**	0.0010	0.00016	mg/Kg	☼	10/04/18 00:48	10/04/18 11:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*78 - 135*	*10/04/18 00:48*	*10/04/18 11:07*	*1*
Toluene-d8 (Surr)	*99*		*73 - 121*	*10/04/18 00:48*	*10/04/18 11:07*	*1*
Bromofluorobenzene	*101*		*67 - 126*	*10/04/18 00:48*	*10/04/18 11:07*	*1*
Dibromofluoromethane (Surr)	*112*		*61 - 149*	*10/04/18 00:48*	*10/04/18 11:07*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0054	U	0.40	0.0054	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1
Phenanthrene	**0.038**	**J**	0.40	0.0070	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1
Anthracene	0.0045	U	0.40	0.0045	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1
Pyrene	**0.050**	**J**	0.40	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1
Benzo[a]anthracene	0.014	U	0.040	0.014	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1
Chrysene	**0.038**	**J**	0.40	0.0068	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1
Benzo[b]fluoranthene	**0.038**	**J**	0.040	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1
Benzo[a]pyrene	**0.029**	**J**	0.040	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1
Benzo[g,h,i]perylene	**0.023**	**J**	0.40	0.012	mg/Kg	☼	10/04/18 06:31	10/05/18 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*88*		*37 - 94*	*10/04/18 06:31*	*10/05/18 01:13*	*1*
Terphenyl-d14	*96*		*24 - 109*	*10/04/18 06:31*	*10/05/18 01:13*	*1*
2-Fluorobiphenyl	*84*		*38 - 95*	*10/04/18 06:31*	*10/05/18 01:13*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**17.6**		1.0	1.0	%			10/05/18 04:14	1
Percent Solids	**82.4**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-300-7.5

Lab Sample ID: 460-165942-2
Date Collected: 10/02/18 09:20
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 86.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00035	U	0.00081	0.00035	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Bromomethane	0.00038	U	0.00081	0.00038	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Vinyl chloride	0.00044	U	0.00081	0.00044	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Chloroethane	0.00042	U	0.00081	0.00042	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Methylene Chloride	**0.0046**		0.00081	0.00013	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Acetone	**0.0036**	**J**	0.0040	0.0031	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Carbon disulfide	0.00021	U	0.00081	0.00021	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Trichlorofluoromethane	0.00033	U	0.00081	0.00033	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,1-Dichloroethene	0.00018	U	0.00081	0.00018	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,1-Dichloroethane	0.00017	U	0.00081	0.00017	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
trans-1,2-Dichloroethene	0.00020	U	0.00081	0.00020	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
cis-1,2-Dichloroethene	0.00012	U	0.00081	0.00012	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Chloroform	0.00026	U	0.00081	0.00026	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,2-Dichloroethane	0.00024	U	0.00081	0.00024	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1

Client Sample ID: SB-300-7.5
Date Collected: 10/02/18 09:20
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-2
Matrix: Solid
Percent Solids: 86.9

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	0.00090	U	0.0040	0.00090	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,1,1-Trichloroethane	0.00019	U	0.00081	0.00019	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Carbon tetrachloride	0.00015	U	0.00081	0.00015	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Bromodichloromethane	0.00021	U	0.00081	0.00021	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,2-Dichloropropane	0.00034	U	0.00081	0.00034	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
cis-1,3-Dichloropropene	0.00022	U	0.00081	0.00022	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Trichloroethene	0.00012	U	0.00081	0.00012	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Dibromochloromethane	0.00016	U	0.00081	0.00016	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,1,2-Trichloroethane	0.00014	U	0.00081	0.00014	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Benzene	**0.00022**	**J**	0.00081	0.00021	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
trans-1,3-Dichloropropene	0.00021	U	0.00081	0.00021	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Bromoform	0.00034	U	0.00081	0.00034	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
4-Methyl-2-pentanone	0.00054	U	0.0040	0.00054	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
2-Hexanone	0.00063	U	0.0040	0.00063	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Tetrachloroethene	**0.00012**	**J**	0.00081	0.00012	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,1,2,2-Tetrachloroethane	0.00017	U	0.00081	0.00017	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Toluene	**0.0013**		0.00081	0.00050	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Chlorobenzene	0.00014	U	0.00081	0.00014	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Ethylbenzene	0.00016	U	0.00081	0.00016	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Styrene	0.000099	U	0.00081	0.000099	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Xylenes, Total	0.00020	U	0.0016	0.00020	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Freon TF	0.00024	U	0.00081	0.00024	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
MTBE	0.00010	U *	0.00081	0.00010	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Cyclohexane	0.00018	U	0.00081	0.00018	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,2-Dibromoethane	0.00015	U	0.00081	0.00015	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,3-Dichlorobenzene	0.00013	U	0.00081	0.00013	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,4-Dichlorobenzene	0.000081	U	0.00081	0.000081	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,2-Dichlorobenzene	0.00012	U	0.00081	0.00012	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Naphthalene	0.00015	U	0.00081	0.00015	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Dichlorodifluoromethane	0.00027	U	0.00081	0.00027	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,2,4-Trichlorobenzene	0.000074	U	0.00081	0.000074	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,2,4-Trimethylbenzene	0.000076	U	0.00081	0.000076	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,2-Dibromo-3-Chloropropane	0.00037	U	0.00081	0.00037	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
1,3,5-Trimethylbenzene	0.000093	U	0.00081	0.000093	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Isopropylbenzene	0.00010	U	0.00081	0.00010	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Methyl acetate	0.0035	U *	0.0040	0.0035	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1
Methylcyclohexane	0.00013	U	0.00081	0.00013	mg/Kg	☼	10/04/18 00:48	10/04/18 11:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*78 - 135*	*10/04/18 00:48*	*10/04/18 11:31*	*1*
Toluene-d8 (Surr)	*99*		*73 - 121*	*10/04/18 00:48*	*10/04/18 11:31*	*1*
Bromofluorobenzene	*97*		*67 - 126*	*10/04/18 00:48*	*10/04/18 11:31*	*1*
Dibromofluoromethane (Surr)	*109*		*61 - 149*	*10/04/18 00:48*	*10/04/18 11:31*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0052	U	0.38	0.0052	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1
Phenanthrene	0.0067	U	0.38	0.0067	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1
Anthracene	0.0043	U	0.38	0.0043	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1
Pyrene	0.0095	U	0.38	0.0095	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1

Client Sample ID: SB-300-7.5

Date Collected: 10/02/18 09:20
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-2

Matrix: Solid
Percent Solids: 86.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.013	U	0.038	0.013	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1
Chrysene	0.0064	U	0.38	0.0064	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1
Benzo[b]fluoranthene	0.0098	U	0.038	0.0098	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1
Benzo[a]pyrene	0.010	U	0.038	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1
Benzo[g,h,i]perylene	0.011	U	0.38	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*90*		*37 - 94*	*10/04/18 06:31*	*10/05/18 01:37*	*1*
Terphenyl-d14	*94*		*24 - 109*	*10/04/18 06:31*	*10/05/18 01:37*	*1*
2-Fluorobiphenyl	*84*		*38 - 95*	*10/04/18 06:31*	*10/05/18 01:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**13.1**		1.0	1.0	%			10/05/18 04:14	1
Percent Solids	**86.9**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-301-1.5

Date Collected: 10/02/18 09:00
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-3

Matrix: Solid
Percent Solids: 81.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.0099	U	0.045	0.0099	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Bromomethane	0.0081	U	0.045	0.0081	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Vinyl chloride	0.0090	U	0.045	0.0090	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Chloroethane	0.017	U	0.045	0.017	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Methylene Chloride	0.0095	U	0.045	0.0095	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Acetone	0.048	U	0.23	0.048	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Carbon disulfide	0.0099	U	0.045	0.0099	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Trichlorofluoromethane	0.0068	U *	0.045	0.0068	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,1-Dichloroethene	0.015	U	0.045	0.015	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,1-Dichloroethane	0.011	U	0.045	0.011	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
trans-1,2-Dichloroethene	0.0081	U	0.045	0.0081	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
cis-1,2-Dichloroethene	0.012	U	0.045	0.012	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Chloroform	**0.049**		0.045	0.0099	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,2-Dichloroethane	0.011	U	0.045	0.011	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
2-Butanone	0.099	U	0.23	0.099	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,1,1-Trichloroethane	**0.041**	**J**	0.045	0.013	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Carbon tetrachloride	**0.039**	**J ***	0.045	0.015	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Bromodichloromethane	0.0068	U	0.045	0.0068	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,2-Dichloropropane	0.0081	U	0.045	0.0081	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
cis-1,3-Dichloropropene	0.0072	U	0.045	0.0072	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Trichloroethene	**0.89**		0.045	0.0099	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Dibromochloromethane	0.0099	U	0.045	0.0099	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,1,2-Trichloroethane	0.0036	U	0.045	0.0036	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Benzene	0.0086	U	0.045	0.0086	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
trans-1,3-Dichloropropene	0.0086	U	0.045	0.0086	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Bromoform	0.0081	U	0.045	0.0081	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
4-Methyl-2-pentanone	0.028	U	0.23	0.028	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
2-Hexanone	0.033	U	0.23	0.033	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50

Client Sample ID: SB-301-1.5
Date Collected: 10/02/18 09:00
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-3
Matrix: Solid
Percent Solids: 81.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**7.5**		0.045	0.016	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,1,2,2-Tetrachloroethane	0.0086	U	0.045	0.0086	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Toluene	0.011	U	0.045	0.011	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Chlorobenzene	0.011	U	0.045	0.011	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Ethylbenzene	0.014	U	0.045	0.014	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Styrene	0.0077	U	0.045	0.0077	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Xylenes, Total	0.013	U	0.090	0.013	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Freon TF	0.015	U *	0.045	0.015	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
MTBE	0.0059	U	0.045	0.0059	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Cyclohexane	0.012	U	0.045	0.012	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,2-Dibromoethane	0.0086	U	0.045	0.0086	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,3-Dichlorobenzene	0.015	U	0.045	0.015	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,4-Dichlorobenzene	0.015	U	0.045	0.015	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,2-Dichlorobenzene	0.0099	U	0.045	0.0099	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Naphthalene	0.012	U	0.045	0.012	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Dichlorodifluoromethane	0.0063	U	0.045	0.0063	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,2,4-Trichlorobenzene	0.012	U	0.045	0.012	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,2,4-Trimethylbenzene	0.010	U	0.045	0.010	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,2-Dibromo-3-Chloropropane	0.010	U	0.045	0.010	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
1,3,5-Trimethylbenzene	0.011	U	0.045	0.011	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Isopropylbenzene	0.014	U	0.045	0.014	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Methyl acetate	**0.032**	**J**	0.23	0.026	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50
Methylcyclohexane	0.0099	U	0.045	0.0099	mg/Kg	☼	10/04/18 00:44	10/06/18 03:30	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*69 - 143*	*10/04/18 00:44*	*10/06/18 03:30*	*50*
Toluene-d8 (Surr)	*124*		*67 - 127*	*10/04/18 00:44*	*10/06/18 03:30*	*50*
Bromofluorobenzene	*119*		*61 - 137*	*10/04/18 00:44*	*10/06/18 03:30*	*50*
Dibromofluoromethane (Surr)	*125*		*61 - 135*	*10/04/18 00:44*	*10/06/18 03:30*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**0.24**	**J**	0.40	0.0055	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1
Phenanthrene	**3.0**		0.40	0.0071	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1
Anthracene	**0.60**		0.40	0.0045	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1
Pyrene	**2.9**		0.40	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1
Benzo[a]anthracene	**1.5**		0.040	0.014	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1
Chrysene	**1.6**		0.40	0.0068	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1
Benzo[b]fluoranthene	**1.6**		0.040	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1
Benzo[a]pyrene	**1.3**		0.040	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1
Benzo[g,h,i]perylene	**0.73**		0.40	0.012	mg/Kg	☼	10/04/18 06:31	10/05/18 04:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*86*		*37 - 94*	*10/04/18 06:31*	*10/05/18 04:28*	*1*
Terphenyl-d14	*84*		*24 - 109*	*10/04/18 06:31*	*10/05/18 04:28*	*1*
2-Fluorobiphenyl	*83*		*38 - 95*	*10/04/18 06:31*	*10/05/18 04:28*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**18.3**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-301-1.5

Lab Sample ID: 460-165942-3
Date Collected: 10/02/18 09:00
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 81.7

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**81.7**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-301-5.5

Lab Sample ID: 460-165942-4
Date Collected: 10/02/18 09:05
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 89.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00037	U	0.00084	0.00037	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Bromomethane	0.00040	U	0.00084	0.00040	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Vinyl chloride	0.00046	U	0.00084	0.00046	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Chloroethane	0.00044	U	0.00084	0.00044	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Methylene Chloride	**0.0046**		0.00084	0.00014	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Acetone	0.0032	U	0.0042	0.0032	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Carbon disulfide	0.00022	U	0.00084	0.00022	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Trichlorofluoromethane	0.00034	U	0.00084	0.00034	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,1-Dichloroethene	0.00019	U	0.00084	0.00019	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,1-Dichloroethane	0.00017	U	0.00084	0.00017	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
trans-1,2-Dichloroethene	0.00021	U	0.00084	0.00021	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
cis-1,2-Dichloroethene	0.00013	U	0.00084	0.00013	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Chloroform	0.00027	U	0.00084	0.00027	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,2-Dichloroethane	0.00025	U	0.00084	0.00025	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
2-Butanone	0.00094	U	0.0042	0.00094	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,1,1-Trichloroethane	0.00020	U	0.00084	0.00020	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Carbon tetrachloride	0.00015	U	0.00084	0.00015	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Bromodichloromethane	0.00022	U	0.00084	0.00022	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,2-Dichloropropane	0.00036	U	0.00084	0.00036	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
cis-1,3-Dichloropropene	0.00023	U	0.00084	0.00023	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Trichloroethene	**0.00035**	**J**	0.00084	0.00012	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Dibromochloromethane	0.00016	U	0.00084	0.00016	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,1,2-Trichloroethane	0.00015	U	0.00084	0.00015	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Benzene	0.00022	U	0.00084	0.00022	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
trans-1,3-Dichloropropene	0.00022	U	0.00084	0.00022	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Bromoform	0.00036	U	0.00084	0.00036	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
4-Methyl-2-pentanone	0.00056	U	0.0042	0.00056	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
2-Hexanone	0.00066	U	0.0042	0.00066	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Tetrachloroethene	**0.0013**		0.00084	0.00012	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,1,2,2-Tetrachloroethane	0.00018	U	0.00084	0.00018	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Toluene	0.00053	U	0.00084	0.00053	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Chlorobenzene	0.00015	U	0.00084	0.00015	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Ethylbenzene	0.00017	U	0.00084	0.00017	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Styrene	0.00010	U	0.00084	0.00010	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Xylenes, Total	0.00021	U	0.0017	0.00021	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Freon TF	0.00025	U	0.00084	0.00025	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
MTBE	0.00011	U *	0.00084	0.00011	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Cyclohexane	0.00019	U	0.00084	0.00019	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,2-Dibromoethane	0.00015	U	0.00084	0.00015	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,3-Dichlorobenzene	0.00013	U	0.00084	0.00013	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,4-Dichlorobenzene	0.000084	U	0.00084	0.000084	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,2-Dichlorobenzene	0.00012	U	0.00084	0.00012	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1

Client Sample ID: SB-301-5.5

Lab Sample ID: 460-165942-4
Date Collected: 10/02/18 09:05
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 89.5

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00016	U	0.00084	0.00016	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Dichlorodifluoromethane	0.00028	U	0.00084	0.00028	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,2,4-Trichlorobenzene	0.000078	U	0.00084	0.000078	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,2,4-Trimethylbenzene	0.000079	U	0.00084	0.000079	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,2-Dibromo-3-Chloropropane	0.00039	U	0.00084	0.00039	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
1,3,5-Trimethylbenzene	0.000097	U	0.00084	0.000097	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Isopropylbenzene	0.00011	U	0.00084	0.00011	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Methyl acetate	0.0036	U *	0.0042	0.0036	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1
Methylcyclohexane	0.00013	U	0.00084	0.00013	mg/Kg	☼	10/04/18 00:49	10/04/18 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*78 - 135*	*10/04/18 00:49*	*10/04/18 12:45*	*1*
Toluene-d8 (Surr)	*100*		*73 - 121*	*10/04/18 00:49*	*10/04/18 12:45*	*1*
Bromofluorobenzene	*96*		*67 - 126*	*10/04/18 00:49*	*10/04/18 12:45*	*1*
Dibromofluoromethane (Surr)	*114*		*61 - 149*	*10/04/18 00:49*	*10/04/18 12:45*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0050	U	0.37	0.0050	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1
Phenanthrene	0.0065	U	0.37	0.0065	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1
Anthracene	0.0041	U	0.37	0.0041	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1
Pyrene	0.0092	U	0.37	0.0092	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1
Benzo[a]anthracene	0.013	U	0.037	0.013	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1
Chrysene	0.0062	U	0.37	0.0062	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1
Benzo[b]fluoranthene	0.0095	U	0.037	0.0095	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1
Benzo[a]pyrene	0.0098	U	0.037	0.0098	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1
Benzo[g,h,i]perylene	0.011	U	0.37	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 02:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*37 - 94*	*10/04/18 06:31*	*10/05/18 02:01*	*1*
Terphenyl-d14	*94*		*24 - 109*	*10/04/18 06:31*	*10/05/18 02:01*	*1*
2-Fluorobiphenyl	*88*		*38 - 95*	*10/04/18 06:31*	*10/05/18 02:01*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**10.5**		1.0	1.0	%			10/05/18 04:14	1
Percent Solids	**89.5**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-302-4

Lab Sample ID: 460-165942-5
Date Collected: 10/02/18 09:50
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 87.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00065	U	0.0015	0.00065	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Bromomethane	0.00070	U	0.0015	0.00070	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Vinyl chloride	0.00081	U	0.0015	0.00081	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Chloroethane	0.00077	U	0.0015	0.00077	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Methylene Chloride	**0.0045**		0.0015	0.00024	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Acetone	**0.089**		0.0074	0.0056	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Carbon disulfide	0.00039	U	0.0015	0.00039	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1

Client Sample ID: SB-302-4
Date Collected: 10/02/18 09:50
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-5
Matrix: Solid
Percent Solids: 87.1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.00060	U	0.0015	0.00060	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,1-Dichloroethene	0.00033	U	0.0015	0.00033	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,1-Dichloroethane	0.00031	U	0.0015	0.00031	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
trans-1,2-Dichloroethene	0.00036	U	0.0015	0.00036	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
cis-1,2-Dichloroethene	0.00023	U	0.0015	0.00023	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Chloroform	**0.00057**	**J**	0.0015	0.00047	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,2-Dichloroethane	**0.00048**	**J**	0.0015	0.00044	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
2-Butanone	**0.019**	**B**	0.0074	0.0016	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,1,1-Trichloroethane	**0.00097**	**J**	0.0015	0.00035	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Carbon tetrachloride	0.00027	U	0.0015	0.00027	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Bromodichloromethane	0.00038	U	0.0015	0.00038	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,2-Dichloropropane	0.00063	U	0.0015	0.00063	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
cis-1,3-Dichloropropene	0.00040	U	0.0015	0.00040	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Trichloroethene	**0.010**		0.0015	0.00021	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Dibromochloromethane	0.00029	U	0.0015	0.00029	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,1,2-Trichloroethane	0.00026	U	0.0015	0.00026	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Benzene	**0.0019**		0.0015	0.00038	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
trans-1,3-Dichloropropene	0.00039	U	0.0015	0.00039	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Bromoform	0.00063	U	0.0015	0.00063	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
4-Methyl-2-pentanone	0.00098	U	0.0074	0.00098	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
2-Hexanone	**0.0029**	**J**	0.0074	0.0012	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Tetrachloroethene	**0.0057**		0.0015	0.00021	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,1,2,2-Tetrachloroethane	0.00032	U	0.0015	0.00032	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Toluene	**0.0011**	**J**	0.0015	0.00093	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Chlorobenzene	0.00026	U	0.0015	0.00026	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Ethylbenzene	0.00030	U	0.0015	0.00030	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Styrene	0.00018	U	0.0015	0.00018	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Xylenes, Total	0.00038	U	0.0030	0.00038	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Freon TF	0.00045	U	0.0015	0.00045	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
MTBE	0.00019	U *	0.0015	0.00019	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Cyclohexane	0.00033	U	0.0015	0.00033	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,2-Dibromoethane	0.00027	U	0.0015	0.00027	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,3-Dichlorobenzene	0.00024	U	0.0015	0.00024	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,4-Dichlorobenzene	0.00015	U	0.0015	0.00015	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,2-Dichlorobenzene	0.00021	U	0.0015	0.00021	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Naphthalene	0.00028	U	0.0015	0.00028	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Dichlorodifluoromethane	0.00050	U	0.0015	0.00050	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,2,4-Trichlorobenzene	0.00014	U	0.0015	0.00014	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,2,4-Trimethylbenzene	0.00014	U	0.0015	0.00014	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,2-Dibromo-3-Chloropropane	0.00068	U	0.0015	0.00068	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
1,3,5-Trimethylbenzene	0.00017	U	0.0015	0.00017	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Isopropylbenzene	0.00019	U	0.0015	0.00019	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Methyl acetate	0.0064	U *	0.0074	0.0064	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1
Methylcyclohexane	**0.00043**	**J**	0.0015	0.00024	mg/Kg	☼	10/04/18 00:49	10/04/18 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*78 - 135*	*10/04/18 00:49*	*10/04/18 13:10*	*1*
Toluene-d8 (Surr)	*99*		*73 - 121*	*10/04/18 00:49*	*10/04/18 13:10*	*1*
Bromofluorobenzene	*99*		*67 - 126*	*10/04/18 00:49*	*10/04/18 13:10*	*1*
Dibromofluoromethane (Surr)	*113*		*61 - 149*	*10/04/18 00:49*	*10/04/18 13:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0051	U	0.38	0.0051	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1
Phenanthrene	**0.060**	**J**	0.38	0.0067	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1
Anthracene	0.0042	U	0.38	0.0042	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1
Pyrene	**0.020**	**J**	0.38	0.0094	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1
Benzo[a]anthracene	0.013	U	0.038	0.013	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1
Chrysene	**0.050**	**J**	0.38	0.0064	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1
Benzo[b]fluoranthene	0.0098	U	0.038	0.0098	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1
Benzo[a]pyrene	0.010	U	0.038	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1
Benzo[g,h,i]perylene	0.011	U	0.38	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*46*		*37 - 94*	*10/04/18 06:31*	*10/05/18 04:04*	*1*
Terphenyl-d14	*39*		*24 - 109*	*10/04/18 06:31*	*10/05/18 04:04*	*1*
2-Fluorobiphenyl	*41*		*38 - 95*	*10/04/18 06:31*	*10/05/18 04:04*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**12.9**		1.0	1.0	%			10/05/18 04:14	1
Percent Solids	**87.1**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-302-9

Date Collected: 10/02/18 09:55
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-6

Matrix: Solid
Percent Solids: 95.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00039	U	0.00091	0.00039	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Bromomethane	0.00043	U	0.00091	0.00043	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Vinyl chloride	0.00049	U	0.00091	0.00049	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Chloroethane	0.00047	U	0.00091	0.00047	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Methylene Chloride	**0.014**		0.00091	0.00015	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Acetone	**0.0067**		0.0045	0.0034	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Carbon disulfide	0.00024	U	0.00091	0.00024	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Trichlorofluoromethane	0.00037	U	0.00091	0.00037	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,1-Dichloroethene	0.00020	U	0.00091	0.00020	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,1-Dichloroethane	0.00019	U	0.00091	0.00019	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
trans-1,2-Dichloroethene	0.00022	U	0.00091	0.00022	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
cis-1,2-Dichloroethene	0.00014	U	0.00091	0.00014	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Chloroform	0.00029	U	0.00091	0.00029	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,2-Dichloroethane	0.00027	U	0.00091	0.00027	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
2-Butanone	0.0010	U	0.0045	0.0010	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,1,1-Trichloroethane	0.00021	U	0.00091	0.00021	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Carbon tetrachloride	0.00016	U	0.00091	0.00016	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Bromodichloromethane	0.00023	U	0.00091	0.00023	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,2-Dichloropropane	0.00038	U	0.00091	0.00038	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
cis-1,3-Dichloropropene	0.00025	U	0.00091	0.00025	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Trichloroethene	0.00013	U	0.00091	0.00013	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Dibromochloromethane	0.00018	U	0.00091	0.00018	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,1,2-Trichloroethane	0.00016	U	0.00091	0.00016	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Benzene	0.00023	U	0.00091	0.00023	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
trans-1,3-Dichloropropene	0.00024	U	0.00091	0.00024	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Bromoform	0.00038	U	0.00091	0.00038	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
4-Methyl-2-pentanone	0.00060	U	0.0045	0.00060	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
2-Hexanone	0.00071	U	0.0045	0.00071	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Client Sample ID: SB-302-9
Date Collected: 10/02/18 09:55
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-6
Matrix: Solid
Percent Solids: 95.4

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.00013	U	0.00091	0.00013	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,1,2,2-Tetrachloroethane	0.00019	U	0.00091	0.00019	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Toluene	**0.0011**		0.00091	0.00057	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Chlorobenzene	0.00016	U	0.00091	0.00016	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Ethylbenzene	0.00018	U	0.00091	0.00018	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Styrene	0.00011	U	0.00091	0.00011	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Xylenes, Total	0.00023	U	0.0018	0.00023	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Freon TF	0.00027	U	0.00091	0.00027	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
MTBE	0.00011	U *	0.00091	0.00011	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Cyclohexane	0.00020	U	0.00091	0.00020	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,2-Dibromoethane	0.00016	U	0.00091	0.00016	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,3-Dichlorobenzene	0.00014	U	0.00091	0.00014	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,4-Dichlorobenzene	0.000091	U	0.00091	0.000091	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,2-Dichlorobenzene	0.00013	U	0.00091	0.00013	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Naphthalene	0.00017	U	0.00091	0.00017	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Dichlorodifluoromethane	0.00031	U	0.00091	0.00031	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,2,4-Trichlorobenzene	0.000083	U	0.00091	0.000083	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,2,4-Trimethylbenzene	0.000085	U	0.00091	0.000085	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,2-Dibromo-3-Chloropropane	0.00042	U	0.00091	0.00042	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
1,3,5-Trimethylbenzene	0.00010	U	0.00091	0.00010	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Isopropylbenzene	0.00011	U	0.00091	0.00011	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Methyl acetate	0.0039	U *	0.0045	0.0039	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1
Methylcyclohexane	0.00014	U	0.00091	0.00014	mg/Kg	☼	10/04/18 00:49	10/04/18 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*78 - 135*	*10/04/18 00:49*	*10/04/18 13:34*	*1*
Toluene-d8 (Surr)	*98*		*73 - 121*	*10/04/18 00:49*	*10/04/18 13:34*	*1*
Bromofluorobenzene	*97*		*67 - 126*	*10/04/18 00:49*	*10/04/18 13:34*	*1*
Dibromofluoromethane (Surr)	*112*		*61 - 149*	*10/04/18 00:49*	*10/04/18 13:34*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0047	U	0.35	0.0047	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1
Phenanthrene	**0.011**	**J**	0.35	0.0061	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1
Anthracene	0.0039	U	0.35	0.0039	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1
Pyrene	**0.013**	**J**	0.35	0.0086	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1
Benzo[a]anthracene	0.012	U	0.035	0.012	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1
Chrysene	**0.0067**	**J**	0.35	0.0059	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1
Benzo[b]fluoranthene	**0.0094**	**J**	0.035	0.0090	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1
Benzo[a]pyrene	0.0092	U	0.035	0.0092	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1
Benzo[g,h,i]perylene	0.010	U	0.35	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 02:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*37 - 94*	*10/04/18 06:31*	*10/05/18 02:26*	*1*
Terphenyl-d14	*94*		*24 - 109*	*10/04/18 06:31*	*10/05/18 02:26*	*1*
2-Fluorobiphenyl	*87*		*38 - 95*	*10/04/18 06:31*	*10/05/18 02:26*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**4.6**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-302-9

Date Collected: 10/02/18 09:55
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-6

Matrix: Solid
Percent Solids: 95.4

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**95.4**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-303-2.5

Date Collected: 10/02/18 10:35
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-7

Matrix: Solid
Percent Solids: 77.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00042	U	0.00096	0.00042	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Bromomethane	0.00046	U	0.00096	0.00046	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Vinyl chloride	0.00053	U	0.00096	0.00053	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Chloroethane	0.00050	U	0.00096	0.00050	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Methylene Chloride	**0.0045**		0.00096	0.00016	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Acetone	0.0036	U	0.0048	0.0036	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Carbon disulfide	0.00026	U	0.00096	0.00026	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Trichlorofluoromethane	0.00039	U	0.00096	0.00039	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,1-Dichloroethene	0.00022	U	0.00096	0.00022	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,1-Dichloroethane	0.00020	U	0.00096	0.00020	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
trans-1,2-Dichloroethene	0.00024	U	0.00096	0.00024	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
cis-1,2-Dichloroethene	0.00015	U	0.00096	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Chloroform	0.00031	U	0.00096	0.00031	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,2-Dichloroethane	0.00028	U	0.00096	0.00028	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
2-Butanone	0.0011	U	0.0048	0.0011	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,1,1-Trichloroethane	0.00022	U	0.00096	0.00022	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Carbon tetrachloride	0.00017	U	0.00096	0.00017	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Bromodichloromethane	0.00025	U	0.00096	0.00025	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,2-Dichloropropane	0.00041	U	0.00096	0.00041	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
cis-1,3-Dichloropropene	0.00026	U	0.00096	0.00026	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Trichloroethene	**0.00025**	**J**	0.00096	0.00014	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Dibromochloromethane	0.00019	U	0.00096	0.00019	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,1,2-Trichloroethane	0.00017	U	0.00096	0.00017	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Benzene	0.00025	U	0.00096	0.00025	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
trans-1,3-Dichloropropene	0.00026	U	0.00096	0.00026	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Bromoform	0.00041	U	0.00096	0.00041	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
4-Methyl-2-pentanone	0.00064	U	0.0048	0.00064	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
2-Hexanone	0.00075	U	0.0048	0.00075	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Tetrachloroethene	**0.0041**		0.00096	0.00014	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,1,2,2-Tetrachloroethane	0.00021	U	0.00096	0.00021	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Toluene	0.00060	U	0.00096	0.00060	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Chlorobenzene	0.00017	U	0.00096	0.00017	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Ethylbenzene	0.00019	U	0.00096	0.00019	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Styrene	0.00012	U	0.00096	0.00012	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Xylenes, Total	0.00024	U	0.0019	0.00024	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Freon TF	0.00029	U	0.00096	0.00029	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
MTBE	0.00012	U *	0.00096	0.00012	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Cyclohexane	0.00021	U	0.00096	0.00021	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,2-Dibromoethane	0.00017	U	0.00096	0.00017	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,3-Dichlorobenzene	0.00015	U	0.00096	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,4-Dichlorobenzene	0.000096	U	0.00096	0.000096	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,2-Dichlorobenzene	0.00014	U	0.00096	0.00014	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1

Client Sample ID: SB-303-2.5

Lab Sample ID: 460-165942-7
Date Collected: 10/02/18 10:35
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 77.8

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00018	U	0.00096	0.00018	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Dichlorodifluoromethane	0.00033	U	0.00096	0.00033	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,2,4-Trichlorobenzene	0.000089	U	0.00096	0.000089	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,2,4-Trimethylbenzene	0.000090	U	0.00096	0.000090	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,2-Dibromo-3-Chloropropane	0.00044	U	0.00096	0.00044	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
1,3,5-Trimethylbenzene	0.00011	U	0.00096	0.00011	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Isopropylbenzene	0.00012	U	0.00096	0.00012	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Methyl acetate	0.0041	U *	0.0048	0.0041	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1
Methylcyclohexane	0.00015	U	0.00096	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*78 - 135*	*10/04/18 00:50*	*10/04/18 13:58*	*1*
Toluene-d8 (Surr)	*98*		*73 - 121*	*10/04/18 00:50*	*10/04/18 13:58*	*1*
Bromofluorobenzene	*96*		*67 - 126*	*10/04/18 00:50*	*10/04/18 13:58*	*1*
Dibromofluoromethane (Surr)	*111*		*61 - 149*	*10/04/18 00:50*	*10/04/18 13:58*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**0.068**	**J**	0.42	0.0058	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1
Phenanthrene	**3.3**		0.42	0.0075	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1
Anthracene	**0.50**		0.42	0.0048	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1
Pyrene	**3.7**		0.42	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1
Benzo[a]anthracene	**2.0**		0.042	0.015	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1
Chrysene	**2.1**		0.42	0.0072	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1
Benzo[b]fluoranthene	**2.0**		0.042	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1
Benzo[a]pyrene	**1.4**		0.042	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1
Benzo[g,h,i]perylene	**0.70**		0.42	0.013	mg/Kg	☼	10/04/18 06:31	10/05/18 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*82*		*37 - 94*	*10/04/18 06:31*	*10/05/18 04:53*	*1*
Terphenyl-d14	*82*		*24 - 109*	*10/04/18 06:31*	*10/05/18 04:53*	*1*
2-Fluorobiphenyl	*81*		*38 - 95*	*10/04/18 06:31*	*10/05/18 04:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**22.2**		1.0	1.0	%			10/05/18 04:14	1
Percent Solids	**77.8**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-303-4.5

Lab Sample ID: 460-165942-8
Date Collected: 10/02/18 10:40
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 85.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00040	U	0.00092	0.00040	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Bromomethane	0.00044	U	0.00092	0.00044	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Vinyl chloride	0.00050	U	0.00092	0.00050	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Chloroethane	0.00048	U	0.00092	0.00048	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Methylene Chloride	**0.0073**		0.00092	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Acetone	**0.0056**		0.0046	0.0035	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Carbon disulfide	0.00025	U	0.00092	0.00025	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1

Client Sample ID: SB-303-4.5
Date Collected: 10/02/18 10:40
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-8
Matrix: Solid
Percent Solids: 85.0

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.00038	U	0.00092	0.00038	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,1-Dichloroethene	0.00021	U	0.00092	0.00021	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,1-Dichloroethane	0.00019	U	0.00092	0.00019	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
trans-1,2-Dichloroethene	0.00023	U	0.00092	0.00023	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
cis-1,2-Dichloroethene	0.00014	U	0.00092	0.00014	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Chloroform	0.00029	U	0.00092	0.00029	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,2-Dichloroethane	0.00027	U	0.00092	0.00027	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
2-Butanone	0.0010	U	0.0046	0.0010	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,1,1-Trichloroethane	0.00022	U	0.00092	0.00022	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Carbon tetrachloride	0.00017	U	0.00092	0.00017	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Bromodichloromethane	0.00024	U	0.00092	0.00024	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,2-Dichloropropane	0.00039	U	0.00092	0.00039	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
cis-1,3-Dichloropropene	0.00025	U	0.00092	0.00025	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Trichloroethene	0.00013	U	0.00092	0.00013	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Dibromochloromethane	0.00018	U	0.00092	0.00018	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,1,2-Trichloroethane	0.00016	U	0.00092	0.00016	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Benzene	**0.0017**		0.00092	0.00024	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
trans-1,3-Dichloropropene	0.00025	U	0.00092	0.00025	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Bromoform	0.00039	U	0.00092	0.00039	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
4-Methyl-2-pentanone	0.00061	U	0.0046	0.00061	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
2-Hexanone	0.00072	U	0.0046	0.00072	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Tetrachloroethene	**0.00097**		0.00092	0.00013	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,1,2,2-Tetrachloroethane	0.00020	U	0.00092	0.00020	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Toluene	**0.015**		0.00092	0.00058	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Chlorobenzene	0.00016	U	0.00092	0.00016	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Ethylbenzene	**0.00061**	**J**	0.00092	0.00018	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Styrene	0.00011	U	0.00092	0.00011	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Xylenes, Total	**0.00086**	**J**	0.0018	0.00023	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Freon TF	0.00028	U	0.00092	0.00028	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
MTBE	0.00012	U *	0.00092	0.00012	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Cyclohexane	**0.00031**	**J**	0.00092	0.00020	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,2-Dibromoethane	0.00017	U	0.00092	0.00017	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,3-Dichlorobenzene	0.00015	U	0.00092	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,4-Dichlorobenzene	0.000092	U	0.00092	0.000092	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,2-Dichlorobenzene	0.00013	U	0.00092	0.00013	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Naphthalene	0.00018	U	0.00092	0.00018	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Dichlorodifluoromethane	0.00031	U	0.00092	0.00031	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,2,4-Trichlorobenzene	0.000085	U	0.00092	0.000085	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,2,4-Trimethylbenzene	0.000087	U	0.00092	0.000087	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,2-Dibromo-3-Chloropropane	0.00043	U	0.00092	0.00043	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
1,3,5-Trimethylbenzene	0.00011	U	0.00092	0.00011	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Isopropylbenzene	0.00012	U	0.00092	0.00012	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Methyl acetate	0.0040	U *	0.0046	0.0040	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1
Methylcyclohexane	**0.00044**	**J**	0.00092	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*78 - 135*	*10/04/18 00:50*	*10/04/18 14:22*	*1*
Toluene-d8 (Surr)	*99*		*73 - 121*	*10/04/18 00:50*	*10/04/18 14:22*	*1*
Bromofluorobenzene	*96*		*67 - 126*	*10/04/18 00:50*	*10/04/18 14:22*	*1*
Dibromofluoromethane (Surr)	*115*		*61 - 149*	*10/04/18 00:50*	*10/04/18 14:22*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0053	U	0.39	0.0053	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1
Phenanthrene	**0.021**	**J**	0.39	0.0068	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1
Anthracene	**0.0059**	**J**	0.39	0.0043	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1
Pyrene	**0.035**	**J**	0.39	0.0097	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1
Benzo[a]anthracene	**0.025**	**J**	0.039	0.014	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1
Chrysene	**0.021**	**J**	0.39	0.0066	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1
Benzo[b]fluoranthene	**0.028**	**J**	0.039	0.010	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1
Benzo[a]pyrene	**0.018**	**J**	0.039	0.010	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1
Benzo[g,h,i]perylene	0.011	U	0.39	0.011	mg/Kg	☼	10/05/18 18:35	10/06/18 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*69*		*37 - 94*	*10/05/18 18:35*	*10/06/18 04:15*	*1*
Terphenyl-d14	*77*		*24 - 109*	*10/05/18 18:35*	*10/06/18 04:15*	*1*
2-Fluorobiphenyl	*72*		*38 - 95*	*10/05/18 18:35*	*10/06/18 04:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**15.0**		1.0	1.0	%			10/05/18 04:14	1
Percent Solids	**85.0**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-304-2

Date Collected: 10/02/18 10:15
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-9

Matrix: Solid
Percent Solids: 87.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00036	U	0.00083	0.00036	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Bromomethane	0.00040	U	0.00083	0.00040	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Vinyl chloride	0.00046	U	0.00083	0.00046	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Chloroethane	0.00044	U	0.00083	0.00044	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Methylene Chloride	**0.0030**		0.00083	0.00014	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Acetone	**0.0041**	**J**	0.0042	0.0032	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Carbon disulfide	0.00022	U	0.00083	0.00022	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Trichlorofluoromethane	0.00034	U	0.00083	0.00034	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,1-Dichloroethene	0.00019	U	0.00083	0.00019	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,1-Dichloroethane	0.00017	U	0.00083	0.00017	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
trans-1,2-Dichloroethene	0.00021	U	0.00083	0.00021	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
cis-1,2-Dichloroethene	0.00013	U	0.00083	0.00013	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Chloroform	0.00027	U	0.00083	0.00027	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,2-Dichloroethane	0.00025	U	0.00083	0.00025	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
2-Butanone	0.00093	U	0.0042	0.00093	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,1,1-Trichloroethane	0.00019	U	0.00083	0.00019	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Carbon tetrachloride	0.00015	U	0.00083	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Bromodichloromethane	0.00021	U	0.00083	0.00021	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,2-Dichloropropane	0.00035	U	0.00083	0.00035	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
cis-1,3-Dichloropropene	0.00023	U	0.00083	0.00023	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Trichloroethene	0.00012	U	0.00083	0.00012	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Dibromochloromethane	0.00016	U	0.00083	0.00016	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,1,2-Trichloroethane	0.00015	U	0.00083	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Benzene	0.00022	U	0.00083	0.00022	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
trans-1,3-Dichloropropene	0.00022	U	0.00083	0.00022	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Bromoform	0.00035	U	0.00083	0.00035	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
4-Methyl-2-pentanone	0.00055	U	0.0042	0.00055	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
2-Hexanone	0.00065	U	0.0042	0.00065	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1

Client Sample ID: SB-304-2
Date Collected: 10/02/18 10:15
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-9
Matrix: Solid
Percent Solids: 87.4

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**0.0020**		0.00083	0.00012	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,1,2,2-Tetrachloroethane	0.00018	U	0.00083	0.00018	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Toluene	0.00052	U	0.00083	0.00052	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Chlorobenzene	0.00015	U	0.00083	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Ethylbenzene	0.00017	U	0.00083	0.00017	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Styrene	0.00010	U	0.00083	0.00010	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Xylenes, Total	0.00021	U	0.0017	0.00021	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Freon TF	0.00025	U	0.00083	0.00025	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
MTBE	0.00010	U *	0.00083	0.00010	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Cyclohexane	0.00018	U	0.00083	0.00018	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,2-Dibromoethane	0.00015	U	0.00083	0.00015	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,3-Dichlorobenzene	0.00013	U	0.00083	0.00013	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,4-Dichlorobenzene	0.000083	U	0.00083	0.000083	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,2-Dichlorobenzene	0.00012	U	0.00083	0.00012	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Naphthalene	0.00016	U	0.00083	0.00016	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Dichlorodifluoromethane	0.00028	U	0.00083	0.00028	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,2,4-Trichlorobenzene	0.000077	U	0.00083	0.000077	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,2,4-Trimethylbenzene	0.000078	U	0.00083	0.000078	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,2-Dibromo-3-Chloropropane	0.00038	U	0.00083	0.00038	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
1,3,5-Trimethylbenzene	0.000096	U	0.00083	0.000096	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Isopropylbenzene	0.00011	U	0.00083	0.00011	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Methyl acetate	0.0036	U *	0.0042	0.0036	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1
Methylcyclohexane	0.00013	U	0.00083	0.00013	mg/Kg	☼	10/04/18 00:50	10/04/18 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*78 - 135*	*10/04/18 00:50*	*10/04/18 14:46*	*1*
Toluene-d8 (Surr)	*98*		*73 - 121*	*10/04/18 00:50*	*10/04/18 14:46*	*1*
Bromofluorobenzene	*95*		*67 - 126*	*10/04/18 00:50*	*10/04/18 14:46*	*1*
Dibromofluoromethane (Surr)	*111*		*61 - 149*	*10/04/18 00:50*	*10/04/18 14:46*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**0.021**	**J**	0.38	0.0051	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1
Phenanthrene	**0.48**		0.38	0.0066	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1
Anthracene	**0.052**	**J**	0.38	0.0042	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1
Pyrene	**0.56**		0.38	0.0094	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1
Benzo[a]anthracene	**0.24**		0.038	0.013	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1
Chrysene	**0.41**		0.38	0.0064	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1
Benzo[b]fluoranthene	**0.37**		0.038	0.0098	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1
Benzo[a]pyrene	**0.24**		0.038	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1
Benzo[g,h,i]perylene	**0.17**	**J**	0.38	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*89*		*37 - 94*	*10/04/18 06:31*	*10/05/18 05:17*	*1*
Terphenyl-d14	*88*		*24 - 109*	*10/04/18 06:31*	*10/05/18 05:17*	*1*
2-Fluorobiphenyl	*84*		*38 - 95*	*10/04/18 06:31*	*10/05/18 05:17*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**12.6**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-304-2

Date Collected: 10/02/18 10:15
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-9

Matrix: Solid
Percent Solids: 87.4

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**87.4**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-304-4

Date Collected: 10/02/18 10:20
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-10

Matrix: Solid
Percent Solids: 84.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00028	U	0.00065	0.00028	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Bromomethane	0.00031	U	0.00065	0.00031	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Vinyl chloride	0.00035	U	0.00065	0.00035	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Chloroethane	0.00034	U	0.00065	0.00034	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Methylene Chloride	**0.0033**		0.00065	0.00011	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Acetone	0.0024	U	0.0032	0.0024	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Carbon disulfide	0.00017	U	0.00065	0.00017	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Trichlorofluoromethane	0.00026	U	0.00065	0.00026	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,1-Dichloroethene	0.00015	U	0.00065	0.00015	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,1-Dichloroethane	0.00013	U	0.00065	0.00013	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
trans-1,2-Dichloroethene	0.00016	U	0.00065	0.00016	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
cis-1,2-Dichloroethene	0.000098	U	0.00065	0.000098	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Chloroform	0.00021	U	0.00065	0.00021	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,2-Dichloroethane	0.00019	U	0.00065	0.00019	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
2-Butanone	0.00072	U	0.0032	0.00072	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,1,1-Trichloroethane	0.00015	U	0.00065	0.00015	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Carbon tetrachloride	0.00012	U	0.00065	0.00012	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Bromodichloromethane	0.00017	U	0.00065	0.00017	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,2-Dichloropropane	0.00027	U	0.00065	0.00027	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
cis-1,3-Dichloropropene	0.00018	U	0.00065	0.00018	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Trichloroethene	0.000093	U	0.00065	0.000093	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Dibromochloromethane	0.00013	U	0.00065	0.00013	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,1,2-Trichloroethane	0.00012	U	0.00065	0.00012	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Benzene	**0.00031**	**J**	0.00065	0.00017	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
trans-1,3-Dichloropropene	0.00017	U	0.00065	0.00017	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Bromoform	0.00027	U	0.00065	0.00027	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
4-Methyl-2-pentanone	0.00043	U	0.0032	0.00043	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
2-Hexanone	0.00050	U	0.0032	0.00050	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Tetrachloroethene	**0.00085**		0.00065	0.000092	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,1,2,2-Tetrachloroethane	0.00014	U	0.00065	0.00014	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Toluene	**0.0016**		0.00065	0.00040	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Chlorobenzene	0.00011	U	0.00065	0.00011	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Ethylbenzene	0.00013	U	0.00065	0.00013	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Styrene	0.000079	U	0.00065	0.000079	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Xylenes, Total	0.00016	U	0.0013	0.00016	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Freon TF	0.00019	U	0.00065	0.00019	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
MTBE	0.000081	U *	0.00065	0.000081	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Cyclohexane	0.00014	U	0.00065	0.00014	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,2-Dibromoethane	0.00012	U	0.00065	0.00012	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,3-Dichlorobenzene	0.00010	U	0.00065	0.00010	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,4-Dichlorobenzene	0.000065	U	0.00065	0.000065	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,2-Dichlorobenzene	0.000093	U	0.00065	0.000093	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1

Client Sample ID: SB-304-4

Lab Sample ID: 460-165942-10
Date Collected: 10/02/18 10:20
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 84.0

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00012	U	0.00065	0.00012	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Dichlorodifluoromethane	0.00022	U	0.00065	0.00022	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,2,4-Trichlorobenzene	0.000059	U	0.00065	0.000059	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,2,4-Trimethylbenzene	0.000061	U	0.00065	0.000061	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,2-Dibromo-3-Chloropropane	0.00030	U	0.00065	0.00030	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
1,3,5-Trimethylbenzene	0.000074	U	0.00065	0.000074	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Isopropylbenzene	0.000081	U	0.00065	0.000081	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Methyl acetate	0.0028	U *	0.0032	0.0028	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1
Methylcyclohexane	0.00010	U	0.00065	0.00010	mg/Kg	☼	10/04/18 00:51	10/04/18 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*78 - 135*	*10/04/18 00:51*	*10/04/18 15:11*	*1*
Toluene-d8 (Surr)	*99*		*73 - 121*	*10/04/18 00:51*	*10/04/18 15:11*	*1*
Bromofluorobenzene	*96*		*67 - 126*	*10/04/18 00:51*	*10/04/18 15:11*	*1*
Dibromofluoromethane (Surr)	*113*		*61 - 149*	*10/04/18 00:51*	*10/04/18 15:11*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0053	U	0.39	0.0053	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1
Phenanthrene	**0.067**	**J**	0.39	0.0069	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1
Anthracene	**0.014**	**J**	0.39	0.0044	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1
Pyrene	**0.061**	**J**	0.39	0.0098	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1
Benzo[a]anthracene	**0.033**	**J**	0.039	0.014	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1
Chrysene	**0.024**	**J**	0.39	0.0067	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1
Benzo[b]fluoranthene	**0.023**	**J**	0.039	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1
Benzo[a]pyrene	**0.020**	**J**	0.039	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1
Benzo[g,h,i]perylene	**0.014**	**J**	0.39	0.012	mg/Kg	☼	10/04/18 06:31	10/05/18 03:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*75*		*37 - 94*	*10/04/18 06:31*	*10/05/18 03:15*	*1*
Terphenyl-d14	*83*		*24 - 109*	*10/04/18 06:31*	*10/05/18 03:15*	*1*
2-Fluorobiphenyl	*71*		*38 - 95*	*10/04/18 06:31*	*10/05/18 03:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**16.0**		1.0	1.0	%			10/05/18 04:14	1
Percent Solids	**84.0**		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-305-4

Lab Sample ID: 460-165942-11
Date Collected: 10/02/18 11:40
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 83.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00090	U	0.0021	0.00090	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Bromomethane	0.00098	U	0.0021	0.00098	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Vinyl chloride	0.0011	U	0.0021	0.0011	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Chloroethane	0.0011	U	0.0021	0.0011	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Methylene Chloride	**0.019**		0.0021	0.00034	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Acetone	**0.019**		0.010	0.0078	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Carbon disulfide	0.00055	U	0.0021	0.00055	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1

Client Sample ID: SB-305-4
Date Collected: 10/02/18 11:40
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-11
Matrix: Solid
Percent Solids: 83.5

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.00084	U	0.0021	0.00084	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,1-Dichloroethene	0.00046	U	0.0021	0.00046	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,1-Dichloroethane	0.00043	U	0.0021	0.00043	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
trans-1,2-Dichloroethene	0.00051	U	0.0021	0.00051	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
cis-1,2-Dichloroethene	0.00031	U	0.0021	0.00031	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Chloroform	0.00066	U	0.0021	0.00066	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,2-Dichloroethane	0.00061	U	0.0021	0.00061	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
2-Butanone	0.0023	U	0.010	0.0023	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,1,1-Trichloroethane	0.00048	U	0.0021	0.00048	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Carbon tetrachloride	0.00037	U	0.0021	0.00037	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Bromodichloromethane	0.00053	U	0.0021	0.00053	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,2-Dichloropropane	0.00087	U	0.0021	0.00087	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
cis-1,3-Dichloropropene	0.00056	U	0.0021	0.00056	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Trichloroethene	**0.0025**		0.0021	0.00030	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Dibromochloromethane	0.00040	U	0.0021	0.00040	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,1,2-Trichloroethane	0.00037	U	0.0021	0.00037	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Benzene	0.00053	U	0.0021	0.00053	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
trans-1,3-Dichloropropene	0.00055	U	0.0021	0.00055	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Bromoform	0.00088	U	0.0021	0.00088	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
4-Methyl-2-pentanone	0.0014	U	0.010	0.0014	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
2-Hexanone	0.0016	U	0.010	0.0016	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Tetrachloroethene	**0.0068**		0.0021	0.00030	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,1,2,2-Tetrachloroethane	0.00044	U	0.0021	0.00044	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Toluene	0.0013	U	0.0021	0.0013	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Chlorobenzene	0.00037	U	0.0021	0.00037	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Ethylbenzene	0.00041	U	0.0021	0.00041	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Styrene	0.00025	U	0.0021	0.00025	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Xylenes, Total	0.00052	U	0.0041	0.00052	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Freon TF	0.00062	U	0.0021	0.00062	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
MTBE	0.00026	U *	0.0021	0.00026	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Cyclohexane	0.00046	U	0.0021	0.00046	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,2-Dibromoethane	0.00037	U	0.0021	0.00037	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,3-Dichlorobenzene	0.00033	U	0.0021	0.00033	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,4-Dichlorobenzene	0.00021	U	0.0021	0.00021	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,2-Dichlorobenzene	0.00030	U	0.0021	0.00030	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Naphthalene	0.00039	U	0.0021	0.00039	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Dichlorodifluoromethane	0.00070	U	0.0021	0.00070	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,2,4-Trichlorobenzene	0.00019	U	0.0021	0.00019	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,2,4-Trimethylbenzene	0.00019	U	0.0021	0.00019	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,2-Dibromo-3-Chloropropane	0.00095	U	0.0021	0.00095	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
1,3,5-Trimethylbenzene	0.00024	U	0.0021	0.00024	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Isopropylbenzene	0.00026	U	0.0021	0.00026	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Methyl acetate	0.0089	U *	0.010	0.0089	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1
Methylcyclohexane	0.00033	U	0.0021	0.00033	mg/Kg	☼	10/04/18 00:51	10/04/18 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*78 - 135*	*10/04/18 00:51*	*10/04/18 15:35*	*1*
Toluene-d8 (Surr)	*100*		*73 - 121*	*10/04/18 00:51*	*10/04/18 15:35*	*1*
Bromofluorobenzene	*99*		*67 - 126*	*10/04/18 00:51*	*10/04/18 15:35*	*1*
Dibromofluoromethane (Surr)	*114*		*61 - 149*	*10/04/18 00:51*	*10/04/18 15:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.050	J	0.39	0.0054	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1
Phenanthrene	0.89		0.39	0.0070	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1
Anthracene	0.15	J	0.39	0.0044	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1
Pyrene	2.4		0.39	0.0098	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1
Benzo[a]anthracene	2.0		0.039	0.014	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1
Chrysene	2.5		0.39	0.0067	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1
Benzo[b]fluoranthene	4.0		0.039	0.010	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1
Benzo[a]pyrene	2.8		0.039	0.011	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1
Benzo[g,h,i]perylene	2.5		0.39	0.012	mg/Kg	☼	10/04/18 06:31	10/08/18 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*83*		*37 - 94*	*10/04/18 06:31*	*10/08/18 13:15*	*1*
Terphenyl-d14	*86*		*24 - 109*	*10/04/18 06:31*	*10/08/18 13:15*	*1*
2-Fluorobiphenyl	*82*		*38 - 95*	*10/04/18 06:31*	*10/08/18 13:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.5		1.0	1.0	%			10/05/18 04:14	1
Percent Solids	83.5		1.0	1.0	%			10/05/18 04:14	1

Client Sample ID: SB-305-6

Date Collected: 10/02/18 11:45
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-12

Matrix: Solid
Percent Solids: 82.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.00036	U	0.00083	0.00036	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Bromomethane	0.00039	U	0.00083	0.00039	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Vinyl chloride	0.00045	U	0.00083	0.00045	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Chloroethane	0.00043	U	0.00083	0.00043	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Methylene Chloride	0.0047		0.00083	0.00014	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Acetone	0.0032	U	0.0042	0.0032	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Carbon disulfide	0.00022	U	0.00083	0.00022	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Trichlorofluoromethane	0.00034	U	0.00083	0.00034	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,1-Dichloroethene	0.00019	U	0.00083	0.00019	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,1-Dichloroethane	0.00017	U	0.00083	0.00017	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
trans-1,2-Dichloroethene	0.00020	U	0.00083	0.00020	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
cis-1,2-Dichloroethene	0.00013	U	0.00083	0.00013	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Chloroform	0.00027	U	0.00083	0.00027	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,2-Dichloroethane	0.00025	U	0.00083	0.00025	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
2-Butanone	0.00092	U	0.0042	0.00092	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,1,1-Trichloroethane	0.00019	U	0.00083	0.00019	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Carbon tetrachloride	0.00015	U	0.00083	0.00015	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Bromodichloromethane	0.00021	U	0.00083	0.00021	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,2-Dichloropropane	0.00035	U	0.00083	0.00035	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
cis-1,3-Dichloropropene	0.00023	U	0.00083	0.00023	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Trichloroethene	0.00012	U	0.00083	0.00012	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Dibromochloromethane	0.00016	U	0.00083	0.00016	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,1,2-Trichloroethane	0.00015	U	0.00083	0.00015	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Benzene	0.00024	J	0.00083	0.00021	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
trans-1,3-Dichloropropene	0.00022	U	0.00083	0.00022	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Bromoform	0.00035	U	0.00083	0.00035	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
4-Methyl-2-pentanone	0.00055	U	0.0042	0.00055	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
2-Hexanone	0.00065	U	0.0042	0.00065	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1

Client Sample ID: SB-305-6
Date Collected: 10/02/18 11:45
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-12
Matrix: Solid
Percent Solids: 82.3

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**0.00020**	**J**	0.00083	0.00012	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,1,2,2-Tetrachloroethane	0.00018	U	0.00083	0.00018	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Toluene	**0.0012**		0.00083	0.00052	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Chlorobenzene	0.00015	U	0.00083	0.00015	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Ethylbenzene	0.00017	U	0.00083	0.00017	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Styrene	0.00010	U	0.00083	0.00010	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Xylenes, Total	0.00021	U	0.0017	0.00021	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Freon TF	0.00025	U	0.00083	0.00025	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
MTBE	0.00010	U *	0.00083	0.00010	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Cyclohexane	0.00018	U	0.00083	0.00018	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,2-Dibromoethane	0.00015	U	0.00083	0.00015	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,3-Dichlorobenzene	0.00013	U	0.00083	0.00013	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,4-Dichlorobenzene	0.000083	U	0.00083	0.000083	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,2-Dichlorobenzene	0.00012	U	0.00083	0.00012	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Naphthalene	0.00016	U	0.00083	0.00016	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Dichlorodifluoromethane	0.00028	U	0.00083	0.00028	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,2,4-Trichlorobenzene	0.000077	U	0.00083	0.000077	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,2,4-Trimethylbenzene	0.000078	U	0.00083	0.000078	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,2-Dibromo-3-Chloropropane	0.00038	U	0.00083	0.00038	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
1,3,5-Trimethylbenzene	0.000096	U	0.00083	0.000096	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Isopropylbenzene	0.00010	U	0.00083	0.00010	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Methyl acetate	0.0036	U *	0.0042	0.0036	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1
Methylcyclohexane	0.00013	U	0.00083	0.00013	mg/Kg	☼	10/04/18 00:51	10/04/18 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*78 - 135*	*10/04/18 00:51*	*10/04/18 15:59*	*1*
Toluene-d8 (Surr)	*98*		*73 - 121*	*10/04/18 00:51*	*10/04/18 15:59*	*1*
Bromofluorobenzene	*97*		*67 - 126*	*10/04/18 00:51*	*10/04/18 15:59*	*1*
Dibromofluoromethane (Surr)	*113*		*61 - 149*	*10/04/18 00:51*	*10/04/18 15:59*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.0055	U	0.40	0.0055	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1
Phenanthrene	0.0071	U	0.40	0.0071	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1
Anthracene	0.0045	U	0.40	0.0045	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1
Pyrene	0.010	U	0.40	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1
Benzo[a]anthracene	0.014	U	0.040	0.014	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1
Chrysene	0.0068	U	0.40	0.0068	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1
Benzo[b]fluoranthene	0.010	U	0.040	0.010	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1
Benzo[a]pyrene	0.011	U	0.040	0.011	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1
Benzo[g,h,i]perylene	0.012	U	0.40	0.012	mg/Kg	☼	10/04/18 06:31	10/05/18 03:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*78*		*37 - 94*	*10/04/18 06:31*	*10/05/18 03:39*	*1*
Terphenyl-d14	*72*		*24 - 109*	*10/04/18 06:31*	*10/05/18 03:39*	*1*
2-Fluorobiphenyl	*72*		*38 - 95*	*10/04/18 06:31*	*10/05/18 03:39*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**17.7**		1.0	1.0	%			10/05/18 04:14	1

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Client Sample ID: SB-305-6
Date Collected: 10/02/18 11:45
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-12
Matrix: Solid
Percent Solids: 82.3

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82.3		1.0	1.0	%			10/05/18 04:14	1

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Client Sample ID: SB-300-3
Date Collected: 10/02/18 09:15
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-300-3
Date Collected: 10/02/18 09:15
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-1
Matrix: Solid
Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:48	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 11:07	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 01:13	MME	TAL EDI

Client Sample ID: SB-300-7.5
Date Collected: 10/02/18 09:20
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-300-7.5
Date Collected: 10/02/18 09:20
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-2
Matrix: Solid
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:48	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 11:31	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 01:37	MME	TAL EDI

Client Sample ID: SB-301-1.5
Date Collected: 10/02/18 09:00
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-301-1.5
Date Collected: 10/02/18 09:00
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-3
Matrix: Solid
Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557207	10/04/18 00:44	AVM	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Client Sample ID: SB-301-1.5
Date Collected: 10/02/18 09:00
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-3
Matrix: Solid
Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	557808	10/06/18 03:30	AAT	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 04:28	MME	TAL EDI

Client Sample ID: SB-301-5.5
Date Collected: 10/02/18 09:05
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-301-5.5
Date Collected: 10/02/18 09:05
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-4
Matrix: Solid
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:49	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 12:45	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 02:01	MME	TAL EDI

Client Sample ID: SB-302-4
Date Collected: 10/02/18 09:50
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-302-4
Date Collected: 10/02/18 09:50
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-5
Matrix: Solid
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:49	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 13:10	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 04:04	MME	TAL EDI

Client Sample ID: SB-302-9
Lab Sample ID: 460-165942-6
Date Collected: 10/02/18 09:55
Matrix: Solid
Date Received: 10/02/18 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-302-9
Lab Sample ID: 460-165942-6
Date Collected: 10/02/18 09:55
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 95.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:49	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 13:34	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 02:26	MME	TAL EDI

Client Sample ID: SB-303-2.5
Lab Sample ID: 460-165942-7
Date Collected: 10/02/18 10:35
Matrix: Solid
Date Received: 10/02/18 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-303-2.5
Lab Sample ID: 460-165942-7
Date Collected: 10/02/18 10:35
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:50	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 13:58	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 04:53	MME	TAL EDI

Client Sample ID: SB-303-4.5
Lab Sample ID: 460-165942-8
Date Collected: 10/02/18 10:40
Matrix: Solid
Date Received: 10/02/18 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-303-4.5
Lab Sample ID: 460-165942-8
Date Collected: 10/02/18 10:40
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:50	AVM	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Client Sample ID: SB-303-4.5

Lab Sample ID: 460-165942-8
Date Collected: 10/02/18 10:40
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	557233	10/04/18 14:22	DAS	TAL EDI
Total/NA	Prep	3546			557812	10/05/18 18:35	GRB	TAL EDI
Total/NA	Analysis	8270D		1	557860	10/06/18 04:15	YAH	TAL EDI

Client Sample ID: SB-304-2

Lab Sample ID: 460-165942-9
Date Collected: 10/02/18 10:15
Matrix: Solid
Date Received: 10/02/18 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-304-2

Lab Sample ID: 460-165942-9
Date Collected: 10/02/18 10:15
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:50	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 14:46	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 05:17	MME	TAL EDI

Client Sample ID: SB-304-4

Lab Sample ID: 460-165942-10
Date Collected: 10/02/18 10:20
Matrix: Solid
Date Received: 10/02/18 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-304-4

Lab Sample ID: 460-165942-10
Date Collected: 10/02/18 10:20
Matrix: Solid
Date Received: 10/02/18 14:15
Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:51	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 15:11	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 03:15	MME	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Client Sample ID: SB-305-4
Date Collected: 10/02/18 11:40
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-305-4
Date Collected: 10/02/18 11:40
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-11
Matrix: Solid
Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:51	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 15:35	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	558238	10/08/18 13:15	FAM	TAL EDI

Client Sample ID: SB-305-6
Date Collected: 10/02/18 11:45
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	557574	10/05/18 04:14	APV	TAL EDI

Client Sample ID: SB-305-6
Date Collected: 10/02/18 11:45
Date Received: 10/02/18 14:15

Lab Sample ID: 460-165942-12
Matrix: Solid
Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			557208	10/04/18 00:51	AVM	TAL EDI
Total/NA	Analysis	8260C		1	557233	10/04/18 15:59	DAS	TAL EDI
Total/NA	Prep	3546			557276	10/04/18 06:31	KMH	TAL EDI
Total/NA	Analysis	8270D		1	557478	10/05/18 03:39	MME	TAL EDI

Laboratory References:
TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. TestAmerica Job ID: 460-165942-1
Project/Site: Collins St. Act 2

Laboratory: TestAmerica Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-18
New Jersey	NELAP	2	12028	06-30-19
New York	NELAP	2	11452	04-01-19
Pennsylvania	NELAP	3	68-00522	02-28-19
Rhode Island	State Program	1	LAO00132	12-30-18
USDA	Federal		NJCA-003-08	06-13-20

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins St. Act 2

TestAmerica Job ID: 460-165942-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-165942-1	SB-300-3	Solid	10/02/18 09:15	10/02/18 14:15
460-165942-2	SB-300-7.5	Solid	10/02/18 09:20	10/02/18 14:15
460-165942-3	SB-301-1.5	Solid	10/02/18 09:00	10/02/18 14:15
460-165942-4	SB-301-5.5	Solid	10/02/18 09:05	10/02/18 14:15
460-165942-5	SB-302-4	Solid	10/02/18 09:50	10/02/18 14:15
460-165942-6	SB-302-9	Solid	10/02/18 09:55	10/02/18 14:15
460-165942-7	SB-303-2.5	Solid	10/02/18 10:35	10/02/18 14:15
460-165942-8	SB-303-4.5	Solid	10/02/18 10:40	10/02/18 14:15
460-165942-9	SB-304-2	Solid	10/02/18 10:15	10/02/18 14:15
460-165942-10	SB-304-4	Solid	10/02/18 10:20	10/02/18 14:15
460-165942-11	SB-305-4	Solid	10/02/18 11:40	10/02/18 14:15
460-165942-12	SB-305-6	Solid	10/02/18 11:45	10/02/18 14:15

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

9.5°C KOP-1 rec. on ice. JK 10/2/18

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
J.Lyaznski, V.Jones Long, W.Hungarter	V. Jones Long	Collins St. Act 2
Company: RT Environmental	P. O. #: 2043-20-02	State (Location of site): NJ: ☐ NY: ☐ Other: PA
Address		Regulatory Program: DKQP: ☐
City: KOP State: PA	Analysis Turnaround Time: Standard ☒	LAB USE ONLY Project No:
Phone: Fax:	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	Job No: 165942

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	DEP Fuel No. 2-9	VOCs	Sample Numbers
SB-300-3	10/2/18	9:15	Soil	5	X	X	
SB-300-7.5		9:20					
SB-301-1.5		9:00					
SB-301-5.5		9:05					
SB-302-4		950					
SB-302-9		955					
SB-303-2.5		1035					
SB-303-4.5		1040					
SB-304-2		1015					
SB-304-4		1020					

460-165942 Chain of Custody

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other MeOH, 7 = Other DI

Soil: 1,6,7 1,6,7 Water:

Special Instructions Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1)	RT Env	10/2/18 14:15	1)	TA-KOP
2)	TA KOP	10-3-18 1000	2)	
3)		10-3-18 2130	3)	TAEL 10/3/18 8/30
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

9.5°C KOP-1
rec. on ice.
JK 10/2/18

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
J. Lydzinski, V. Jones Cong, W. Hunger	V. James Cong	Collins St. Act 2
Company: RT Environmental	P. O. #: 2043-20-02	State (Location of site): NJ: ☐ NY: ☐ Other: PA
Address:	Analysis Turnaround Time: Standard ☒	Regulatory Program: DKQP: ☐
City: KOP State: PA	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone: Fax:		Job No: 165942

Sample Identification	Date	Time	Matrix	No. of Cont.	DEP Rule 2-20	VOCs	Sample Numbers
SB-305-4	10/2/18	1140	Soil	5	X	X	
SB-305-6	1	1145	1	5	X	X	

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH; 6 = Other DI, 7 = Other MeOH

Soil: 1,6,7 1,6,7 Water:

Special Instructions Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1)	RTEnv	10/2/18 16:15	1)	TA-KOP
2)	TA KOP	10-3-18 1800	2)	Test
3)	Test	10-3-18 2130	3)	TAKOP 10/3/18 2130
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 1605942

Number of Coolers: 1 IR Gun #: KQ1

Cooler Temperatures °C

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	9.5	9.5	Cooler #4:			Cooler #7:		
Cooler #2:			Cooler #5:			Cooler #8:		
Cooler #3:			Cooler #6:			Cooler #9:		

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: JG Date: 10/3

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 460-165942-1

Login Number: 165942
List Number: 1
Creator: Gilmore, Julie L

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 9.5
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORTS (SOIL/GAS)

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

TestAmerica Job ID: 200-45699-1
Client Project/Site: Collins Street Act 2

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: John Lydzinski

Jill Miller

Authorized for release by:
10/29/2018 2:53:21 PM

Jill Miller, Project Manager II
(484)685-0871
jill.miller@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Lab Chronicle 15
Certification Summary 16
Method Summary 17
Sample Summary 18
Chain of Custody 19
Receipt Checklists 21

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street Act 2

TestAmerica Job ID: 200-45699-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 200-45699-1

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: RT Environmental Services, Inc.

Project: Collins Street Act 2

Report Number: 200-45699-1

The samples in this sample set were analyzed by the EPA Compendium Method TO-15 for specific volatile organic constituents. Unless otherwise noted below, the analytical work followed the requirements outlined in the New Jersey DEP guidelines.

The practice of the laboratory is to analyze one canister from each batch of canisters that have been cleaned for re-use in order to certify the batch. The canisters that were used for this sampling event were from multiple batches. The certifying analyses were free of target analytes down to the concentration levels that are contractually required (nominally 0.2 PPBV). In order to provide for the lower level of detection required for canister certification, the laboratory analyzed a 500 milliliter volume. The laboratory's established practice for the analysis of field samples is based on the analysis of a 200 milliliter sample volume. Documentation of the analytical work supporting canister certification is included in the "Clean Can Certification" section of this submittal. Documentation of canister vacuum as delivered to, and received from, the field is included in the "Clean Can Certification" section of this submittal.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration are qualified on the quantitation reports, and extracted ion current profiles are included in the data package.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Chromatography Column - Restek RTX-624
Length - 60 meters
Inner Diameter - 0.32 millimeters
Film thickness - 1.8 micrometers
Trap Design - Entech Model 7100A (glass bead and Tenax with cryo-focusing)

A summary of the laboratory's current Method Detection Limits (MDLs) has been provided as part of this submittal, immediately following this transmittal letter.

RECEIPT

The samples were received on 10/12/2018; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was C.

VOLATILE ORGANIC COMPOUNDS

Samples SV-2 (200-45699-1), SV-1 (200-45699-2) and SV-3 (200-45699-3) were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 10/17/2018.

Samples SV-2 (200-45699-1)[10X], SV-1 (200-45699-2)[10X], SV-3 (200-45699-3)[10X] and SV-3 (200-45699-3)[49.7X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: RT Environmental Services, Inc.
Project/Site: Collins Street Act 2

TestAmerica Job ID: 200-45699-1

Client Sample ID: SV-2
Date Collected: 10/11/18 10:16
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Lab Sample ID: 200-45699-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
Freon 22	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Chloromethane	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
n-Butane	**10**		5.0		ppb v/v			10/17/18 05:16	10
Vinyl chloride	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,3-Butadiene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Bromomethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Chloroethane	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Freon TF	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Acetone	50	U	50		ppb v/v			10/17/18 05:16	10
Isopropyl alcohol	50	U	50		ppb v/v			10/17/18 05:16	10
Carbon disulfide	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
3-Chloropropene	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
Methylene Chloride	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
tert-Butyl alcohol	50	U	50		ppb v/v			10/17/18 05:16	10
Methyl tert-butyl ether	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
trans-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
n-Hexane	**4.7**		2.0		ppb v/v			10/17/18 05:16	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Methyl Ethyl Ketone	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,2-Dichloroethene, Total	4.0	U	4.0		ppb v/v			10/17/18 05:16	10
Chloroform	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Tetrahydrofuran	50	U	50		ppb v/v			10/17/18 05:16	10
1,1,1-Trichloroethane	**12**		2.0		ppb v/v			10/17/18 05:16	10
Cyclohexane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Carbon tetrachloride	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
2,2,4-Trimethylpentane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Benzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
n-Heptane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Trichloroethene	**49**		2.0		ppb v/v			10/17/18 05:16	10
Methyl methacrylate	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,4-Dioxane	50	U	50		ppb v/v			10/17/18 05:16	10
Bromodichloromethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
methyl isobutyl ketone	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
Toluene	**5.9**		2.0		ppb v/v			10/17/18 05:16	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Tetrachloroethene	**140**		2.0		ppb v/v			10/17/18 05:16	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
Dibromochloromethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10

Client: RT Environmental Services, Inc.
Project/Site: Collins Street Act 2

TestAmerica Job ID: 200-45699-1

Client Sample ID: SV-2
Date Collected: 10/11/18 10:16
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Lab Sample ID: 200-45699-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Chlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Ethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
m,p-Xylene	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
Xylene, o-	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Xylene (total)	7.0	U	7.0		ppb v/v			10/17/18 05:16	10
Styrene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Bromoform	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Cumene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
n-Propylbenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
4-Ethyltoluene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
2-Chlorotoluene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
tert-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
sec-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
4-Isopropyltoluene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Benzyl chloride	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
n-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			10/17/18 05:16	10
Hexachlorobutadiene	2.0	U	2.0		ppb v/v			10/17/18 05:16	10
Naphthalene	5.0	U	5.0		ppb v/v			10/17/18 05:16	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			10/17/18 05:16	10
Freon 22	18	U	18		ug/m3			10/17/18 05:16	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			10/17/18 05:16	10
Chloromethane	10	U	10		ug/m3			10/17/18 05:16	10
n-Butane	**25**		12		ug/m3			10/17/18 05:16	10
Vinyl chloride	5	U	5		ug/m3			10/17/18 05:16	10
1,3-Butadiene	4	U	4		ug/m3			10/17/18 05:16	10
Bromomethane	8	U	8		ug/m3			10/17/18 05:16	10
Chloroethane	13	U	13		ug/m3			10/17/18 05:16	10
Bromoethene(Vinyl Bromide)	9	U	9		ug/m3			10/17/18 05:16	10
Trichlorofluoromethane	11	U	11		ug/m3			10/17/18 05:16	10
Freon TF	15	U	15		ug/m3			10/17/18 05:16	10
1,1-Dichloroethene	8	U	8		ug/m3			10/17/18 05:16	10
Acetone	120	U	120		ug/m3			10/17/18 05:16	10
Isopropyl alcohol	120	U	120		ug/m3			10/17/18 05:16	10
Carbon disulfide	16	U	16		ug/m3			10/17/18 05:16	10
3-Chloropropene	16	U	16		ug/m3			10/17/18 05:16	10
Methylene Chloride	17	U	17		ug/m3			10/17/18 05:16	10
tert-Butyl alcohol	150	U	150		ug/m3			10/17/18 05:16	10
Methyl tert-butyl ether	7	U	7		ug/m3			10/17/18 05:16	10
trans-1,2-Dichloroethene	8	U	8		ug/m3			10/17/18 05:16	10

Client Sample ID: SV-2
Date Collected: 10/11/18 10:16
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Lab Sample ID: 200-45699-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane	**17**		7		ug/m3			10/17/18 05:16	10
1,1-Dichloroethane	8	U	8		ug/m3			10/17/18 05:16	10
Methyl Ethyl Ketone	15	U	15		ug/m3			10/17/18 05:16	10
cis-1,2-Dichloroethene	8	U	8		ug/m3			10/17/18 05:16	10
1,2-Dichloroethene, Total	16	U	16		ug/m3			10/17/18 05:16	10
Chloroform	10	U	10		ug/m3			10/17/18 05:16	10
Tetrahydrofuran	150	U	150		ug/m3			10/17/18 05:16	10
1,1,1-Trichloroethane	**66**		11		ug/m3			10/17/18 05:16	10
Cyclohexane	7	U	7		ug/m3			10/17/18 05:16	10
Carbon tetrachloride	13	U	13		ug/m3			10/17/18 05:16	10
2,2,4-Trimethylpentane	9	U	9		ug/m3			10/17/18 05:16	10
Benzene	6	U	6		ug/m3			10/17/18 05:16	10
1,2-Dichloroethane	8	U	8		ug/m3			10/17/18 05:16	10
n-Heptane	8	U	8		ug/m3			10/17/18 05:16	10
Trichloroethene	**260**		11		ug/m3			10/17/18 05:16	10
Methyl methacrylate	20	U	20		ug/m3			10/17/18 05:16	10
1,2-Dichloropropane	9	U	9		ug/m3			10/17/18 05:16	10
1,4-Dioxane	180	U	180		ug/m3			10/17/18 05:16	10
Bromodichloromethane	13	U	13		ug/m3			10/17/18 05:16	10
cis-1,3-Dichloropropene	9	U	9		ug/m3			10/17/18 05:16	10
methyl isobutyl ketone	20	U	20		ug/m3			10/17/18 05:16	10
Toluene	**22**		8		ug/m3			10/17/18 05:16	10
trans-1,3-Dichloropropene	9	U	9		ug/m3			10/17/18 05:16	10
1,1,2-Trichloroethane	11	U	11		ug/m3			10/17/18 05:16	10
Tetrachloroethene	**970**		14		ug/m3			10/17/18 05:16	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20		ug/m3			10/17/18 05:16	10
Dibromochloromethane	17	U	17		ug/m3			10/17/18 05:16	10
1,2-Dibromoethane	15	U	15		ug/m3			10/17/18 05:16	10
Chlorobenzene	9	U	9		ug/m3			10/17/18 05:16	10
Ethylbenzene	9	U	9		ug/m3			10/17/18 05:16	10
m,p-Xylene	22	U	22		ug/m3			10/17/18 05:16	10
Xylene, o-	9	U	9		ug/m3			10/17/18 05:16	10
Xylene (total)	30	U	30		ug/m3			10/17/18 05:16	10
Styrene	9	U	9		ug/m3			10/17/18 05:16	10
Bromoform	21	U	21		ug/m3			10/17/18 05:16	10
Cumene	10	U	10		ug/m3			10/17/18 05:16	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			10/17/18 05:16	10
n-Propylbenzene	10	U	10		ug/m3			10/17/18 05:16	10
4-Ethyltoluene	10	U	10		ug/m3			10/17/18 05:16	10
1,3,5-Trimethylbenzene	10	U	10		ug/m3			10/17/18 05:16	10
2-Chlorotoluene	10	U	10		ug/m3			10/17/18 05:16	10
tert-Butylbenzene	11	U	11		ug/m3			10/17/18 05:16	10
1,2,4-Trimethylbenzene	10	U	10		ug/m3			10/17/18 05:16	10
sec-Butylbenzene	11	U	11		ug/m3			10/17/18 05:16	10
4-Isopropyltoluene	11	U	11		ug/m3			10/17/18 05:16	10
1,3-Dichlorobenzene	12	U	12		ug/m3			10/17/18 05:16	10
1,4-Dichlorobenzene	12	U	12		ug/m3			10/17/18 05:16	10
Benzyl chloride	10	U	10		ug/m3			10/17/18 05:16	10

Client Sample ID: SV-2

Lab Sample ID: 200-45699-1
Matrix: Air
Date Collected: 10/11/18 10:16
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	11	U	11		ug/m3			10/17/18 05:16	10
1,2-Dichlorobenzene	12	U	12		ug/m3			10/17/18 05:16	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			10/17/18 05:16	10
Hexachlorobutadiene	21	U	21		ug/m3			10/17/18 05:16	10
Naphthalene	26	U	26		ug/m3			10/17/18 05:16	10

Client Sample ID: SV-1

Lab Sample ID: 200-45699-2
Matrix: Air
Date Collected: 10/11/18 11:06
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
Freon 22	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Chloromethane	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
n-Butane	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
Vinyl chloride	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,3-Butadiene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Bromomethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Chloroethane	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Freon TF	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Acetone	50	U	50		ppb v/v			10/17/18 06:08	10
Isopropyl alcohol	50	U	50		ppb v/v			10/17/18 06:08	10
Carbon disulfide	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
3-Chloropropene	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
Methylene Chloride	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
tert-Butyl alcohol	50	U	50		ppb v/v			10/17/18 06:08	10
Methyl tert-butyl ether	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
trans-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
n-Hexane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Methyl Ethyl Ketone	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,2-Dichloroethene, Total	4.0	U	4.0		ppb v/v			10/17/18 06:08	10
Chloroform	**12**		2.0		ppb v/v			10/17/18 06:08	10
Tetrahydrofuran	50	U	50		ppb v/v			10/17/18 06:08	10
1,1,1-Trichloroethane	**8.8**		2.0		ppb v/v			10/17/18 06:08	10
Cyclohexane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Carbon tetrachloride	**14**		2.0		ppb v/v			10/17/18 06:08	10
2,2,4-Trimethylpentane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Benzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
n-Heptane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Trichloroethene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10

Client Sample ID: SV-1
Date Collected: 10/11/18 11:06
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Lab Sample ID: 200-45699-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,4-Dioxane	50	U	50		ppb v/v			10/17/18 06:08	10
Bromodichloromethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
methyl isobutyl ketone	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
Toluene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Tetrachloroethene	**220**		2.0		ppb v/v			10/17/18 06:08	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
Dibromochloromethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Chlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Ethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
m,p-Xylene	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
Xylene, o-	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Xylene (total)	7.0	U	7.0		ppb v/v			10/17/18 06:08	10
Styrene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Bromoform	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Cumene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
n-Propylbenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
4-Ethyltoluene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
2-Chlorotoluene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
tert-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
sec-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
4-Isopropyltoluene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Benzyl chloride	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
n-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			10/17/18 06:08	10
Hexachlorobutadiene	2.0	U	2.0		ppb v/v			10/17/18 06:08	10
Naphthalene	5.0	U	5.0		ppb v/v			10/17/18 06:08	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			10/17/18 06:08	10
Freon 22	18	U	18		ug/m3			10/17/18 06:08	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			10/17/18 06:08	10
Chloromethane	10	U	10		ug/m3			10/17/18 06:08	10
n-Butane	12	U	12		ug/m3			10/17/18 06:08	10
Vinyl chloride	5	U	5		ug/m3			10/17/18 06:08	10
1,3-Butadiene	4	U	4		ug/m3			10/17/18 06:08	10
Bromomethane	8	U	8		ug/m3			10/17/18 06:08	10
Chloroethane	13	U	13		ug/m3			10/17/18 06:08	10

Client Sample ID: SV-1
Date Collected: 10/11/18 11:06
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Lab Sample ID: 200-45699-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoethene(Vinyl Bromide)	9	U	9		ug/m3			10/17/18 06:08	10
Trichlorofluoromethane	11	U	11		ug/m3			10/17/18 06:08	10
Freon TF	15	U	15		ug/m3			10/17/18 06:08	10
1,1-Dichloroethene	8	U	8		ug/m3			10/17/18 06:08	10
Acetone	120	U	120		ug/m3			10/17/18 06:08	10
Isopropyl alcohol	120	U	120		ug/m3			10/17/18 06:08	10
Carbon disulfide	16	U	16		ug/m3			10/17/18 06:08	10
3-Chloropropene	16	U	16		ug/m3			10/17/18 06:08	10
Methylene Chloride	17	U	17		ug/m3			10/17/18 06:08	10
tert-Butyl alcohol	150	U	150		ug/m3			10/17/18 06:08	10
Methyl tert-butyl ether	7	U	7		ug/m3			10/17/18 06:08	10
trans-1,2-Dichloroethene	8	U	8		ug/m3			10/17/18 06:08	10
n-Hexane	7	U	7		ug/m3			10/17/18 06:08	10
1,1-Dichloroethane	8	U	8		ug/m3			10/17/18 06:08	10
Methyl Ethyl Ketone	15	U	15		ug/m3			10/17/18 06:08	10
cis-1,2-Dichloroethene	8	U	8		ug/m3			10/17/18 06:08	10
1,2-Dichloroethene, Total	16	U	16		ug/m3			10/17/18 06:08	10
Chloroform	**57**		10		ug/m3			10/17/18 06:08	10
Tetrahydrofuran	150	U	150		ug/m3			10/17/18 06:08	10
1,1,1-Trichloroethane	**48**		11		ug/m3			10/17/18 06:08	10
Cyclohexane	7	U	7		ug/m3			10/17/18 06:08	10
Carbon tetrachloride	**88**		13		ug/m3			10/17/18 06:08	10
2,2,4-Trimethylpentane	9	U	9		ug/m3			10/17/18 06:08	10
Benzene	6	U	6		ug/m3			10/17/18 06:08	10
1,2-Dichloroethane	8	U	8		ug/m3			10/17/18 06:08	10
n-Heptane	8	U	8		ug/m3			10/17/18 06:08	10
Trichloroethene	11	U	11		ug/m3			10/17/18 06:08	10
Methyl methacrylate	20	U	20		ug/m3			10/17/18 06:08	10
1,2-Dichloropropane	9	U	9		ug/m3			10/17/18 06:08	10
1,4-Dioxane	180	U	180		ug/m3			10/17/18 06:08	10
Bromodichloromethane	13	U	13		ug/m3			10/17/18 06:08	10
cis-1,3-Dichloropropene	9	U	9		ug/m3			10/17/18 06:08	10
methyl isobutyl ketone	20	U	20		ug/m3			10/17/18 06:08	10
Toluene	8	U	8		ug/m3			10/17/18 06:08	10
trans-1,3-Dichloropropene	9	U	9		ug/m3			10/17/18 06:08	10
1,1,2-Trichloroethane	11	U	11		ug/m3			10/17/18 06:08	10
Tetrachloroethene	**1500**		14		ug/m3			10/17/18 06:08	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20		ug/m3			10/17/18 06:08	10
Dibromochloromethane	17	U	17		ug/m3			10/17/18 06:08	10
1,2-Dibromoethane	15	U	15		ug/m3			10/17/18 06:08	10
Chlorobenzene	9	U	9		ug/m3			10/17/18 06:08	10
Ethylbenzene	9	U	9		ug/m3			10/17/18 06:08	10
m,p-Xylene	22	U	22		ug/m3			10/17/18 06:08	10
Xylene, o-	9	U	9		ug/m3			10/17/18 06:08	10
Xylene (total)	30	U	30		ug/m3			10/17/18 06:08	10
Styrene	9	U	9		ug/m3			10/17/18 06:08	10
Bromoform	21	U	21		ug/m3			10/17/18 06:08	10
Cumene	10	U	10		ug/m3			10/17/18 06:08	10

Client Sample ID: SV-1

Lab Sample ID: 200-45699-2

Date Collected: 10/11/18 11:06
Matrix: Air
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			10/17/18 06:08	10
n-Propylbenzene	10	U	10		ug/m3			10/17/18 06:08	10
4-Ethyltoluene	10	U	10		ug/m3			10/17/18 06:08	10
1,3,5-Trimethylbenzene	10	U	10		ug/m3			10/17/18 06:08	10
2-Chlorotoluene	10	U	10		ug/m3			10/17/18 06:08	10
tert-Butylbenzene	11	U	11		ug/m3			10/17/18 06:08	10
1,2,4-Trimethylbenzene	10	U	10		ug/m3			10/17/18 06:08	10
sec-Butylbenzene	11	U	11		ug/m3			10/17/18 06:08	10
4-Isopropyltoluene	11	U	11		ug/m3			10/17/18 06:08	10
1,3-Dichlorobenzene	12	U	12		ug/m3			10/17/18 06:08	10
1,4-Dichlorobenzene	12	U	12		ug/m3			10/17/18 06:08	10
Benzyl chloride	10	U	10		ug/m3			10/17/18 06:08	10
n-Butylbenzene	11	U	11		ug/m3			10/17/18 06:08	10
1,2-Dichlorobenzene	12	U	12		ug/m3			10/17/18 06:08	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			10/17/18 06:08	10
Hexachlorobutadiene	21	U	21		ug/m3			10/17/18 06:08	10
Naphthalene	26	U	26		ug/m3			10/17/18 06:08	10

Client Sample ID: SV-3

Lab Sample ID: 200-45699-3

Date Collected: 10/11/18 12:28
Matrix: Air
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
Freon 22	**24**		5.0		ppb v/v			10/17/18 08:55	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Chloromethane	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
n-Butane	**5.3**		5.0		ppb v/v			10/17/18 08:55	10
Vinyl chloride	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,3-Butadiene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Bromomethane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Chloroethane	**6.5**		5.0		ppb v/v			10/17/18 08:55	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Freon TF	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,1-Dichloroethene	**14**		2.0		ppb v/v			10/17/18 08:55	10
Acetone	50	U	50		ppb v/v			10/17/18 08:55	10
Isopropyl alcohol	50	U	50		ppb v/v			10/17/18 08:55	10
Carbon disulfide	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
3-Chloropropene	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
Methylene Chloride	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
tert-Butyl alcohol	50	U	50		ppb v/v			10/17/18 08:55	10
Methyl tert-butyl ether	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
trans-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
n-Hexane	**2.0**		2.0		ppb v/v			10/17/18 08:55	10
1,1-Dichloroethane	**180**		2.0		ppb v/v			10/17/18 08:55	10
Methyl Ethyl Ketone	5.0	U	5.0		ppb v/v			10/17/18 08:55	10

Client Sample ID: SV-3
Date Collected: 10/11/18 12:28
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Lab Sample ID: 200-45699-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**14**		2.0		ppb v/v			10/17/18 08:55	10
1,2-Dichloroethene, Total	**14**		4.0		ppb v/v			10/17/18 08:55	10
Tetrahydrofuran	50	U	50		ppb v/v			10/17/18 08:55	10
Cyclohexane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
2,2,4-Trimethylpentane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Benzene	**2.3**		2.0		ppb v/v			10/17/18 08:55	10
1,2-Dichloroethane	**9.6**		2.0		ppb v/v			10/17/18 08:55	10
n-Heptane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Trichloroethene	**270**		2.0		ppb v/v			10/17/18 08:55	10
Methyl methacrylate	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,4-Dioxane	50	U	50		ppb v/v			10/17/18 08:55	10
Bromodichloromethane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
methyl isobutyl ketone	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
Toluene	**9.1**		2.0		ppb v/v			10/17/18 08:55	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Tetrachloroethene	**65**		2.0		ppb v/v			10/17/18 08:55	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
Dibromochloromethane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Chlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Ethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
m,p-Xylene	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
Xylene, o-	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Xylene (total)	7.0	U	7.0		ppb v/v			10/17/18 08:55	10
Styrene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Bromoform	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Cumene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
n-Propylbenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
4-Ethyltoluene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
2-Chlorotoluene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
tert-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
sec-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
4-Isopropyltoluene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Benzyl chloride	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
n-Butylbenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			10/17/18 08:55	10
Hexachlorobutadiene	2.0	U	2.0		ppb v/v			10/17/18 08:55	10
Naphthalene	5.0	U	5.0		ppb v/v			10/17/18 08:55	10

Client Sample ID: SV-3

Date Collected: 10/11/18 12:28
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Lab Sample ID: 200-45699-3

Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			10/17/18 08:55	10
Freon 22	**85**		18		ug/m3			10/17/18 08:55	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			10/17/18 08:55	10
Chloromethane	10	U	10		ug/m3			10/17/18 08:55	10
n-Butane	**13**		12		ug/m3			10/17/18 08:55	10
Vinyl chloride	5	U	5		ug/m3			10/17/18 08:55	10
1,3-Butadiene	4	U	4		ug/m3			10/17/18 08:55	10
Bromomethane	8	U	8		ug/m3			10/17/18 08:55	10
Chloroethane	**17**		13		ug/m3			10/17/18 08:55	10
Bromoethene(Vinyl Bromide)	9	U	9		ug/m3			10/17/18 08:55	10
Trichlorofluoromethane	11	U	11		ug/m3			10/17/18 08:55	10
Freon TF	15	U	15		ug/m3			10/17/18 08:55	10
1,1-Dichloroethene	**57**		8		ug/m3			10/17/18 08:55	10
Acetone	120	U	120		ug/m3			10/17/18 08:55	10
Isopropyl alcohol	120	U	120		ug/m3			10/17/18 08:55	10
Carbon disulfide	16	U	16		ug/m3			10/17/18 08:55	10
3-Chloropropene	16	U	16		ug/m3			10/17/18 08:55	10
Methylene Chloride	17	U	17		ug/m3			10/17/18 08:55	10
tert-Butyl alcohol	150	U	150		ug/m3			10/17/18 08:55	10
Methyl tert-butyl ether	7	U	7		ug/m3			10/17/18 08:55	10
trans-1,2-Dichloroethene	8	U	8		ug/m3			10/17/18 08:55	10
n-Hexane	**7**		7		ug/m3			10/17/18 08:55	10
1,1-Dichloroethane	**710**		8		ug/m3			10/17/18 08:55	10
Methyl Ethyl Ketone	15	U	15		ug/m3			10/17/18 08:55	10
cis-1,2-Dichloroethene	**54**		8		ug/m3			10/17/18 08:55	10
1,2-Dichloroethene, Total	**56**		16		ug/m3			10/17/18 08:55	10
Tetrahydrofuran	150	U	150		ug/m3			10/17/18 08:55	10
Cyclohexane	7	U	7		ug/m3			10/17/18 08:55	10
2,2,4-Trimethylpentane	9	U	9		ug/m3			10/17/18 08:55	10
Benzene	**7**		6		ug/m3			10/17/18 08:55	10
1,2-Dichloroethane	**39**		8		ug/m3			10/17/18 08:55	10
n-Heptane	8	U	8		ug/m3			10/17/18 08:55	10
Trichloroethene	**1500**		11		ug/m3			10/17/18 08:55	10
Methyl methacrylate	20	U	20		ug/m3			10/17/18 08:55	10
1,2-Dichloropropane	9	U	9		ug/m3			10/17/18 08:55	10
1,4-Dioxane	180	U	180		ug/m3			10/17/18 08:55	10
Bromodichloromethane	13	U	13		ug/m3			10/17/18 08:55	10
cis-1,3-Dichloropropene	9	U	9		ug/m3			10/17/18 08:55	10
methyl isobutyl ketone	20	U	20		ug/m3			10/17/18 08:55	10
Toluene	**34**		8		ug/m3			10/17/18 08:55	10
trans-1,3-Dichloropropene	9	U	9		ug/m3			10/17/18 08:55	10
1,1,2-Trichloroethane	11	U	11		ug/m3			10/17/18 08:55	10
Tetrachloroethene	**440**		14		ug/m3			10/17/18 08:55	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20		ug/m3			10/17/18 08:55	10
Dibromochloromethane	17	U	17		ug/m3			10/17/18 08:55	10
1,2-Dibromoethane	15	U	15		ug/m3			10/17/18 08:55	10
Chlorobenzene	9	U	9		ug/m3			10/17/18 08:55	10
Ethylbenzene	9	U	9		ug/m3			10/17/18 08:55	10
m,p-Xylene	22	U	22		ug/m3			10/17/18 08:55	10

Client Sample ID: SV-3
Date Collected: 10/11/18 12:28
Date Received: 10/12/18 10:35
Sample Container: Summa Canister 1L

Lab Sample ID: 200-45699-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylene, o-	9	U	9		ug/m3			10/17/18 08:55	10
Xylene (total)	30	U	30		ug/m3			10/17/18 08:55	10
Styrene	9	U	9		ug/m3			10/17/18 08:55	10
Bromoform	21	U	21		ug/m3			10/17/18 08:55	10
Cumene	10	U	10		ug/m3			10/17/18 08:55	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			10/17/18 08:55	10
n-Propylbenzene	10	U	10		ug/m3			10/17/18 08:55	10
4-Ethyltoluene	10	U	10		ug/m3			10/17/18 08:55	10
1,3,5-Trimethylbenzene	10	U	10		ug/m3			10/17/18 08:55	10
2-Chlorotoluene	10	U	10		ug/m3			10/17/18 08:55	10
tert-Butylbenzene	11	U	11		ug/m3			10/17/18 08:55	10
1,2,4-Trimethylbenzene	10	U	10		ug/m3			10/17/18 08:55	10
sec-Butylbenzene	11	U	11		ug/m3			10/17/18 08:55	10
4-Isopropyltoluene	11	U	11		ug/m3			10/17/18 08:55	10
1,3-Dichlorobenzene	12	U	12		ug/m3			10/17/18 08:55	10
1,4-Dichlorobenzene	12	U	12		ug/m3			10/17/18 08:55	10
Benzyl chloride	10	U	10		ug/m3			10/17/18 08:55	10
n-Butylbenzene	11	U	11		ug/m3			10/17/18 08:55	10
1,2-Dichlorobenzene	12	U	12		ug/m3			10/17/18 08:55	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			10/17/18 08:55	10
Hexachlorobutadiene	21	U	21		ug/m3			10/17/18 08:55	10
Naphthalene	26	U	26		ug/m3			10/17/18 08:55	10

Method: TO-15 - Volatile Organic Compounds in Ambient Air - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	**1200**	**D**	9.9		ppb v/v			10/17/18 09:47	49.7
1,1,1-Trichloroethane	**990**	**D**	9.9		ppb v/v			10/17/18 09:47	49.7
Carbon tetrachloride	**880**	**D**	9.9		ppb v/v			10/17/18 09:47	49.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	**5600**	**D**	49		ug/m3			10/17/18 09:47	49.7
1,1,1-Trichloroethane	**5400**	**D**	54		ug/m3			10/17/18 09:47	49.7
Carbon tetrachloride	**5600**	**D**	63		ug/m3			10/17/18 09:47	49.7

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street Act 2

TestAmerica Job ID: 200-45699-1

Client Sample ID: SV-2
Lab Sample ID: 200-45699-1
Date Collected: 10/11/18 10:16
Matrix: Air
Date Received: 10/12/18 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	135305	10/17/18 05:16	K1P	TAL BUR

Client Sample ID: SV-1
Lab Sample ID: 200-45699-2
Date Collected: 10/11/18 11:06
Matrix: Air
Date Received: 10/12/18 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	135305	10/17/18 06:08	K1P	TAL BUR

Client Sample ID: SV-3
Lab Sample ID: 200-45699-3
Date Collected: 10/11/18 12:28
Matrix: Air
Date Received: 10/12/18 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	135305	10/17/18 08:55	K1P	TAL BUR
Total/NA	Analysis	TO-15	DL	49.7	135305	10/17/18 09:47	K1P	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. TestAmerica Job ID: 200-45699-1
Project/Site: Collins Street Act 2

Laboratory: TestAmerica Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD ELAP		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-19
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-18
New Hampshire	NELAP	1	2006	12-18-18
New Jersey	NELAP	2	VT972	06-30-19
New York	NELAP	2	10391	04-01-19
Pennsylvania	NELAP	3	68-00489	04-30-19
Rhode Island	State Program	1	LAO00298	12-30-18
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-18
Virginia	NELAP	3	460209	12-14-18

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street Act 2

TestAmerica Job ID: 200-45699-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street Act 2

TestAmerica Job ID: 200-45699-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-45699-1	SV-2	Air	10/11/18 10:16	10/12/18 10:35
200-45699-2	SV-1	Air	10/11/18 11:06	10/12/18 10:35
200-45699-3	SV-3	Air	10/11/18 12:28	10/12/18 10:35

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	**Client Project Manager:** J. Lydzinski	**Samples Collected By:** V. Jones Long
Company Name: RT Environmental	Phone:	
Address: 215 W. Church Rd	Email:	
City/State/Zip: King of Prussia, PA 19406	Site Contact:	
Phone:	Tel/Fax	
FAX:		
Project Name: Collins St. Act 2	**Anaylsis Turnaround Time**	
Site/Location: Philadelphia PA	Standard (Specific):	
PO# 2043-20-02	Rush (Specifiy):	

COC No: 1 of 1 COCs

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:
(See below for Add'l Items)

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-2	10-11-18	10:10	10:16	-30	-3	6289	3688	X														
SV-1	10-11-18	11:00	11:06	-30	-3	6343	3596	X														
~~SV-4~~	~~10-11-18~~	~~11:40~~				~~6114~~	~~4260~~	~~X~~														Do not analyze
SV-3	10-11-18	1220	12:28	-30	-3	6370	6329	X														

200-45699 Chain of Custody

Temperature (Fahrenheit)			
Start	Interior	Ambient	76
Stop			76

Pressure (inches of Hg)			
Start	Interior	Ambient	29.74
Stop			29.71

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	**Date / Time:** 10/10/18 13:41	**Samples Received by:** TA-KOP	
Samples Relinquished by: TA-KOP	**Date / Time:** 10/11/18 1343	**Received by:** Taylor Mann TA3JC	10/12/18 1035
Relinquished by:	**Date / Time:**	**Received by:**	

Lab Use Only: **Shipper Name:** **Opened by:** **Condition:** Intact

Form No. CA-C-WI-003, Rev. 2.5, dated 9/22/2017

10/29/2018



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID:KPDA (484) 685-0873
SHIPPING
TESTAMERICA KING OF PRUSSIA
1010 W 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 11OCT18
ACTWGT: 13.00 LB MAN
CAD: 0400947/CAFE3211

BILL RECIPIENT

TO SAMPLE RECEIPT
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE

SOUTH BURLINGTON VT 054036809
(802) 660-1990
INV:
PO:
REF:
DEPT:

FedEx Express

TRK# 0201 4321 2483 6834

FRI - 12 OCT 10:30A
PRIORITY OVERNIGHT

NC BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 200-45699-1

Login Number: 45699
List Number: 1
Creator: Hall, Samuel C

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	590723
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

TestAmerica Job ID: 200-47571-1
Client Project/Site: Collins Street

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: Aaron Schneider

Jill Miller

Authorized for release by:
3/8/2019 10:46:36 AM

Jill Miller, Senior Project Manager
(484)685-0871
jill.miller@testamericainc.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 6
Lab Chronicle 16
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 22

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 200-47571-1

Laboratory: TestAmerica Burlington

Narrative

Job Narrative
200-47571-1

Comments
No additional comments.

Receipt
The samples were received on 2/26/2019 10:37 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SV-2 (200-47571-2). The flow controller label lists 6077 <SAMPLE_ID>, while the COC lists 6707<SAMPLEID>. 6077 was used for the login.

The container label and flow controller label for the following sample did not match the information listed on the Chain-of-Custody (COC): SV-3 (200-47571-3). The flow controller ID and the Cannister ID were swapped on the COC for this sample.

Air Toxics
Method(s) TO-15: The continuing calibration verification (CCV) associated with batch 200-140447 recovered above the upper control limit for 4-Isopropyltoluene, n-Butylbenzene, Bromoform and Hexachlorobutadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SV-1 (200-47571-1), SV-2 (200-47571-2) and SV-3 (200-47571-3).

Method(s) TO-15: The laboratory control sample (LCS) for analytical batch 200-140447 recovered outside control limits for the following analytes: sec-Butylbenzene, 4-Isopropyltoluene, n-Butylbenzene, 1,2,4-Trimethylbenzene, tert-Butylbenzene and Hexachlorobutadiene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CASE NARRATIVE

Client: RT Environmental Services, Inc.

Project: Collins Street

Report Number: 200-47571-1

The samples in this sample set were analyzed by the EPA Compendium Method TO-15 for specific volatile organic constituents. Unless otherwise noted below, the analytical work followed the requirements outlined in the New Jersey DEP guidelines.

The practice of the laboratory is to analyze one canister from each batch of canisters that have been cleaned for re-use in order to certify the batch. The canisters that were used for this sampling event were from multiple batches. The certifying analyses were free of target analytes down to the concentration levels that are contractually required (nominally 0.2 PPBV). In order to provide for the lower level of detection required for canister certification, the laboratory analyzed a 500 milliliter volume. The laboratory's established practice for the analysis of field samples is based on the analysis of a 200 milliliter sample volume. Documentation of the analytical work supporting canister certification is included in the "Clean Can Certification" section of this submittal. Documentation of canister vacuum as delivered to, and received from, the field is included in the "Clean Can Certification" section of this submittal.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration

Job ID: 200-47571-1 (Continued)

Laboratory: TestAmerica Burlington (Continued)

are qualified on the quantitation reports, and extracted ion current profiles are included in the data package.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Chromatography Column - Restek RTX-624
Length - 60 meters
Inner Diameter - 0.32 millimeters
Film thickness - 1.8 micrometers
Trap Design - Entech Model 7100A (glass bead and Tenax with cryo-focusing)

A summary of the laboratory's current Method Detection Limits (MDLs) has been provided as part of this submittal, immediately following this transmittal letter.

RECEIPT

The samples were received on 02/26/2019; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was C.

VOLATILE ORGANIC COMPOUNDS

Samples SV-1 (200-47571-1), SV-2 (200-47571-2) and SV-3 (200-47571-3) were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 03/03/2019.

1,2,4-Trimethylbenzene, 4-Isopropyltoluene, Hexachlorobutadiene, n-Butylbenzene, sec-Butylbenzene and tert-Butylbenzene failed the recovery criteria high for LCS 200-140447/3. Refer to the QC report for details.

Samples SV-1 (200-47571-1)[10X], SV-2 (200-47571-2)[10X] and SV-3 (200-47571-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Client Sample ID: SV-1
Date Collected: 02/22/19 13:20
Date Received: 02/26/19 10:37
Sample Container: Summa Canister 1L

Lab Sample ID: 200-47571-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
Freon 22	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Chloromethane	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
n-Butane	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
Vinyl chloride	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,3-Butadiene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Bromomethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Chloroethane	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Freon TF	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Acetone	50	U	50		ppb v/v			03/03/19 03:49	10
Isopropyl alcohol	50	U	50		ppb v/v			03/03/19 03:49	10
Carbon disulfide	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
3-Chloropropene	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
Methylene Chloride	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
tert-Butyl alcohol	50	U	50		ppb v/v			03/03/19 03:49	10
Methyl tert-butyl ether	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
trans-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
n-Hexane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Methyl Ethyl Ketone	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,2-Dichloroethene, Total	4.0	U	4.0		ppb v/v			03/03/19 03:49	10
Chloroform	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Tetrahydrofuran	50	U	50		ppb v/v			03/03/19 03:49	10
1,1,1-Trichloroethane	**2.1**		2.0		ppb v/v			03/03/19 03:49	10
Cyclohexane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Carbon tetrachloride	**3.1**		2.0		ppb v/v			03/03/19 03:49	10
2,2,4-Trimethylpentane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Benzene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
n-Heptane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Trichloroethene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Methyl methacrylate	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,4-Dioxane	50	U	50		ppb v/v			03/03/19 03:49	10
Bromodichloromethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
methyl isobutyl ketone	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
Toluene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Tetrachloroethene	**50**		2.0		ppb v/v			03/03/19 03:49	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
Dibromochloromethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10

Client Sample ID: SV-1
Date Collected: 02/22/19 13:20
Date Received: 02/26/19 10:37
Sample Container: Summa Canister 1L

Lab Sample ID: 200-47571-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Chlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Ethylbenzene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
m,p-Xylene	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
Xylene, o-	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Xylene (total)	7.0	U	7.0		ppb v/v			03/03/19 03:49	10
Styrene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Bromoform	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Cumene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
n-Propylbenzene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
4-Ethyltoluene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
2-Chlorotoluene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
tert-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 03:49	10
1,2,4-Trimethylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 03:49	10
sec-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 03:49	10
4-Isopropyltoluene	2.0	U *	2.0		ppb v/v			03/03/19 03:49	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
Benzyl chloride	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
n-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 03:49	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 03:49	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			03/03/19 03:49	10
Hexachlorobutadiene	2.0	U *	2.0		ppb v/v			03/03/19 03:49	10
Naphthalene	5.0	U	5.0		ppb v/v			03/03/19 03:49	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			03/03/19 03:49	10
Freon 22	18	U	18		ug/m3			03/03/19 03:49	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			03/03/19 03:49	10
Chloromethane	10	U	10		ug/m3			03/03/19 03:49	10
n-Butane	12	U	12		ug/m3			03/03/19 03:49	10
Vinyl chloride	5	U	5		ug/m3			03/03/19 03:49	10
1,3-Butadiene	4	U	4		ug/m3			03/03/19 03:49	10
Bromomethane	8	U	8		ug/m3			03/03/19 03:49	10
Chloroethane	13	U	13		ug/m3			03/03/19 03:49	10
Bromoethene(Vinyl Bromide)	9	U	9		ug/m3			03/03/19 03:49	10
Trichlorofluoromethane	11	U	11		ug/m3			03/03/19 03:49	10
Freon TF	15	U	15		ug/m3			03/03/19 03:49	10
1,1-Dichloroethene	8	U	8		ug/m3			03/03/19 03:49	10
Acetone	120	U	120		ug/m3			03/03/19 03:49	10
Isopropyl alcohol	120	U	120		ug/m3			03/03/19 03:49	10
Carbon disulfide	16	U	16		ug/m3			03/03/19 03:49	10
3-Chloropropene	16	U	16		ug/m3			03/03/19 03:49	10
Methylene Chloride	17	U	17		ug/m3			03/03/19 03:49	10
tert-Butyl alcohol	150	U	150		ug/m3			03/03/19 03:49	10
Methyl tert-butyl ether	7	U	7		ug/m3			03/03/19 03:49	10
trans-1,2-Dichloroethene	8	U	8		ug/m3			03/03/19 03:49	10

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Client Sample ID: SV-1
Date Collected: 02/22/19 13:20
Date Received: 02/26/19 10:37
Sample Container: Summa Canister 1L

Lab Sample ID: 200-47571-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane	7	U	7		ug/m3			03/03/19 03:49	10
1,1-Dichloroethane	8	U	8		ug/m3			03/03/19 03:49	10
Methyl Ethyl Ketone	15	U	15		ug/m3			03/03/19 03:49	10
cis-1,2-Dichloroethene	8	U	8		ug/m3			03/03/19 03:49	10
1,2-Dichloroethene, Total	16	U	16		ug/m3			03/03/19 03:49	10
Chloroform	10	U	10		ug/m3			03/03/19 03:49	10
Tetrahydrofuran	150	U	150		ug/m3			03/03/19 03:49	10
1,1,1-Trichloroethane	**11**		11		ug/m3			03/03/19 03:49	10
Cyclohexane	7	U	7		ug/m3			03/03/19 03:49	10
Carbon tetrachloride	**20**		13		ug/m3			03/03/19 03:49	10
2,2,4-Trimethylpentane	9	U	9		ug/m3			03/03/19 03:49	10
Benzene	6	U	6		ug/m3			03/03/19 03:49	10
1,2-Dichloroethane	8	U	8		ug/m3			03/03/19 03:49	10
n-Heptane	8	U	8		ug/m3			03/03/19 03:49	10
Trichloroethene	11	U	11		ug/m3			03/03/19 03:49	10
Methyl methacrylate	20	U	20		ug/m3			03/03/19 03:49	10
1,2-Dichloropropane	9	U	9		ug/m3			03/03/19 03:49	10
1,4-Dioxane	180	U	180		ug/m3			03/03/19 03:49	10
Bromodichloromethane	13	U	13		ug/m3			03/03/19 03:49	10
cis-1,3-Dichloropropene	9	U	9		ug/m3			03/03/19 03:49	10
methyl isobutyl ketone	20	U	20		ug/m3			03/03/19 03:49	10
Toluene	8	U	8		ug/m3			03/03/19 03:49	10
trans-1,3-Dichloropropene	9	U	9		ug/m3			03/03/19 03:49	10
1,1,2-Trichloroethane	11	U	11		ug/m3			03/03/19 03:49	10
Tetrachloroethene	**340**		14		ug/m3			03/03/19 03:49	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20		ug/m3			03/03/19 03:49	10
Dibromochloromethane	17	U	17		ug/m3			03/03/19 03:49	10
1,2-Dibromoethane	15	U	15		ug/m3			03/03/19 03:49	10
Chlorobenzene	9	U	9		ug/m3			03/03/19 03:49	10
Ethylbenzene	9	U	9		ug/m3			03/03/19 03:49	10
m,p-Xylene	22	U	22		ug/m3			03/03/19 03:49	10
Xylene, o-	9	U	9		ug/m3			03/03/19 03:49	10
Xylene (total)	30	U	30		ug/m3			03/03/19 03:49	10
Styrene	9	U	9		ug/m3			03/03/19 03:49	10
Bromoform	21	U	21		ug/m3			03/03/19 03:49	10
Cumene	10	U	10		ug/m3			03/03/19 03:49	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			03/03/19 03:49	10
n-Propylbenzene	10	U	10		ug/m3			03/03/19 03:49	10
4-Ethyltoluene	10	U	10		ug/m3			03/03/19 03:49	10
1,3,5-Trimethylbenzene	10	U	10		ug/m3			03/03/19 03:49	10
2-Chlorotoluene	10	U	10		ug/m3			03/03/19 03:49	10
tert-Butylbenzene	11	U *	11		ug/m3			03/03/19 03:49	10
1,2,4-Trimethylbenzene	10	U *	10		ug/m3			03/03/19 03:49	10
sec-Butylbenzene	11	U *	11		ug/m3			03/03/19 03:49	10
4-Isopropyltoluene	11	U *	11		ug/m3			03/03/19 03:49	10
1,3-Dichlorobenzene	12	U	12		ug/m3			03/03/19 03:49	10
1,4-Dichlorobenzene	12	U	12		ug/m3			03/03/19 03:49	10
Benzyl chloride	10	U	10		ug/m3			03/03/19 03:49	10

Client Sample ID: SV-1

Lab Sample ID: 200-47571-1

Date Collected: 02/22/19 13:20

Matrix: Air

Date Received: 02/26/19 10:37

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	11	U *	11		ug/m3			03/03/19 03:49	10
1,2-Dichlorobenzene	12	U	12		ug/m3			03/03/19 03:49	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			03/03/19 03:49	10
Hexachlorobutadiene	21	U *	21		ug/m3			03/03/19 03:49	10
Naphthalene	26	U	26		ug/m3			03/03/19 03:49	10

Client Sample ID: SV-2

Lab Sample ID: 200-47571-2

Date Collected: 02/22/19 09:20

Matrix: Air

Date Received: 02/26/19 10:37

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
Freon 22	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Chloromethane	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
n-Butane	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
Vinyl chloride	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,3-Butadiene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Bromomethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Chloroethane	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Freon TF	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Acetone	50	U	50		ppb v/v			03/03/19 04:40	10
Isopropyl alcohol	50	U	50		ppb v/v			03/03/19 04:40	10
Carbon disulfide	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
3-Chloropropene	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
Methylene Chloride	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
tert-Butyl alcohol	50	U	50		ppb v/v			03/03/19 04:40	10
Methyl tert-butyl ether	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
trans-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
n-Hexane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Methyl Ethyl Ketone	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,2-Dichloroethene, Total	4.0	U	4.0		ppb v/v			03/03/19 04:40	10
Chloroform	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Tetrahydrofuran	50	U	50		ppb v/v			03/03/19 04:40	10
1,1,1-Trichloroethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Cyclohexane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Carbon tetrachloride	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
2,2,4-Trimethylpentane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Benzene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
n-Heptane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Trichloroethene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Client Sample ID: SV-2
Date Collected: 02/22/19 09:20
Date Received: 02/26/19 10:37
Sample Container: Summa Canister 1L

Lab Sample ID: 200-47571-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,4-Dioxane	50	U	50		ppb v/v			03/03/19 04:40	10
Bromodichloromethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
methyl isobutyl ketone	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
Toluene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Tetrachloroethene	**7.7**		2.0		ppb v/v			03/03/19 04:40	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
Dibromochloromethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Chlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Ethylbenzene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
m,p-Xylene	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
Xylene, o-	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Xylene (total)	7.0	U	7.0		ppb v/v			03/03/19 04:40	10
Styrene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Bromoform	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Cumene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
n-Propylbenzene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
4-Ethyltoluene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
2-Chlorotoluene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
tert-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 04:40	10
1,2,4-Trimethylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 04:40	10
sec-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 04:40	10
4-Isopropyltoluene	2.0	U *	2.0		ppb v/v			03/03/19 04:40	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
Benzyl chloride	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
n-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 04:40	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 04:40	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			03/03/19 04:40	10
Hexachlorobutadiene	2.0	U *	2.0		ppb v/v			03/03/19 04:40	10
Naphthalene	5.0	U	5.0		ppb v/v			03/03/19 04:40	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			03/03/19 04:40	10
Freon 22	18	U	18		ug/m3			03/03/19 04:40	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			03/03/19 04:40	10
Chloromethane	10	U	10		ug/m3			03/03/19 04:40	10
n-Butane	12	U	12		ug/m3			03/03/19 04:40	10
Vinyl chloride	5	U	5		ug/m3			03/03/19 04:40	10
1,3-Butadiene	4	U	4		ug/m3			03/03/19 04:40	10
Bromomethane	8	U	8		ug/m3			03/03/19 04:40	10
Chloroethane	13	U	13		ug/m3			03/03/19 04:40	10

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Client Sample ID: SV-2
Date Collected: 02/22/19 09:20
Date Received: 02/26/19 10:37
Sample Container: Summa Canister 1L

Lab Sample ID: 200-47571-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoethene(Vinyl Bromide)	9	U	9		ug/m3			03/03/19 04:40	10
Trichlorofluoromethane	11	U	11		ug/m3			03/03/19 04:40	10
Freon TF	15	U	15		ug/m3			03/03/19 04:40	10
1,1-Dichloroethene	8	U	8		ug/m3			03/03/19 04:40	10
Acetone	120	U	120		ug/m3			03/03/19 04:40	10
Isopropyl alcohol	120	U	120		ug/m3			03/03/19 04:40	10
Carbon disulfide	16	U	16		ug/m3			03/03/19 04:40	10
3-Chloropropene	16	U	16		ug/m3			03/03/19 04:40	10
Methylene Chloride	17	U	17		ug/m3			03/03/19 04:40	10
tert-Butyl alcohol	150	U	150		ug/m3			03/03/19 04:40	10
Methyl tert-butyl ether	7	U	7		ug/m3			03/03/19 04:40	10
trans-1,2-Dichloroethene	8	U	8		ug/m3			03/03/19 04:40	10
n-Hexane	7	U	7		ug/m3			03/03/19 04:40	10
1,1-Dichloroethane	8	U	8		ug/m3			03/03/19 04:40	10
Methyl Ethyl Ketone	15	U	15		ug/m3			03/03/19 04:40	10
cis-1,2-Dichloroethene	8	U	8		ug/m3			03/03/19 04:40	10
1,2-Dichloroethene, Total	16	U	16		ug/m3			03/03/19 04:40	10
Chloroform	10	U	10		ug/m3			03/03/19 04:40	10
Tetrahydrofuran	150	U	150		ug/m3			03/03/19 04:40	10
1,1,1-Trichloroethane	11	U	11		ug/m3			03/03/19 04:40	10
Cyclohexane	7	U	7		ug/m3			03/03/19 04:40	10
Carbon tetrachloride	13	U	13		ug/m3			03/03/19 04:40	10
2,2,4-Trimethylpentane	9	U	9		ug/m3			03/03/19 04:40	10
Benzene	6	U	6		ug/m3			03/03/19 04:40	10
1,2-Dichloroethane	8	U	8		ug/m3			03/03/19 04:40	10
n-Heptane	8	U	8		ug/m3			03/03/19 04:40	10
Trichloroethene	11	U	11		ug/m3			03/03/19 04:40	10
Methyl methacrylate	20	U	20		ug/m3			03/03/19 04:40	10
1,2-Dichloropropane	9	U	9		ug/m3			03/03/19 04:40	10
1,4-Dioxane	180	U	180		ug/m3			03/03/19 04:40	10
Bromodichloromethane	13	U	13		ug/m3			03/03/19 04:40	10
cis-1,3-Dichloropropene	9	U	9		ug/m3			03/03/19 04:40	10
methyl isobutyl ketone	20	U	20		ug/m3			03/03/19 04:40	10
Toluene	8	U	8		ug/m3			03/03/19 04:40	10
trans-1,3-Dichloropropene	9	U	9		ug/m3			03/03/19 04:40	10
1,1,2-Trichloroethane	11	U	11		ug/m3			03/03/19 04:40	10
Tetrachloroethene	**52**		14		ug/m3			03/03/19 04:40	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20		ug/m3			03/03/19 04:40	10
Dibromochloromethane	17	U	17		ug/m3			03/03/19 04:40	10
1,2-Dibromoethane	15	U	15		ug/m3			03/03/19 04:40	10
Chlorobenzene	9	U	9		ug/m3			03/03/19 04:40	10
Ethylbenzene	9	U	9		ug/m3			03/03/19 04:40	10
m,p-Xylene	22	U	22		ug/m3			03/03/19 04:40	10
Xylene, o-	9	U	9		ug/m3			03/03/19 04:40	10
Xylene (total)	30	U	30		ug/m3			03/03/19 04:40	10
Styrene	9	U	9		ug/m3			03/03/19 04:40	10
Bromoform	21	U	21		ug/m3			03/03/19 04:40	10
Cumene	10	U	10		ug/m3			03/03/19 04:40	10

Client Sample ID: SV-2

Lab Sample ID: 200-47571-2

Date Collected: 02/22/19 09:20

Matrix: Air

Date Received: 02/26/19 10:37

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			03/03/19 04:40	10
n-Propylbenzene	10	U	10		ug/m3			03/03/19 04:40	10
4-Ethyltoluene	10	U	10		ug/m3			03/03/19 04:40	10
1,3,5-Trimethylbenzene	10	U	10		ug/m3			03/03/19 04:40	10
2-Chlorotoluene	10	U	10		ug/m3			03/03/19 04:40	10
tert-Butylbenzene	11	U *	11		ug/m3			03/03/19 04:40	10
1,2,4-Trimethylbenzene	10	U *	10		ug/m3			03/03/19 04:40	10
sec-Butylbenzene	11	U *	11		ug/m3			03/03/19 04:40	10
4-Isopropyltoluene	11	U *	11		ug/m3			03/03/19 04:40	10
1,3-Dichlorobenzene	12	U	12		ug/m3			03/03/19 04:40	10
1,4-Dichlorobenzene	12	U	12		ug/m3			03/03/19 04:40	10
Benzyl chloride	10	U	10		ug/m3			03/03/19 04:40	10
n-Butylbenzene	11	U *	11		ug/m3			03/03/19 04:40	10
1,2-Dichlorobenzene	12	U	12		ug/m3			03/03/19 04:40	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			03/03/19 04:40	10
Hexachlorobutadiene	21	U *	21		ug/m3			03/03/19 04:40	10
Naphthalene	26	U	26		ug/m3			03/03/19 04:40	10

Client Sample ID: SV-3

Lab Sample ID: 200-47571-3

Date Collected: 02/22/19 14:01

Matrix: Air

Date Received: 02/26/19 10:37

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
Freon 22	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Chloromethane	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
n-Butane	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
Vinyl chloride	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,3-Butadiene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Bromomethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Chloroethane	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Freon TF	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Acetone	50	U	50		ppb v/v			03/03/19 05:31	10
Isopropyl alcohol	50	U	50		ppb v/v			03/03/19 05:31	10
Carbon disulfide	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
3-Chloropropene	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
Methylene Chloride	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
tert-Butyl alcohol	50	U	50		ppb v/v			03/03/19 05:31	10
Methyl tert-butyl ether	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
trans-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
n-Hexane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,1-Dichloroethane	**5.1**		2.0		ppb v/v			03/03/19 05:31	10
Methyl Ethyl Ketone	5.0	U	5.0		ppb v/v			03/03/19 05:31	10

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Client Sample ID: SV-3
Date Collected: 02/22/19 14:01
Date Received: 02/26/19 10:37
Sample Container: Summa Canister 1L

Lab Sample ID: 200-47571-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,2-Dichloroethene, Total	4.0	U	4.0		ppb v/v			03/03/19 05:31	10
Chloroform	**68**		2.0		ppb v/v			03/03/19 05:31	10
Tetrahydrofuran	50	U	50		ppb v/v			03/03/19 05:31	10
1,1,1-Trichloroethane	**52**		2.0		ppb v/v			03/03/19 05:31	10
Cyclohexane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Carbon tetrachloride	**60**		2.0		ppb v/v			03/03/19 05:31	10
2,2,4-Trimethylpentane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Benzene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
n-Heptane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Trichloroethene	**8.5**		2.0		ppb v/v			03/03/19 05:31	10
Methyl methacrylate	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,4-Dioxane	50	U	50		ppb v/v			03/03/19 05:31	10
Bromodichloromethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
methyl isobutyl ketone	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
Toluene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Tetrachloroethene	**2.0**		2.0		ppb v/v			03/03/19 05:31	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
Dibromochloromethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Chlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Ethylbenzene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
m,p-Xylene	5.0	U	5.0		ppb v/v			03/03/19 05:31	10
Xylene, o-	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Xylene (total)	7.0	U	7.0		ppb v/v			03/03/19 05:31	10
Styrene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Bromoform	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Cumene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
n-Propylbenzene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
4-Ethyltoluene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
2-Chlorotoluene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
tert-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 05:31	10
1,2,4-Trimethylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 05:31	10
sec-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 05:31	10
4-Isopropyltoluene	2.0	U *	2.0		ppb v/v			03/03/19 05:31	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
Benzyl chloride	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
n-Butylbenzene	2.0	U *	2.0		ppb v/v			03/03/19 05:31	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			03/03/19 05:31	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			03/03/19 05:31	10

Client Sample ID: SV-3
Date Collected: 02/22/19 14:01
Date Received: 02/26/19 10:37
Sample Container: Summa Canister 1L

Lab Sample ID: 200-47571-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	2.0	U *	2.0		ppb v/v			03/03/19 05:31	10
Naphthalene	5.0	U	5.0		ppb v/v			03/03/19 05:31	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			03/03/19 05:31	10
Freon 22	18	U	18		ug/m3			03/03/19 05:31	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			03/03/19 05:31	10
Chloromethane	10	U	10		ug/m3			03/03/19 05:31	10
n-Butane	12	U	12		ug/m3			03/03/19 05:31	10
Vinyl chloride	5	U	5		ug/m3			03/03/19 05:31	10
1,3-Butadiene	4	U	4		ug/m3			03/03/19 05:31	10
Bromomethane	8	U	8		ug/m3			03/03/19 05:31	10
Chloroethane	13	U	13		ug/m3			03/03/19 05:31	10
Bromoethene(Vinyl Bromide)	9	U	9		ug/m3			03/03/19 05:31	10
Trichlorofluoromethane	11	U	11		ug/m3			03/03/19 05:31	10
Freon TF	15	U	15		ug/m3			03/03/19 05:31	10
1,1-Dichloroethene	8	U	8		ug/m3			03/03/19 05:31	10
Acetone	120	U	120		ug/m3			03/03/19 05:31	10
Isopropyl alcohol	120	U	120		ug/m3			03/03/19 05:31	10
Carbon disulfide	16	U	16		ug/m3			03/03/19 05:31	10
3-Chloropropene	16	U	16		ug/m3			03/03/19 05:31	10
Methylene Chloride	17	U	17		ug/m3			03/03/19 05:31	10
tert-Butyl alcohol	150	U	150		ug/m3			03/03/19 05:31	10
Methyl tert-butyl ether	7	U	7		ug/m3			03/03/19 05:31	10
trans-1,2-Dichloroethene	8	U	8		ug/m3			03/03/19 05:31	10
n-Hexane	7	U	7		ug/m3			03/03/19 05:31	10
1,1-Dichloroethane	**21**		8		ug/m3			03/03/19 05:31	10
Methyl Ethyl Ketone	15	U	15		ug/m3			03/03/19 05:31	10
cis-1,2-Dichloroethene	8	U	8		ug/m3			03/03/19 05:31	10
1,2-Dichloroethene, Total	16	U	16		ug/m3			03/03/19 05:31	10
Chloroform	**330**		10		ug/m3			03/03/19 05:31	10
Tetrahydrofuran	150	U	150		ug/m3			03/03/19 05:31	10
1,1,1-Trichloroethane	**290**		11		ug/m3			03/03/19 05:31	10
Cyclohexane	7	U	7		ug/m3			03/03/19 05:31	10
Carbon tetrachloride	**370**		13		ug/m3			03/03/19 05:31	10
2,2,4-Trimethylpentane	9	U	9		ug/m3			03/03/19 05:31	10
Benzene	6	U	6		ug/m3			03/03/19 05:31	10
1,2-Dichloroethane	8	U	8		ug/m3			03/03/19 05:31	10
n-Heptane	8	U	8		ug/m3			03/03/19 05:31	10
Trichloroethene	**46**		11		ug/m3			03/03/19 05:31	10
Methyl methacrylate	20	U	20		ug/m3			03/03/19 05:31	10
1,2-Dichloropropane	9	U	9		ug/m3			03/03/19 05:31	10
1,4-Dioxane	180	U	180		ug/m3			03/03/19 05:31	10
Bromodichloromethane	13	U	13		ug/m3			03/03/19 05:31	10
cis-1,3-Dichloropropene	9	U	9		ug/m3			03/03/19 05:31	10
methyl isobutyl ketone	20	U	20		ug/m3			03/03/19 05:31	10
Toluene	8	U	8		ug/m3			03/03/19 05:31	10
trans-1,3-Dichloropropene	9	U	9		ug/m3			03/03/19 05:31	10
1,1,2-Trichloroethane	11	U	11		ug/m3			03/03/19 05:31	10

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Client Sample ID: SV-3
Date Collected: 02/22/19 14:01
Date Received: 02/26/19 10:37
Sample Container: Summa Canister 1L

Lab Sample ID: 200-47571-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**13**		14		ug/m3			03/03/19 05:31	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20		ug/m3			03/03/19 05:31	10
Dibromochloromethane	17	U	17		ug/m3			03/03/19 05:31	10
1,2-Dibromoethane	15	U	15		ug/m3			03/03/19 05:31	10
Chlorobenzene	9	U	9		ug/m3			03/03/19 05:31	10
Ethylbenzene	9	U	9		ug/m3			03/03/19 05:31	10
m,p-Xylene	22	U	22		ug/m3			03/03/19 05:31	10
Xylene, o-	9	U	9		ug/m3			03/03/19 05:31	10
Xylene (total)	30	U	30		ug/m3			03/03/19 05:31	10
Styrene	9	U	9		ug/m3			03/03/19 05:31	10
Bromoform	21	U	21		ug/m3			03/03/19 05:31	10
Cumene	10	U	10		ug/m3			03/03/19 05:31	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			03/03/19 05:31	10
n-Propylbenzene	10	U	10		ug/m3			03/03/19 05:31	10
4-Ethyltoluene	10	U	10		ug/m3			03/03/19 05:31	10
1,3,5-Trimethylbenzene	10	U	10		ug/m3			03/03/19 05:31	10
2-Chlorotoluene	10	U	10		ug/m3			03/03/19 05:31	10
tert-Butylbenzene	11	U *	11		ug/m3			03/03/19 05:31	10
1,2,4-Trimethylbenzene	10	U *	10		ug/m3			03/03/19 05:31	10
sec-Butylbenzene	11	U *	11		ug/m3			03/03/19 05:31	10
4-Isopropyltoluene	11	U *	11		ug/m3			03/03/19 05:31	10
1,3-Dichlorobenzene	12	U	12		ug/m3			03/03/19 05:31	10
1,4-Dichlorobenzene	12	U	12		ug/m3			03/03/19 05:31	10
Benzyl chloride	10	U	10		ug/m3			03/03/19 05:31	10
n-Butylbenzene	11	U *	11		ug/m3			03/03/19 05:31	10
1,2-Dichlorobenzene	12	U	12		ug/m3			03/03/19 05:31	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			03/03/19 05:31	10
Hexachlorobutadiene	21	U *	21		ug/m3			03/03/19 05:31	10
Naphthalene	26	U	26		ug/m3			03/03/19 05:31	10

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Client Sample ID: SV-1
Lab Sample ID: 200-47571-1
Date Collected: 02/22/19 13:20
Matrix: Air
Date Received: 02/26/19 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	140447	03/03/19 03:49	A1B	TAL BUR

Client Sample ID: SV-2
Lab Sample ID: 200-47571-2
Date Collected: 02/22/19 09:20
Matrix: Air
Date Received: 02/26/19 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	140447	03/03/19 04:40	A1B	TAL BUR

Client Sample ID: SV-3
Lab Sample ID: 200-47571-3
Date Collected: 02/22/19 14:01
Matrix: Air
Date Received: 02/26/19 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	140447	03/03/19 05:31	A1B	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. TestAmerica Job ID: 200-47571-1
Project/Site: Collins Street

Laboratory: TestAmerica Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD / DOE		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-19 *
Florida	NELAP	4	E87467	06-30-19
Maine	State Program	1	VT00008	04-17-19 *
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-19
New Jersey	NELAP	2	VT972	06-30-19
New York	NELAP	2	10391	04-01-19 *
Pennsylvania	NELAP	3	68-00489	04-30-19 *
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

TestAmerica Job ID: 200-47571-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-47571-1	SV-1	Air	02/22/19 13:20	02/26/19 10:37
200-47571-2	SV-2	Air	02/22/19 09:20	02/26/19 10:37
200-47571-3	SV-3	Air	02/22/19 14:01	02/26/19 10:37

450-KOP

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	**Client Project Manager:** T Lang, J. Wanish	**Samples Collected By:** Kara Schroeder	COC No: 1
Company Name: RT GW	**Phone:**		of COCs
Address:	**Email:**		
City/State/Zip KOP PA			**For Lab Use Only:**
Phone:	**Site Contact:**		Walk-in Client:
FAX:	**Tel/Fax**		Lab Sampling:
Project Name: Collins Street	**Anaylsis Turnaround Time**		Job / SDG No.:
Site/Location: Philadelphia, PA	Standard (Specific): ✓		(See below for Add'l Items)
PO# 2043-020-02	Rush (Specifiy):		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-1	2/22/19	13:10	13:20	-30	-25	5011	6078	X														
SV-2	"	9:15	9:20	-30	-4	6707	6296	X														
SV-3	"	13:56	14:01	-29	-3	3809	6101	X														

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

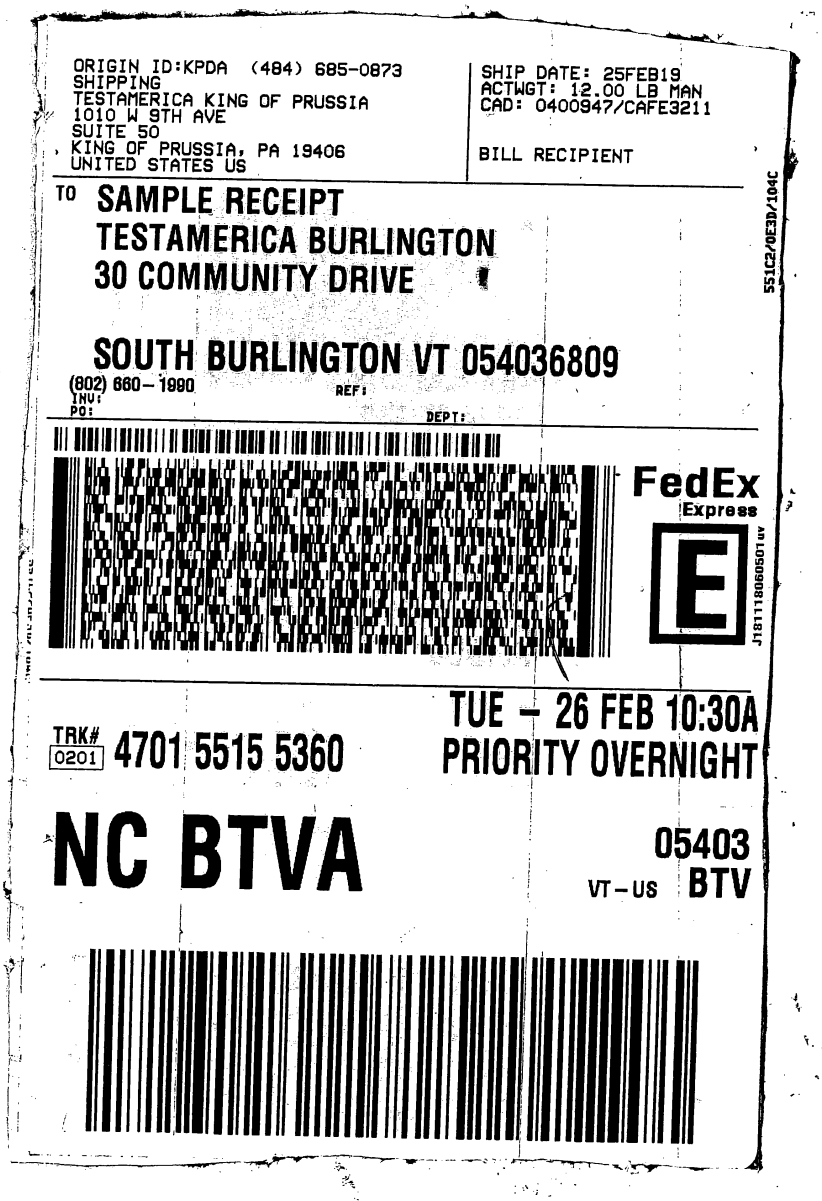
200-47571 Chain of Custody

Special Instructions/QC Requirements & Comments:

Samples Shipped by: K Schroeder	**Date / Time:** 2/22/19 4:54	**Samples Received by:**
Samples Relinquished by: TA-KOP	**Date / Time:** 2/25/19 841	**Received by:** Sam Heed TABurl 2-26-19 1037
Relinquished by:	**Date / Time:**	**Received by:**
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.5, dated 9/22/2017

3/8/2019



ORIGIN ID:KPDA (484) 685-0873
SHIPPING
TESTAMERICA KING OF PRUSSIA
1010 W 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 25FEB19
ACTWGT: 12.00 LB MAN
CAD: 0400947/CAFE3211

BILL RECIPIENT

TO SAMPLE RECEIPT
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE

SOUTH BURLINGTON VT 054036809

(802) 660-1990
INV:
PO:
REF:
DEPT:

FedEx Express

TRK# 0201 4701 5515 5360

TUE - 26 FEB 10:30A
PRIORITY OVERNIGHT

NC BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc. Job Number: 200-47571-1

Login Number: 47571 **List Source: TestAmerica Burlington**
List Number: 1
Creator: Hall, Samuel C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	591371
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	AS
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

OFFSITE SOIL GAS SAMPLING RESULTS

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ANALYTICAL REPORT

Eurofins Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-61680-1
Client Project/Site: Collins Street

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: Walter Hungarter

Jill Miller

Authorized for release by:
1/11/2022 11:06:48 AM

Jill Miller, Senior Project Manager
(484)685-0871
Jill.Miller@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Lab Chronicle 7
Certification Summary 8
Method Summary 9
Sample Summary 10
Chain of Custody 11
Receipt Checklists 14

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61680-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 200-61680-1

Laboratory: Eurofins Burlington

Narrative

Job Narrative
200-61680-1

Comments
No additional comments.

Receipt
The samples were received on 1/7/2022 11:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Air Toxics
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61680-1

Client Sample ID: SV-1

Lab Sample ID: 200-61680-1

Date Collected: 01/05/22 13:40
Matrix: Air
Date Received: 01/07/22 11:50
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.38**		0.20		ppb v/v			01/11/22 05:36	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			01/11/22 05:36	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 05:36	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			01/11/22 05:36	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 05:36	1
Tetrachloroethene	**1.4**		0.20		ppb v/v			01/11/22 05:36	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 05:36	1
Trichloroethene	0.20	U	0.20		ppb v/v			01/11/22 05:36	1
Vinyl chloride	0.20	U	0.20		ppb v/v			01/11/22 05:36	1
Xylene (total)	**1.4**		0.70		ppb v/v			01/11/22 05:36	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**2**		1		ug/m3			01/11/22 05:36	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			01/11/22 05:36	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 05:36	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			01/11/22 05:36	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 05:36	1
Tetrachloroethene	**10**		1		ug/m3			01/11/22 05:36	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 05:36	1
Trichloroethene	1	U	1		ug/m3			01/11/22 05:36	1
Vinyl chloride	0.5	U	0.5		ug/m3			01/11/22 05:36	1
Xylene (total)	**6**		3		ug/m3			01/11/22 05:36	1

Client Sample ID: SV-2

Lab Sample ID: 200-61680-2

Date Collected: 01/05/22 13:58
Matrix: Air
Date Received: 01/07/22 11:50
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			01/11/22 06:29	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			01/11/22 06:29	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 06:29	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			01/11/22 06:29	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 06:29	1
Tetrachloroethene	**0.39**		0.20		ppb v/v			01/11/22 06:29	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 06:29	1
Trichloroethene	0.20	U	0.20		ppb v/v			01/11/22 06:29	1
Vinyl chloride	0.20	U	0.20		ppb v/v			01/11/22 06:29	1
Xylene (total)	0.70	U	0.70		ppb v/v			01/11/22 06:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			01/11/22 06:29	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			01/11/22 06:29	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 06:29	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			01/11/22 06:29	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 06:29	1
Tetrachloroethene	**3**		1		ug/m3			01/11/22 06:29	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 06:29	1
Trichloroethene	1	U	1		ug/m3			01/11/22 06:29	1

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61680-1

Client Sample ID: SV-2
Date Collected: 01/05/22 13:58
Date Received: 01/07/22 11:50
Sample Container: Summa Canister 6L

Lab Sample ID: 200-61680-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.5	U	0.5		ug/m3			01/11/22 06:29	1
Xylene (total)	3	U	3		ug/m3			01/11/22 06:29	1

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61680-1

Client Sample ID: SV-1

Lab Sample ID: 200-61680-1

Date Collected: 01/05/22 13:40

Matrix: Air

Date Received: 01/07/22 11:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	175706	01/11/22 05:36	A1B	TAL BUR

Client Sample ID: SV-2

Lab Sample ID: 200-61680-2

Date Collected: 01/05/22 13:58

Matrix: Air

Date Received: 01/07/22 11:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	175706	01/11/22 06:29	A1B	TAL BUR

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. Job ID: 200-61680-1
Project/Site: Collins Street

Laboratory: Eurofins Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21 *
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-22
Florida	NELAP	E87467	06-30-22
Minnesota	NELAP	050-999-436	12-31-22
New Hampshire	NELAP	2006	12-18-22
New Jersey	NELAP	VT972	06-30-22
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-21 *
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-22
Virginia	NELAP	460209	12-14-22
Wisconsin	State	399133350	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61680-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61680-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-61680-1	SV-1	Air	01/05/22 13:40	01/07/22 11:50	Air Canister (6-Liter) #5613
200-61680-2	SV-2	Air	01/05/22 13:58	01/07/22 11:50	Air Canister (6-Liter) #4566

>>> Select a Lab or Service Center <<
#N/A
#N/A
#N/A
#N/A

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager:	Samples Collected By: Collin Charnoff	COC No:
Company Name: RT Environmental Services	Phone:610-265-1510		____ of ____ COCs
Address: 215 West Church Road	Email:whungarter@rtenv.com		TALS Project #:
City/State/Zip King of Prussia PA 19406			For Lab Use Only:
Phone: 610-265-1510	Site Contact:		Walk-in Client:
FAX:	Tel/Fax		Lab Sampling:
Project Name: Collins Street	Analysis Turnaround Time		Job / SDG No.:
Site/Location: 3320 Collins Street	Standard (Specific): X		(See below for Add'l Items)
P O # 2043-20-11	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level) PCE & Freons	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-1	1-5-22	11:32	1-5-22	13:40	-29	-4	3118	5613	X														
SV-2	↓	11:47	↓	13:58	-30	-5	4745	4566	X														

200-61680 Chain of Custody

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

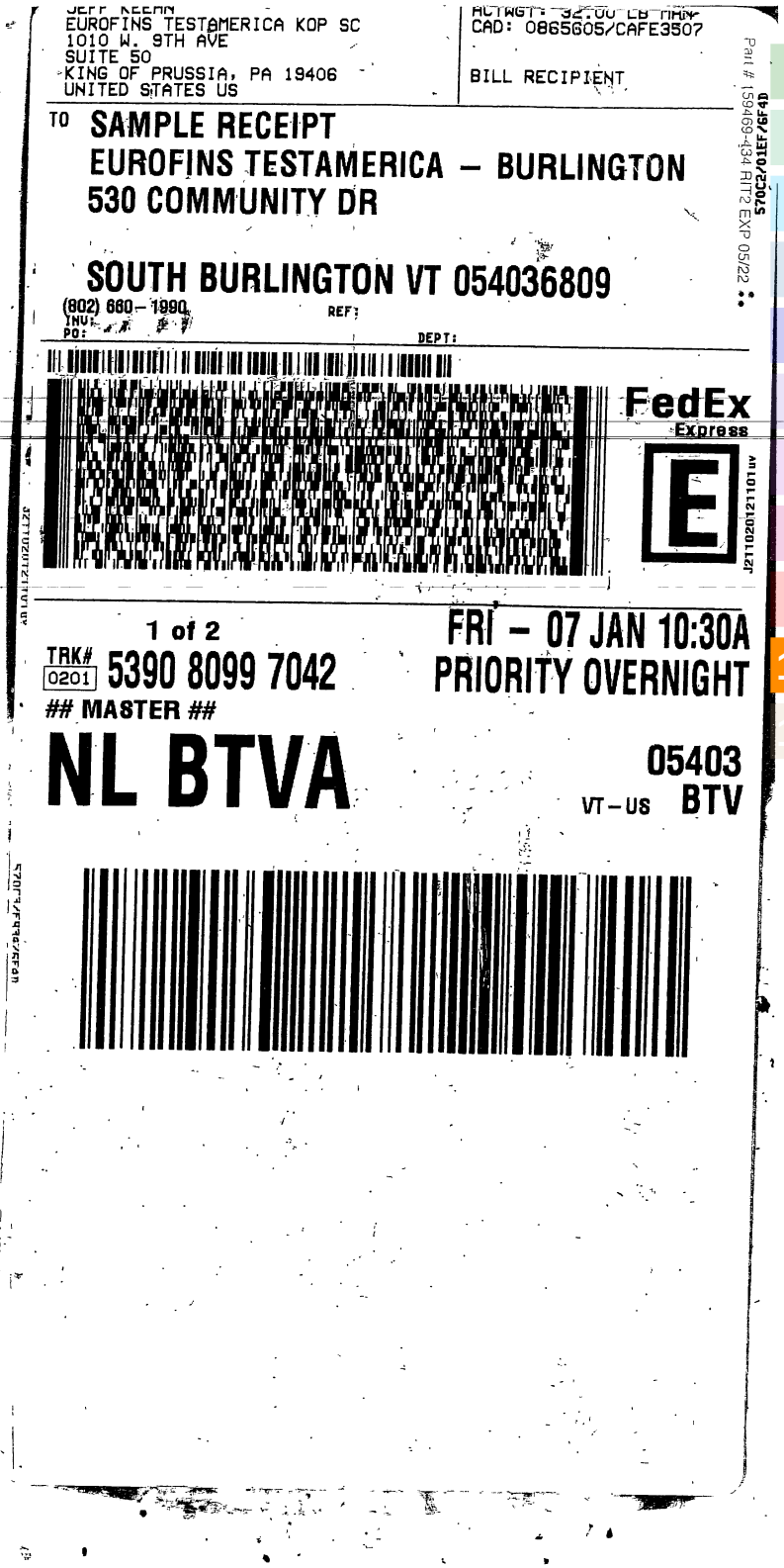
Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments:

Copy of results to cchornoff@rtenv.com

Samples Shipped by: Collin Charnoff	Date / Time: 1-6-22 @ 13:50	Samples Received by: [illegible] EETN	
Samples Relinquished by: [illegible] EETN	Date / Time: 1/6/22 1905	Received by: [illegible]	
Relinquished by:	Date / Time:	Received by:	
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.25, dated 10/6/2020


JEFF KEENN
EUROFINS TESTAMERICA KOP SC
1010 W. 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US

ACTWGT: 32.00 LB MAN
CAD: 0865605/CAFE3507

BILL RECIPIENT

TO SAMPLE RECEIPT
EUROFINS TESTAMERICA - BURLINGTON
530 COMMUNITY DR

SOUTH BURLINGTON VT 054036809

(802) 660-1990
INV:
PO:
REF:
DEPT:

FedEx Express

1 of 2

TRK# 0201 5390 8099 7042

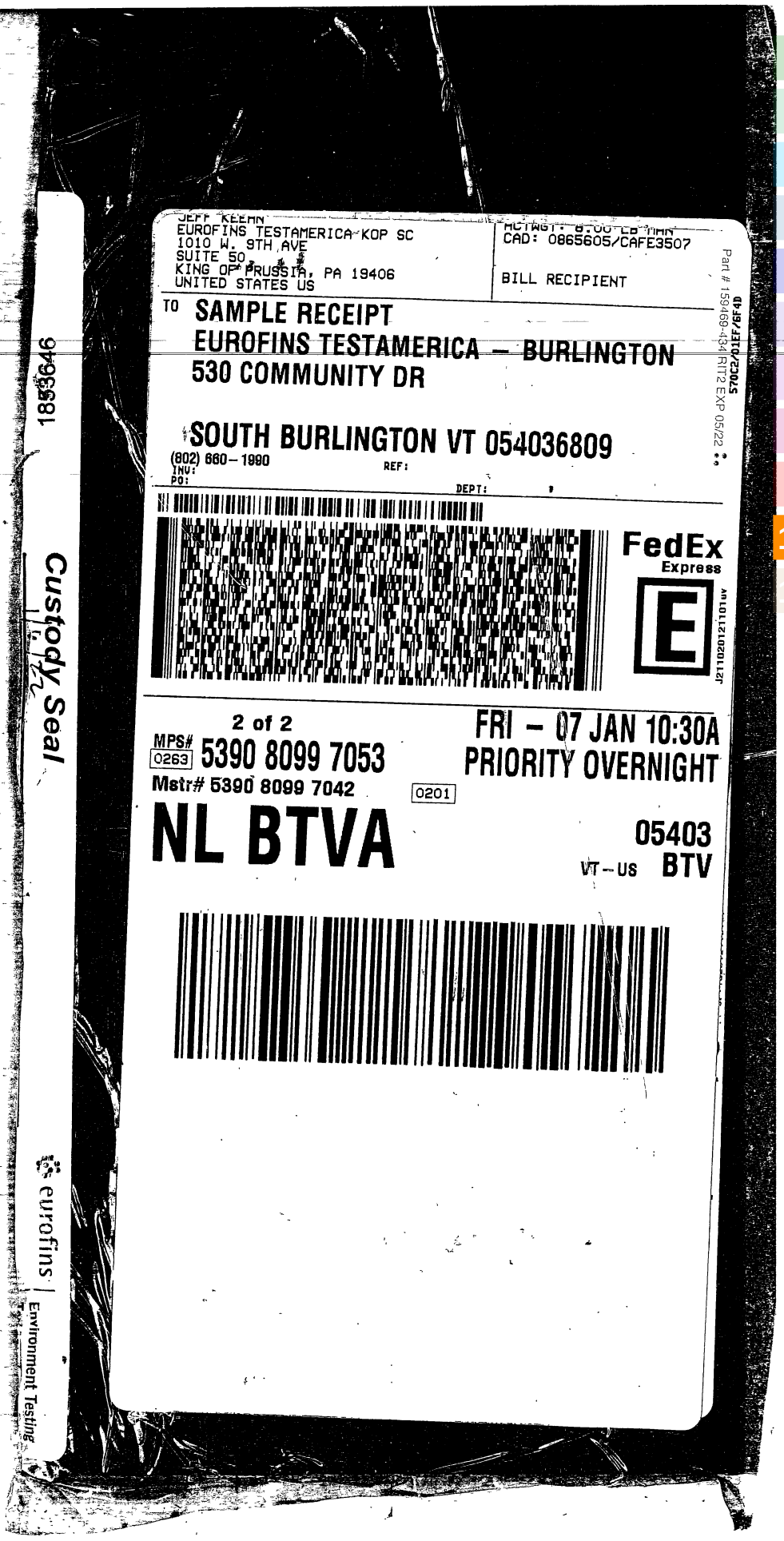
MASTER

FRI - 07 JAN 10:30A
PRIORITY OVERNIGHT

NL BTVA

05403
VT-US BTV

Part # 159469-434 RIT2 EXP 05/22


JEFF KEENN
EUROFINS TESTAMERICA-KOP SC
1010 W. 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US
CAD: 0865605/CAFE3507
BILL RECIPIENT
TO SAMPLE RECEIPT
EUROFINS TESTAMERICA - BURLINGTON
530 COMMUNITY DR
SOUTH BURLINGTON VT 054036809
(802) 660-1990
INV:
PO:
REF:
DEPT:
FedEx
Express
2 of 2
MPS# 0263 5390 8099 7053
Mstr# 5390 8099 7042
0201
FRI - 07 JAN 10:30A
PRIORITY OVERNIGHT
NL BTVA
05403
VT-US BTV
Custody Seal
eurofins
Environment Testing

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 200-61680-1

Login Number: 61680
List Number: 1
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1853644, 646
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-61681-1
Client Project/Site: Collins Street

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: Walter Hungarter

Jill Miller

Authorized for release by:
1/11/2022 11:11:33 AM

Jill Miller, Senior Project Manager
(484)685-0871
Jill.Miller@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Lab Chronicle 7
Certification Summary 8
Method Summary 9
Sample Summary 10
Chain of Custody 11
Receipt Checklists 14

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61681-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 200-61681-1

Laboratory: Eurofins Burlington

Narrative

Job Narrative
200-61681-1

Comments
No additional comments.

Receipt
The samples were received on 1/7/2022 11:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Air Toxics
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61681-1

Client Sample ID: IA-1

Lab Sample ID: 200-61681-1

Date Collected: 01/06/22 09:41
Matrix: Air
Date Received: 01/07/22 11:50
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			01/11/22 02:58	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			01/11/22 02:58	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 02:58	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			01/11/22 02:58	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 02:58	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			01/11/22 02:58	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 02:58	1
Trichloroethene	0.20	U	0.20		ppb v/v			01/11/22 02:58	1
Vinyl chloride	0.20	U	0.20		ppb v/v			01/11/22 02:58	1
Xylene (total)	0.70	U	0.70		ppb v/v			01/11/22 02:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			01/11/22 02:58	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			01/11/22 02:58	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 02:58	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			01/11/22 02:58	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 02:58	1
Tetrachloroethene	1	U	1		ug/m3			01/11/22 02:58	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 02:58	1
Trichloroethene	1	U	1		ug/m3			01/11/22 02:58	1
Vinyl chloride	0.5	U	0.5		ug/m3			01/11/22 02:58	1
Xylene (total)	3	U	3		ug/m3			01/11/22 02:58	1

Client Sample ID: IA-2

Lab Sample ID: 200-61681-2

Date Collected: 01/06/22 09:43
Matrix: Air
Date Received: 01/07/22 11:50
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			01/11/22 03:51	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			01/11/22 03:51	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 03:51	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			01/11/22 03:51	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 03:51	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			01/11/22 03:51	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 03:51	1
Trichloroethene	0.20	U	0.20		ppb v/v			01/11/22 03:51	1
Vinyl chloride	0.20	U	0.20		ppb v/v			01/11/22 03:51	1
Xylene (total)	0.70	U	0.70		ppb v/v			01/11/22 03:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			01/11/22 03:51	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			01/11/22 03:51	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 03:51	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			01/11/22 03:51	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 03:51	1
Tetrachloroethene	1	U	1		ug/m3			01/11/22 03:51	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 03:51	1
Trichloroethene	1	U	1		ug/m3			01/11/22 03:51	1

Client Sample ID: IA-2

Lab Sample ID: 200-61681-2

Date Collected: 01/06/22 09:43
Matrix: Air
Date Received: 01/07/22 11:50
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.5	U	0.5		ug/m3			01/11/22 03:51	1
Xylene (total)	3	U	3		ug/m3			01/11/22 03:51	1

Client Sample ID: OA-1

Lab Sample ID: 200-61681-3

Date Collected: 01/06/22 09:48
Matrix: Air
Date Received: 01/07/22 11:50
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			01/11/22 04:44	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			01/11/22 04:44	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 04:44	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			01/11/22 04:44	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 04:44	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			01/11/22 04:44	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/11/22 04:44	1
Trichloroethene	0.20	U	0.20		ppb v/v			01/11/22 04:44	1
Vinyl chloride	0.20	U	0.20		ppb v/v			01/11/22 04:44	1
Xylene (total)	0.70	U	0.70		ppb v/v			01/11/22 04:44	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			01/11/22 04:44	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			01/11/22 04:44	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 04:44	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			01/11/22 04:44	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 04:44	1
Tetrachloroethene	1	U	1		ug/m3			01/11/22 04:44	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			01/11/22 04:44	1
Trichloroethene	1	U	1		ug/m3			01/11/22 04:44	1
Vinyl chloride	0.5	U	0.5		ug/m3			01/11/22 04:44	1
Xylene (total)	3	U	3		ug/m3			01/11/22 04:44	1

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61681-1

Client Sample ID: IA-1
Lab Sample ID: 200-61681-1
Date Collected: 01/06/22 09:41
Matrix: Air
Date Received: 01/07/22 11:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	175706	01/11/22 02:58	A1B	TAL BUR

Client Sample ID: IA-2
Lab Sample ID: 200-61681-2
Date Collected: 01/06/22 09:43
Matrix: Air
Date Received: 01/07/22 11:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	175706	01/11/22 03:51	A1B	TAL BUR

Client Sample ID: OA-1
Lab Sample ID: 200-61681-3
Date Collected: 01/06/22 09:48
Matrix: Air
Date Received: 01/07/22 11:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	175706	01/11/22 04:44	A1B	TAL BUR

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. Job ID: 200-61681-1
Project/Site: Collins Street

Laboratory: Eurofins Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21 *
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-22
Florida	NELAP	E87467	06-30-22
Minnesota	NELAP	050-999-436	12-31-22
New Hampshire	NELAP	2006	12-18-22
New Jersey	NELAP	VT972	06-30-22
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-21 *
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-22
Virginia	NELAP	460209	12-14-22
Wisconsin	State	399133350	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61681-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-61681-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-61681-1	IA-1	Air	01/06/22 09:41	01/07/22 11:50	Air Canister (6-Liter) #3549
200-61681-2	IA-2	Air	01/06/22 09:43	01/07/22 11:50	Air Canister (6-Liter) #3073
200-61681-3	OA-1	Air	01/06/22 09:48	01/07/22 11:50	Air Canister (6-Liter) #5087

>>> Select a Lab or Service Center <<
#N/A
#N/A
#N/A
#N/A

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager:	Samples Collected By: Collin Charnoff	COC No:
Company Name: RT Environmental Services	Phone:610-265-1510		of COCs
Address: 215 West Church Road	Email:whungarter@rtenv.com		TALS Project #:
City/State/Zip King of Prussia PA 19406			For Lab Use Only:
Phone: 610-265-1510	Site Contact:		Walk-in Client:
FAX:	Tel/Fax		Lab Sampling:
Project Name: Collins Street	Analysis Turnaround Time		
Site/Location: 3320 Collins Street	Standard (Specific): X		Job / SDG No.:
P O # 2043-20-11	Rush (Specifiy):		(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard/ Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-1	1-5-22	11:14	1-6-22	9:41	-29	-7	8772	3549	X														
IA-2	↓	11:17	↓	9:43	-30	-9	5341	3073	X														
OA-1	↓	11:12	↓	9:48	-30	-7	6053	5087	X														

200-61681 Chain of Custody

Temperature (Fahrenheit)			
Start	Interior 55	Ambient 37	
Stop	55	36	

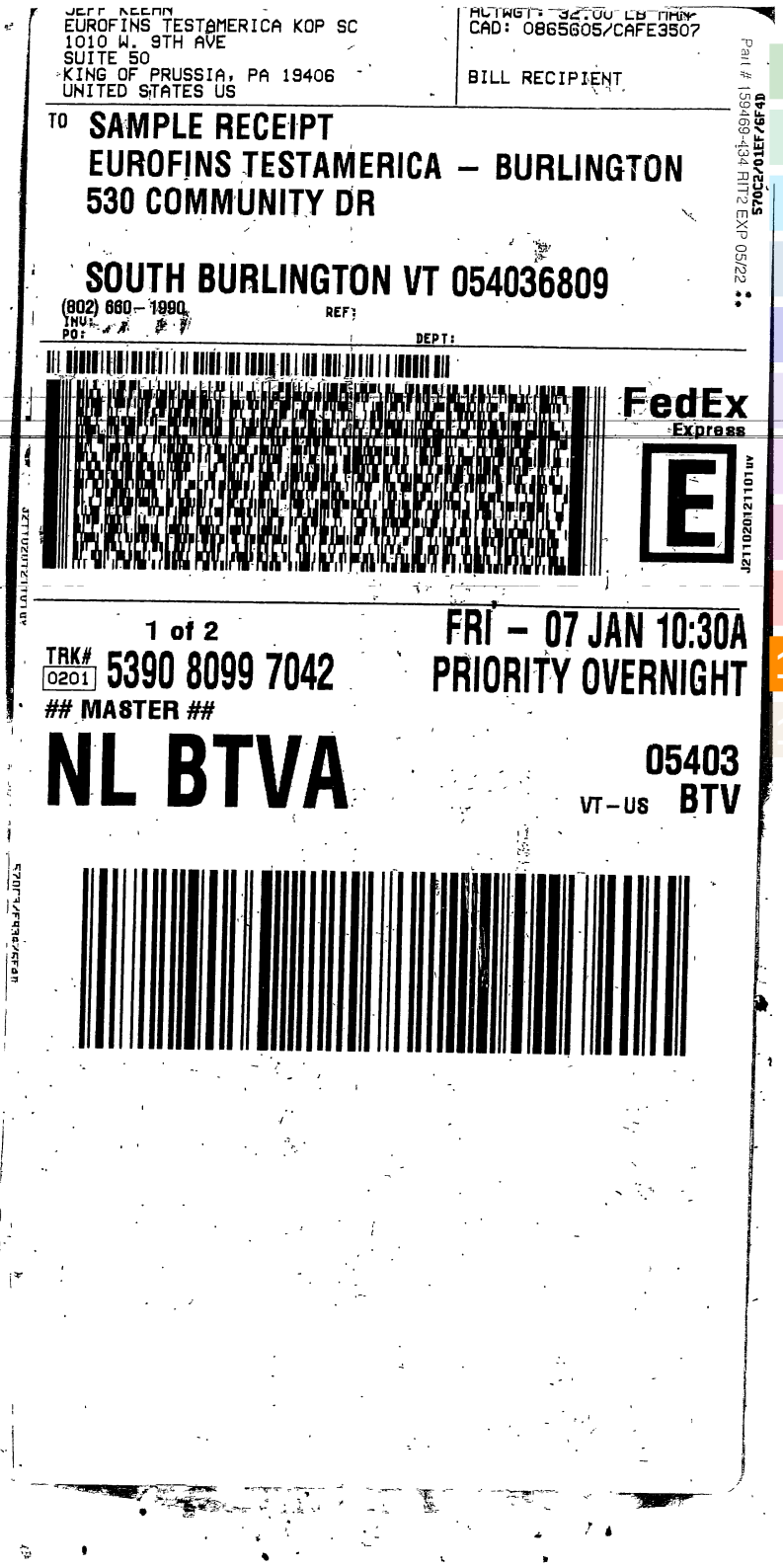
Pressure (inches of Hg)			
Start	Interior	Ambient 29.84	
Stop		29.87	

Special Instructions/QC Requirements & Comments:

Copy of results to cchornoff@rtenv.com

Samples Shipped by: Collin Charnoff	Date / Time: 1-6-22 @ 13:50	Samples Received by:	
Samples Relinquished by: FEDEX	Date / Time: 1/6/22 1405	Received by: FEDEX 1/7/22 11:50	
Relinquished by:	Date / Time:	Received by:	
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.25, dated 10/6/2020


JEFF KEENN
EUROFINS TESTAMERICA KOP SC
1010 W. 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US

ACTWGT: 32.00 LB MAN
CAD: 0865605/CAFE3507

BILL RECIPIENT

TO SAMPLE RECEIPT
EUROFINS TESTAMERICA - BURLINGTON
530 COMMUNITY DR

SOUTH BURLINGTON VT 054036809

(802) 660-1990
INV:
PO:
REF:
DEPT:

FedEx Express

1 of 2

TRK# 0201 5390 8099 7042

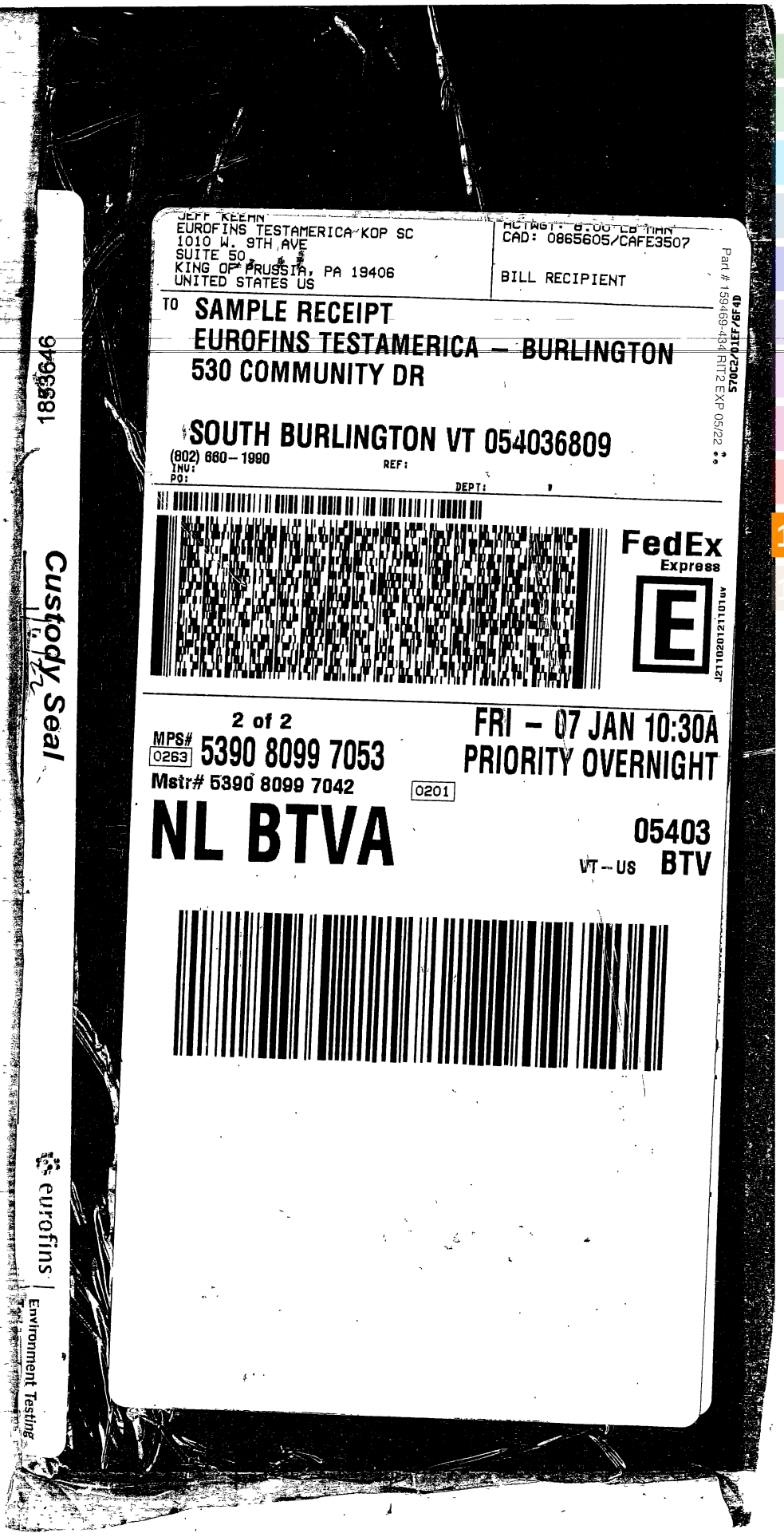
MASTER

FRI - 07 JAN 10:30A
PRIORITY OVERNIGHT

NL BTVA

05403
VT-US BTV

Part # 159469-434 RIT2 EXP 05/22


JEFF KEENN
EUROFINS TESTAMERICA KOP SC
1010 W. 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US
ACTWGT: 8.00 LB MAN
CAD: 0865605/CAFE3507
BILL RECIPIENT
TO SAMPLE RECEIPT
EUROFINS TESTAMERICA - BURLINGTON
530 COMMUNITY DR
SOUTH BURLINGTON VT 054036809
(802) 660-1990
INV:
PO:
REF:
DEPT:
FedEx
Express
2 of 2
MPS# 0263 5390 8099 7053
Mstr# 5390 8099 7042
0201
FRI - 07 JAN 10:30A
PRIORITY OVERNIGHT
NL BTVA
05403
VT-US BTV
Custody Seal
eurofins
Environment Testing
1853646

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 200-61681-1

Login Number: 61681
List Number: 1
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1853644, 646
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-62236-1
Client Project/Site: Collins Street

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: Walter Hungarter

Jill Miller

Authorized for release by:
3/1/2022 10:43:17 AM

Jill Miller, Senior Project Manager
(484)685-0871
Jill.Miller@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Lab Chronicle 7
Certification Summary 8
Method Summary 9
Sample Summary 10
Chain of Custody 11
Receipt Checklists 13

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62236-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 200-62236-1

Laboratory: Eurofins Burlington

Narrative

CASE NARRATIVE

Client: RT Environmental Services, Inc.

Project: Collins Street

Report Number: 200-62236-1

The samples in this sample set were analyzed by the EPA Compendium Method TO-15 for specific volatile organic constituents. Unless otherwise noted below, the analytical work followed the requirements outlined in the New Jersey DEP guidelines.

The practice of the laboratory is to analyze one canister from each batch of canisters that have been cleaned for re-use in order to certify the batch. The canisters that were used for this sampling event were from multiple batches. The certifying analyses were free of target analytes down to the concentration levels that are contractually required (nominally 0.2 PPBV). In order to provide for the lower level of detection required for canister certification, the laboratory analyzed a 500 milliliter volume. The laboratory's established practice for the analysis of field samples is based on the analysis of a 200 milliliter sample volume. Documentation of the analytical work supporting canister certification is included in the "Clean Can Certification" section of this submittal. Documentation of canister vacuum as delivered to, and received from, the field is included in the "Clean Can Certification" section of this submittal.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration are qualified on the quantitation reports, and extracted ion current profiles are included in the data package.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Chromatography Column - Restek RTX-624
Length - 60 meters
Inner Diameter - 0.32 millimeters
Film thickness - 1.8 micrometers
Trap Design - Entech Model 7100A (glass bead and Tenax with cryo-focusing)

A summary of the laboratory's current Method Detection Limits (MDLs) has been provided as part of this submittal, immediately following this transmittal letter.

RECEIPT

The samples were received on 02/23/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was C.

VOLATILE ORGANIC COMPOUNDS

Samples SV-1 (200-62236-1) and SV-2 (200-62236-2) were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 02/28/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: SV-1

Lab Sample ID: 200-62236-1

Date Collected: 02/21/22 10:02
Matrix: Air
Date Received: 02/23/22 10:40
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			02/28/22 20:42	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			02/28/22 20:42	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			02/28/22 20:42	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			02/28/22 20:42	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/28/22 20:42	1
Tetrachloroethene	**0.58**		0.20		ppb v/v			02/28/22 20:42	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/28/22 20:42	1
Trichloroethene	0.20	U	0.20		ppb v/v			02/28/22 20:42	1
Vinyl chloride	0.20	U	0.20		ppb v/v			02/28/22 20:42	1
Xylene (total)	0.70	U	0.70		ppb v/v			02/28/22 20:42	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			02/28/22 20:42	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			02/28/22 20:42	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			02/28/22 20:42	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			02/28/22 20:42	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/28/22 20:42	1
Tetrachloroethene	**4**		1		ug/m3			02/28/22 20:42	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/28/22 20:42	1
Trichloroethene	1	U	1		ug/m3			02/28/22 20:42	1
Vinyl chloride	0.5	U	0.5		ug/m3			02/28/22 20:42	1
Xylene (total)	3	U	3		ug/m3			02/28/22 20:42	1

Client Sample ID: SV-2

Lab Sample ID: 200-62236-2

Date Collected: 02/21/22 10:16
Matrix: Air
Date Received: 02/23/22 10:40
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			02/28/22 21:36	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			02/28/22 21:36	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			02/28/22 21:36	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			02/28/22 21:36	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/28/22 21:36	1
Tetrachloroethene	**0.24**		0.20		ppb v/v			02/28/22 21:36	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/28/22 21:36	1
Trichloroethene	0.20	U	0.20		ppb v/v			02/28/22 21:36	1
Vinyl chloride	0.20	U	0.20		ppb v/v			02/28/22 21:36	1
Xylene (total)	0.70	U	0.70		ppb v/v			02/28/22 21:36	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			02/28/22 21:36	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			02/28/22 21:36	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			02/28/22 21:36	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			02/28/22 21:36	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/28/22 21:36	1
Tetrachloroethene	**2**		1		ug/m3			02/28/22 21:36	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/28/22 21:36	1
Trichloroethene	1	U	1		ug/m3			02/28/22 21:36	1

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62236-1

Client Sample ID: SV-2
Date Collected: 02/21/22 10:16
Date Received: 02/23/22 10:40
Sample Container: Summa Canister 6L

Lab Sample ID: 200-62236-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.5	U	0.5		ug/m3			02/28/22 21:36	1
Xylene (total)	3	U	3		ug/m3			02/28/22 21:36	1

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62236-1

Client Sample ID: SV-1
Date Collected: 02/21/22 10:02
Date Received: 02/23/22 10:40

Lab Sample ID: 200-62236-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	177118	02/28/22 20:42	K1P	TAL BUR

Client Sample ID: SV-2
Date Collected: 02/21/22 10:16
Date Received: 02/23/22 10:40

Lab Sample ID: 200-62236-2
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	177118	02/28/22 21:36	K1P	TAL BUR

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. Job ID: 200-62236-1
Project/Site: Collins Street

Laboratory: Eurofins Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21 *
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-22
Florida	NELAP	E87467	06-30-22
Minnesota	NELAP	050-999-436	12-31-22
New Hampshire	NELAP	2006	12-18-22
New Jersey	NELAP	VT972	06-30-22
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-23
Virginia	NELAP	460209	12-14-22
Wisconsin	State	399133350	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62236-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62236-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-62236-1	SV-1	Air	02/21/22 10:02	02/23/22 10:40	Air Canister (6-Liter) #4311
200-62236-2	SV-2	Air	02/21/22 10:16	02/23/22 10:40	Air Canister (6-Liter) #5428

Eurofins TestAmerica, Burlington
530 Community Drive
Suite 11
South Burlington VT 05403-6809
phone 802.660 1990 fax 802.660 1919

Canister Samples Chain of Custody Record

200-62236 Chain of Custody

TestAmerica Laboratories Inc. assumes no liability with respect to the collection and shipment of these samples

America

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Walter Hungerford	Samples Collected By: Collin Chernoff	COC No
Company Name: RT Environmental Services	Phone: 610-265-1510		____ of ____ COCs
Address: 215 W. Church Rd	Email: whungerford@rtenv.com		TALS Project #
City/State/Zip: King of Prussia, PA 19406			For Lab Use Only:
Phone: 610-265-1510	Site Contact:		Walk-in Client:
FAX:	Tel/Fax		Lab Sampling
Project Name: Collins Street	Analysis Turnaround Time		
Site/Location: 3320 Collins Street	Standard (Specific)		Job / SDG No
P O # 2043-20-13	Rush (Specifiy)		(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level) PCE, 1,2,4-trichlorobenzene	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes.
SV-1	2-21-22	9:28	2-21-22	10:02	-28	-5	8968	4311	X														
SV-2	↓	9:56	↓	10:16	-29	-3	7771	5428	X														

Temperature (Fahrenheit)			
Start	Interior 60	Ambient 43	
Stop	60	45	
Pressure (inches of Hg)			
Start	Interior —	Ambient 30.37	
Stop	—	30.37	

Special Instructions/QC Requirements & Comments.

Samples Shipped by: Collin Chernoff	Date / Time: 2/22/22 @ 9:53	Samples Received by: EETN - Cop	2/22/22 1130
Samples Relinquished by: EETN - Cop	Date / Time: 2/22/22 1130	Received by: John P. Bear ETA Burl	2/23/22 10:40
Relinquished by:	Date / Time:	Received by:	
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev 2.28, dated 1/8/2021

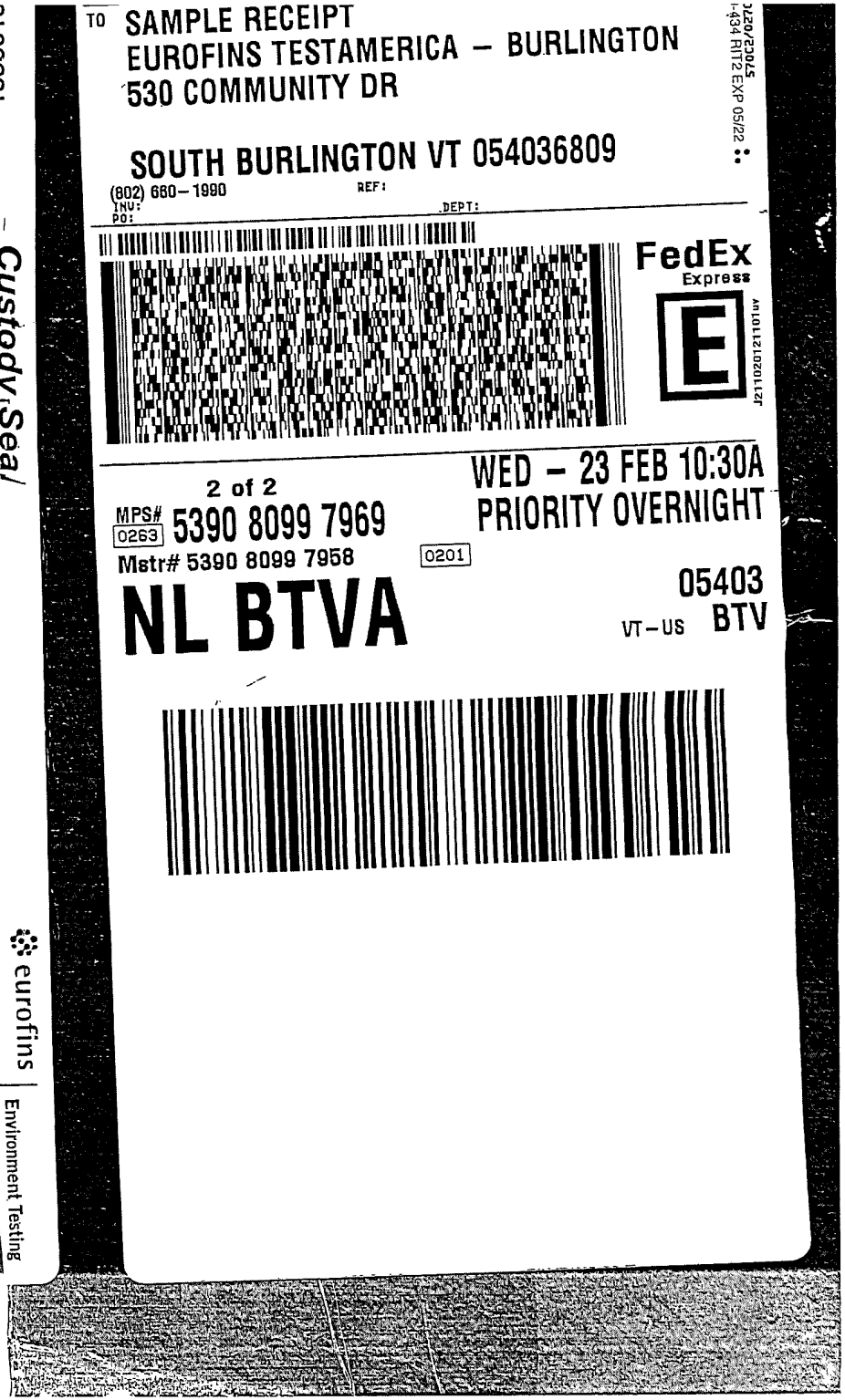
3/1/2022



1853018

Custody Seal

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Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 200-62236-1

Login Number: 62236
List Number: 1
Creator: Beane, John P

List Source: Eurofins Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1853018, 1853020
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-62237-1
Client Project/Site: Collins Street

For:
RT Environmental Services, Inc.
215 West Church Road
Suite 300
King of Prussia, Pennsylvania 19406

Attn: Walter Hungarter

Jill Miller

Authorized for release by:
2/28/2022 10:28:41 AM

Jill Miller, Senior Project Manager
(484)685-0871
Jill.Miller@Eurofinset.com

LINKS

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Visit us at: www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Lab Chronicle 7
Certification Summary 8
Method Summary 9
Sample Summary 10
Chain of Custody 11
Receipt Checklists 13

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62237-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 200-62237-1

Laboratory: Eurofins Burlington

Narrative

CASE NARRATIVE

Client: RT Environmental Services, Inc.

Project: Collins Street

Report Number: 200-62237-1

The samples in this sample set were analyzed by the EPA Compendium Method TO-15 for specific volatile organic constituents. Unless otherwise noted below, the analytical work followed the requirements outlined in the New Jersey DEP guidelines.

The practice of the laboratory is to analyze one canister from each batch of canisters that have been cleaned for re-use in order to certify the batch. The canisters that were used for this sampling event were from multiple batches. The certifying analyses were free of target analytes down to the concentration levels that are contractually required (nominally 0.2 PPBV). In order to provide for the lower level of detection required for canister certification, the laboratory analyzed a 500 milliliter volume. The laboratory's established practice for the analysis of field samples is based on the analysis of a 200 milliliter sample volume. Documentation of the analytical work supporting canister certification is included in the "Clean Can Certification" section of this submittal. Documentation of canister vacuum as delivered to, and received from, the field is included in the "Clean Can Certification" section of this submittal.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration are qualified on the quantitation reports, and extracted ion current profiles are included in the data package.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Chromatography Column - Restek RTX-624
Length - 60 meters
Inner Diameter - 0.32 millimeters
Film thickness - 1.8 micrometers
Trap Design - Entech Model 7100A (glass bead and Tenax with cryo-focusing)

A summary of the laboratory's current Method Detection Limits (MDLs) has been provided as part of this submittal, immediately following this transmittal letter.

RECEIPT

The samples were received on 02/23/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was C.

VOLATILE ORGANIC COMPOUNDS

Samples IA-1 (200-62237-1), IA-2 (200-62237-2) and OA-1 (200-62237-3) were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 02/25/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: IA-1

Lab Sample ID: 200-62237-1

Date Collected: 02/22/22 08:43
Matrix: Air
Date Received: 02/23/22 10:40
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			02/25/22 04:17	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			02/25/22 04:17	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 04:17	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			02/25/22 04:17	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 04:17	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			02/25/22 04:17	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 04:17	1
Trichloroethene	0.20	U	0.20		ppb v/v			02/25/22 04:17	1
Vinyl chloride	0.20	U	0.20		ppb v/v			02/25/22 04:17	1
Xylene (total)	0.70	U	0.70		ppb v/v			02/25/22 04:17	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			02/25/22 04:17	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			02/25/22 04:17	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 04:17	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			02/25/22 04:17	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 04:17	1
Tetrachloroethene	1	U	1		ug/m3			02/25/22 04:17	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 04:17	1
Trichloroethene	1	U	1		ug/m3			02/25/22 04:17	1
Vinyl chloride	0.5	U	0.5		ug/m3			02/25/22 04:17	1
Xylene (total)	3	U	3		ug/m3			02/25/22 04:17	1

Client Sample ID: IA-2

Lab Sample ID: 200-62237-2

Date Collected: 02/22/22 08:45
Matrix: Air
Date Received: 02/23/22 10:40
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			02/25/22 05:09	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			02/25/22 05:09	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 05:09	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			02/25/22 05:09	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 05:09	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			02/25/22 05:09	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 05:09	1
Trichloroethene	0.20	U	0.20		ppb v/v			02/25/22 05:09	1
Vinyl chloride	0.20	U	0.20		ppb v/v			02/25/22 05:09	1
Xylene (total)	0.70	U	0.70		ppb v/v			02/25/22 05:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			02/25/22 05:09	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			02/25/22 05:09	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 05:09	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			02/25/22 05:09	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 05:09	1
Tetrachloroethene	1	U	1		ug/m3			02/25/22 05:09	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 05:09	1
Trichloroethene	1	U	1		ug/m3			02/25/22 05:09	1

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62237-1

Client Sample ID: IA-2

Lab Sample ID: 200-62237-2

Date Collected: 02/22/22 08:45
Matrix: Air
Date Received: 02/23/22 10:40
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.5	U	0.5		ug/m3			02/25/22 05:09	1
Xylene (total)	3	U	3		ug/m3			02/25/22 05:09	1

Client Sample ID: OA-1

Lab Sample ID: 200-62237-3

Date Collected: 02/22/22 08:39
Matrix: Air
Date Received: 02/23/22 10:40
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			02/25/22 06:02	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			02/25/22 06:02	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 06:02	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			02/25/22 06:02	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 06:02	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			02/25/22 06:02	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			02/25/22 06:02	1
Trichloroethene	0.20	U	0.20		ppb v/v			02/25/22 06:02	1
Vinyl chloride	0.20	U	0.20		ppb v/v			02/25/22 06:02	1
Xylene (total)	0.70	U	0.70		ppb v/v			02/25/22 06:02	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1	U	1		ug/m3			02/25/22 06:02	1
1,1-Dichloroethane	0.8	U	0.8		ug/m3			02/25/22 06:02	1
1,1-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 06:02	1
1,2-Dichloroethene, Total	2	U	2		ug/m3			02/25/22 06:02	1
cis-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 06:02	1
Tetrachloroethene	1	U	1		ug/m3			02/25/22 06:02	1
trans-1,2-Dichloroethene	0.8	U	0.8		ug/m3			02/25/22 06:02	1
Trichloroethene	1	U	1		ug/m3			02/25/22 06:02	1
Vinyl chloride	0.5	U	0.5		ug/m3			02/25/22 06:02	1
Xylene (total)	3	U	3		ug/m3			02/25/22 06:02	1

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62237-1

Client Sample ID: IA-1
Lab Sample ID: 200-62237-1
Date Collected: 02/22/22 08:43
Matrix: Air
Date Received: 02/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	177030	02/25/22 04:17	A1B	TAL BUR

Client Sample ID: IA-2
Lab Sample ID: 200-62237-2
Date Collected: 02/22/22 08:45
Matrix: Air
Date Received: 02/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	177030	02/25/22 05:09	A1B	TAL BUR

Client Sample ID: OA-1
Lab Sample ID: 200-62237-3
Date Collected: 02/22/22 08:39
Matrix: Air
Date Received: 02/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	177030	02/25/22 06:02	A1B	TAL BUR

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. Job ID: 200-62237-1
Project/Site: Collins Street

Laboratory: Eurofins Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21 *
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-22
Florida	NELAP	E87467	06-30-22
Minnesota	NELAP	050-999-436	12-31-22
New Hampshire	NELAP	2006	12-18-22
New Jersey	NELAP	VT972	06-30-22
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-23
Virginia	NELAP	460209	12-14-22
Wisconsin	State	399133350	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62237-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Collins Street

Job ID: 200-62237-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-62237-1	IA-1	Air	02/22/22 08:43	02/23/22 10:40	Air Canister (6-Liter) #4455
200-62237-2	IA-2	Air	02/22/22 08:45	02/23/22 10:40	Air Canister (6-Liter) #5421
200-62237-3	OA-1	Air	02/22/22 08:39	02/23/22 10:40	Air Canister (6-Liter) #4566

Eurofins TestAmerica, Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802 660 1990 fax 802.660 1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing America

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** Walter Thurgate	**Samples Collected By:** Colin Chisnoff	COC No
Company Name RT Environmental Service	Phone: wthurgate@rtenv.com		____ of ____ COCs
Address 215 W. Church Rd	Email 610-265-1510		TALS Project #:
City/State/Zip King of Prussia PA 19406			**For Lab Use Only**
Phone 610-265-1510	**Site Contact:**		Walk-in Client:
FAX	**Tel/Fax**		Lab Sampling
Project Name Collins Street	**Analysis Turnaround Time**		Job / SDG No
Site/Location 3320 Collins Street	Standard (Specific)		(See below for Add'l Items)
P O # 2043-20-13	Rush (Specifiy)		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level) PCE & Other Analytes	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes
IA-1	2/21/22	9:33	2/22/22	8:43	-29	-8	5834	4455	X														
IA-2	1	9:38	1	8:45	-30	-9	2807	5421	X														
OA-1	1	9:43	1	8:39	-27	-8	4761	4568	X														

200-62237 Chain of Custody

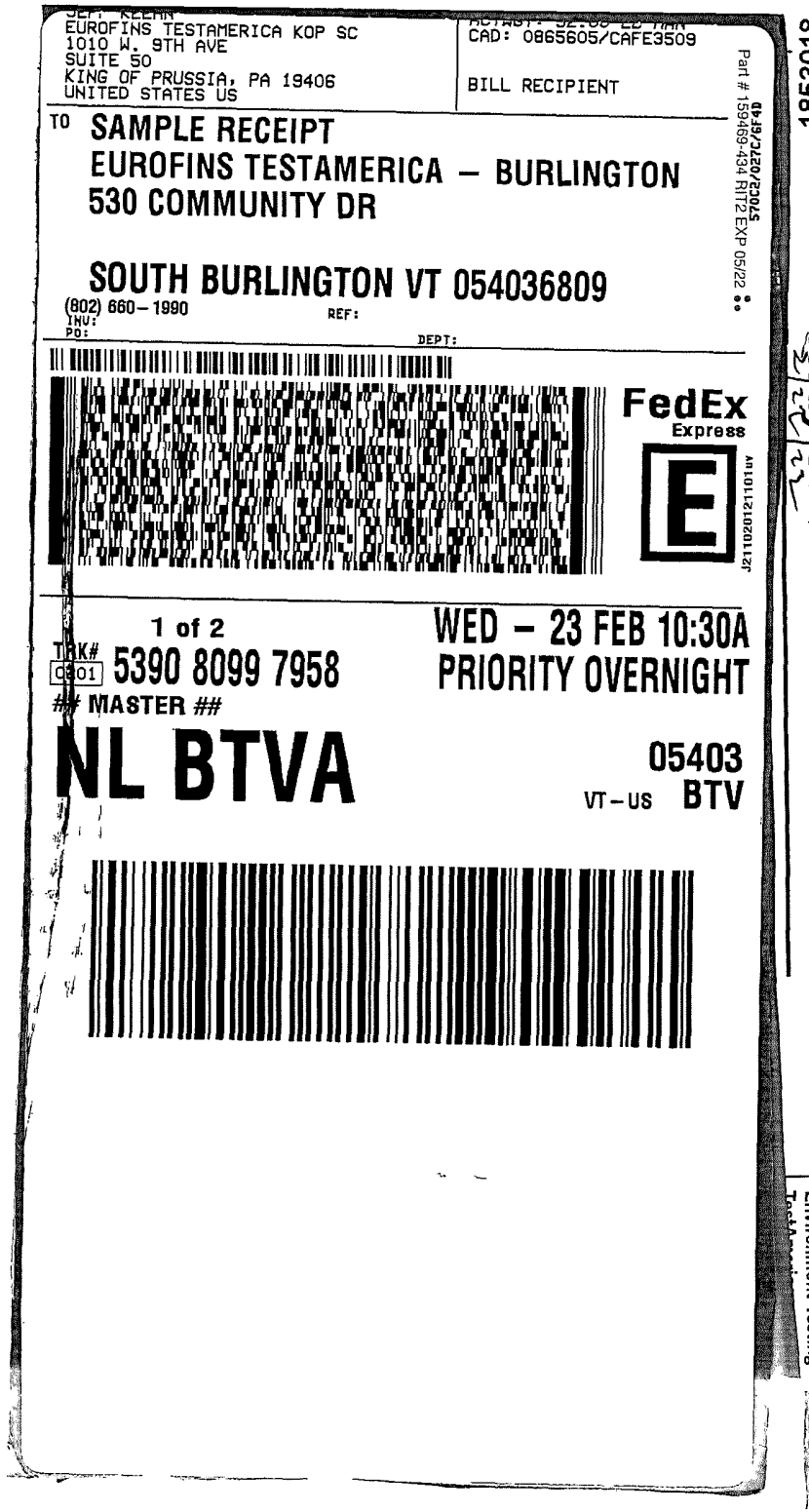
	Temperature (Fahrenheit)		
Start	Interior 60	Ambient 43	
Stop	60	52	
	Pressure (inches of Hg)		
Start	Interior —	Ambient 30.37	
Stop	—	30.27	

Special Instructions/QC Requirements & Comments:

Samples Shipped by: Colin Chisnoff	**Date / Time:** 2/22/22 @ 9:53	**Samples Received by:** EETN-ICOP 2/22/22 1130
Samples Relinquished by: EETN-ICOP	**Date / Time:** 2/22/22 1130	**Received by:** Sam P. Bean ETA Bvtl 2/23/22 10:40
Relinquished by:	**Date / Time**	**Received by:**

Lab Use Only: **Shipper Name:** **Opened by:** **Condition:**

Form No. CA-C-WI-003, Rev. 2.28, dated 1/8/2021



EUROFINS TESTAMERICA KOP SC
1010 W. 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US

CAD: 0865605/CAFE3509

BILL RECIPIENT

TO SAMPLE RECEIPT
EUROFINS TESTAMERICA – BURLINGTON
530 COMMUNITY DR

SOUTH BURLINGTON VT 054036809

(802) 660–1990
INV:
PO:
REF:
DEPT:

Part # 159469-434 RIT2 EXP 05/22

FedEx Express

1 of 2
TRK# 0201 5390 8099 7958
MASTER

WED – 23 FEB 10:30A
PRIORITY OVERNIGHT

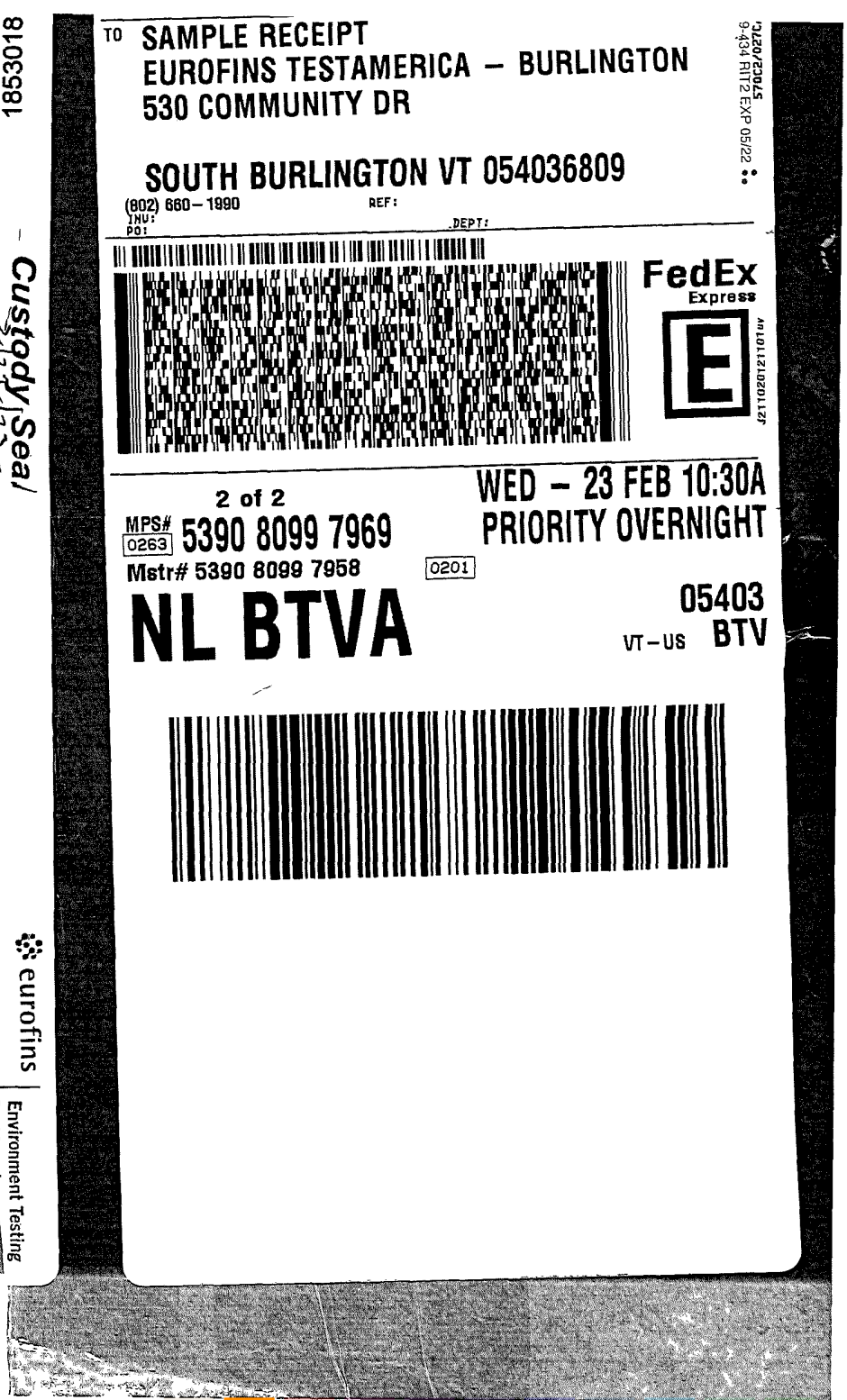
NL BTVA

05403
VT–US BTV

1853018

Custody Seal

eurofins | Environment Testing



TO SAMPLE RECEIPT
EUROFINS TESTAMERICA – BURLINGTON
530 COMMUNITY DR

SOUTH BURLINGTON VT 054036809

(802) 660–1990
INV:
PO:
REF:
DEPT:

9-434 RIT2 EXP 05/22

FedEx Express

2 of 2
MPS# 0263 5390 8099 7969
Mstr# 5390 8099 7958 0201

WED – 23 FEB 10:30A
PRIORITY OVERNIGHT

NL BTVA

05403
VT–US BTV

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc. Job Number: 200-62237-1

Login Number: 62237 **List Source: Eurofins Burlington**
List Number: 1
Creator: Beane, John P

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1853018, 1853020
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX B

FIELD ACTIVITY LOGS

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC: WH, JCL, EFB, File

Client:	Project # 2093-020	Name: Aaron Schneider
Job Location: Philadelphia, PA	Date: 2/22/19	Weather: overcast mid 30s-40s
Site Address: 3320 Collins St		
Equipment: monsoon pump, battery, tubing		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No (Yes)	Soil Pile: No Yes/Size	

FIELD ACTIVITY:

RT on site 7:00 am
MW-1 purge, DTW, Sampled @ 8:00
MW 18S purge, DTW, Sampled @ 9:40
MW 18D Purge, DTW, Sampled @ 10:30
MW 19S DTW, Purge, Sampled @ 11:55
MW 19D DTW, Purge, Sampled @ 12:57
MW 17S DTW, purge, Sampled @ 14:50
MW ~~16S~~ 16S DTW, Purge, Sampled @ ~~Error~~ 15:15
MW 16D DTW, Purge, Sampled @ 15:40

Samples to lab 2/22/19

Comments: Field ow rental of monsoon pump, battery and controller called off 3:40pm

Signature: Aaron Schneider

RT Environmental Services, Inc.
Your Solution-Oriented Environmental Services Firm

SAMPLING LOCATION: MW 1

Project Name: Collins Street	**Project Location:** Philadelphia, PA
Sampler: Aaron Schrader	**RT Project Number:** 2043-020

Date: 2/22/19 Air Temp.: 37 °F ☑ °C ☐	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:

PURGING			**SAMPLING**
Well Diameter: 2" ☑ 4" ☐ Screen Interval:			Date/Time Sampled: 2/22/19 8:00
	Current	Previous	
	[2/22/19]	[/ /]	Depth to Water: 14.50
Depth to Water:	14.21 ft.	ft.	
Total Well Depth:	25.65 ft.	ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other
Height of Water Column:	11.44 ft.		Parameters ☑ VOCs ☐ VOCs +10 ☐ SVOCs ☐ TAL-Metals ☐ Pest./Herb. ☐ PAHs ☐ PCBs ☐ Other: Wet Chem. Parameters ☐ Other: PA fuel #2
Well Volume:	1.86 gal.		
4 -inch well = (Height of water column in feet) x (0.653)			
2-inch well = (Height of water column in feet) x (0.163)			
Purge Volume:	5.59 gal. [Well volume x3]		
Depth to Pump Intake:	~20 ft.		
Start Purge Time:	7:15		
End Purge Time:	7:55		
Purge Rate:	0.5 gal./min.		Date to Lab: 2/22/19
Purge Duration:	~20 min		
Total Volume Purged:	~10 gal.		Laboratory: TA
Purge Method: ☑ **Pump** ☐ **Bailer**			
Comments: turbid rust colored. Purged 7:15-7:25 stopped to clean pump. restart from 7:40 - 7:55			Comments:

Field Data

Time (24-hr.)										
Temperature (°C)										
ductance (µS/cm)										
DO (mg/L)										
pH										
ORP (mV)										
Turbidity										

RT Environmental Services, Inc.
Your Solution-Oriented Environmental Services Firm

SAMPLING LOCATION: MW 18S

Project Name: Collins St	**Project Location:** Philadelphia, PA
Sampler: A. Schroeder	**RT Project Number:** 2013-020

Date: 2/22/19	Weather Cond.: ☑ Sunny ☐ Rainy ☑ Overcast ☐ Other:
Air Temp.: 40 °F ☑ °C ☐	

PURGING			SAMPLING	
Well Diameter: 2" ☑ 4" ☐ Screen Interval:			Date/Time Sampled: 2/22/19 9:40	
	Current	Previous		
	[2/22/19]	[1/2/19]	Depth to Water: 22.96'	
Depth to Water:	14.62 ft.	15.35 ft.		
Total Well Depth:	26.65 ft.	26.65 ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other	
Height of Water Column:	12.03 ft.		Parameters: ☑ VOCs ☐ VOCs +10 ☐ SVOCs ☐ TAL-Metals ☐ Pest./Herb. ☐ PAHs ☐ PCBs ☐ Other: Wet Chem. Parameters ☐ Other: PA Fuels #2	
Well Volume:	1.96 gal.			
4 -inch well = (Height of water column in feet) x (0.653)				
2-inch well = (Height of water column in feet) x (0.163)				
Purge Volume:	5.88 gal. [Well volume x3]			
Depth to Pump Intake:	24 ft.			
Start Purge Time:	9:15			
End Purge Time:	9:35			
Purge Rate:	0.25 gal./min.		Date to Lab: 2/22/19	
Purge Duration:	20 min			
Total Volume Purged:	~5.8 gal.		Laboratory: TA	
Purge Method: ☑ Pump ☐ Bailer				
Comments: light tan quick draw down			Comments:	

Field Data

Time (24-hr.)										
Temperature (°C)										
Conductance (µS/cm)										
DO (mg/L)										
pH										
ORP (mV)										
Turbidity										

RT Environmental Services, Inc.

Your Solution-Oriented Environmental Services Firm

SAMPLING LOCATION: MW 18D

Project Name: Collins St.	**Project Location:** Philadelphia, PA
Sampler: A Schneider	**RT Project Number:** 2013-020

Date: 2/22/19 Air Temp.: 40 F ☑ C ☐	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:

PURGING			**SAMPLING**
Well Diameter: 2" ☐ 4" ☑ Screen Interval:			Date/Time Sampled: 2/22/19 10:31
	Current	Previous	
	[2/22/19]	[1/2/19]	Depth to Water: 40.32 ft
Depth to Water:	14.71 ft.	15.15 ft.	
Total Well Depth:	54.50 ft.	52.51 ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other
Height of Water Column: 39.79 ft.			Parameters ☑ VOCs ☐ VOCs +10 ☐ SVOCs ☐ TAL-Metals ☐ Pest./Herb. ☐ PAHs ☐ PCBs ☐ Other: Wet Chem. Parameters ☐ Other: PA fuel #2
Well Volume: 6.45 gal.			
4 -inch well = (Height of water column in feet) x (0.653)			
2-inch well = (Height of water column in feet) x (0.163)			
Purge Volume: 19.5 gal. [Well volume x3]			
Depth to Pump Intake: 245 ft.			
Start Purge Time: 9:50			
End Purge Time: 10:30			
Purge Rate: 0.5 gal./min.			Date to Lab: 2/22/19
Purge Duration: 40 min			
Total Volume Purged: ~20 gal.			Laboratory: TA
Purge Method: ☑ **Pump** ☐ **Bailer**			
Comments: Clear			Comments:

Field Data

Time (24-hr.)										
Temperature (°C)										
ductance (µS/cm)										
DO (mg/L)										
pH										
ORP (mV)										
Turbidity										

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SAMPLING LOCATION: MW 19S

Project Name: Collins St.	**Project Location:** Philadelphia, PA
Sampler: A. Schneider	**RT Project Number:** 2043-020

Date: 2/22/19	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:
Air Temp.: 45 °F ☑ °C ☐	

PURGING			**SAMPLING**	
Well Diameter: 2" ☑ 4" ☐ Screen Interval:			Date/Time Sampled: 2/22/19 11:55	
	Current	Previous		
	[2/22/19]	[ ]/2/19]	Depth to Water: 22.34 ft	
Depth to Water:	14.01 ft.	13.85 ft.		
Total Well Depth:	26.56 ft.	26.55 ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other	
Height of Water Column: 12.55 ft.			Parameters	
Well Volume: 2.04 gal.			☑ VOCs ☐ VOCs +10	
4 -inch well = (Height of water column in feet) x (0.653)			☐ SVOCs ☐ TAL-Metals	
2-inch well = (Height of water column in feet) x (0.163)			☐ Pest./Herb. ☐ PAHs	
Purge Volume: 6.14 gal. [Well volume x3]			☐ PCBs ☐ Other: Wet Chem. Parameters	
Depth to Pump Intake: 22.22 ft.			☐ Other: PA fuel #2	
Start Purge Time: 11:30				
End Purge Time: 11:50				
Purge Rate: 0.3 gal./min.			Date to Lab: 2/22/19	
Purge Duration: 20 min				
Total Volume Purged: 26 gal.			Laboratory: TA	
Purge Method: ☑ **Pump** ☐ **Bailer**				
Comments: light-tan			Comments:	

Field Data

Time (24-hr.)										
Temperature (°C)										
ductance (µS/cm)										
DO (mg/L)										
pH										
ORP (mV)										
Turbidity										

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SAMPLING LOCATION: MW 19 D

Project Name: Collins St.	**Project Location:** Philadelphia
Sampler: A. Schneider	**RT Project Number:** 2043-020

Date: 2/22/19

Air Temp.: 45 °F ☑ °C ☐

Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:

PURGING

Well Diameter: 2" ☑ 4" ☐ Screen Interval:

	Current	Previous
	[2/22/19]	[1/2/19]
Depth to Water:	14.55 ft.	14.45 ft.
Total Well Depth:	51.41 ft.	51.95 ft.
Height of Water Column:	36.86 ft.	

Well Volume: 6.00 gal.

4 -inch well = (Height of water column in feet) x (0.653)

2-inch well = (Height of water column in feet) x (0.163)

Purge Volume: 18.02 gal. [Well volume x3]

Depth to Pump Intake: ~45 ft.

Start Purge Time: 12:20

End Purge Time: 12:56

Purge Rate: 0.5 gal./min.

Purge Duration: 36 min

Total Volume Purged: ~18 gal.

Purge Method: ☑ **Pump** ☐ **Bailer**

Comments: Clear

SAMPLING

Date/Time Sampled: 2/22/19 12:57

Depth to Water: 30.13 ft

Sampling Method: ☑ Pump ☐ Bailer ☐ Other

Parameters

☑ VOCs ☐ VOCs +10

☐ SVOCs ☐ TAL-Metals

☐ Pest./Herb. ☐ PAHs

☐ PCBs ☐ Other: Wet Chem. Parameters

☐ Other: Fuel #2

Date to Lab: 2/22/19

Laboratory: TA

Comments:

Field Data

Time (24-hr.)										
Temperature (°C)										
ductance (µS/cm)										
DO (mg/L)										
pH										
ORP (mV)										
Turbidity										

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SAMPLING LOCATION: MW 17S

Project Name: Collins St	**Project Location:** Philadelphia
Sampler: A Schmeltz	**RT Project Number:** 2023-020

Date: 2/22/19	Weather Cond.:
Air Temp.: 45 °F ☑ C ☐	☐ Sunny ☐ Rainy ☑ Overcast
	☐ Other:

PURGING			**SAMPLING**	
Well Diameter: 2" ☑ 4" ☐ Screen Interval:			Date/Time Sampled:	2/22/19 14:50
	Current	Previous		
	[2/22/19]	[1/2/19]	Depth to Water:	16.35 ft
Depth to Water:	10.05 ft.	7.85 ft.		
Total Well Depth:	26.41 ft.	26.75 ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other	
Height of Water Column:	16.36 ft.		Parameters	
Well Volume:	2.66 gal.		☑ VOCs ☐ VOCs +10	
4 -inch well = (Height of water column in feet) x (0.653)			☐ SVOCs ☐ TAL-Metals	
2-inch well = (Height of water column in feet) x (0.163)			☐ Pest./Herb. ☐ PAHs	
Purge Volume:	8 gal. [Well volume x3]		☐ PCBs ☐ Other: Wet Chem. Parameters	
Depth to Pump Intake:	23 ft.		☑ Other: PA Fuel #2	
Start Purge Time:	14:35			
End Purge Time:	14:45			
Purge Rate:	~~0.5~~ 1 gal./min.		Date to Lab:	2/22/19
Purge Duration:	10 min			
Total Volume Purged:	~10 gal.		Laboratory:	TA
Purge Method: ☑ Pump ☐ Bailer				
Comments: light tan			Comments:	

Field Data

Time (24-hr.)										
Temperature (°C)										
ductance (µS/cm)										
DO (mg/L)										
pH										
ORP (mV)										
Turbidity										

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SAMPLING LOCATION: MW 103

Project Name: Collins St	**Project Location:** Philadelphia, PA
Sampler: A. Schneider	**RT Project Number:** 2043-020

Date: 2/22/19	Weather Cond.: ❑ Sunny ❑ Rainy ☑ Overcast ❑ Other:
Air Temp.: 40 °F ☑ °C ❑	

PURGING

Well Diameter: 2" ☑ 4" ❑ Screen Interval:

	Current	Previous
	[2/22/19]	[1/2/19]
Depth to Water:	12.30 ft.	12.01 ft.
Total Well Depth:	24.45 ft.	24.41 ft.
Height of Water Column:	12.15 ft.	
Well Volume:	1.98 gal.	

4 -inch well = (Height of water column in feet) x (0.653)
2-inch well = (Height of water column in feet) x (0.163)

Purge Volume:	5.94 gal. [Well volume x3]
Depth to Pump Intake:	~22 ft.
Start Purge Time:	2:55
End Purge Time:	3:14
Purge Rate:	0.3 gal./min.
Purge Duration:	19 min
Total Volume Purged:	~5.7 gal.
Purge Method:	☑ Pump ❑ Bailer

Comments: Quick draw down. Stabilized, recharge faster than 1st sampling events.

SAMPLING

Date/Time Sampled:	2/22/19 1915
Depth to Water:	14.35 ft
Sampling Method:	☑ Pump ❑ Bailer ❑ Other

Parameters
☑ VOCs ❑ VOCs +10
❑ SVOCs ❑ TAL-Metals
❑ Pest./Herb. ❑ PAHs
❑ PCBs ❑ Other: Wet Chem. Parameters
☑ Other: PA Fuel #2

Date to Lab:	2/22/19
Laboratory:	TA

Comments:

Field Data

Time (24-hr.)										
Temperature (°C)										
ductance (µS/cm)										
DO (mg/L)										
pH										
ORP (mV)										
Turbidity										

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SAMPLING LOCATION: MW 16D

Project Name: Gilins St	**Project Location:** Philadelphia, PA
Sampler: A. Schmerda	**RT Project Number:** 2043.020

Date: 2/22/15	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:
Air Temp.: 40 °F ☑ °C ☐	

PURGING

Well Diameter: 2" ☑ 4" ☐ Screen Interval:

	Current	Previous
	[2/22/15]	[1/12/15]
Depth to Water:	12.71 ft.	12.41 ft.
Total Well Depth:	46.51 ft.	49.95 ft.
Height of Water Column:	33.8 ft.	

Well Volume: 6.04 gal.
4 -inch well = (Height of water column in feet) x (0.653)
2-inch well = (Height of water column in feet) x (0.163)

Purge Volume:	18 gal. [Well volume x3]
Depth to Pump Intake:	~45 ft.
Start Purge Time:	3:20
End Purge Time:	3:38
Purge Rate:	1 gal./min.
Purge Duration:	18 min
Total Volume Purged:	~18 gal gal.
Purge Method: ☑ Pump ☐ Bailer	

Comments: light tan odor Start of purge, cleared up but still had turbidity. light tan odor Sampling.

SAMPLING

Date/Time Sampled: 2/22/15 15:40

Depth to Water: 37.51 ft

Sampling Method: ☑ Pump ☐ Bailer ☐ Other

Parameters
☑ VOCs ☐ VOCs +10
☐ SVOCs ☐ TAL-Metals
☐ Pest./Herb. ☐ PAHs
☐ PCBs ☐ Other: Wet Chem. Parameters
☑ Other: PA Fuel H 2

Date to Lab: 2/22/15

Laboratory: TA

Comments:

Field Data

Time (24-hr.)										
Temperature (°C)										
Conductance (µS/cm)										
DO (mg/L)										
pH										
ORP (mV)										
Turbidity										

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

cc: WH, JCL, GRB, File

Client:	Project # 2043-020	Name: Aaron Schneider
Job Location: Philadelphia, PA	Date: 2/22/19	Weather: Overcast 30s-40s
Site Address: 3320 Collins St		
Equipment: SKC pump, Canister/regulators, tubing		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No (Yes)	Soil Pile: No Yes/Size	

FIELD ACTIVITY: Flow 188.2 ml/min

SV-2 reg: 6101
canister: 6296
purge: 9:05-9:15
sampled 9:15-9:20
start pressure: -30 mm Hg
end pressure: -4 mm Hg

SV-3 reg: 5960
canister: 6347
purge: 10:36-10:46
Sampled: 10:46-10:51
start pressure: -30 mm Hg
end pressure: -10 mm Hg ?
Do not run Can 6347

Samples Collected. regulator dropped to -30 mm Hg and increased to -30 mm Hg. After turning off Can pressure increased -5 mm Hg below

reg: 6101
Canister: 3805
purge: 13:35-13:45
Sampled: 13:56-14:01
Start press: -29 mm Hg
end press: -3 mm Hg
water in Sample train dried pump tubing, valve. resampled using new canister.

SV-1 reg: 5011
canister: 6278
Sampled: 13:20-13:25
purge: 13:10-13:20
start pressure: -30 mm Hg
end pressure: -7.5 mm Hg

Comments: Samples to lab 2/22/19

Aaron Schneider

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	**Client Project Manager:** T Lang, D. Wyatt	**Samples Collected By:** Kara Schneider
Company Name: RT GW	**Phone:**	COC No: 1 of COCs
Address:	**Email:**	
City/State/Zip KOP PA		**For Lab Use Only:**
Phone:	**Site Contact:**	Walk-in Client:
FAX:	**Tel/Fax**	Lab Sampling:
Project Name: Collins Street	**Anaylsis Turnaround Time**	Job / SDG No.:
Site/Location: Philadelphia, PA	Standard (Specific): ✓	(See below for Add'l Items)
PO# 2043-020-02	Rush (Specifiy):	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes sectio	*Sample Type*	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-1	7/22/19	13:10	13:20	-30	-25	5011	6078	X														
SV-2	"	9:15	9:20	-30	-4	6707	6096	X														
SV-3	"	13:56	14:01	-29	-3	3809	6101	X														

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	**Date / Time:** 7/22/19 4:54	**Samples Received by:**
Samples Relinquished by:	**Date / Time:**	**Received by:**
Relinquished by:	**Date / Time:**	**Received by:**

Lab Use Only: **Shipper Name:** **Opened by:** **Condition:**

PINE

ORDER CONFIRMATION — RENTAL

Pine Environmental Services LLC
780 East 5th Avenue, Suite 110
King of Prussia, PA - 19406
Main: (484) 690-1019 Toll Free:
Fax:
www.pine-environmental.com

Order Date
02/21/19
Ship Date
02/21/19
Begin Date
02/22/19

Order #
C441482
Requested Date

Requested Time

Customer
RT Environmental Services Inc.
****MUST HAVE PO****, 215 West Church Road
King of Prussia, PA - 19406
United States

Ship To
RT Environmental Services Inc.
215 West Church Road
KING OF PRUSSIA, PA - 19406
United States
Attn:
Phone:

Prepared By
Matthew Greever
Email:aschneider@rtenv.com

Customer #
38844001
Project #

Payment Terms
Net 30 Days
Ordered By
AARON SCHNEIDER

Currency
USD US Dollar
Purchase Order #
TBA
Delivery Method
Pine Driver
6103229282

Item #	Type	Description	Qty	U/M	Whse
		TRANSFER FROM C440413			
51329	RENTAL	SKC Sample Pump-P Kit Universal PCXR8	1	EA	R03
51325	RENTAL	Defender 510-M (50- 5,000mL) ±1% of reading volumetric	1	EA	R03

call off 60815W

343

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

cc: GHWH, GRG, File

Client:	Project # 2013-20	Name: A. Schneider
Job Location: Philadelphia, PA	Date: 1/2/19	Weather: Overcast 35-40's
Site Address: 3320 Collins St		
Equipment: GW Sampling,		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No (Yes)	Soil Pile: No Yes/Size	

FIELD ACTIVITY:

RT on site 9:00am

MW 17 S – DTW, purge, sampled at 10:00.
turbid to start clears after ~25 mins

MW 16 D DTW, purge, sampled @ 10:50
clear light tan at start of purge, little turbidity.
draws down quickly slow recharge

MW 16 S DTW, purge, sampled @ 12:07
draws down quickly, slow recharge, check DTW every 5 mins.

MW 18 D - DTW, purge, sampled @ 13:15
draws down quickly, slow recharge

MW 18 S DTW, purge, sampled @ 16:20 stopped
quick draw stopped purge to adjust. restarted at 13:40
after letting well recharge. drawed down 20ft ft
stopped let well recharge ~1 1/2 hrs, restart
purge 4:00 - 4:15

MW 19 S DTW, purge sampled @ 15:00
during purge gw did not clear up. Gas cleared down
at the start of purge. Light turbidity at sampling.

MW 19 D DTW, purge, sampled @ 15:50
quick draw down to 25 ft stabilized between 25 - 30 ft

Comments:
Sample Shallow wells before deep wells next sampling events.

Pine Call of 361MG

Signature: A. Schneider

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SAMPLING LOCATION: MW 175

Project Name:	**Project Location:**
Sampler: A. Schneider	**RT Project Number:** 2017-20

Date: 1/2/19 Air Temp.: 40 °F ☑ C ☐	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:

PURGING			**SAMPLING**
Well Diameter: 2" ☑ 4" ☐ Screen Interval:			Date/Time Sampled: 1/2/19 10:00
	Current	Previous	
	[1 / 2 / 19]	[/ /]	
Depth to Water:	9.85 ft.	ft.	Depth to Water: 15.21 ft
Total Well Depth:	26.75 ft.	ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other
Height of Water Column:	16.90 ft.		Parameters
Well Volume:	2.75 gal.		☑ VOCs ☐ VOCs +10
4 -inch well = (Height of water column in feet) x (0.653)			☐ SVOCs ☐ TAL-Metals
2-inch well = (Height of water column in feet) x (0.163)			☐ Pest./Herb. ☐ PAHs
Purge Volume:	8.26 gal. [Well volume x3]		☐ PCBs ☐ Other: Wet Chem. Parameters
Depth to Pump Intake:	22 ft.		☐ Other: PA #2 Fuel
Start Purge Time:	9:34		
End Purge Time:	9:55		
Purge Rate:	0.5 gal./min.		Date to Lab: 1/3/19
Purge Duration:	21		
Total Volume Purged:	10.5 gal.		Laboratory:
Purge Method: ☑ Pump ☐ Bailer			
Comments: fan and turbid to begin slowly cleared up.			Comments:

Field Data

Time (24-hr.)	9:25	9:30	9:35	9:40	9:45	9:50	9:55	~~10:00~~		
Temperature (°C)	16.56	16.91	16.98	17.15	17.17	17.17	17.21			
ductance (µS/cm)	0.832	0.822	0.853	0.830	0.854	0.865	0.871			
DO (mg/L)	5.27	2.37	2.36	2.77	2.75	3.06	3.06			
pH	6.25	5.98	6.05	6.14	6.17	6.21	6.22			
ORP (mV)	105.5	46.7	8.2	4.5	-0.1	-1.3	-3.1			
Turbidity	fan turbid	fan turbid	fan turbid	light fan	clear	clear	clear			

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SAMPLING LOCATION: 16D

Project Name:	**Project Location:**
Sampler: A. Schaefer	**RT Project Number:** 2043-20

Date: 1/2/19 Air Temp.: 40 °F ☑ °C ☐	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:
PURGING	**SAMPLING**
Well Diameter: 2 ☑ 4" ☐ Screen Interval:	Date/Time Sampled: 1/2/19 10:58am
Current: [1/2/19] Previous: [/ /]	
Depth to Water: 12.41 ft. / ft.	Depth to Water: 38.10 ft
Total Well Depth: 44.95 ft. / ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other
Height of Water Column: 32.54 ft.	Parameters
Well Volume: 6.11 gal.	☐ VOCs ☐ VOCs +10
4 -inch well = (Height of water column in feet) x (0.653)	☐ SVOCs ☐ TAL-Metals
2-inch well = (Height of water column in feet) x (0.163)	☐ Pest./Herb. ☐ PAHs
Purge Volume: ~~18.33~~ gal. [Well volume x3]	☐ PCBs ☐ Other: Wet Chem. Parameters
Depth to Pump Intake: 45 ft.	☐ Other: #2 fuel
Start Purge Time: 10:20	
End Purge Time: 10:50	
Purge Rate: 0.6 gal./min.	Date to Lab: 1/3/19
Purge Duration: 30	
Total Volume Purged: ~18 gal.	Laboratory:
Purge Method: ☑ Pump ☐ Bailer	
Comments: clear/light tan at start of purge. Little turbidity, drawdown quickly; Check every 5 mins DTW. Slow recharge.	Comments:

Field Data

Time (24-hr.)	10:20	10:25	10:30	10:35	10:40					
Temperature (°C)	17.35	17.21	17.43	17.41						
ductance (µS/cm)	0.342	0.499	0.538	0.505						
DO (mg/L)	7.88	7.20	7.01	6.98						
pH	6.53	6.30	6.27	6.28						
ORP (mV)	86.2	96.3	101.2	103.4						
Turbidity	clear/ light tan	clear/ light tan	clear	clear						

3018

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SAMPLING LOCATION: 165

Project Name: Collins St.	**Project Location:**
Sampler: A Schneider	**RT Project Number:** 2043-20

Date: 1/2/19	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:
Air Temp.: 20 °F ☑ °C ☐	

PURGING			**SAMPLING**
Well Diameter: 2" ☑ 4" ☐	Screen Interval:		Date/Time Sampled: 1/2/19 12:07
	Current	Previous	
	[1 / 2 / 19]	[/ /]	
Depth to Water:	17.01 ft.	ft.	Depth to Water: 21.34 ft
Total Well Depth:	24.41 ft.	ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other
Height of Water Column:	12.4 ft.		Parameters
Well Volume:	2.02 gal.		☐ VOCs ☐ VOCs +10
4 -inch well = (Height of water column in feet) x (0.653)			☐ SVOCs ☐ TAL-Metals
2-inch well = (Height of water column in feet) x (0.163)			☐ Pest./Herb. ☐ PAHs
Purge Volume:	6.05 gal. [Well volume x3]		☐ PCBs ☐ Other: Wet Chem. Parameters
Depth to Pump Intake:	~20 ft.		☐ Other: #2 fuel
Start Purge Time:	11:30		
End Purge Time:			
Purge Rate:	0.3 to 0.5 gal./min.		Date to Lab: 1/3/19
Purge Duration:			
Total Volume Purged:	gal.		Laboratory:
Purge Method: ☑ **Pump** ☐ **Bailer**			
Comments: draws down quickly. Slow recharge. Check DTW every 5 minutes			Comments:

Field Data

Time (24-hr.)	11:30	11:35	11:40	11:45	11:50	11:55	12:00	12:05		
Temperature (°C)	17.11	17.66	17.70	17.80	17.65	17.82	17.77	17.77		
ductance (µS/cm)	1.196	1.143	1.067	0.980	0.977	0.971	0.963	0.965		
DO (mg/L)	3.89	2.27	1.93	2.34	2.52	2.60	2.116	2.117		
pH	6.63	6.52	6.50	6.48	6.47	6.46	6.441	6.424		
ORP (mV)	75.0	78.9	82.6	84.5	86.4	82.4	86.3	53.3		
Turbidity	turbid light tan	turbid light tan	turbid	turbid	light tan	light tan	light tan / clear	clear		
	0.5				0.3					

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SAMPLING LOCATION: MW 18D

Project Name:	Collins St	**Project Location:**	Philadelphia, PA
Sampler:	A. Schmeiler	**RT Project Number:**	2013-20

Date: 1/2/19
Air Temp.: 40 F ☑ C ☐

Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:

PURGING

Well Diameter: 2" ☑ 4" ☐ Screen Interval:

	Current	Previous
	[1 / 2 / 19]	[/ /]
Depth to Water:	15.15 ft.	ft.
Total Well Depth:	57.51 ft.	ft.
Height of Water Column:	37.36 ft.	
Well Volume:	6.08 gal.	

4 -inch well = (Height of water column in feet) x (0.653)
2-inch well = (Height of water column in feet) x (0.163)

Purge Volume:	18.24 gal. [Well volume x3]
Depth to Pump Intake:	~45 ft.
Start Purge Time:	12:40
End Purge Time:	13:10
Purge Rate:	~0.6 gal./min.
Purge Duration:	30
Total Volume Purged:	~18 gal.
Purge Method:	☑ Pump ☐ Bailer
Comments:	Quick draw down, slow recharge,

SAMPLING

Date/Time Sampled: 1/2/19 ~~13:10~~ 13:15

Depth to Water: 42.54 ft

Sampling Method: ☑ Pump ☐ Bailer ☐ Other

Parameters
☐ VOCs ☐ VOCs +10
☐ SVOCs ☐ TAL-Metals
☐ Pest./Herb. ☐ PAHs
☐ PCBs ☐ Other: Wet Chem. Parameters
☐ Other: PA #2 Fuel

Date to Lab:

Laboratory:

Comments:

Field Data

Time (24-hr.)	12:40	12:45	12:50	12:55	13:00	13:05	13:10			
Temperature (°C)	15.52	15.57	15.61	16.11	16.18	16.10				
Conductance (µS/cm)	0.534	0.540	0.889	0.857	0.791	0.825				
DO (mg/L)	3.42	3.23	2.11	2.65	5.16	4.42				
pH	6.65	6.62	6.37	6.31	6.35	6.37				
ORP (mV)	87.8	84.4	73.3	45.3	23.1	25.7				
Turbidity	Clear	Clear	clear	Clear	Clear	Clear				

RT Environmental Services, Inc.
Your Solution-Oriented Environmental Services Firm

SAMPLING LOCATION: MW 18 S

Project Name: Collins St.	**Project Location:** Philadelphia, PA
Sampler: A. Schneider	**RT Project Number:** 2043-20

Date: 1/2/19 Air Temp.: 40 F ☑ C ☐	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:

PURGING			**SAMPLING**	
Well Diameter: 2" ☑ 4" ☐ Screen Interval:			Date/Time Sampled: 1/2/19 16:20	
	Current	Previous		
	[1/2/19]	[/ /]	Depth to Water: 20.75 ft	
Depth to Water:	15.35 ft.	ft.		
Total Well Depth:	26.65 ft.	ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other	
Height of Water Column:	11.3 ft.		Parameters	
Well Volume:	1.84 gal.		☐ VOCs ☐ VOCs +10	
4 -inch well = (Height of water column in feet) x (0.653)			☐ SVOCs ☐ TAL-Metals	
2-inch well = (Height of water column in feet) x (0.163)			☐ Pest./Herb. ☐ PAHs	
Purge Volume:	5.52 gal. [Well volume x3]		☐ PCBs ☐ Other: Wet Chem. Parameters	
Depth to Pump Intake:	ft.		☐ Other: _____	
Start Purge Time:	13:20			
End Purge Time:				
Purge Rate:	gal./min.		Date to Lab: 1/3/19	
Purge Duration:				
Total Volume Purged:	gal.		Laboratory:	
Purge Method: ☐ **Pump** ☐ **Bailer**				
Comments: Quick draw down. Stopped purging to allow to restored 15:40, drawed down to 24 ft. Stopped to let recharged very slow. Restart Purge 4:05 - 4:15			Comments:	

Field Data

Time (24-hr.)	13:40	13:45	16:00	~~16:00~~	16:05					
Temperature (°C)	15.48	15.50	15.47		15.91					
ductance (µS/cm)	1.597	1.595	1.599		1.605					
DO (mg/L)	3.80	2.75	6.60		3.80					
pH	6.94	6.86	6.32		6.54					
ORP (mV)	13.8	12.2	-3.1		-8.0					
Turbidity	ton	ton	1.5 NTU ton		Clear 1.5 NTU ton					

6 of 8

RT Environmental Services, Inc.
Your Solution-Oriented Environmental Services Firm

SAMPLING LOCATION: MW 19 D

Project Name: Collins St	**Project Location:** Philadelphia, PA
Sampler: ~~2043~~ - A. Schneider	**RT Project Number:** 2043-20

Date: 1/2/19 Air Temp.: 43 °F ☑ °C ☐	Weather Cond.: ☐ Sunny ☐ Rainy ☑ Overcast ☐ Other:

PURGING			**SAMPLING**
Well Diameter: 2" ☐ 4" ☐ Screen Interval:			Date/Time Sampled: 1/2/19 15:50
	Current	Previous	
	[1/2/19]	[/ /]	Depth to Water: 40.29 ft
Depth to Water:	14.45 ft.	ft.	
Total Well Depth:	51.95 ft.	ft.	Sampling Method: ☑ Pump ☐ Bailer ☐ Other
Height of Water Column: 37.5 ft.			Parameters
Well Volume: 6.11 gal.			☐ VOCs ☐ VOCs +10
4 -inch well = (Height of water column in feet) x (0.653)			☐ SVOCs ☐ TAL-Metals
2-inch well = (Height of water column in feet) x (0.163)			☐ Pest./Herb. ☐ PAHs
Purge Volume: 18.33 gal. [Well volume x3]			☐ PCBs ☐ Other: Wet Chem. Parameters
Depth to Pump Intake: ~45 ft.			☐ Other: ~~#2 fuel~~
Start Purge Time: 15:15			
End Purge Time: 15:45			
Purge Rate: 0.6 gal./min.			Date to Lab: 1/3/19
Purge Duration: 30			
Total Volume Purged: 18 gal.			Laboratory:
Purge Method: ☑ Pump ☐ Bailer			
Comments: Well drawn down to 25 ft Stabilizes between 25-30 ft.			Comments:

Field Data

Time (24-hr.)	15:15	15:20	15:25	15:30	15:35	15:40	15:45			
Temperature (°C)	15.76	16.26	16.28	16.35	16.35	16.52	16.36			
luctance (µS/cm)	0.787	0.821	0.812	0.804	0.799	0.805	0.809			
DO (mg/L)	12.45	2.51	1.61	1.19	0.93	0.85	0.83			
pH	6.30	5.81	5.72	5.66	5.64	5.63	5.64			
ORP (mV)	-51.6	-55.7	-48.6	-43.8	-47.9	-46.8	-48.8			
Turbidity	Clear	clear	Clear	clear	Clear	Clear	clear			

7 of 8

RT Environmental Services, Inc.

Your Solution-Oriented Environmental Services Firm

SAMPLING LOCATION: MW 19S

Project Name:	Collins Street	**Project Location:**	Philadelphia, PA
Sampler:	A Schmaltz	**RT Project Number:**	2043-20

Date: 1/2/19	Weather Cond.: ❑ Sunny ❑ Rainy ☑ Overcast ❑ Other:
Air Temp.: 43 °F ☑ °C ❑	

PURGING			**SAMPLING**	
Well Diameter: 2" ☑ 4" ❑	Screen Interval:		Date/Time Sampled: 1/2/19 15:00	
	Current	Previous		
	[1/2/19]	[/ /]	Depth to Water: 22.4 ft	
Depth to Water:	13.85 ft.	ft.		
Total Well Depth:	26.55 ft.	ft.	Sampling Method: ❑ Pump ❑ Bailer ❑ Other	
Height of Water Column:	12.7 ft.		Parameters	
Well Volume:	2.07 gal.		❑ VOCs ❑ VOCs +10	
4 -inch well = (Height of water column in feet) x (0.653)			❑ SVOCs ❑ TAL-Metals	
2-inch well = (Height of water column in feet) x (0.163)			❑ Pest./Herb. ❑ PAHs	
Purge Volume:	6.21 gal. [Well volume x3]		❑ PCBs ❑ Other: Wet Chem. Parameters	
Depth to Pump Intake:	20 ft.		❑ Other: #2 Fuel	
Start Purge Time:	14:25			
End Purge Time:	15:00			
Purge Rate:	0.3 gal./min.		Date to Lab: 1/3/19	
Purge Duration:	35			
Total Volume Purged:	10.5 gal.		Laboratory:	
Purge Method: ❑ Pump ❑ Bailer				
Comments:			Comments: Sample light turbidity compared to MW 17S/16S	

Field Data

Time (24-hr.)	14:25	14:30	14:35	14:40	14:45	14:50	14:55			
Temperature (°C)	15.65	15.61	16.02	16.13	16.43	16.65	16.65			
ductance (µS/cm)	1.238	1.235	1.209	1.208	1.187	1.176	1.136			
DO (mg/L)	2.44	2.16	1.14	1.10	0.95	1.62	0.85			
pH	6.79	6.58	6.37	6.36	6.28	6.28	6.30			
ORP (mV)	58.8	58.4	51.0	51.7	39.6	35.2	41.1			
Turbidity	tan	light tan	light tan	light tan	light tan	light tan	light tan			

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC: GB, JL, WH, File

Client: Follow Through Cap	Project # 2043-20	Name: V. Jones Long
Job Location: Philadelphia PA	Date: 11/27 - 12/4 2018	Weather: Sunny 30-40° F
Site Address: 3320 Collins Street		
Equipment: Air Rotary Geoprobe & DTW meter & PID		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm= 100	Instrument ppm= 100
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No (Yes) 13 S 3 W	Soil Pile: (No) Yes/Size	

FIELD ACTIVITY: Well Installation

NOV. 27, 2018

- 12:30 RT on site
  - VL & JL walked site and marked well locations and discussed construction specs
- 14:00 Allied on site
  - unload equipment and establish coarse of action
  - begin @ MW-18 S/D
  - set augers to 25' bgs and stopped for day
- 16:35 RT & Allied off site

NOV 28, 2018

- 7:30 RT & Allied on site
- continue drilling MW-18 S/D
- alternate between auger and air hammer because of difficulty keeping borehole open due to sandy overburden
- wet return @ 23'; water return @ 27'
- bedrock encountered @ 37', dark to light gray schist
- over drilled well in case of some collapse while constructing well; end 53' and construct well MW-18 S/D
- construction specs on following page

Comments:

Signature: _____

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client:	Project#: 2043-20	Name: V. Jones Long
Job Location:	Date: 11/27 - 12/4 2018	Weather:
Site Address:		
Equipment:		

FIELD ACTIVITY: Well install

MW-18 D
TD: 52'
Screen: 52' - 47'
Sand: 52' - 49'
Bentonite: 49' - 27'
Sand: 27' - 25'

MW-18 S
TD: 25'
Screen: 25' - 10'
Sand: 25' - 7'
Bentonite: 7' - 4'

MW-18 S/D
constructed w/ stick up casing and concrete pad

14:20 Begin drilling MW-19S/D
- set augers to 30'
- No bedrock encountered, had auger refusal @ ~29'
- continue drilling on 11/29

16:30 RT/Allied off site

November 29, 2018

~7:30 RT/Allied on site

- continue w/ installation of MW-19S/D w/ air
- encountered void from ~31-34' followed by large pebbles and small river rock return and a lot of water
- weathered gray schist/mica return @ 42'
- competent bedrock @ 45'
- over drilled well in case of some collapse while ~~drilling~~ constructing well; end 53' construct MW-19S/D

MW-19 D
TD: 50'
Screen: 50' - 45'
Sand: 50' - 43'
Bentonite 43-27'
Sand: 27'-25'

MW-19S
TD: 25'
Screen: 25' - 10'
Sand: 25' - 7'
Bent.: 7' - 4'

MW-19S/D constructed w/ stick up & concrete pad

16:30 RT/Allied off site

Signature: _____

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC:

Client:	Project # 2043-20	Name: V. Jones Long
Job Location:	Date: 11/27-12/4 2018	Weather:
Site Address:		
Equipment:		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No Yes	Soil Pile: No Yes/Size	

FIELD ACTIVITY: Well installation

Nov. 29 cont.

-1440 Begin installing MW-16S *
- MW-16D installed on 12/4 immediately adjacent to MW-16S due to error in well construction and location
- augered MW-16S to 30' and blew out red to brown-orange med-coarse sand using air hammer
- Wet sand return at 18'
- total borehole depth 30', end drilling and construct well

MW-16S
TD: 23.15' - some collapse while constructing
Screen: 23.15' - 8.15'
Sand: 23.15' - 6.15'
bent: 6.15' - just below bottom of sidewalk
Flush mount

17 00 RT/ off site
Allied

Comments: * Well damaged on 12/4 and abandoned. Re-installed as nested well MW-16S/D on 12/4

Signature: _____

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client:	Project#: 2043-20	Name: V. Jones Long
Job Location:	Date: 11/27 - 12/4 2018	Weather:
Site Address:		
Equipment:		

FIELD ACTIVITY: Well installation

Nov 30, 2018

- Brgin installing MW-17S
  - mistakenly attempted to install shallow and deep well at this location
  - deep well not constructed and borehole was abandoned to
  - Ashy-silty fill was observed to ~ 12'
  - immediately below fill had water return and orange-brown med - coarse sand
  - ~~over~~ construct shallow well 12/3/18

MW-17S
TD: 26'
Screen: 26'-11'
Sand: 26'-8'
bentonite: 8'-5'
Flush mount

- Clean up soil return from attempted deep well and relocate drums to interior of building
- Protect well w/ drum and cones for pouring pad on 12/3

Dec. 3, 2018

- 8:00 RT/Allied on site
  - Construct MW-17S as described above
  - Develop wells constructed thus far and complete stickups and pads as able
- 16:30 RT/Allied off site

Dec. 4, 2018

- 8:00 RT/Allied on site
- A single shallow well was installed at the proposed nested shallow and deep MW-16 location due to confusion in construction specs. for MW-16 and MW-17

Comments:

Signature: [signature]

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC:

Client:	Project # 2043-20	Name: V. Jones Long
Job Location:	Date: 11/27 - 12/4, 2018	Weather:
Site Address:		
Equipment:		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No Yes	Soil Pile: No Yes/Size	

FIELD ACTIVITY: Well installation

Dec. 4, 2018 cont

- Allied attempted to install MW-16D immediately adjacent to MW-16S and MW-16S was damaged in process
- Former MW-16S was abandoned and nested MW-16S/D was installed @ new location
  - augers were installed to 35' bgs
  - orange-brown med.-coarse sand recovery 4' - 36' bgs
  - bedrock (gray schist) encountered 36-37' bgs
  - over drilled well in case of collapse during construction
  - end bore hole @ 52' and construct well

MW-16D

TD: 50'
Screen: 50' - 45'
riser: 45' - 0
Sand: 50' - 43'
Bent.: 43' - 27'
Sand: 27' - 25'

MW-16S

TD: 25'
screen: 25' - 10'
sand: 25' - 7'
Bent: 7' - 4'

Flush mount

- All wells developed into drums
- DTW in all wells between 12 - 13' bgs

Comments: Drums inside: 9 soil, 1 water

Drums outside (in fence): 4 soil, 2 water

- Well logs and location map attached
- Clean up entire site
- 17:30 RT/Allied off site

Signature: [signature]


MW-16 S/D
MW-17 S
3320 Collins St
MW-18 S/D
MW-19 S/D
Google Earth
1992

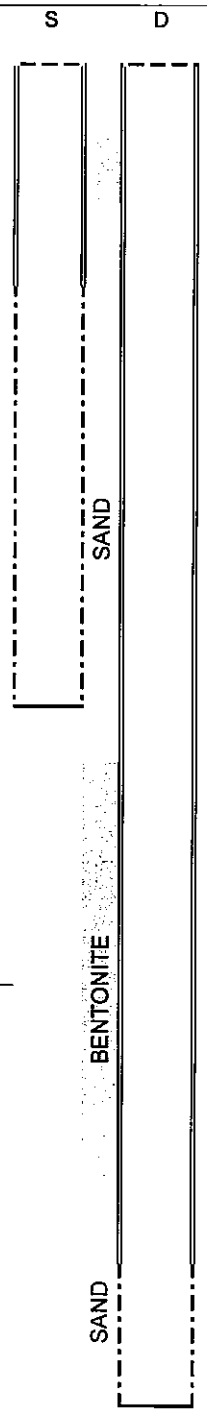
RT ENVIRONMENTAL

MW-16S/D

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320Collins Res Act 2	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method:	Driller: Allied
Start Date: 12/4/18	End Date: 12/4/18	Page 1 of 1

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
				sidewalk		No PID readings
2				black-brown silty fill w/ brick and rock		
4				orange-brown med.-coarse sand trace clay		
6						
8						
10						SHALLOW CONSTRUCTION SPECS.
12						PVC Riser: 10' - 0
14						ID PVC Screen: 25' - 10'
16						Sand filter pack: 25' - 7'
18						Bentonite: 7' - 4'
20						Mount: Flush
22						
24						
26						
28						
30						
32						
34						
36				Bed rock - gray schist		
38						
40						
42						
44						
46						DEEP CONSTRUCTION SPECS.
48						PVC Riser: 45' - 0
50						ID PVC Screen: 50' - 45'
52				End borehole 52'		Sand filter pack: 50' - 43'
						Bentonite: 43' - 27'
						Mount: Flush



RT ENVIRONMENTAL

MW-17S

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2	
Boring#:	Elevation:	Geologist: VL
Permit #:	Method: Air Rotary Geoprobe	Driller: Allied
Start Date: 12/3/18	End Date: 12/3/18	Page 1 of 1

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
				sidewalk - 2 layers of concrete		No PID readings
				historic fill- black-brown silty fill w/ brick and rock		
				water return		
				medium-coarse orange-brown sand		
				End borehole - 26.5'		

CONSTRUCTION SPECS.

PVC Riser: 11' - 0
ID PVC Screen: 26' - 11'
Sand filter pack: 26' - 8'
Bentonite: 8' - 5'
Mount: Flush

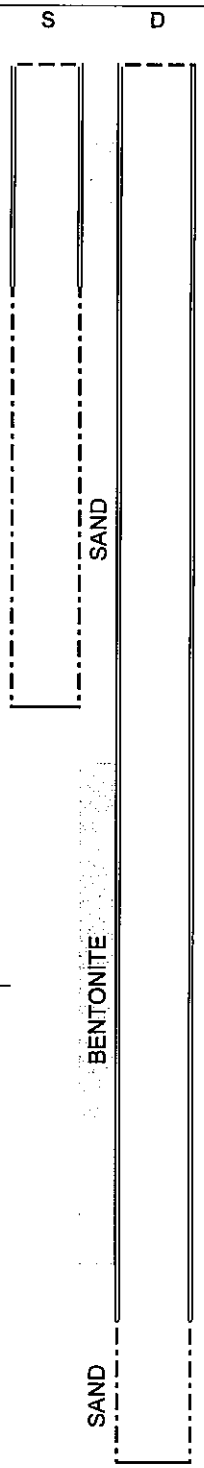
RT ENVIRONMENTAL

MW-18S/D

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320Collins Res Act 2	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method:	Driller: Allied
Start Date: 12/4/18	End Date: 12/4/18	Page 1 of 1

Depth (ft)	Sample Type & #	Blows per 6"	Recov-ery (in)	Description	PID	Remarks
				black-brown silty fill w/ brick and rock		No PID readings
				orange-brown med.-coarse sand		
				brown silt w/ small cobbles		
				orange-brown med.-coarse sand		
				moist return		
				wet return		
				Bed rock - gray schist		
				End borehole 54'		



SHALLOW CONSTRUCTION SPECS.
PVC Riser: 10' - 0
ID PVC Screen: 25' - 10'
Sand filter pack: 25' - 7'
Bentonite: 7' - 4'
Mount: Stick up

DEEP CONSTRUCTION SPECS.
PVC Riser: 47' - 0
ID PVC Screen: 52' - 47'
Sand filter pack: 52' - 45'
Bentonite: 45' - 27'
Mount: Stick up

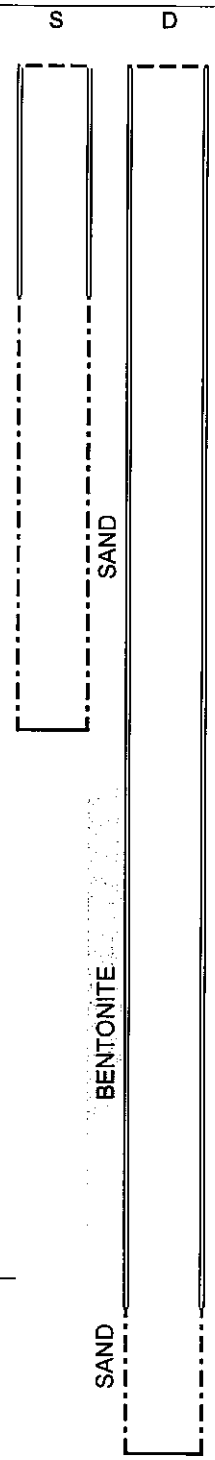
RT ENVIRONMENTAL

MW-19S/D

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320Collins Res Act 2		
Boring#;	Elevation:	Geologist: VL	
Permit #:	Method:	Driller: Allied	
Start Date: 11/27/18	End Date: 11/28/18	Page 1 of 1	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
2				tan-brown silty fill w/ brick and rock		No PID readings
4						
6						
8						
10				orange-brown med.-coarse sand		SHALLOW CONSTRUCTION SPECS.
12						PVC Riser: 10' - 0
14						ID PVC Screen: 25' - 10'
16						Sand filter pack: 25' - 7'
18						Bentonite: 7' - 4'
20						Mount: Stick up
22						
24						
26						
28						
30						
32				void		
34						
36				coarse sand and river rock water return		
38						
40						
42						
44						
46				Bed rock - gray schist		DEEP CONSTRUCTION SPECS.
48						PVC Riser: 45' - 0
50						ID PVC Screen: 50' - 45'
52				End borehole 52'		Sand filter pack: 50' - 43'
						Bentonite: 43' - 27'
						Mount: Stick up



RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC: GB, JL, WH, File

Client: Follow Through Capital	Project # 2043-20	Name: V. Jones Long
Job Location: Philadelphia PA	Date: 10/11/18	Weather: Light Rain, 76°F
Site Address: 3230 Collins Street		
Equipment: ~~He~~ detector, SKC pump & calibrator		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: (N8)	Yes	Soil Pile: (No) Yes/Size

FIELD ACTIVITY: Soil Gas Sampling

8:30 RT on site

- Begin @ SV-2
  - perform leak check w/ helium shroud
    - measure He below slab - 0 ppm
    - fill shroud w/ He, 17.6 l.
    - check He below slab again - 0 ppm
    - No leaks
  - perform shut in test of sampling system
    - holding held vacuum
    - proceed to connecting and calibrating pump
  - use calibrator and low-flow adapter to calibrate SKC pump flow to 0.189 LPM

- Begin purge @ 10:00 ; end purge @ 10:10
  - close valve to SKC pump
  - Open canister and begin collecting sample
  - start time: 10:10 ; start pressure - 30" Hg
  - end time: 10:16 ; end pressure - 3" Hg
  - Sample SV-2, canister 3688, regulator 6289

- Followed the above procedure @ all sampling points

Comments:

Signature: _____

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC:

Client:	Project # 2043-20	Name: V. Jones Long
Job Location:	Date: 10/11/18	Weather:
Site Address:		
Equipment:		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:		Number:
Police:		Number:
Explosive Atmosphere/Conditions:		Yes No
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No	Yes	Soil Pile: No Yes/Size

FIELD ACTIVITY:

- Begin SV-1
  - Begin purge @ 10:50 ; end purge @ 11:00
  - close valve to SKC pump
  - open canister and begin collecting sample
  - start time : 11:00 ; start pressure : -30" Hg
  - end time : 11:06 ; end pressure : -3" Hg
  - sample SV-1, canister 3596, regulator 6343

* light rain started to fall @ 10:58

- Begin SV-4
  - Begin purge @ 11:30 ; end purge @ 11:40
  - close valve to SKC pump
  - open canister and begin collecting sample
  - start time : 11:40 , start pressure > N/A
  - end time : 11:#
  - sample SV-4, canister 4260 , regulator 6114

* performed tightness / shut-in test on sample chain and system held negative pressure of vacuum; when opening canister pressure dropped rapidly and did not read -30 lab evacuated pressure
- leak somewhere in sample chain
- minimal sample collected - DO NOT analyze sample

Comments:

Signature: _____

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC:

Client:	Project # 2043-20	Name: V. Jones Long
Job Location:	Date: 10/11/18	Weather:
Site Address:		
Equipment:		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:		Number:
Police:		Number:
Explosive Atmosphere/Conditions:		Yes No
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No	Yes	Soil Pile: No Yes/Size

FIELD ACTIVITY:

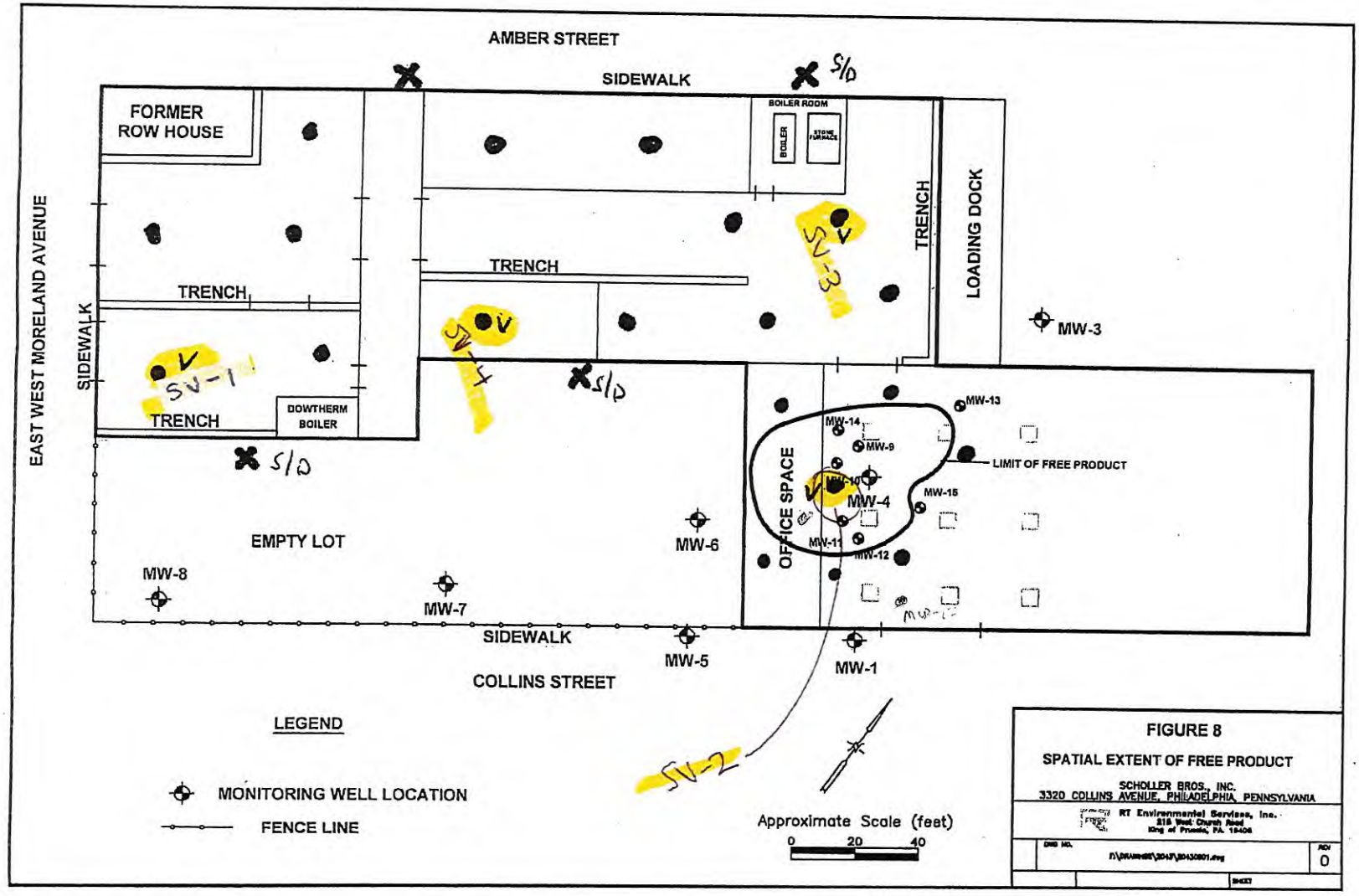
- Begin SV-3
  - Begin purge @ 12:10; end purge @ 12:20
    - close SKC pump valve
    - open canister and begin collecting sample
  - Start time: 12:20, start pressure: -30
  - end time: 12:28, end pressure: -3
- Sample SV-4, canister 6329, regulator 6370

- Pack up all equipment

13:00 RT off site

Comments: Delivered canisters to TA

Signature:



● Soil Boring

✕ Groundwater well point

S/D - shallow and deep well

V - vapor point

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	Client Project Manager: J. Lydzinski	Samples Collected By: V. Jones Long	COC No: 1 of 1 COCs
Company Name: RT Environmental	Phone:		
Address: 215 W. Church Rd	Email:		For Lab Use Only:
City/State/Zip King of Prussia, PA 19406	Site Contact:		Walk-in Client:
Phone:	Tel/Fax		Lab Sampling:
FAX:	Anaylsis Turnaround Time		Job / SDG No.:
Project Name: Collins St. Act 2	Standard (Specific):		(See below for Add'l Items)
Site/Location: Philadelphia PA	Rush (Specifiy):		
PO# 2043-20-02			

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)"	Canister Vacuum in Field, "Hg (Stop)"	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes sectio	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-2	10-11-18	10:10	10:16	-30	-3	6289	3688	X														
SV-1	10-11-18	11:00	11:06	-30	-3	6343	3596	X														
~~SV-4~~	~~10-11-18~~	~~11:40~~				~~6114~~	~~4260~~	~~X~~														DO NOT analyze
SV-3	10-11-18	1220	12:28	-30	-3	6370	6329	X														

Temperature (Fahrenheit)			
Start	Interior	Ambient	76
Stop			76

Pressure (inches of Hg)			
Start	Interior	Ambient	29.74
Stop			29.71

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	Date / Time: 10/16/18 13:41	Samples Received by: TA-KOP
Samples Relinquished by:	Date / Time:	Received by:
Relinquished by:	Date / Time:	Received by:

Lab Use Only: Shipper Name: Opened by: Condition:

Form No. CA-C-WI-003, Rev. 2.5, dated 9/22/2017

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC: GB, WH, JL, File

Client: Follow Through Capital	Project # 2043-20	Name: V. Jones Long
Job Location: Philadelphia PA	Date: 10/3/18	Weather: Sunny 70's
Site Address: 3320 Collins St.		
Equipment: geoprobe, PID, interface probe		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm= 100.0	Instrument ppm= 100.0
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No Yes	Soil Pile: No Yes/Size	

FIELD ACTIVITY: Soil Investigation

7:30 RT / Ferris on site
- obtained access @ 7:40
- unload equipment, calibrate PID, and begin remaining borings
- install 8 borings SB-310 through SB-318
  - collect 2' samples per boring

- Borings were installed to 20' or refusal (SB-310)
  - minimal historic fill was observed in most borings
  - Native soil consisted primarily of medium to coarse grained sand
  - Boring SB-312 had to be off-set because of apparent below slab void
  - Saturated soil encountered between 16-19'
    - ↳ was not able to collect grab GW sample from any boring because of hole collapse
  - The two borings originally proposed to be installed in the pit were offset and installed to a depth below the bottom of the pit
    - depth to bottom ~ 11', borings SB-316 and SB-317 were also installed to 20' bgs
  - One additional boring was installed on the exterior of the main building, SB-318

Comments: Continued on to construct vapor points and gauge wells

Signature: _____

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC:

Client:	Project # 2043-20	Name: V. Jones Long
Job Location:	Date: 10/3/18	Weather:
Site Address:		
Equipment:		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:		Number:
Police:		Number:
Explosive Atmosphere/Conditions:		Yes No
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No	Yes	Soil Pile: No Yes/Size

FIELD ACTIVITY:

- CONSTRUCT VAPOR POINTS @ SB-304, SB-305, SB-310, SB-315

Each vapor point constructed as follows
- from bottom to ~ 2' bgs filled w/ granular bentonite
- ~1' sand then 6" implant installed connected to teflon-lined tubing
- filled remainder w/ sand and bentonite seal
- concrete smoothed to surface
- tubing capped
- manhole cover was installed at boring SB-310 bc increased traffic in that area

- Attempted 3 borings on the exterior of the building in the vacant lot, immediately adjacent to the wall
- first boring - refusal @ 3.5' and hard drilling; metal, brick and concrete fill recovered
  - offset and attempted second location, refusal @ 4.3'
- third location was advanced to 20' bgs; small ~~area~~ pocket of oily sand encountered at 18', clean below
- collected 2 samples

Comments:

Signature: _____

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC:

Client:	Project # 2043-20	Name: V. Jones Long
Job Location:	Date: 10/3/18	Weather:
Site Address:		
Equipment:		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm=	Instrument ppm=
H & S: Hospital Name:		
Location:		Number:
Police:		Number:
Explosive Atmosphere/Conditions:		Yes No
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No	Yes	Soil Pile: No Yes/Size

FIELD ACTIVITY:

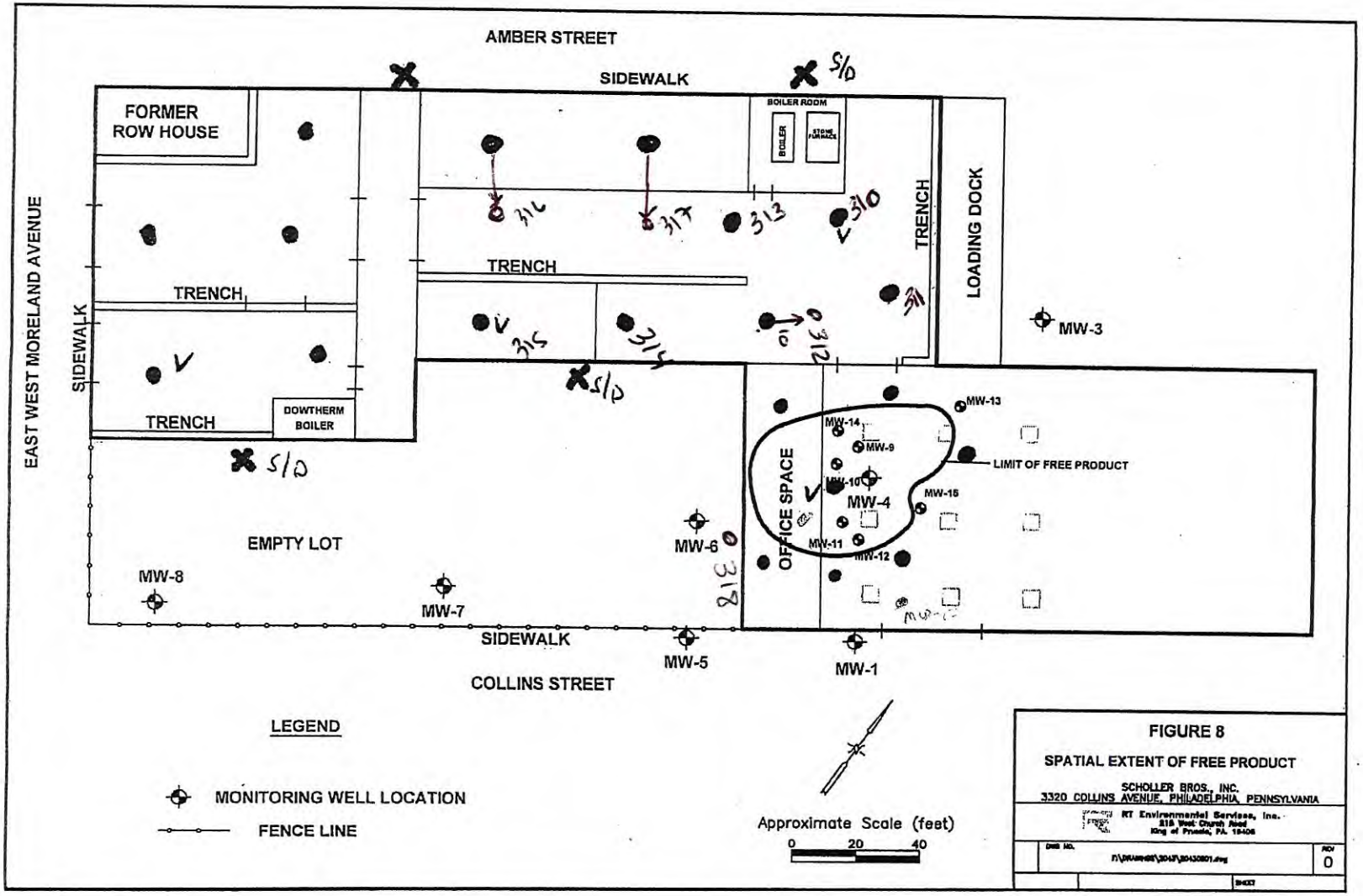
Guage wells
- suspected MW-14
- No water detected w/ meter
- meter detected product @ 13.5' @ what feels like bottom; product coated probe to 1.65'
- very viscous and difficult to gauge
- what felt like bottom @ ~14'

- suspected MW-12
- total depth - 16.1'; silty bottom
- almost no water present
- No product observed

- MW-1
- total depth - 25.6', v. silty bottom
- DTW: 14.03'
- No product

Comments: - All geoprobe holes were filled in and patched w/ concrete
- Clean up site
- 15:15 RT/Ferns off site

Signature: _____



● Soil Boring

✕ Groundwater well point

S/D- shallow and deep well

V- vapor point

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-310

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/3/18	End Date: 10/3/18	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete - 8"	0	
2			100%	Fill - black cinders, brick frag, brown silt	0	minimal fill vol.; sampled just below fill
3	SB-310-2 8:35			Brown med sand and silt		
4				higher mois. brown silt; trace med. sand	0	
5						
6					0	
7			100%			
8	SB-310-7.5 8:40			Red-brown silt; trace sand	0	
9				Rock Refusal @ 8'		
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-311

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: / /	End Date: / /	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				8" concrete		
2				orange-brown clayey silt	0	NO odors / stains
3			50%			
4					0	
5						
6						
7					0	
8				Red-brown silt w/ trace med. sand		
9			100%			
10				Rocks	0	
11				orange and gray med. sand		
12						
13	SB-311-13 9:00			slightly moist	0	
14			100%			
15						
16				coarse sand - orange-brown and red	0	
17				saturated		
18			100%		0	
19	SB-311-19.5 9:05					
20					0	
21				End 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-312

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: / /	End Date: / /	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				Concrete - 7"		
				Black cinder & concrete	0	
2				orange-brown clayey silt		
3			100%		0	
4						
5				Brown silt w/ trace med. sand		
6					0	
7			75%			
8					0	
9						
10						
11					0	
12				coarse orange sand		
13					0	
14						
15				Black oily stain in med. sand	0	
16					35	
17				med. brown sand w/ rock		
18	SB-312-9.0-18.0			Black oily stain in med. sand	~~37~~ 57.7	
19				coarse white and orange sand,		
20	SB-312-19.5-20			nearly saturated	0.3	
21				End 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB – 313

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: / /	End Date: / /	Page ___ of ___	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				Concrete - 8"		
2				2" - black cinders - fill	0	No odors
3			100%	Brown-oremoge clayey silt	0	
4				Brown silt w/ med sand	0	
5						
6					0	
7						
8			100%			
9						
10				Red brown silt; trace med sand	0	
11				Brown and orange coarse sand and rock	0	
12						
13			100%		0	
14	SB-313-14 1015					
15				white and orange coarse sand nearly saturated	0	
16					0	
17						
18					0	saturated
19	SB-313-19.5 1020					
20					0	
21				end 20'	0	
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB- 314

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: / /	End Date: / /	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				Concrete 8"	0	
2				Orange-brown clayey silt		No odors
3			100%		0	
4						
5						
6				Brown silt w/ med. fine sand	0	
7						
8			100%		0	
9						
10						
11				Brown silt and coarse sand	0	
12						
13			100%		0	
14	SB-314-13.5 1035			moist coarse sand and pea gravel		
15						
16				~~sta~~ Saturated coarse sand and trace pea gravel	0	
17						
18			100%		0	
19	SB-314-19.5 1040					
20					0	
21				End 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-315

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: / /	End Date: / /	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				Concrete 8"	0	
2				Black cinders, brick & conc. frag. - FILL		
3			75%	Orange-brown clayey silt, trace med. sand	0	
4						
5						
6				coarse brown sand	0	
7						
8			100%	Brown silt w/ med. sand		
9					0	
10				coarse sand and rocks		
11						
12			100%			
13					0	
14	SB-315-14 1105			med. brown sand		
15				coarse sand & pea gravel		
16				saturated	0	
17				Brown and orange coarse sand and trace pea gravel		
18			60%			
19	SB-315 11 10	19.5				
20					0	
21				End 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG SB-316

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: / /	End Date: / /	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete - 8"		
2				gray and brown clayey silt	0	
3						
4			100%			
5					0	
6				moist brown clayey silt; trace med. sand		
7						
8			100%		0	
9						
10				Brown med. sand.		
11				Red med. sand and pea gravel/rocks	0	
12						Depth to bottom of pit - 11'
13	SB-316-12.5 1130		50%			
14					0	
15				saturated coarse orange sand		
16						
17					0	
18			100%			
19						
20	SB-316-19.5 1135				0	
21				End 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG SB-317

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: / /	End Date: / /	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				Concrete - 7"		
2				Fill - cinders, brick, brown silt and rock	0	
3			100 %		0	
4				orange-brown clayey silt	0	
5						
6				light brown silt ; trace med. sand	0	
7			100 %			
8						
9						
10				Brown med. sand	0	
11						
12						
13	SB-317-B 1200					
14				white and orange coarse sand and pea gravel	0	
15						
16				orange and white coarse sand saturated	0	
17						
18			100 %		0	
19	SB-317-19.5 1205			drier, still moist	0	
20					0	
21				End 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-318

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: / /	End Date: / /	Page __ of __	

27' from sidewalk

8' from wall

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				TOP SOIL and grass	0	
2				Bricks, concrete, cinders - fill	0	
3			75%			
4						
5				brown sand and fill	0	
6				↓		
7						
8			75%	Bricks		
9				↓	0	
10						
11				Brown sandy silt and Bricks		
12				↓	0	
13			75%			
14						
15					0	
16				↓		
17						
18				Brown sand and brick	0	
19	SB-318-18 12:30			small oily sand patch between 18-19'	24	
20	SB-318-19.5 13:35			Brown coarse sand	0	
21				End 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) J Lydzinski, Hong, Witmeyer	Samplers Name (Printed) V James Long	Site/Project Identification Collins St Act 2
Company RT Environmental	P. O. # 2043-20 02	State (Location of site): NJ: ☐ NY: ☐ Other: PA
Address	Analysis Turnaround Time: Standard ☒	Regulatory Program: DKQP: ☐
City KOP State PA	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone Fax		Job No:

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	PAH's 8270 NO 2,4,5,6	VOCs	Sample Numbers
SB-310-2	10/3/12	835	Soil	5	X	X	
SB-310-7.5		840			X	X	
SB-311-13		900			X	X	
SB-311-19.5		905			X	X	
SB-312-18		940			X	X	
SB-312-19.5		945			X	X	
SB-313-14		1015			X	X	
SB-313-19.5		1020			X	X	
SB-314-8.5		1035			X	X	
SB-314-19.5		1040			X	X	
				Soil:	16.7	16.7	
				Water:			

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other DI H2O, 7 = Other MeOH

Special Instructions

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	RTEN	10/3/12 1534	1)	TAKQP
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) J Lydansky, V Long, W Hunsucker	Samplers Name (Printed) V Jones Long	Site/Project Identification Collins St. Act 2
Company RT Environmental	P. O. # 2043-20-02	State (Location of site): NJ: ☐ NY: ☐ Other: PA
Address	Analysis Turnaround Time: Standard ☒	Regulatory Program: DKQP: ☐
City Kop State PA	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST): Under Part No. 2,4,5,6	VOCs										LAB USE ONLY Project No: / Job No: / Sample Numbers
SB-315-14	10/3/18	1105	Soil	5	X	X										
SB-315-19.5		1110			X	X										
SB-316-12.5		1130			X	X										
SB-316-19.5		1135			X	X										
SB-317-13		1200			X	X										
SB-317-19.5		1205			X	X										
SB-318-18		1330			X	X										
SB-318-19.5		1335			X	X										
					2											
					2											

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other DI H2O, 7 = Other MeOH

Soil: 1,6,7,1,6,7

Water:

Special Instructions

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	RT Env.	10/3/18 1534	1)	TAL
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

CC: GB, WH, JL, File

Client: Follow Through Capital	Project # 2043-20	Name: V. Jones Long
Job Location: Philadelphia PA	Date: 10-2-18	Weather: Sunny 70's
Site Address: 3320 Collins Street		
Equipment: Geoprobe, PID		
Equipment Calibration: Model:		
PID: Gas/Lot#:	Gas ppm= 100.0	Instrument ppm= 100.0
H & S: Hospital Name:		
Location:	Number:	
Police:	Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance	Client Approval:	
Serial #	(On-Site Utilities)	Name Date/Time
Drums on Site: No Yes	Soil Pile: No Yes/Size	

FIELD ACTIVITY: Soil Investigation

7:30 RT & Ferris on site
- John walked site and marked sample locations
- Ferris unloading and begin coring concrete
- calibrate PID

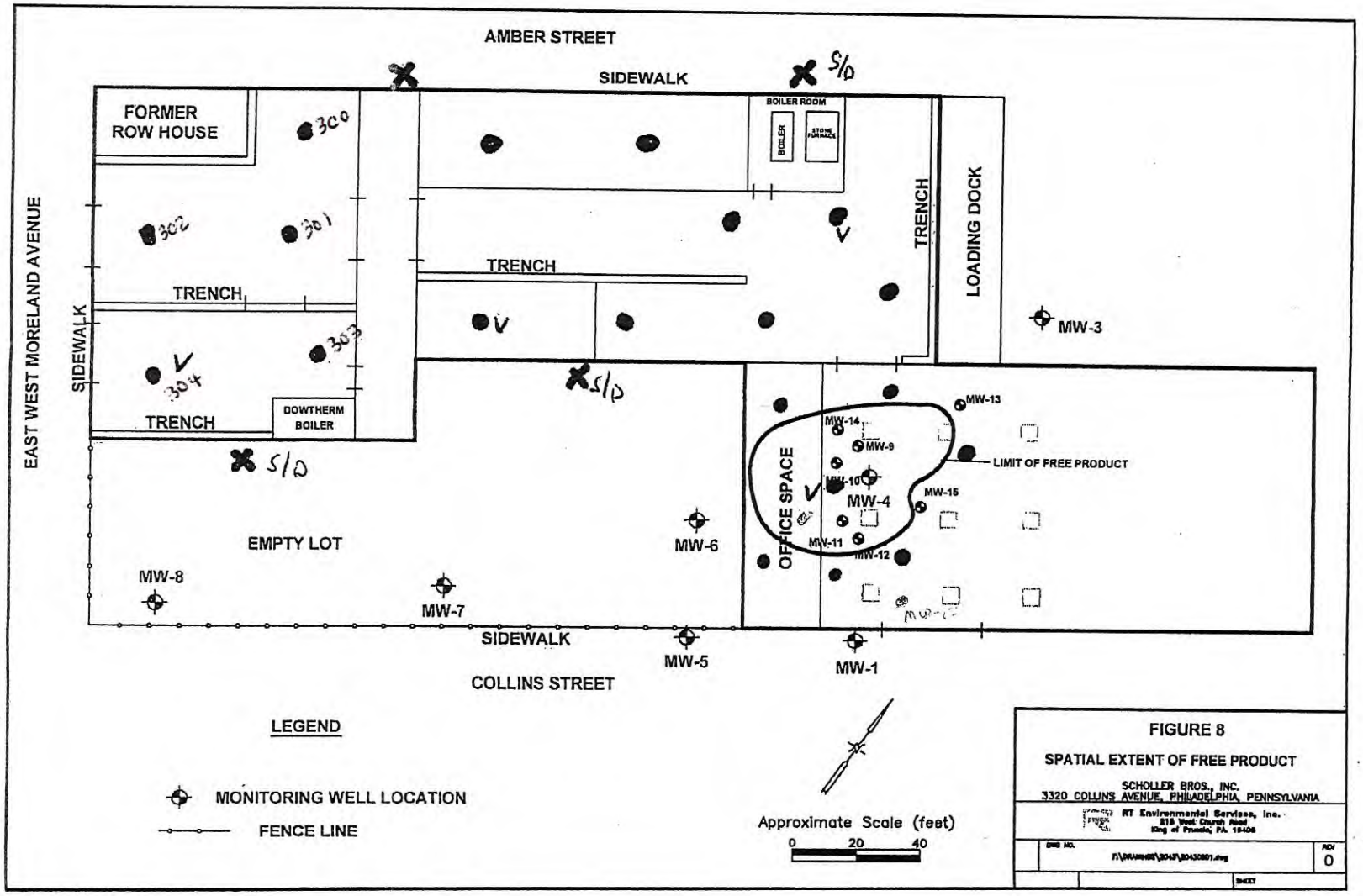
Begin by installing the 5 borings in the western portion of the property
- Borings SB-300 through SB-304 were installed to refusal (4-9')
- two samples were collected from each boring
- Historic fill encountered just below slab to a max. depth of 8' (SB-302)
- Native soil consisted of clayey silt and medium to coarse-grained sand

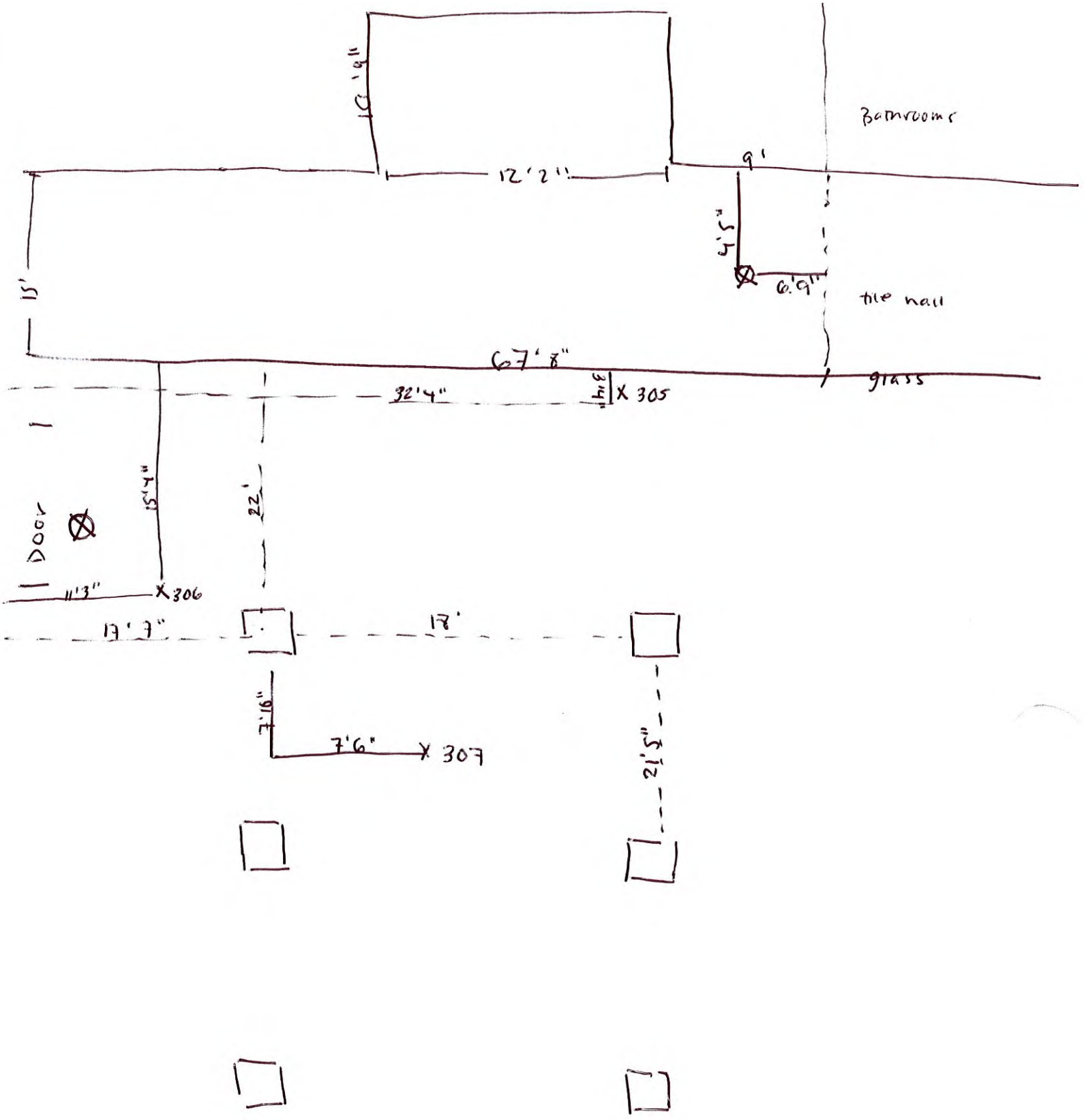
- Proceeded to interior of building and attempted to install borings around the historic limit of free product
- The S4LT geoprobe could not advance borings beyond 7' and target depth is 10-20'
- limited accessibility to the room prevented installing any more borings
- 3 borings were installed, SB-305 through SB-307, and 2 samples were collected from SB-305 only

Comments: Ferris continued coring concrete at the remaining locations for work to be done on 10/3/18.

15:40 RT & Ferris off site

Signature: _____


AMBER STREET
SIDEWALK
S/D
FORMER ROW HOUSE
300
302
301
303
304
TRENCH
TRENCH
TRENCH
SIDEWALK
EAST WEST MORELAND AVENUE
DOWTHERM BOILER
BOILER ROOM
BOILER
STORE ROOM
TRENCH
LOADING DOCK
MW-3
S/D
S/D
MW-13
MW-14
MW-9
MW-10
MW-4
MW-15
MW-11
MW-12
LIMIT OF FREE PRODUCT
OFFICE SPACE
EMPTY LOT
MW-6
MW-8
MW-7
SIDEWALK
MW-5
MW-1
COLLINS STREET
LEGEND
MONITORING WELL LOCATION
FENCE LINE
Approximate Scale (feet)
0 20 40
FIGURE 8
SPATIAL EXTENT OF FREE PRODUCT
SCHOLLER BROS., INC.
3320 COLLINS AVENUE, PHILADELPHIA, PENNSYLVANIA
RT Environmental Services, Inc.
0
Soil Boring
Groundwater well point
S/D- shallow and deep well
V- vapor point


12'1"
Bathrooms
12'2"
9'
4'5"
6'9"
tile wall
15'
67'8"
glass
32'4"
3½"
X 305
15'4"
22'
Door
11'3"
X 306
17'7"
17'
7'16"
7'6"
X 307
21'5"

RT ENVIRONMENTAL SB-300

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10 / 2 / 17	End Date: 10 / 2 / 17	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				3" concrete		
2	SB-300-3 9:15		50%	concrete debris, brick, brown silt and black ashy cinders - fill	0.1	
3						
4				soft, orange clayey silt w/ med. sand; slightly moist	0.7	
5					0.1	
6				orange med. sand, trace silt	0	
7	SB-300-9:20	75			0	
8				orange-brown clayey silt w/ med. sand	0	
9				Refusal @ 8'		
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RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-301

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10 / 1 / 18	End Date: 10 / 1 / 18	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				Concrete Slab 3"		
2	SB-301-1.5	9:00	75%	Black-brown coarse sandy silt w/ rock and brick - fill	0.1	
3				Brown silt w/ fill	0.4	
4				Orange-brown ~~silty clay~~ clayey silt; trace med. sand	0.1	
5						
6	SB-301-5.5	9:05	100%	Orange med. Sand; trace silt	0.1	
7				Refusal 6'	0.1	
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RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-302

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/2/18	End Date: 10/2/18	Page 1 of 1	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				3" concrete		
2			50%	Black cinders, brick and rock fragments - fill	0.2	No odors
3	SB-302-4 950					
4				Slag	0.3	
5						
6			50%		0.3	
7						
8					0.2	
9	SB-302-9 955		50%	coarse brown sand		
10				Refusal 9'6"		
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RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-303

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/2/18	End Date: 10/2/18	Page 1 of 1	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				Concrete 3"		
2				Fill - brick frags, black cinders, rock	0.1	
3	SB-303-2.5 10:35		80%		0.6	
4				Soft, orange-brown clayey silt w/ trace med. sand	0.1	
5	SB-303-4.5 10:40				0	
6				Refusal 5'3"	0	
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RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-304

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10 / 2 / 17	End Date: 10 / 2 / 17	Page 1 of 1	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				3" concrete		
2	SB-304-2 10:15			fill - brick, slag, black cinders, some brown silt	0.3	No odors
3					0.1	
4	SB-304-4 1020			orange-brown clayey silt; trace med. sand	0	
5				Refusal 4' 3"	0	
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RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-305

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/2/18	End Date: 10/2/18	Page 1 of 1	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				8" concrete slab		
2				sandy orange-brown silt	0	
3	SB-305-4 1140		75%	fill - cinders and brick - 6"	0	sample #4
4				sandy orange-brown silt		
5					0	
6	SB-305-6 1145		50%	higher mois. soft clayey orange-brown silt	0	
7				Refusal 6'2"		
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RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-306

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/2/18	End Date: 10/2/18	Page 1 of 1	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"	0	No odors / stains
2				Dry fine sandy silt, tan-orange and gray	0	
3			100%			
4					0	
5						
6			100%		0	
7						
8					0	Refusal 7'3"
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RT ENVIRONMENTAL

SOIL BORING / WELL CONSTRUCTION LOG

SB-307

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/2/18	End Date: 10/2/18	Page 1 of 1	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				Concrete 8"		
2				Dry fine sandy silt, tan-orange and gray	0	
3			100%		0	
4						
5						
6					0	
7						Refusal 6.5'
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777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
J Lyashek, J Jones Long, W Thurgood	J Jones Long	Collins St Acq 7
Company: RT Environmental	P. O. # 2043-20-02	State (Location of site): NJ: ☐ NY: ☐ Other: PA
		Regulatory Program: DKQP: ☐
Address	Analysis Turnaround Time: Standard ☒	
City: KOP State: PA	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	DEP Fuel No. 2-0	VOCs										LAB USE ONLY Sample Numbers
SB-300-3	10/2/18	9-15	soil	5	X	X										
SB-300-7.5		9-20		5												
SB-301-1.5		9 00														
SB-301-5.5		9 05														
SB-302-4		950														
SB-302-9		955														
SB-303-2.5		1035														
SB-303-4.5		1040														
SB-304-2		1015														
SB-304-4		1020														
Soil:					1	1										
Water:																

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other MeOH, 7 = Other DI

Special Instructions Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	RT Env	10/2/18 14 15	1)	TA-KOP
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
J. Lydzinski, V. Jones Cong, W. Hugo	V. Jones Cong	Collins St. Act 2
Company: RT Environmental	P. O. # 7043-20-02	State (Location of site): NJ: ☐ NY: ☐ Other: PA
		Regulatory Program: DKQP: ☐
Address	Analysis Turnaround Time: Standard ☒	LAB USE ONLY: Project No:
City: KOP State: PA	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	Job No:
Phone Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	DEP Fuel No. 2+6	VOCs									Sample Numbers
SB-305-4	10/2/18	1140	Soil	5	X	X									
SB-305-6	1	1145	1	5	X	X									
Soil:					1	1									
Water:															

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH; 6 = Other DI, 7 = Other MeOH

Special Instructions Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1)	RTEC	10/2/18 16:15	1)	TA - KOP
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

APPENDIX C

SOIL BORING LOGS

RT ENVIRONMENTAL

SB-300

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/2/2018	End Date: 10/2/2018	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete slab 3"		
				concrete debris, brick, brown silt and black ashy cinders	0.1	
2	SB-300-3 9:15		50%			
3				soft orange clayey silt w/ medium sand; slightly moist	0.7	
4					0.1	
5						
6				orange medium sand, trace silt	0.0	
7	SB-300-7.5 9:20				0.0	
8				orange-brown clayey silt w/ medium sand	0.0	
9				Refusal @ 8'		
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RT ENVIRONMENTAL

SB-301

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/2/2018	End Date: 10/2/2018	Page __ of __

Depth (ft)	Sample Type & #	Blows per 6"	Recov-ery (in)	Description	PID	Remarks
1				concrete slab 3"		
				black brown coarse sandy silt w/ rock & brick fill	0.1	
2	SB-301-1.5 9:00		75%			
3						
4				brown silt w/ fill	0.6	
				orange bornw clayey silt; trace med. Sand	0.1	
5	SB-301-5.5 9:05		100%		0.1	
6				orange med. Sand; trace silt	0.1	
7				Refusal @ 6'		
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RT ENVIRONMENTAL

SB-302

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/2/2018	End Date: 10/2/2018	Page __ of __

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete slab 3"		
				black ashy cinders, brick and rock fragments - fill		
2			50%		0.2	No odors
				slag		
3						
4	SB-302-4 9:50				0.3	
5			50%		0.3	
6						
7					0.2	
8						
9	SB-302-9 9:55		50%	coarse brown sand		
10				Refusal @ 9.6'		
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RT ENVIRONMENTAL

SB-303

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/2/2018	End Date: 10/2/2018	Page __ of __

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete slab 3"	0.1	
2	SB-303-2.5 10:35		80%	fill - brick fragments, black cinders, rock	0.6	
3						
4				soft orange-brown clayey silt w/ trace med. Sand	0.1	
5	SB-303-4.5 10:40				0.0	
6				Refusal @ 5.3'		
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RT ENVIRONMENTAL

SB-304

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#;	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/2/2018	End Date: 10/2/2018	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete slab 3"		
				fill - brick fragments, slag, black cinders, some brown silt	0.3	No odors
2	SB-304-2 10:15				0.1	
3					0.0	
4	SB-304-4 10:20			soft orange-brown clayey silt w/ trace med. Sand	0.0	
5				Refusal @ 4.3'		
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RT ENVIRONMENTAL

SB-305

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#;	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/2/2018	End Date: 10/2/2018	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recov-ery (in)	Description	PID	Remarks
1				concrete slab 3"		
				black brown coarse sandy silt w/ rock & brick fill	0.1	
2	SB-305-4 1:40		75%			
3						
4				brown silt w/ fill	0.6	
				orange bornw clayey silt; trace med. Sand	0.1	
5	SB-301-5.5 9:05		100%	orange med. Sand; trace silt	0.1	
6					0.1	
7				Refusal @ 6.2'		
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RT ENVIRONMENTAL

SB-306

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/2/2018	End Date: 10/2/2018	Page __ of __

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"		
2			100%	dry fine sandy silt, tan-orange and gray sand	0	
3					0	
4					0	
5						
6					0	
7				Refusal 6.5'		
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RT ENVIRONMENTAL

SB-307

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/2/2018	End Date: 10/2/2018	Page ___ of ___

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"		
2			100%	dry fine sandy silt, tan-orange and gray sand	0	No staining/ odor
3					0	
4						
5			100%		0	
6						
7					0	
8				Refusal @ 7.3'		
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10						
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RT ENVIRONMENTAL

SB-310

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#;	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"		
2	SB-310-2 8:35		100%	fill - black cinders, brick fragments, brown silt	0	minimal fill vol; sampled just below fill
3				brown med. Sand and silt	0	
4				higher moisture brown silt, trace medium sand		
5					0	
6			100%			
7	SB-310-7.5 8:40			red-brown silt, trace sand	0	
8						
9				Refusal @ 8'		
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RT ENVIRONMENTAL

SB-311

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"		
2			50%	orange-brown clayey silt	0	no staining / odor
3					0	
4						
5					0	
6			100%			
7				red-brown silt, trace med. sand	0	
8						
9						
10				rocks		
11				orange and gray med. Sand	0	
12						
13	SB-311-13 9:00		100%	slight moist	0	
14						
15						
16				coarse sand orange-brown and red	0	
17				saturated		
18			100%			
19	SB-311-19.5 9:05				0	
20						
21				End of Boring @ 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SB-312

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#:	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 7"		
2			100%	black cinder and concrete	0	
3				orange-brown clayey silt	0	
4						
5					0	
6				brown silt w/ trace med. Sand		
7			75%		0	
8						
9						
10						
11				coarse orange sand	0	
12						
13					0	
14						
15						
16				Black oily stain in med. Sand	35	
17				med. brown sand w/ rock		
18	SB-312-18 9:40			black oily stain in med. Sand	57.7	
19	SB-312-19.5 9:45			coarse white and orange sand, nearly saturated	0.3	
20						
21				End of Boring @ 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SB-313

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#;	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"		
				2" black cinders - fill	0	no odor
2			100%	brown- orange clayey silt		
3					0	
4				brown silt w/ trace med. Sand		
5					0	
6						
7			100%		0	
8						
9						
10						
11				red brown silt, trace med. sand	0	
12				brown and orange coarse sand and rock		
13	SB-313-14 10:15		100%		0	
14						
15						
16				white and oarnge coarse sand nearly saturated	0	
17						saturated
18			100%		0	
19	SB-313-19.5 10:20				0	
20						
21				End of Boring @ 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SB-314

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"		
2			100%	orange-brown clayey silt	0	no odor
3					0	
4						
5					0	
6						
7			100%	brown silt w/ med. fine sand	0	
8						
9						
10						
11				brown silt and coarse sand	0	
12						
13	SB-314-13.5 10:35		100%		0	
14				moist coarse sand and pea gravel		
15						
16				saturated coarse sand and trace pea gravel	0	
17						
18			100%		0	
19	SB-314-19.5 10:40				0	
20						
21				End of Boring @ 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SB-315

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#;	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"		
2			75%	black cinders, brick & concrete fragments -fill	0	no odor
3					0	
4				orange-brown clayey silt, trace med. sand		
5					0	
6				coarse brown sand		
7			100%		0	
8				brown silt w/ med. sand		
9						
10						
11				coarse sand and rocks	0	
12						
13	SB-315-14 11:05		100%		0	
14				med. brown sand		
15						
16				coarse sand and pea gravel saturated	0	
17				brown and orange coarse sand and trace pea gravel		
18			100%		0	
19	SB-315-19.5 11:10				0	
20						
21				End of Boring @ 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SB-316

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#;	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 8"		
2			100%	gray and brown clayey silt	0	no odor
3					0	
4						
5					0	
6				moist brown clayey silt, trace med sand		
7			100%		0	
8						
9				brown med sand		
10						
11				red med sand and pea gravel/rocks	0	Depth to bottom of pit - 11'
12						
13	SB-316-12.5 11:30		50%		0	
14						
15						
16				saturated coarse orange sand	0	
17						
18			100%		0	
19	SB-316-19.5 11:35				0	
20						
21				End of Boring @ 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SB-317

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Geoprobed	Driller: Ferris
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				concrete 7"		
2			100%	fill - black cinders, brown silt and rock	0	no odor
3					0	
4				orange - brown clayey silt		
5					0	
6				light brown silt, trace med sand		
7			100%		0	
8						
9						
10						
11				brown med sand	0	
12						
13	SB-317-13 12:00		50%		0	
14				white and orange coarse sand and pea gravel		
15						
16				orange and white coarse sand saturated	0	
17						
18			100%		0	
19	SB-317-19.5 12:05			drier, still moist	0	
20						
21				End of Boring @ 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

RT ENVIRONMENTAL

SB-318

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2 - Task 1		
Boring#:	Elevation:	Geologist: VL	
Permit #:	Method: Geoprobed	Driller: Ferris	
Start Date: 10/3/2018	End Date: 10/3/2018	Page __ of __	

Depth (ft)	Sample Type & #	Blows per 6"	Recovery (in)	Description	PID	Remarks
1				top soil and grass		
2			75%	bricks, conrete, cinders - fill	0	no odor
3					0	
4						
5					0	
6				brown sand and fill		
7			75%		0	
8				bricks		
9						
10						
11				brown sandy silt and bricks	0	
12						
13			75%		0	
14						
15						
16				brown sand and brick	0	
17						
18	SB-318-18 13:30		75%	small oily sand patch between 18'-19'	24	
19	SB-318-19.5 13:35				0	
20				brown coarse sand		
21				End of Boring @ 20'		
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

APPENDIX D

WELL CONSTRUCTION LOGS

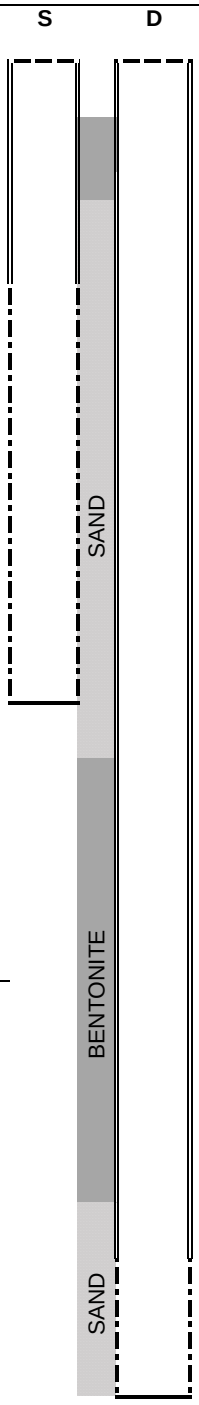
RT ENVIRONMENTAL

MW-16S/D

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320Collins Res Act 2	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method:	Driller: Allied
Start Date: 12/4/18	End Date: 12/4/18	Page 1 of 1

Depth (ft)	Sample Type & #	Blows per 6"	Recov-ery (in)	Description	PID	Remarks
				sidewalk		No PID readings
2				black-brown silty fill w/ brick and rock		
4				orange-brown med.-coarse sand trace clay		
6						
8						
10						**SHALLOW**
12						**CONSTRUCTION SPECS.**
14						PVC Riser: 10' - 0
16						ID PVC Screen: 25' - 10'
18						Sand filter pack: 25' - 7'
20						Bentonite: 7' - 4'
22						Mount: Flush
24						
26						
28						
30						
32						
34						
36				Bed rock - gray schist		
38						
40						
42						
44						
46						**DEEP**
48						**CONSTRUCTION SPECS.**
50						PVC Riser: 45' - 0
52				End borehole 52'		ID PVC Screen: 50' - 45'
						Sand filter pack: 50' - 43'
						Bentonite: 43' - 27'
						Mount: Flush



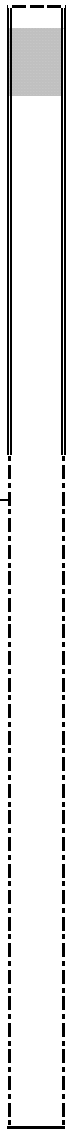
RT ENVIRONMENTAL

MW-17S

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320 Collins Res Act 2	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method: Air Rotary Geoprobe	Driller: Allied
Start Date: 12/3/18	End Date: 12/3/18	Page 1 of 1

Depth (ft)	Sample Type & #	Blows per 6"	Recov-ery (in)	Description	PID	Remarks
				sidewalk - 2 layers of concrete		No PID readings
				historic fill- black-brown silty fill w/ brick and rock		
				water return medium-coarse orange-brown sand		
				End borehole - 26.5'		



CONSTRUCTION SPECS.
PVC Riser: 11' - 0
ID PVC Screen: 26' - 11'
Sand filter pack: 26' - 8'
Bentonite: 8' - 5'
Mount: Flush

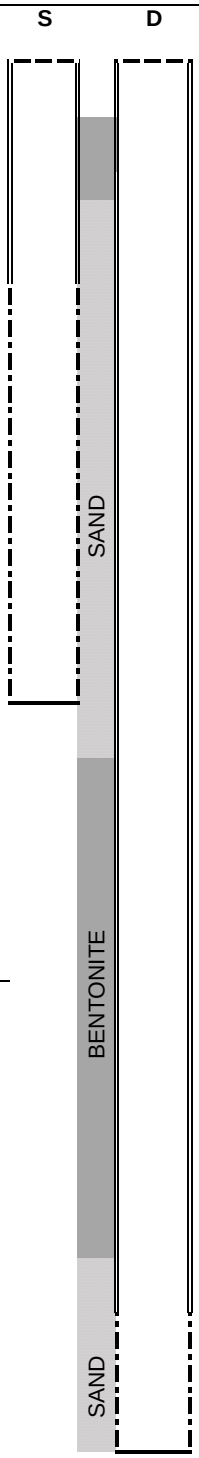
RT ENVIRONMENTAL

MW-18S/D

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320Collins Res Act 2	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method:	Driller: Allied
Start Date: 12/4/18	End Date: 12/4/18	Page 1 of 1

Depth (ft)	Sample Type & #	Blows per 6"	Recov-ery (in)	Description	PID	Remarks
				black-brown silty fill w/ brick and rock		No PID readings
				orange-brown med.-coarse sand		
				brown silt w/ small cobbles		**SHALLOW**
				orange-brown med.-coarse sand		**CONSTRUCTION SPECS.**
						PVC Riser: 10' - 0
						ID PVC Screen: 25' - 10'
						Sand filter pack: 25' - 7'
				moist return		Bentonite: 7' - 4'
						Mount: Stick up
				wet return		
				Bed rock - gray schist		
				End borehole 54'		
						DEEP
						CONSTRUCTION SPECS.
						PVC Riser: 47' - 0
						ID PVC Screen: 52' - 47'
						Sand filter pack: 52' - 45'
						Bentonite: 45' - 27'
						Mount: Stick up



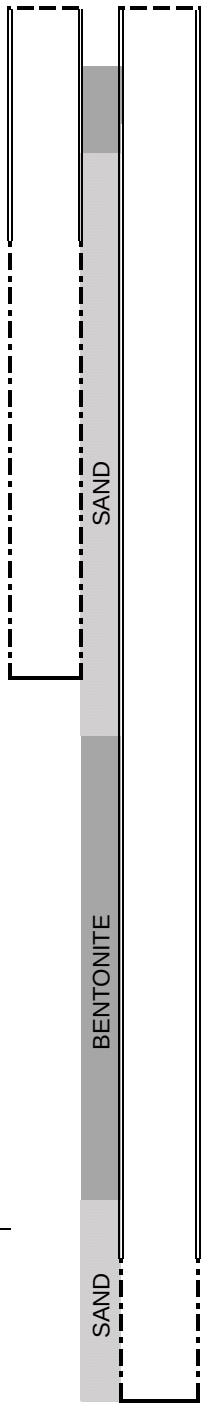
RT ENVIRONMENTAL

MW-19S/D

SOIL BORING / WELL CONSTRUCTION LOG

Proj. #: 2043-20	Proj. Name: 3320Collins Res Act 2	
Boring#;	Elevation:	Geologist: VL
Permit #:	Method:	Driller: Allied
Start Date: 11/27/18	End Date: 11/28/18	Page 1 of 1

Depth (ft)	Sample Type & #	Blows per 6"	Recov-ery (in)	Description	PID	Remarks
				tan-brown silty fill w/ brick and rock		No PID readings
				orange-brown med.-coarse sand		**SHALLOW CONSTRUCTION SPECS.**
						PVC Riser: 10' - 0
						ID PVC Screen: 25' - 10'
						Sand filter pack: 25' - 7'
						Bentonite: 7' - 4'
						Mount: Stick up
				void		
				coarse sand and river rock water return		
				Bed rock - gray schist		**DEEP CONSTRUCTION SPECS.**
						PVC Riser: 45' - 0
						ID PVC Screen: 50' - 45'
						Sand filter pack: 50' - 43'
						Bentonite: 43' - 27'
						Mount: Stick up
				End borehole 52'		



APPENDIX E

QUICK DOMENICO DATA

4/17/2020	Slug Test Data	Collins Street	RT Project #2043-20

MW-17S	DTW	Elapsed Time	Change in Water Level
Test 1	10.65	00:00:43:41	0.34
initial DTW	10.54	00:01:27:28	0.23
10.31	10.45	00:02:33:88	0.14
	10.4	00:03:25:97	0.09
	10.35	00:05:24:09	0.04
100%	10.31	00:12:07:17	0

MW-17S	DTW	Elapsed Time	Change in Water Level
Test 2	11.04	00:00:21:10	0.73
initial DTW	10.85	00:01:02:37	0.54
10.31	10.73	00:01:27:65	0.42
	10.67	00:01:48:70	0.36
	10.6	00:02:16:30	0.29
	10.55	00:02:41:12	0.24
	10.5	00:03:09:82	0.19
	10.45	00:03:57:22	0.14
	10.41	00:04:33:94	0.1
	10.36	00:05:51:10	0.05
100%	10.31	00:11:26:87	0

MW-16S	DTW	Elapsed Time	Change in Water Level
Test 1	12.83	00:01:50:29	0.31
initial DTW	12.7	00:04:51:20	0.18
12.52	12.67	00:05:36:27	0.15
	12.54	00:18:29:27	0.02
100%	12.52	00:32:14:18	0

MW-16S	DTW	Elapsed Time	Change in Water Level
Test 2	12.8	00:00:43:37	0.28
initial DTW	12.78	00:02:29:51	0.26
12.52	12.74	00:03:40:88	0.22
	12.7	00:04:53:28	0.18
	12.66	00:06:36:86	0.14
	12.62	00:10:12:47	0.1
100%	12.58	00:14:03:65	0.06
	12.52	00:31:39:51	0

MW--16D	DTW	Elapsed Time	Change in Water Level
	13.9	00:05:00:98	0.45
initial DTW	13.85	00:18:38:29	0.4
13.45	13.82	00:29:55:26	0.37
	13.75	00:53:10:20	0.3

	13.7	01:16:21:28	0.25
	13.68	01:25:15:80	0.23
	13.6	01:47:18:50	0.15
	13.58	02:08:17:49	0.13
	13.52	02:31:18:57	0.07
100%	13.45	03:07:47:20	0

MW-19S	**DTW**	**Elapsed Time**	**Change in Water Level**
	15.1	00:00:12:60	0.85
initial DTW	15	00:00:33:56	0.75
14.25	14.9	00:01:07:29	0.65
	14.8	00:01:45:27	0.55
	14.75	00:02:26:47	0.5
	14.7	00:02:44:90	0.45
	14.6	00:03:50:43	0.35
	14.55	00:04:17:12	0.3
	14.5	00:05:10:39	0.25
	14.45	00:06:29:70	0.2
	14.4	00:07:40:84	0.15
	14.35	00:09:35:68	0.1
	14.3	00:12:07:60	0.05
100%	14.25	00:18:31:68	0

MW-19D	**DTW**	**Elapsed Time**	**Change in Water Level**
	15.85	00:00:49:58	1.46
initial DTW	15.75	00:01:32:30	1.36
14.39	15.7	00:02:06:40	1.31
	15.65	00:02:39:56	1.26
	15.6	00:03:15:82	1.21
	15.55	00:03:47:29	1.16
	15.5	00:04:32:60	1.11
	15.45	00:05:09:40	1.06
	15.4	00:06:04:92	1.01
	15.35	00:06:59:18	0.96
	15.3	00:07:50:84	0.91
	15.25	00:08:50:18	0.86
	15.2	00:09:39:40	0.81
	15.1	00:13:16:87	0.71
	15	00:14:24:73	0.61
	14.9	00:17:25:25	0.51
	14.8	00:21:58:62	0.41
	14.7	00:27:51:83	0.31
	14.6	00:36:03:00	0.21
	14.5	00:52:37:60	0.11
97%	14.43	01:09:42:20	0.04

MW-18S	DTW	Elapsed Time	Change in Water Level
	16.1	00:00:37:58	1.11
initial DTW	16	00:01:16:80	1.01
14.99	15.9	00:02:44:30	0.91
	15.8	00:04:37:71	0.81
	15.7	00:06:51:89	0.71
	15.5	00:13:04:76	0.51
	15.38	00:17:01:69	0.39
	15.2	00:29:08:53	0.21
	15.1	00:41:23:23	0.11
99%	15	01:00:19:40	0.01

MW-18D	DTW	Elapsed Time	Change in Water Level
	16.32	00:00:27:12	1.33
initial DTW	16.2	00:01:09:11	1.21
14.99	16	00:01:47:18	1.01
	15.9	00:03:12:29	0.91
	15.8	00:05:17:81	0.81
	15.7	00:09:29:76	0.71
62%	15.6	00:13:04:53	0.61

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

Scholler
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
↑ or 0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* — Data used directly in model

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	9.2	(ft/yr)
or			
Hydraulic Conductivity	K	5.2E-04	(cm/sec)
Hydraulic Gradient	i	0.006	(ft/ft)
Effective Porosity	n	0.35	(-)

2. DISPERSION

Alpha x*	100	(ft)
(Alpha y) / (Alpha x)*	10	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R

or

Soil Bulk Density, rho		1.8	(kg/L)	
FractionOrganicCarbon, foc		5.0E-3	(-)	
Partition Coefficient	Koc			
PCE	300	(L/kg)	8.71	(-)
TCE	93	(L/kg)	3.39	(-)
DCE	49	(L/kg)	2.26	(-)
VC	10	(L/kg)	1.26	(-)
ETH		(L/kg)	1.00	(-)

Common R (used in model)* = 2.26

4. BIOTRANSFORMATION

-1st Order Decay Coefficient*

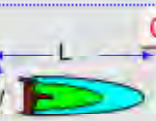
	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.030		0.79
TCE → DCE	0.020		0.74
DCE → VC	0.010		0.64
VC → ETH	0.090		0.45
Zone 2			
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	30	(yr)
Modeled Area Width*	60	(ft)
Modeled Area Length*	200	(ft)
Zone 1 Length*	200	(ft)
Zone 2 Length*	0	(ft)

Zone 2= L - Zone 1



6. SOURCE DATA

TYPE: Continuous Single Planar

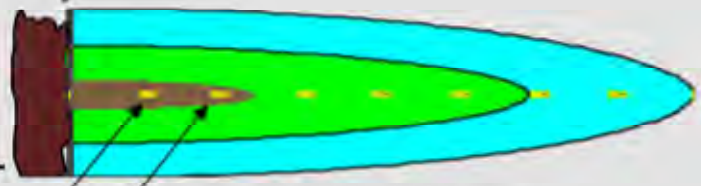
Source Options

Source Thickness in Sat. Zone* 10 (ft)

Y1
Width* (ft) 40

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE	0	0
TCE	049	0
DCE	042	0
VC	001	0
ETH		0

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



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

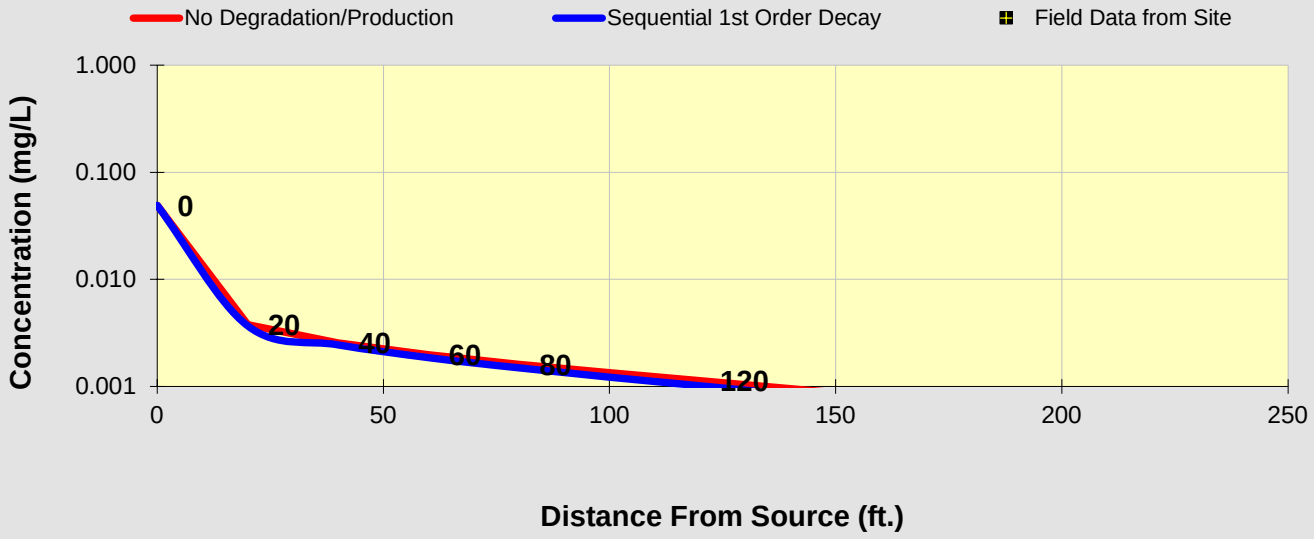
PCE Conc. (mg/L)											
TCE Conc. (mg/L)											
DCE Conc. (mg/L)											
VC Conc. (mg/L)											
ETH Conc. (mg/L)											
Distance from Source (ft)											
Date Data Collected											

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | RUN ARRAY | Help | Restore | RESET | SEE OUTPUT | Paste | Unprotect

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

TCE	Distance from Source (ft)										
	0	20	40	60	80	100	120	140	160	180	200
No Degradation	0.049	0.004	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001
Biotransformation	0.0490	0.004	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000
	Monitoring Well Locations (ft)										
Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

Replay

Time:

30.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

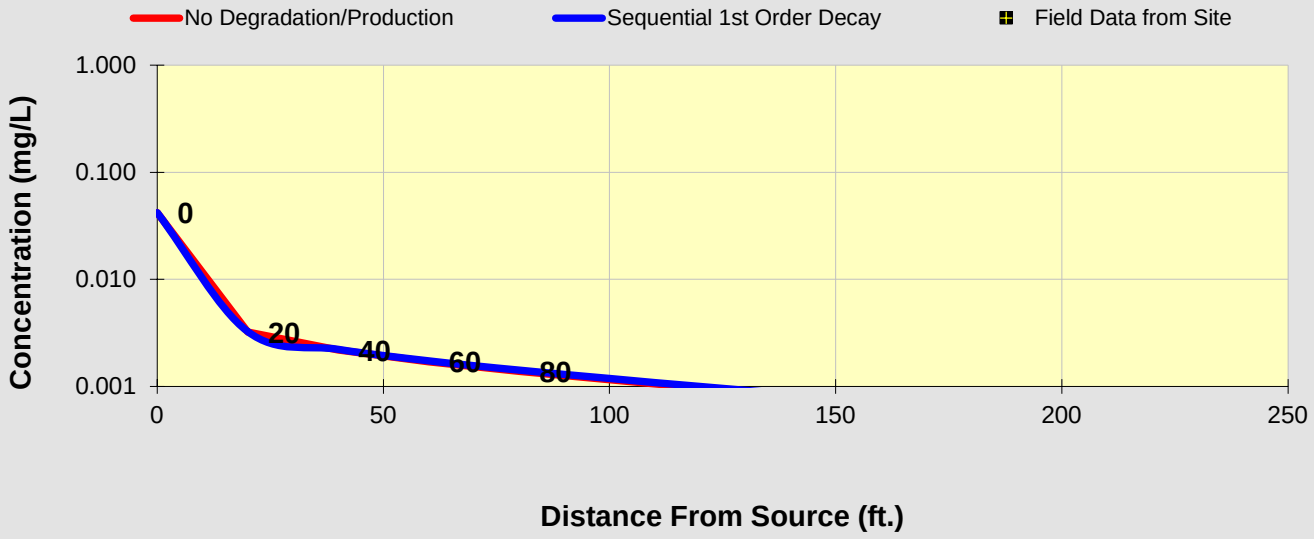
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

DCE	0	20	40	60	80	100	120	140	160	180	200
No Degradation	0.042	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000
Biotransformation	0.0420	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Monitoring Well Locations (ft)

Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

Replay

Time:

30.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

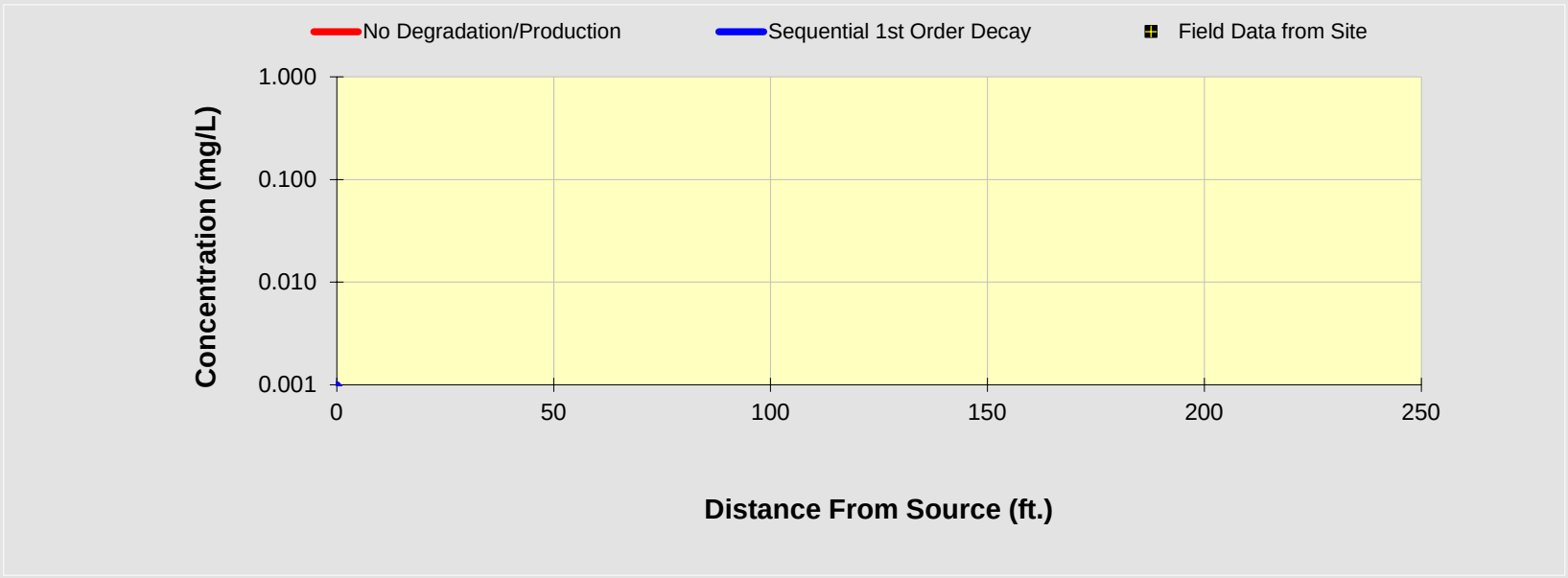
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

VC	0	20	40	60	80	100	120	140	160	180	200
No Degradation	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

Replay

Time:

30.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

Start Here → ○ PCE ◉ TCE ○ DCE ○ VC ○ ETH

DISSOLVED SOLVENT CONCENTRATIONS IN PLUME

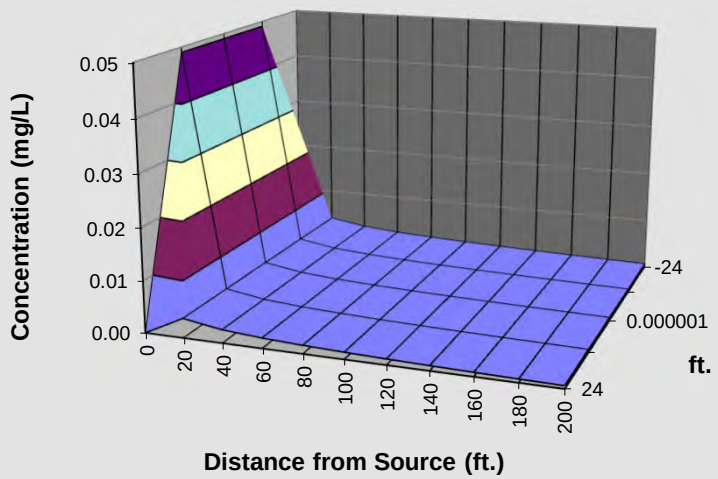
Transverse Distance (ft) \ Distance from Source (ft)	0	20	40	60	80	100	120	140	160	180	200
24	0.000	0.004	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001
12	0.049	0.004	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001
0	0.049	0.004	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001
-12	0.049	0.004	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001
-24	0.000	0.004	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001
MASS RATE (mg/day)	4.9E+0	5.6E-1	3.8E-1	3.0E-1	2.4E-1	2.0E-1	1.7E-1	1.4E-1	1.2E-1	1.0E-1	8.5E-2

Show No

Show Biotransformation

Displayed Compound

Time: 30 yr Target Level: **0.005** mg/L Displayed Model: **No Degradation** **TCE**



Plume Mass (Order-of-Magnitude Accuracy)

See Gallons

Plume Mass If No Degradation 0.0 (Kg)

- Plume Mass If Biotransformation/Production 0.0 (Kg)

Mass Removed 0.0 (Kg)

If "Can't Calc.", make model area longer

% Biotransformed = +3.5%

% Change in Mass Rate = 98.3 % (source to edge)

See acre-ft

Current Volume of Ground Water in Plume 0.02 MGal

Flow Rate of Water Through Source Area 0.000 MGD

Compare to Pump and Treat

Pumping Rate (gpm)

Pore Volumes Removed Per Yr. 0.00

Pore Volumes to Clean-Up

Clean-Up Time (yr)

Plot All Data | Plot Data > Target | Mass HELP | To Centerline | Return to Input

Start Here → ○ PCE ○ TCE ◉ DCE ○ VC ○ ETH

DISSOLVED SOLVENT CONCENTRATIONS IN PLUME

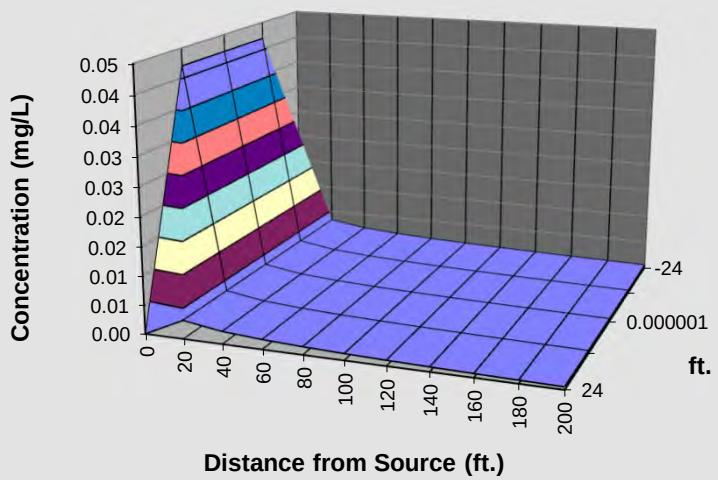
Transverse Distance (ft)	*Distance from Source (ft)* 0	20	40	60	80	100	120	140	160	180	200
24	0.000	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000
12	0.042	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000
0	0.042	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000
-12	0.042	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000
-24	0.000	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000
MASS RATE (mg/day)	4.2E+0	4.8E-1	3.3E-1	2.5E-1	2.1E-1	1.7E-1	1.5E-1	1.2E-1	1.0E-1	8.7E-2	7.2E-2

Show No

Show Biotransformation

Displayed Compound

Time: 30 yr Target Level: **0.070** mg/L Displayed Model: **No Degradation** **DCE**



Plume Mass (Order-of-Magnitude Accuracy)

See Gallons

Plume Mass If No Degradation 0.0 *(Kg)*

- Plume Mass If Biotransformation/Production 0.0 *(Kg)*

Mass Removed 0.0 *(Kg)*

If "Can't Calc.", make model area longer

% Biotransformed = -1.1 %

% Change in Mass Rate = 98.3 % (source to edge)

See acre-ft

Current Volume of Ground Water in Plume 0.02 *MGal*

Flow Rate of Water Through Source Area 0.000 *MGD*

Compare to Pump and Treat

Pumping Rate *(gpm)*

Pore Volumes Removed Per Yr. 0.00

Pore Volumes to Clean-Up

Clean-Up Time *(yr)*

Plot All Data | Plot Data > Target | Mass HELP | To Centerline | Return to Input

Start Here → ○ PCE ○ TCE ○ DCE ◉ VC ○ ETH

DISSOLVED SOLVENT CONCENTRATIONS IN PLUME

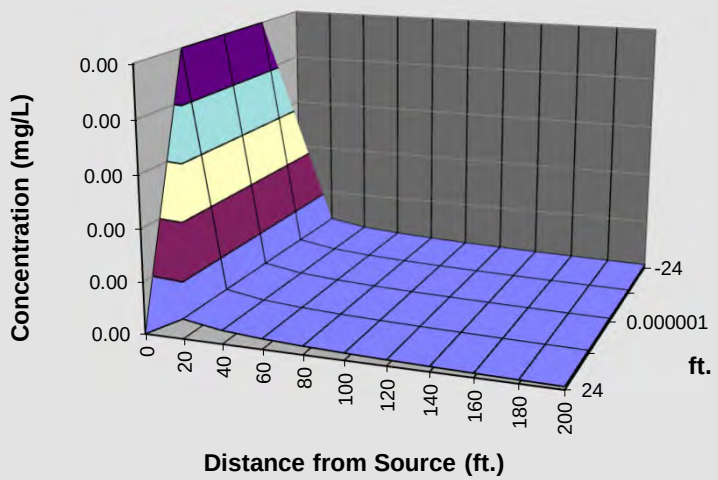
Transverse Distance (ft)	*Distance from Source (ft)* 0	20	40	60	80	100	120	140	160	180	200
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-12	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MASS RATE (mg/day)	1.0E-1	1.2E-2	7.8E-3	6.1E-3	4.9E-3	4.1E-3	3.5E-3	2.9E-3	2.5E-3	2.1E-3	1.7E-3

Show No

Show Biotransformation

Displayed Compound

Time: 30 yr Target Level: **0.002** mg/L Displayed Model: **No Degradation** **VC**



Plume Mass (Order-of-Magnitude Accuracy)

See Gallons

Plume Mass If No Degradation 0.0 *(Kg)*

- Plume Mass If Biotransformation/Production 0.0 *(Kg)*

Mass Removed 0.0 *(Kg)*

If "Can't Calc.", make model area longer

% Biotransformed = -26.5 %

% Change in Mass Rate = 98.3 % (source to edge)

See acre-ft

Current Volume of Ground Water in Plume 0.00 *MGal*

Flow Rate of Water Through Source Area 0.000 *MGD*

Compare to Pump and Treat

Pumping Rate *(gpm)*

Pore Volumes Removed Per Yr. #DIV/0!

Pore Volumes to Clean-Up

Clean-Up Time *(yr)*

Plot All Data Plot Data > Target

Mass HELP **To Centerline** **Return to Input**

APPENDIX F

RE-DEVELOPMENT PLANS

AERIAL MAP



ZONING MAP



REVISION LOG

DATE	DRAWING ISSUED:	NOTES:
DATE	DEED / FEASIBILITY	

harmandeutch ARCHITECTURE

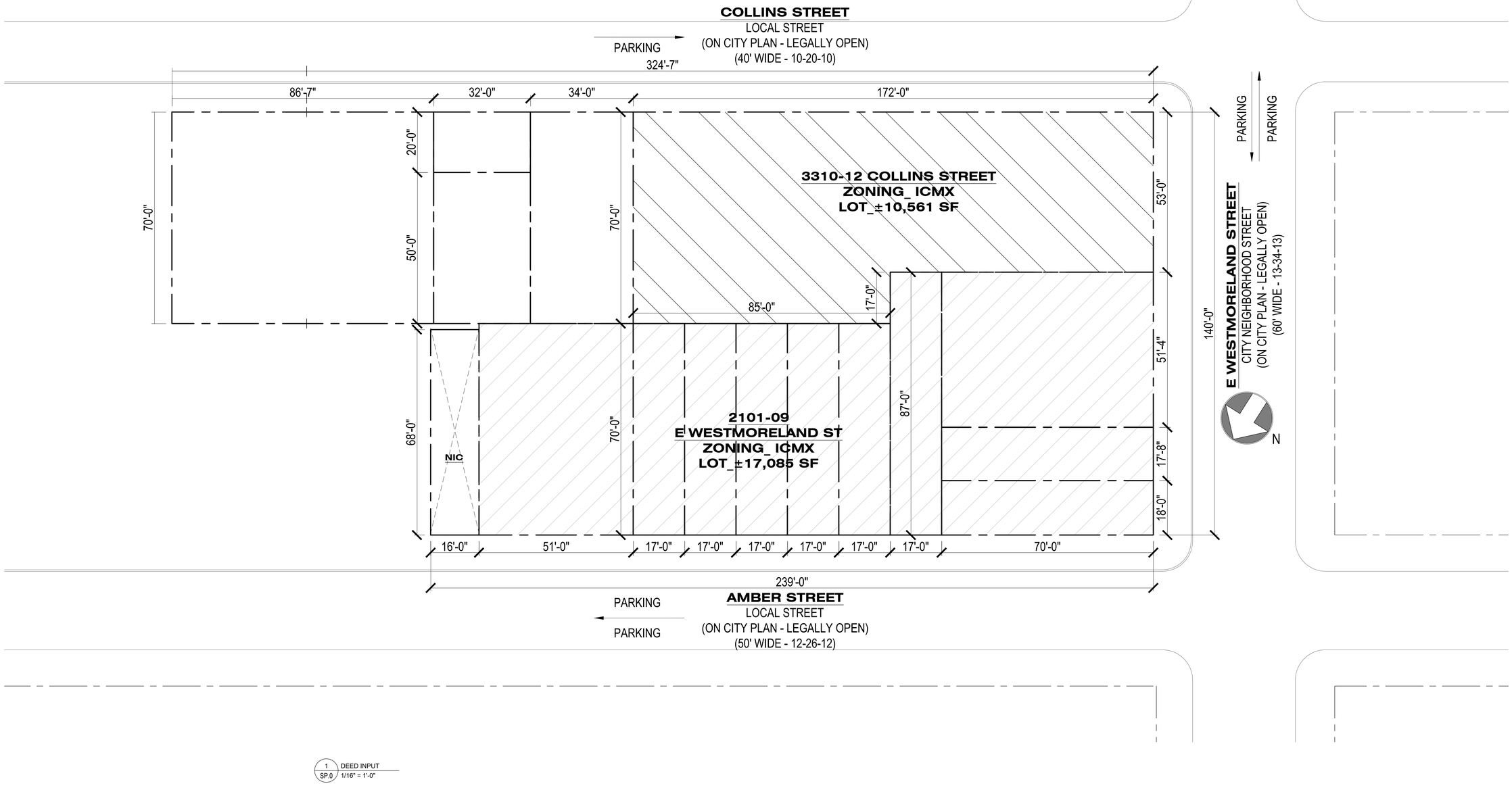
2101-09 E. WESTMORELAND ST
Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

CS
COVER SHEET

2101-09
E. WESTMORELAND
STREEET

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1 SP.0 DEED INPUT
1/16" = 1'-0"

harmandeutch ARCHITECTURE

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Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

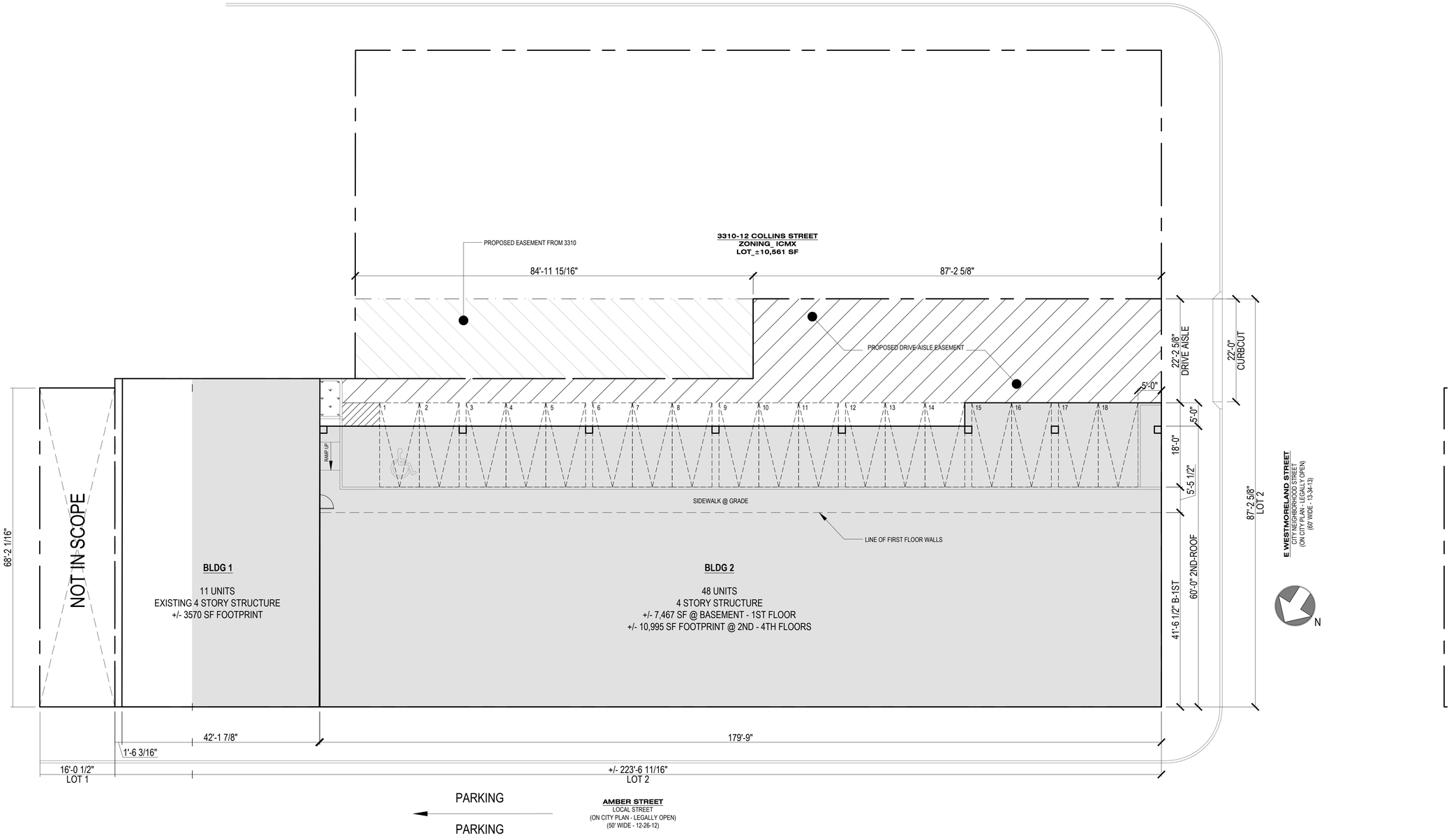
SP.0
DEED INPUT

2101-09
E. WESTMORELAND
STREET

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PARKING

COLLINS STREET
LOCAL STREET
(ON CITY PLAN - LEGALLY OPEN)
(40' WIDE - 10-20-10)



PARKING

PARKING

AMBER STREET
LOCAL STREET
(ON CITY PLAN - LEGALLY OPEN)
(50' WIDE - 12-26-12)

1 / SP.2 FEASIBILITY STUDY_ROUND 3
1/16" = 1'-0"

harmandeutsch ARCHITECTURE

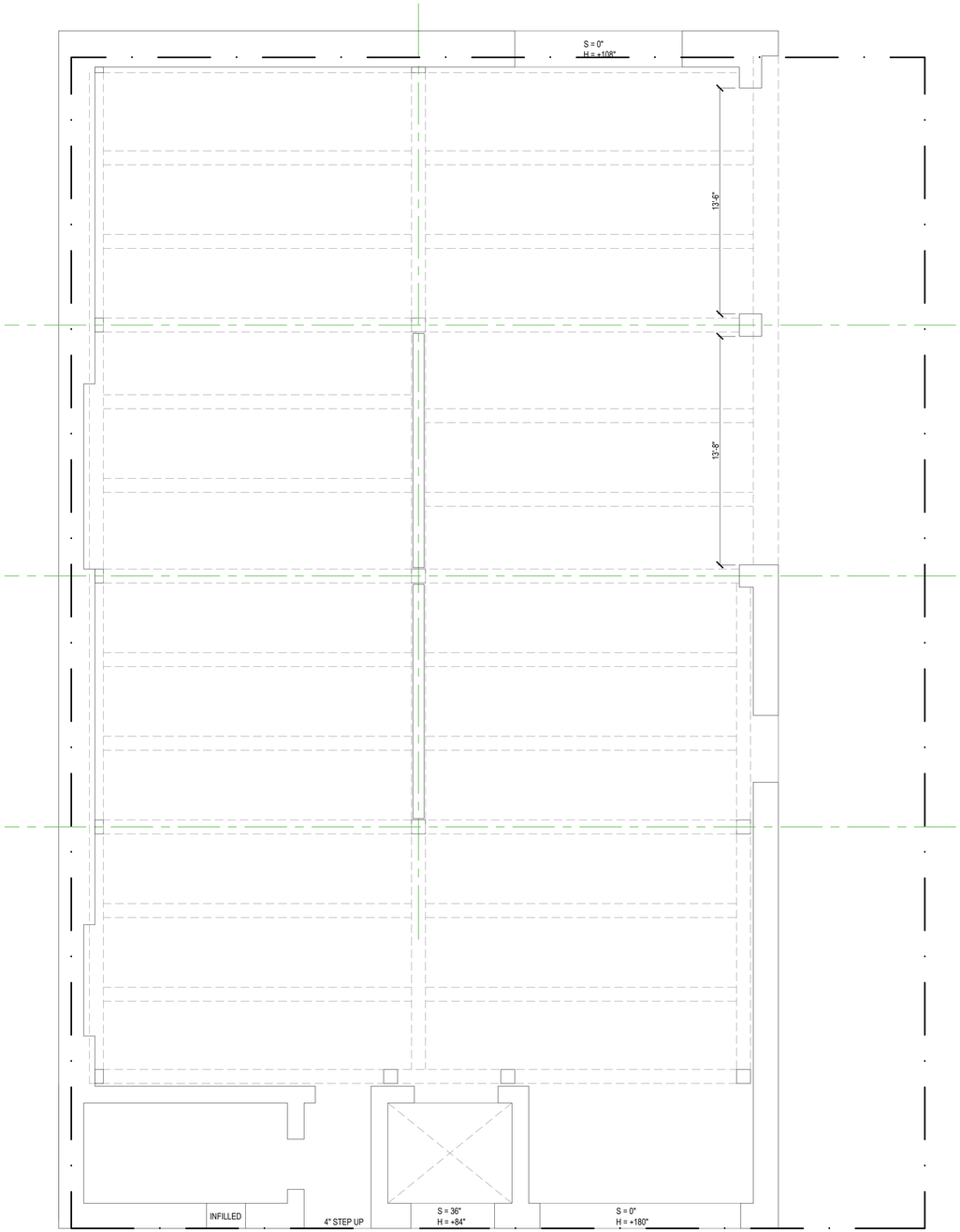
2101-09 E. WESTMORELAND ST
Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

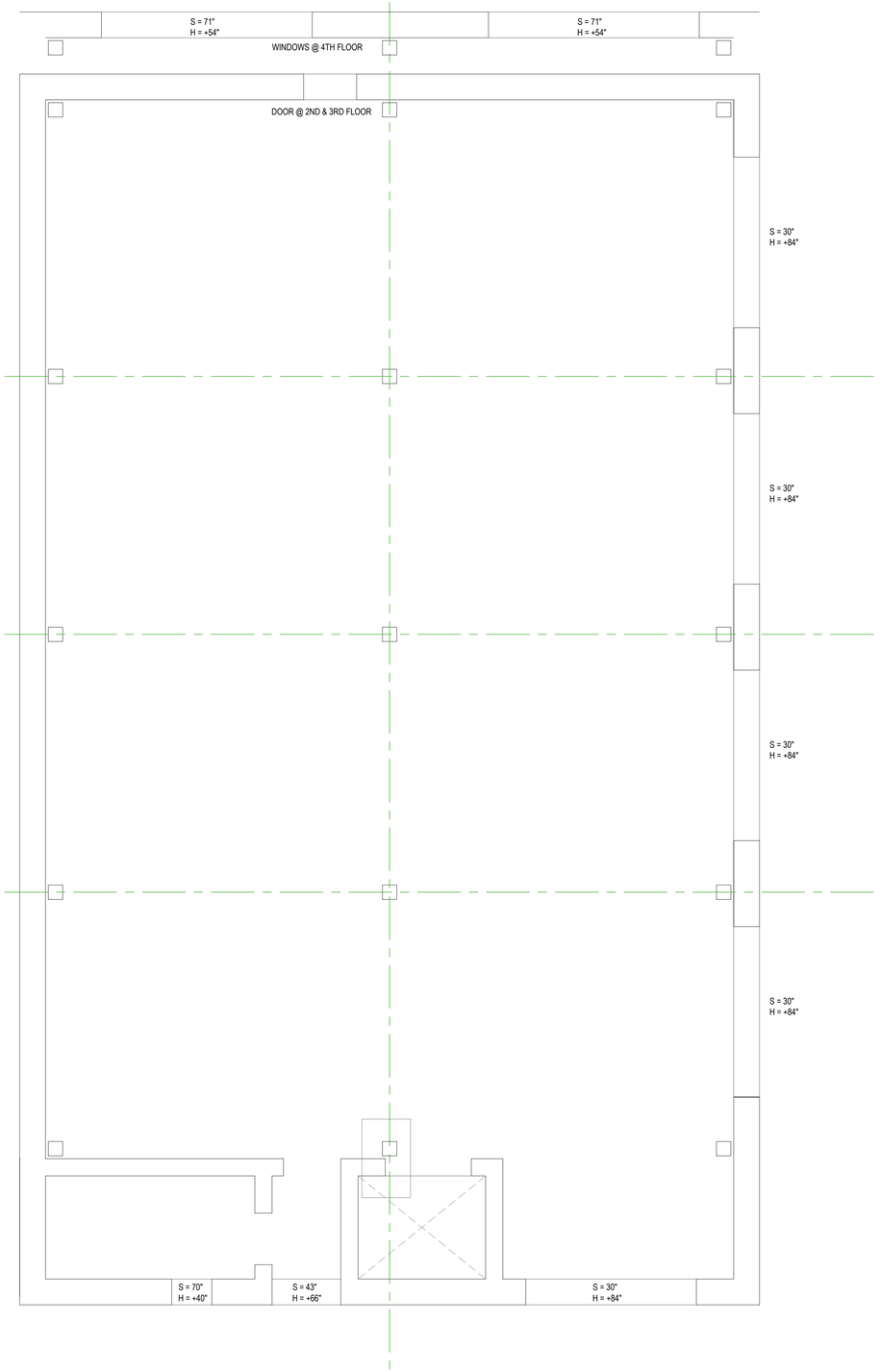
SP.2
SITE FEASIBILITY

2101-09
E. WESTMORELAND
STREET

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1 EX.1 EXISTING FIRST FLOOR PLAN
1/4" = 1'-0"



2 EX.1 EXISTING 2ND-4TH FLOOR PLAN
1/4" = 1'-0"

harmandeutsch ARCHITECTURE

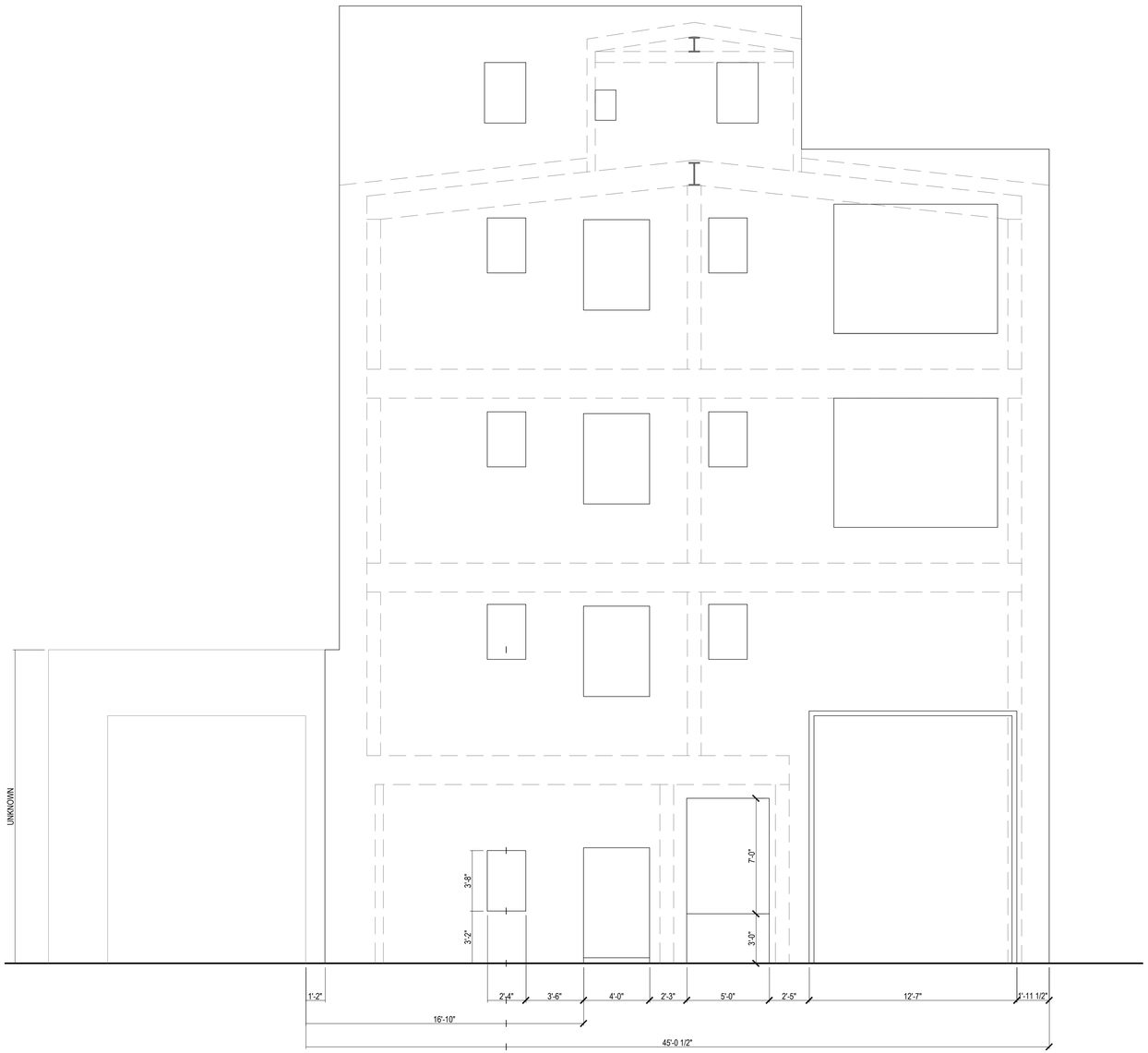
2101-09 E. WESTMORELAND ST
Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

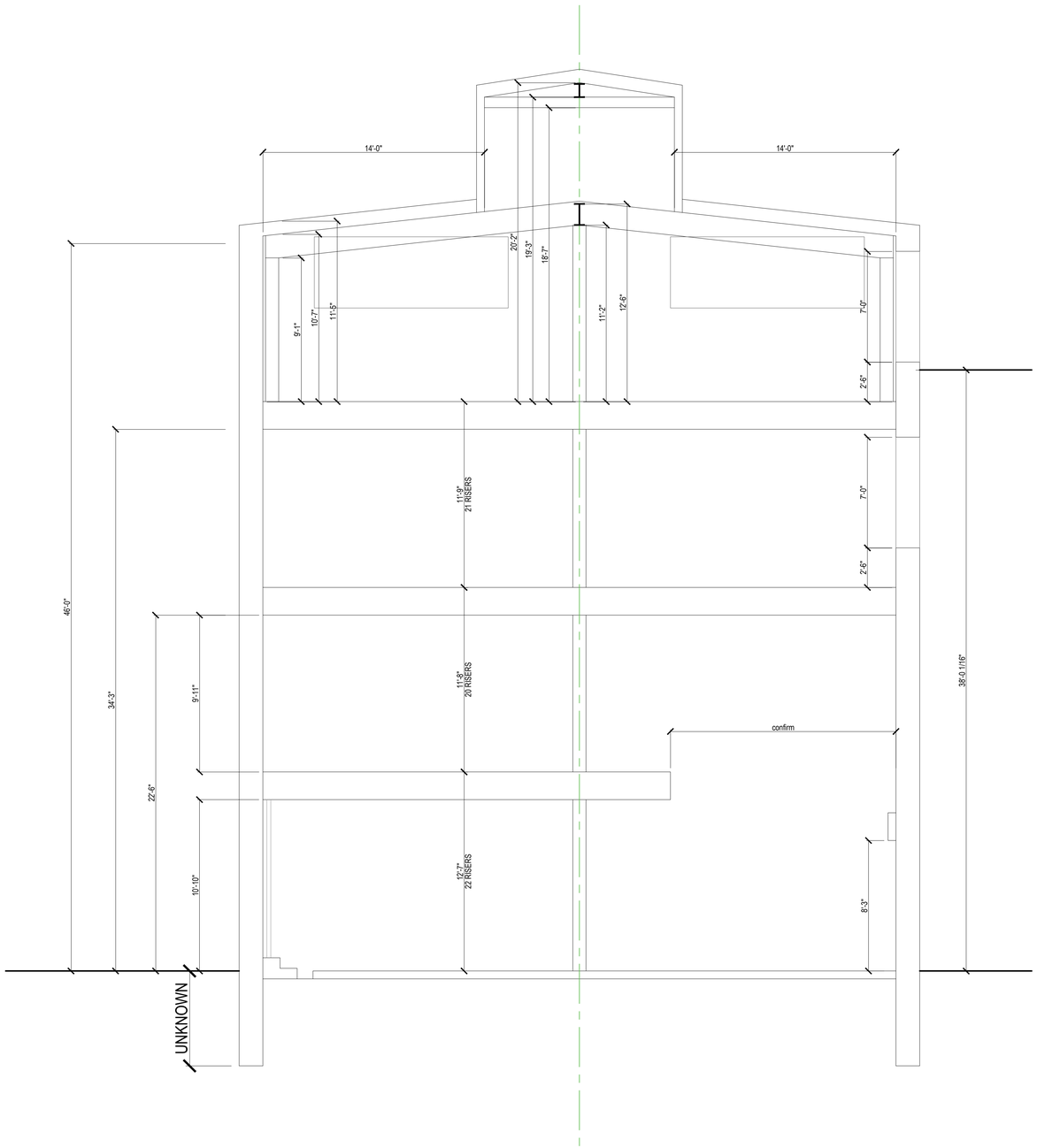
EX.1
BLDG 1: FLOOR PLANS

2101-09 E. WESTMORELAND STREET

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1 EX.2 EXISTING FRONT ELEVATION
1/4" = 1'-0"



1 EX.2 EXISTNG BUILDING SECTION
1/4" = 1'-0"

harmandeutsch ARCHITECTURE

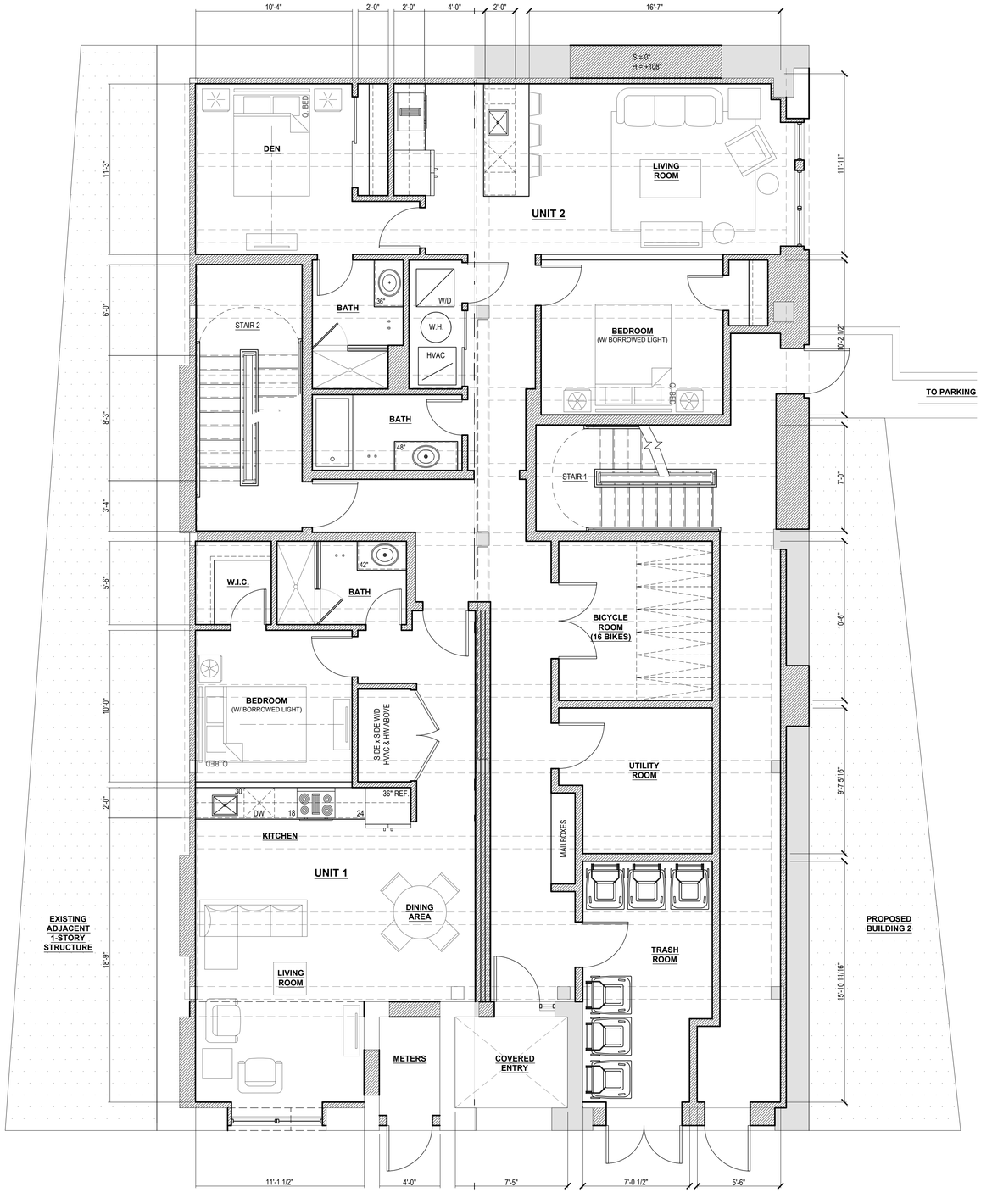
2101-09 E. WESTMORELAND ST
Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

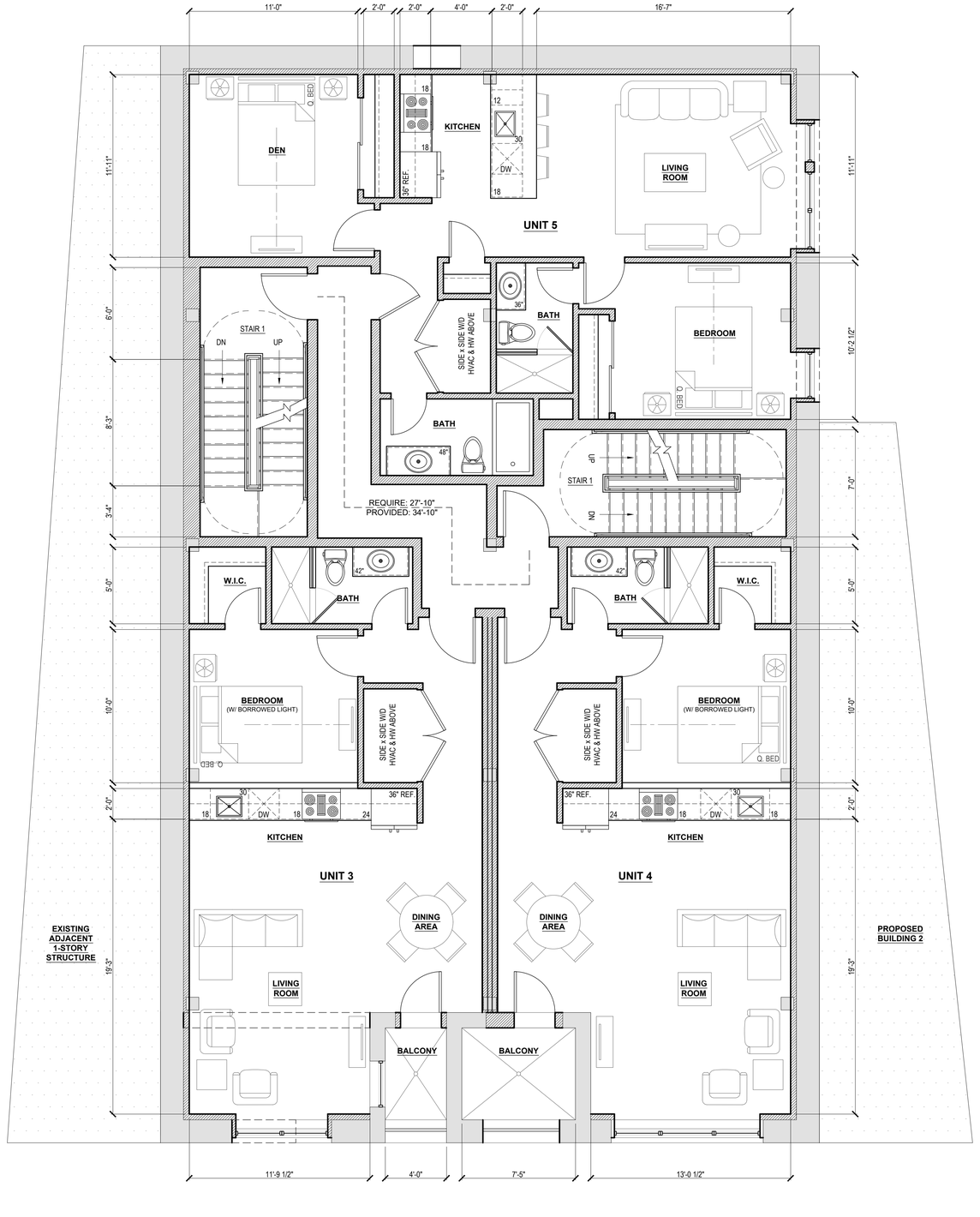
EX.2
BLDG 1: ELE. & SECTION

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1 SD1.0 FIRST FLOOR PLAN
1/4" = 1'-0"



2 SD1.0 SECOND FLOOR PLAN
1/4" = 1'-0"

harmandeutsch architecture

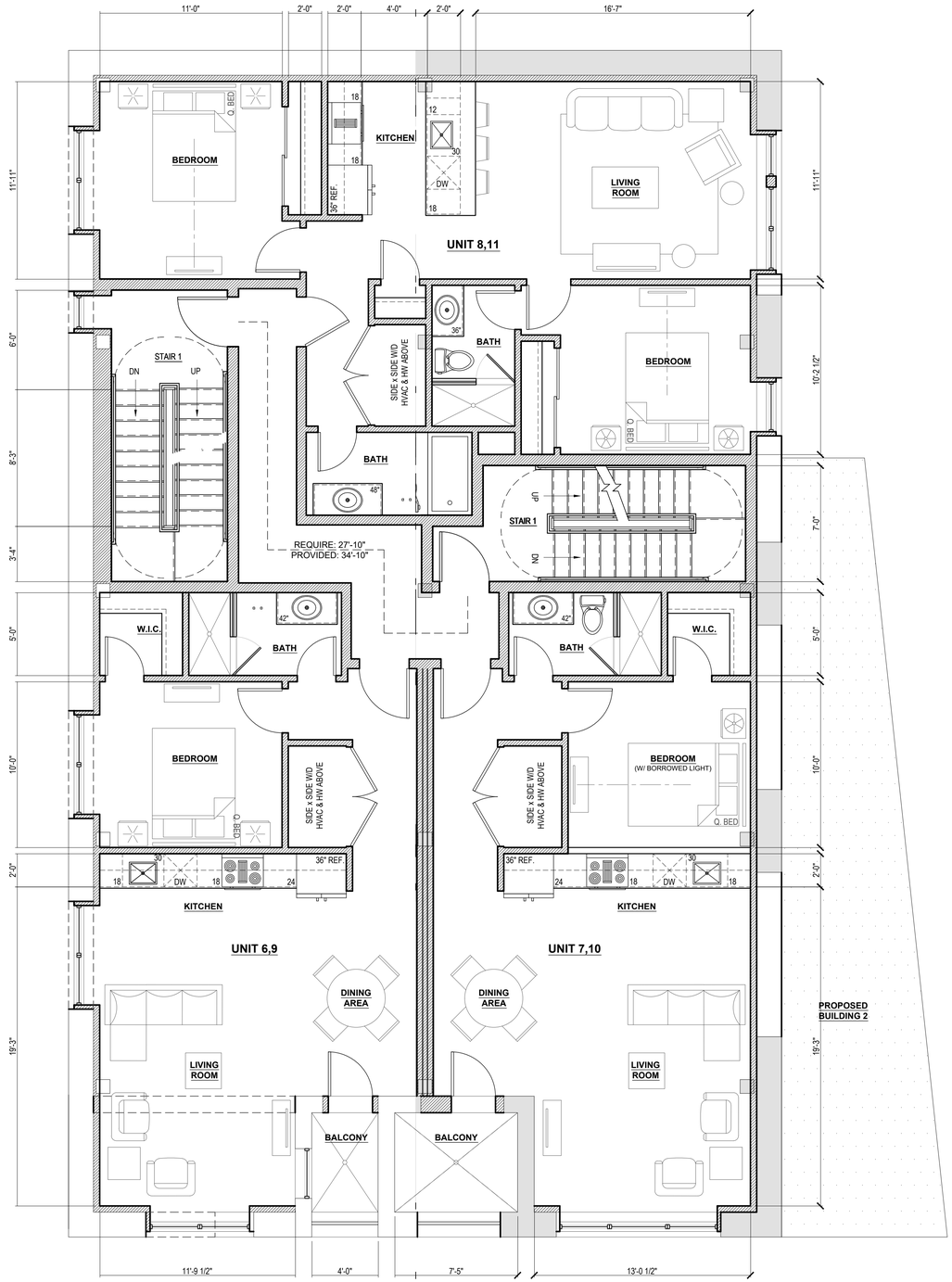
2101-09 E. WESTMORELAND ST
Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

SD1.0
BLDG 1: FLOOR PLANS

2101-09 E. WESTMORELAND STREET

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UNIT 1 FIRST FLOOR	1 BED (W/ BORROWED LIGHT) / 1 BATH 773 SF
UNIT 2 FIRST FLOOR	2 BED (1 BEDROOM W/ BORROWED LIGHT) / 2 BATH 999 SF
UNIT 3 FIRST FLOOR	1 BED (W/ BORROWED LIGHT) / 1 BATH 802 SF
UNIT 4 FIRST FLOOR	1 BED (W/ BORROWED LIGHT) / 1 BATH 838 SF
UNIT 5 FIRST FLOOR	2 BED (1 BEDROOM W/ BORROWED LIGHT) / 2 BATH 953 SF
UNIT 6,9 FIRST FLOOR	1 BED / 1 BATH 802 SF
UNIT 7,10 FIRST FLOOR	1 BED / 1 BATH 838 SF
UNIT 8,11 FIRST FLOOR	2 BED / 2 BATH 953 SF

1 THIRD FLOOR PLAN
SD1.1 1/4" = 1'-0"

harmandeutch ARCHITECTURE

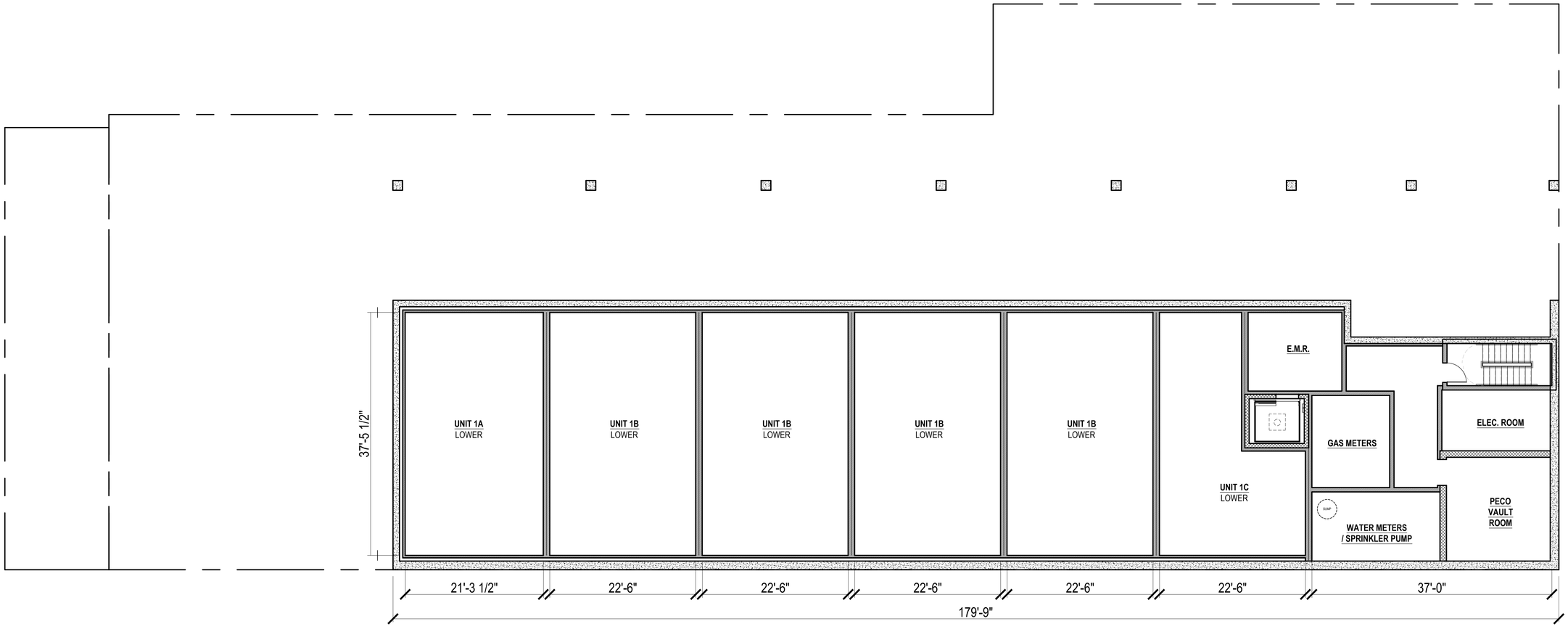
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Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

SD1.1
BLDG 1: FLOOR PLANS

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1 / SD4.0 BASEMENT FLOOR PLAN
1/8" = 1'-0"

harmandeutch ARCHITECTURE

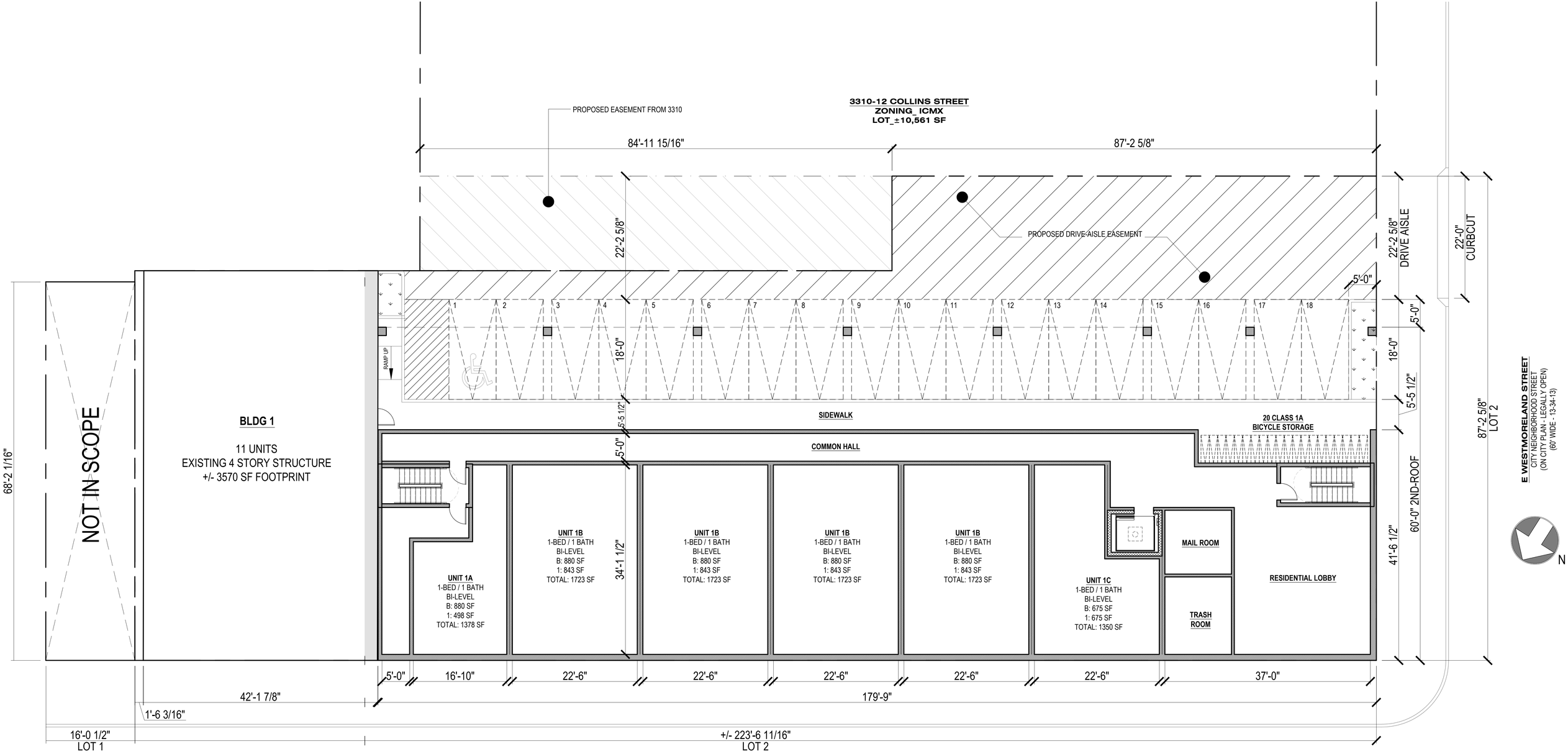
2101-09 E. WESTMORELAND ST
Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

SD4.0
MULTI-FAMILY BLDG

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1 / SD4.1 FIRST FLOOR PLAN
1/8" = 1'-0"

harmandeutsch ARCHITECTURE

2101-09 E. WESTMORELAND ST
Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EQ	EQ
8	11.21.19	FEASIBILITY STUDY	EQ	EQ

SD4.1
MULTI-FAMILY BLDG

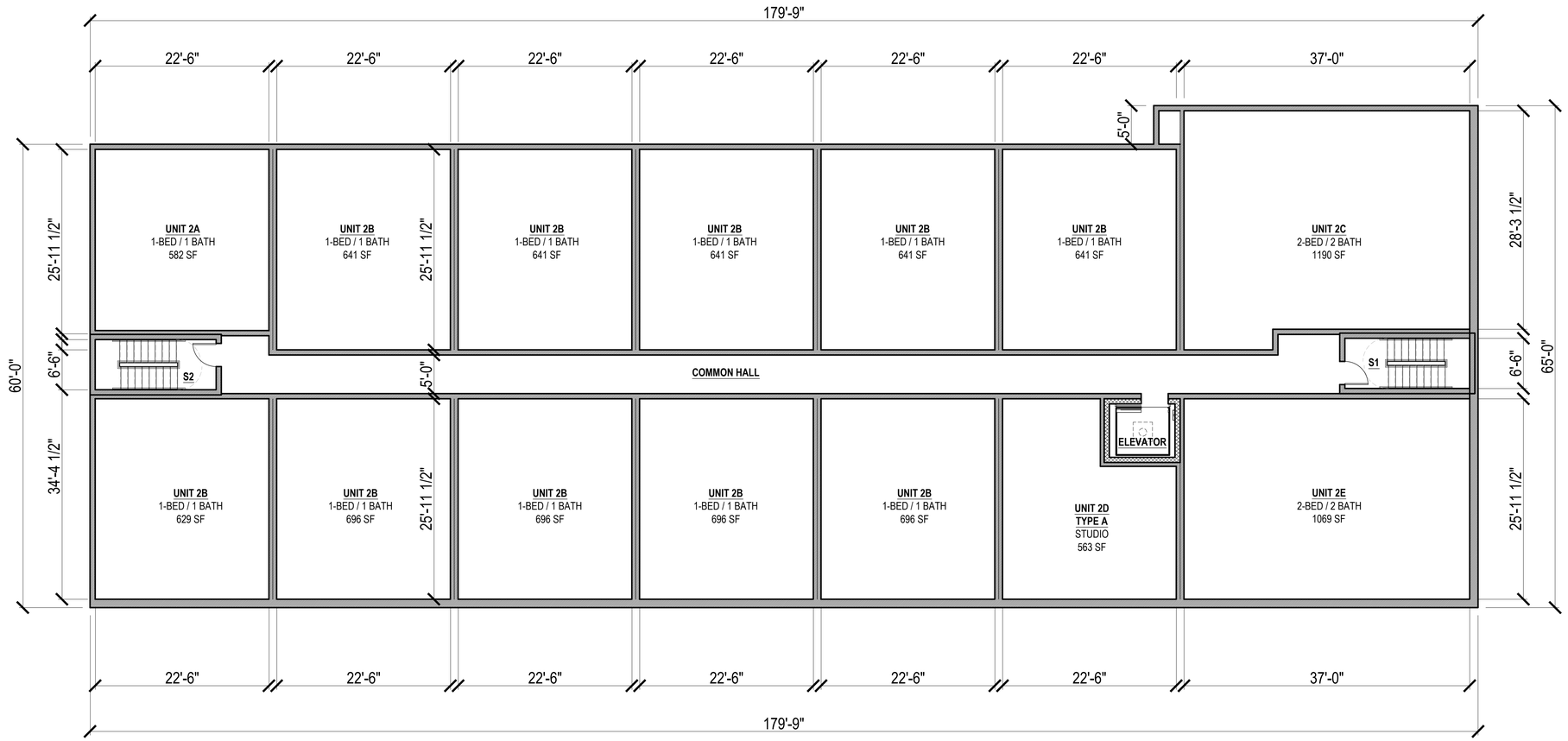
2101-09 E. WESTMORELAND STREET

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UNIT MATRIX

UNIT TYPE	UNIT AREA	STUDIO	1 BR	2 BR	3 BR	FLOOR B (BASEMENT LEVEL)	FLOOR 1	FLOOR 2	FLOOR 3	FLOOR 4	TOTAL
UNIT 1A **	1378 SF				1	1					1
UNIT 1B **	1723 SF				4	4					4
UNIT 1C **	1350 SF				1	1					1
UNIT 2A **	582 SF		3					1	1	1	3
UNIT 2B **	641 SF		30					10	10	10	30
UNIT 2C **	1190 SF			3				1	1	1	3
UNIT 2D *	563 SF	3						1	1	1	3
UNIT 2E **	1069 SF			3				1	1	1	3
TOTAL		3	**33**	**6**	**6**	6		14	14	14	**48**

* ACCESSIBLE UNIT, TYPE A
** ACCESSIBLE UNIT, TYPE B



1 / SD4.2 — 2ND - 4TH FLOOR PLANS
1/8" = 1'-0"

harmandeutsch ARCHITECTURE

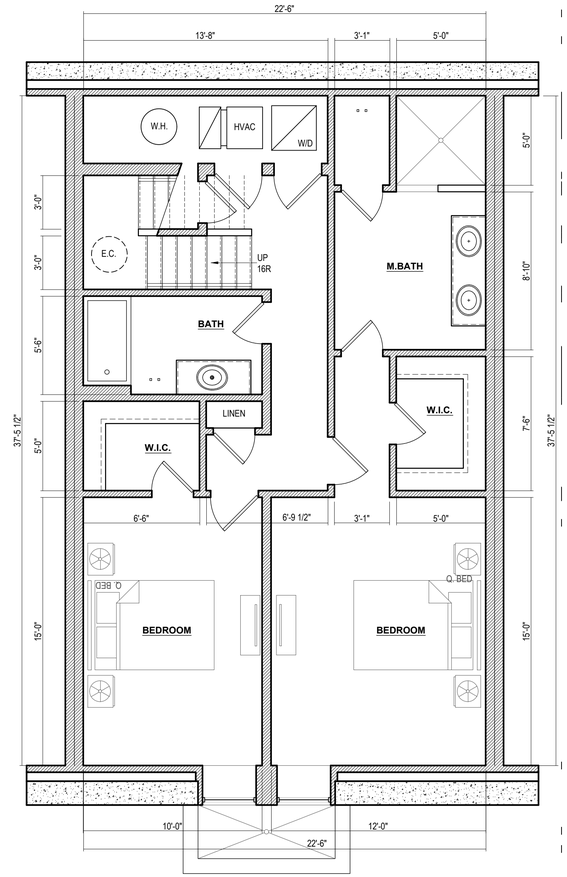
2101-09 E. WESTMORELAND ST
Philadelphia, PA

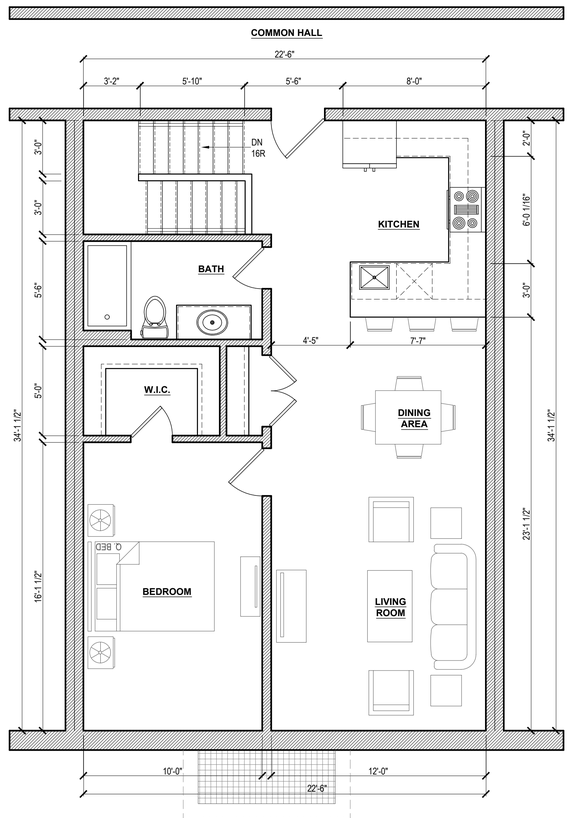
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8	11.21.19	FEASIBILITY STUDY	EQ	EQ

SD4.2
MULTI-FAMILY BLDG

2101-09 E. WESTMORELAND STREET

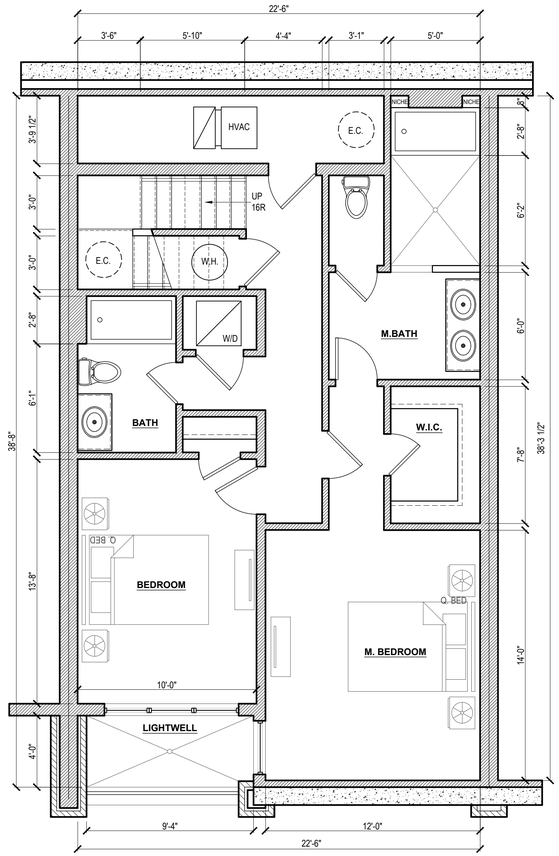
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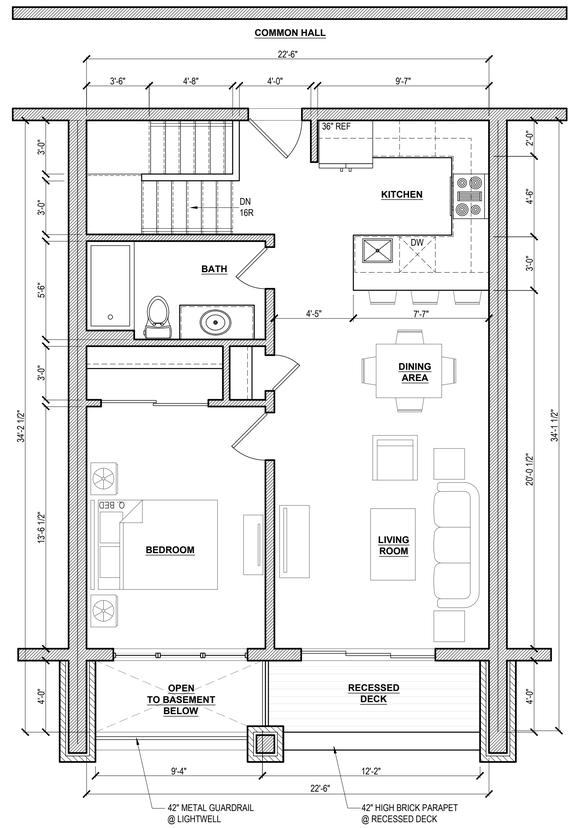




UNIT 1B
1-BED / 1 BATH
BI-LEVEL
B: 880 SF
1: 843 SF
TOTAL: 1723 SF

1 SD4.3 UNIT 1B, OPTION 1
1/4" = 1'-0"





UNIT 1B
1-BED / 1 BATH
BI-LEVEL
B: 880 SF
1: 843 SF
TOTAL: 1723 SF

1 SD4.3 UNIT 1B, OPTION 2
1/4" = 1'-0"

harmandeutsch ARCHITECTURE

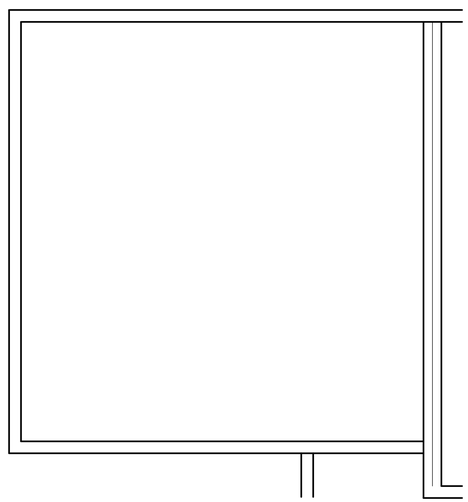
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Philadelphia, PA

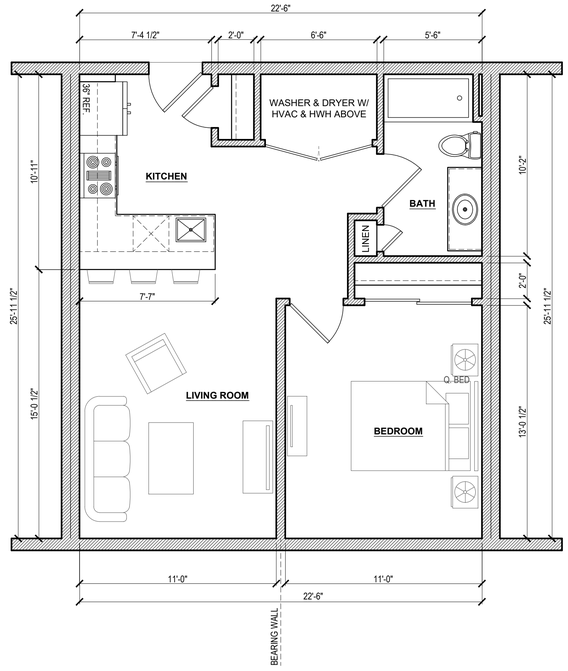
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8	11.21.19	FEASIBILITY STUDY	EQ	EQ

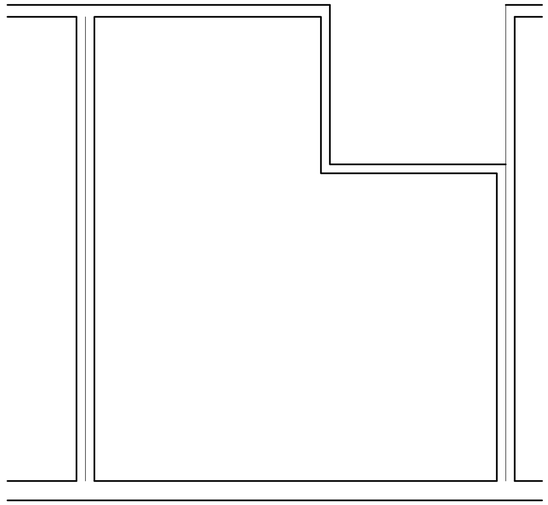
SD4.3
UNIT PLANS

2101-09
E. WESTMORELAND
STREET

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UNIT 2A
1-BED / 1 BATH
582 SF

UNIT 2B
1-BED / 1 BATH
641 SF

UNIT 2D
TYPE A
STUDIO
563 SF

1 / SD4.4 UNIT PLANS
1/4" = 1'-0"

harmandeutsch architecture

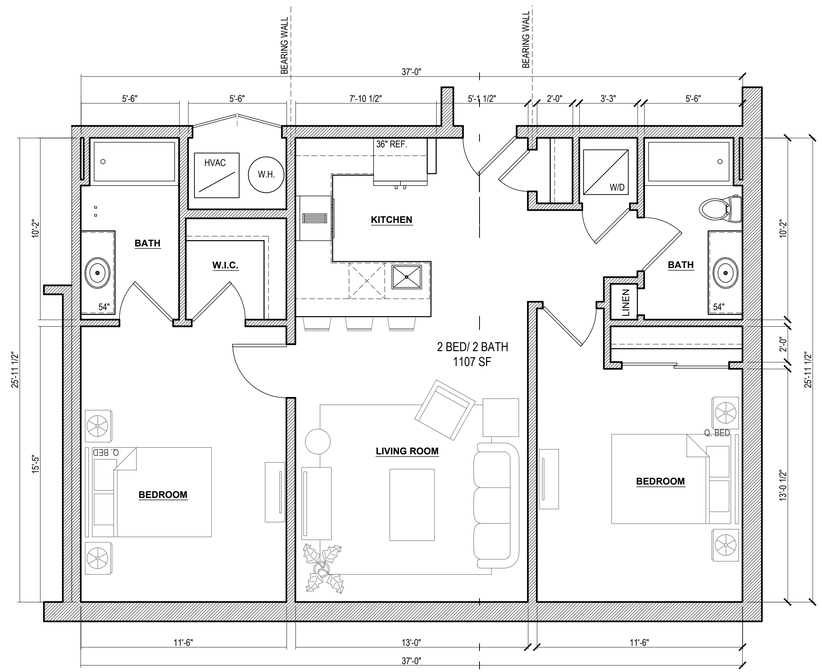
2101-09 E. WESTMORELAND ST
Philadelphia, PA

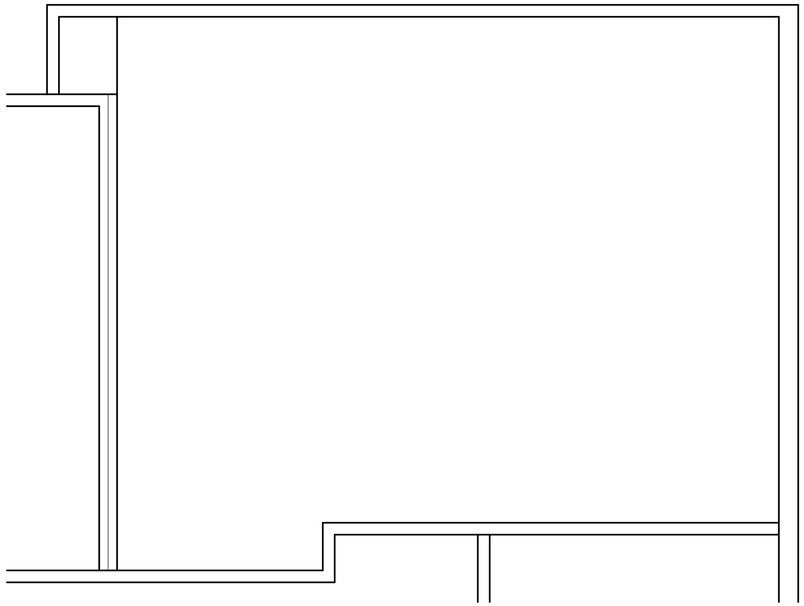
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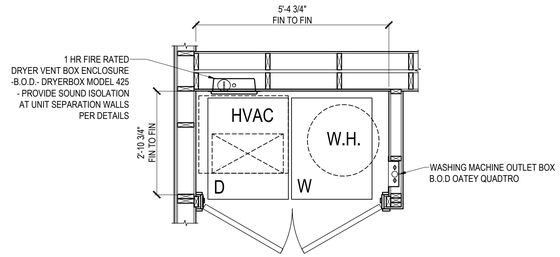
SD4.4
UNIT PLANS

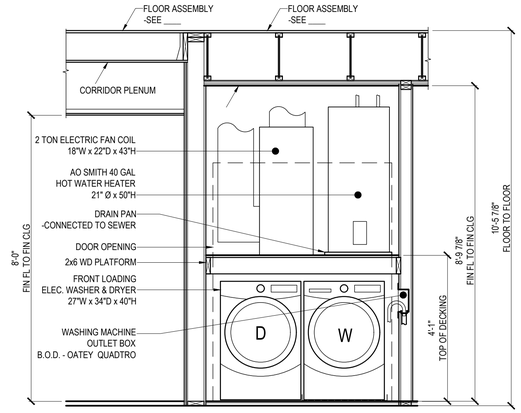
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UNIT 2E
2-BED / 2 BATH
1069 SF

UNIT 2C
2-BED / 2 BATH
1190 SF

1 SD4.5 UNIT PLANS
1/4" = 1'-0"

2 SD4.5 COMPACT MECHANICAL CLOSET DETAILS
1/2" = 1'-0"

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SD4.5
UNIT PLANS

2101-09 E. WESTMORELAND STREET

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APPENDIX G

PRIOR ENVIRONMENTAL REPORTS

ACT 2 FINAL REPORT

3320 COLLINS STREET
PHILADELPHIA, PENNSYLVANIA

FACILITY ID # 1-51-0-27331
RT PROJECT #2043-07

PREPARED FOR:

SCHOLLER, INC.
64 JAMES WAY
SUITE 100
SOUTHAMPTON, PA 18966

PREPARED BY:

RT ENVIRONMENTAL SERVICES, INC.
215 WEST CHURCH ROAD
KING OF PRUSSIA, PA 19406
(610) 265-1510

SEPTEMBER 2001

RT Environmental Services, Inc.

TABLE OF CONTENTS

Page

1.0 EXECUTIVE SUMMARY 1

2.0 SITE DESCRIPTION 6

2.1 SURROUNDING LAND USE 6

2.2 SITE HISTORY 9

2.3 SITE OWNERSHIP 9

2.4 PHYSICAL SETTING 9

2.4.1 Topography 9

2.4.2 Geology 9

2.4.3 Hydrology 10

3.0 SITE CHARACTERIZATION 13

3.1 PRIOR ENVIRONMENTAL ACTIVITIES 13

3.2 RT PHASE I-III INVESTIGATIONS 13

3.2.1 Soil Test Boring Results 14

3.2.2 10,000 Fuel Oil UST Closure 16

3.2.3 Monitoring Well Installation 17

3.2.4 Preliminary Groundwater Sampling Results 17

3.2.5 Remedial Investigation Conclusions 21

3.3 ADDITIONAL GROUNDWATER SAMPLING 22

3.4 HISTORIC GROUND WATER LEVELS AND FLOW 23

3.5 HYDROGEOLOGIC TESTING 23

3.6 DISPOSAL ACTIVITIES 23

TABLE OF CONTENTS (Cont.)

Page

4.0 GROUND WATER STANDARDS 25
4.1 SOIL STANDARDS 25
4.2 GROUND WATER STANDARDS 25
4.2.1 AQUIFER STATUS DETERMINATION 27
5.0 PATHWAY ELIMINATION 29
5.1 RECEPTOR SURVEY 29
5.2 EXPOSURE PATHWAYS 30
5.2.1 Soil Pathways 30
5.2.2 Ground water Pathways 31
5.2.3 Surface Water Pathways 31
5.2.3 Air Pathways 31
6.0 RISK ASSESSMENT 32
7.0 REMEDIATION 33
8.0 NIR AND PUBLIC NOTIFICATIONS 34
9.0 ECOLOGICAL SCREENING 35
7.1 STEP 1 - PRESENCE OF LIGHT PETROLEUM PRODUCT COMPOUNDS . 35
7.2 STEP 2 - SITE SIZE 35
7.3 STEP 9 - NO FURTHER ECOLOGICAL EVALUATION REQUIRED 36
10.0 FATE AND TRANSPORT MODELING 37
10.1 MODELING RESULTS 37
11.0 ATTAINMENT 39
11.1 STATEWIDE HEALTH STANDARD FOR GROUNDWATER 39
11.2 ATTAINMENT CONCLUSIONS 39
12.0 POST-REMEDIATION CARE PLAN 40
13.0 REFERENCES 41
14.0 SIGNATURES 42

FIGURES

Figure 1 SITE LOCATION MAP 7
Figure 2 SITE LAYOUT MAP WITH MONITORING WELL LOCATIONS 8
Figure 3 GROUND WATER FLOW MAP (2/23/98) 11
Figure 4 GROUND WATER FLOW MAP (2/22/99) 12
Figure 5 SOIL IMPACTED AREA SUBJECT TO DEED RESTRICTION 26

TABLES

Table 1 SUMMARY OF SOIL BORING ANALYTICAL RESULTS - UST AREAS 15
Table 2 HISTORIC GROUND WATER ELEVATION SUMMARY 19
Table 3 HISTORIC GROUND WATER ANALYTICAL SUMMARY 20
Table 4 QUICK DOMENICO FATE & TRANSPORT MODELING RESULTS 38

APPENDICES

Appendix 1 RT GROUND WATER LABORATORY DATA SHEETS:
(SAMPLING EVENTS # 3 - 8)

Appendix 2 RT GROUND WATER SAMPLING FIELD NOTES, HYDROGEOLOGIC TEST NOTES & MW-2 PUMPING TEST ANALYSIS DATA (9/10/98)

Appendix 3 MONITORING WELL SOIL CUTTING DISPOSAL MANIFESTS

Appendix 4 LEGAL DESCRIPTION OD DEED RESTRICTED AREA

Appendix 5 ADDENDUM TO AQUIFER USE DETERMINATION-
FATE & TRANSPORT ANALYSIS (10/8/98) &
REVISED FATE AND TRANSPORT PRINTOUTS

Appendix 6 NOTICE OF INTENT TO REMEDIATE (NIR) & PUBLIC NOTIFICATIONS

1.0 EXECUTIVE SUMMARY

In December 1997, RT Environmental Services, Inc. (RT) was retained by Scholler, Inc. to assess environmental liabilities at the 3320 Collins Street property, Philadelphia, Philadelphia County, Pennsylvania and to complete a soil and ground water investigations as well as prepare an Act 2 Final Report at the site.

The property consists of approximately 0.57 acres within an essentially rectangilar area in the Port Richmond section of Philadelphia. It is bounded by the intersections of Amber Street to the northwest, East Westmoreland Avenue to the southwest, Collins Street to the southwest and residential properties and/or vacant lots to the northeast. Surrounding properties to the southeast and southwest across the city streets are industrial. Surrounding properties to the northeast and and across the street to the northwest are residential.

The buildings are generally constructed of brick masonry walls on a concrete slab. Newer portions of the building also incorporate concrete and steel support structures. The main roof is comprised of asphalt over a wood deck roof, with portions incorporating corrugated metal and/or flat roof sections. Interior walls are primarily brick masonry, with some frame walls, and partitions. Flooring over concrete in the second floor office and lab area is comprised of finished end grain wood block. Small areas of floor tile are also present. Fluorescent lighting is used in newer areas of the facility. Former manufacturing areas are poorly lit. The site is served by municipal water and sewer, and electric(PECO), telephone, and natural gas (PGW). Fuel Oil was formerly used to fire the facility boiler, but facility has converted to natural gas. The heating oil UST was taken out of service upon confirmation of a release.

The site was once a primarily residential area of the City of Philadelphia. The one building on the site consists of the original portion of the Scholler Brothers facility which was constructed prior to 1940. It was originally used as a small soap factory. The facility was expanded on several occasions after 1940, as the Scholler operations grew. Scholler moved most facility operations, except for the second floor laboratory and offices to an off-site location during the 1980's. A portion of the manufacturing area was then leased for a time to a tenant who manufactured flooring adhesives. The property was sold in 2000. The current owner is using a portion of the site to operate a sewing and garment assembly business.

The site topography is relatively flat with an estimated elevation of 20 feet above mean sea level (MSL) based on the Camden, NJ-PA USGS 7.5 Minute Topographic Quadrangle sheet. The site is reported to be underlain by the Quaternary-age Trenton Gravel. Based on boring and well drilling activities at the site, site soils generally consist of light to medium-brown silt and sand, and some gravel to approximately 30 feet below grade (maximum boring depth); this appears to be natural soil. At some boring and well locations, inert fill (cut stone, brick, slag, silty, and clay) was encountered from the surface up to approximately 10 feet below grade which appears to be fill and re-worked soil brought to the site when the original buildings were constructed. No wetlands are indicated to be present on the subject site or within 1,000 feet of its boundaries.

Beneath the soil layer at an unknown depth, the site is reportedly underlain by variegated to brown saprolite and weathered gneiss of the Pre-Cambrian (Grenvillian) Baltimore Gneiss Series. No competent bedrock was encountered during the course of site investigations, however.

Based on the shallow borings and the monitoring wells completed by RT, a shallow, perched water table is present in the site soils at a depth of approximately 14 to 17 feet below ground surface (bgs). Groundwater elevation maps based on the onsite monitoring wells and tied to a local datum have determined a north to south flow toward the Delaware River.

A well search completed with the VISTA database and information from the Philadelphia Water Department, found no drinking water use of groundwater within one-half mile of the subject property. The regional shallow groundwater aquifer is not believed to be a current or near future source of potable water. The only nearby surface water body which could serve as a sensitive receptor for contaminated groundwater is the Delaware River.

Beginning in December 1997, RT performed Phase I -III investigations at the site in preparation for the sale or charitable donation of the property. These activities found that a 10,000 gallon fuel oil UST which was still in use beneath the building had released product to soils and ground water based on the results of soil borings conducted around the perimeter of this tank. The release was reported and the tank immediately taken out of service. RT closed the 10,000-gallon UST in place on May 7, 1998 by first cleaning it, and then filling it with a concrete slurry. A City of Philadelphia Operations permit was obtained for this work.

Operations permit was obtained for this work.
Additional soil delineation around the office and lab building's perimeter was completed, and none of the analyzed compounds were detected above their applicable Non-residential, Non-Used aquifer MSC's.

A total of four monitoring wells (MW-1, MW-2, and MW-3, and MW-4) were installed on the site on February 10 ,1998 by the hollow-stem auger drilling method to assess any impact to groundwater. The depth of these wells are approximately 30 feet bgs with a screened interval from 5-30 feet. No bedrock was encountered in the wells. Two ground water sampling events were completed as part of the Remedial Investigation. Results of these sampling events showed exceedences of PADEP MSCs for several Fuel Oil parameters in MW-4, the source area well.

The site was placed into the Act 2 Land Recycling Program in April 1998. A well search for any potentially sensitive ground water and surface water receptors was completed. RT submitted to PADEP an Aquifer Use Determination Letter and Addendum demonstrating Fate and Transport modeling compliance at the Point of Compliance monitoring wells. Based on this information, PADEP granted the property a Residential, Non-Used aquifer classification for ground water.

These studies revealed the following:

- The leaking 10,000 gallon Fuel Oil UST is deemed an area of environmental impact.
- No public or private water supply wells are present with one mile of the site.
- The depth to ground water was found to be 14 to 17 feet below ground surface (bgs) with flow direction from the north to the south.

An additional six groundwater monitoring events were completed at the site using three of the four monitoring wells (MW-1, MW-2, and MW-3) as required under Act 2 guidelines. All samples were analyzed for fuel oil parameters. MW-2 was destroyed during building demolition activities. Therefore, only six sampling rounds were completed for this well. The PADEP was notified, and this was deemed acceptable. RT completed seen additional ground water sampling events ending with the December 15, 1999 event.

Groundwater levels were also recorded during each sampling event. Each well was surveyed and

to the north-northwest), MW-1 was designated as the upgradient background well. MW-2 and MW-3 were designated as the downgradient point of compliance (POC) wells for the leaking UST.

The area where exceedences of soil and ground water MSCs were identified (fuel oil UST area), was subsequently delineated by installing Geoprobe soil borings. This area is completely covered by the site building precluding Direct Contact pathways. Further soil remediation is not possible. The area of remaining soil contamination will be addressed by a deed restriction for this area. The area of this deed restriction is approximately 750 square feet and the volume of impacted soil is approximately 6,000 cubic feet given the depth of contaminated soil at 8 feet bgs. The Notice of Intent to Remediate and public notifications were made to reflect the exclusion of site soil.

For the purpose of selecting an appropriate MSC for each compound, the ground water at the subject site is classified as a Non-Residential, Non-Used aquifer with TDS < 2500 ppm. The subject property is currently zoned commercial.

Remediation of groundwater at the source area was attempted by pumping free product from MW-4. RT attempted to remove this product and contaminated ground water with a downhole pumping system which was started in late 1998. By April 1999 the system was taken off-line since it was ineffective as a result of the high viscosity of the free product. A total of approximately 7.5 gallons of weathered product was recovered prior to cessation of pumping. The PADEP was contacted at this time and agreed to the termination of remedial activities.

Groundwater sampling during site characterization activities detected levels of several Fuel Oil compounds above their respective MSCs in the source area monitoring well as well as free product. Eight rounds of ground water monitoring were completed to comply with PADEP Act 2 Land Recycling guidelines. No exceedences of the applicable MSCs were noted during any of these sampling events for the Point of Compliance.

Additionally, Fate and Transport analyses were completed for the highest historic concentrations of Fuel Oil compounds detected in the source area well (MW-4). These analyses did not demonstrate that contaminants would be expected to migrate offsite above their applicable PADEP Non-Residential, Non-Used Aquifer Standards. Based on the above discussion, no attainment

demonstration is required for ground water at the subject site.

Based on these results, no remedial care measures are proposed. The paved and covered surfaces of the site (greater than 80%) have eliminated pathways for migration of contaminants remaining in ground water at the site.

Therefore, a release of liability in groundwater at the subject site is being requested for the following compounds:

All #2 and #4 Fuel Oil (Diesel) Compounds including benzene, fluorene, toluene, phenanthrene, ethylbenzene, chrysene, naphthalene, pyrene and isopropylbenzene (cumene),

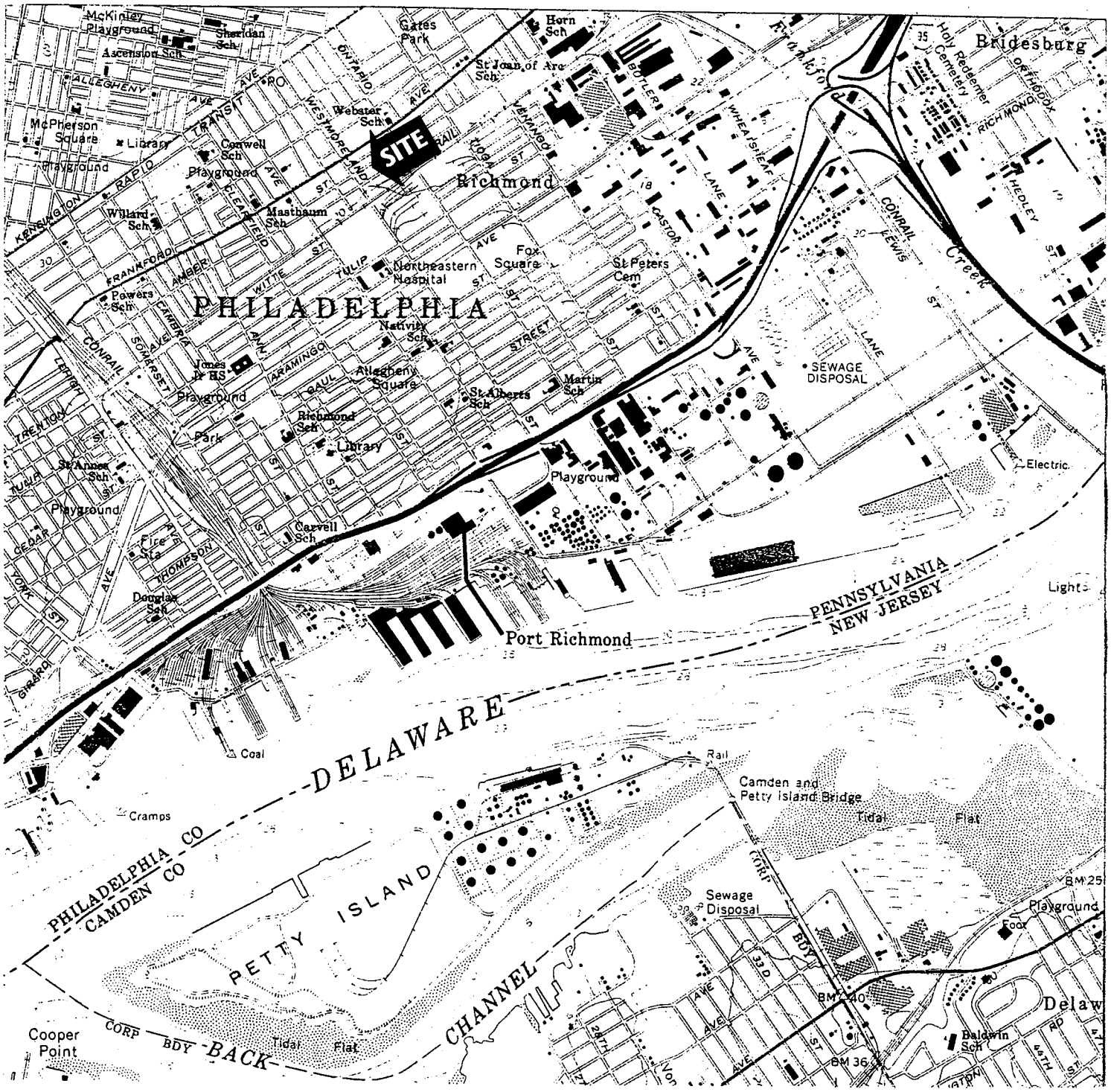
2.0 SITE DESCRIPTION

The property is located at 3320 Collins Street, in the Port Richmond section of Philadelphia, Pennsylvania. The overall facility is comprised of approximately 0.57 acres, almost all of which is occupied by contiguous buildings. A site location map is provided as Figure 1 and a site plan map is included as Figure 2.

The buildings are generally constructed of brick masonry walls on a concrete slab. Newer portions of the building also incorporate concrete and steel support structures. The main roof is comprised of asphalt over a wood deck roof, with portions incorporating corrugated metal and/or flat roof sections. Interior walls are primarily brick masonry, with some frame walls, and partitions. Flooring over concrete in the second floor office and lab area is comprised of finished end grain wood block. Small areas of floor tile are also present. Fluorescent lighting is used in newer areas of the facility. Former manufacturing areas are poorly lit. The site is served by municipal water and sewer, and electric, telephone, and natural gas (City of Philadelphia). Fuel Oil used to fuel the facility boiler is presently fed from a temporary above ground storage tank (AST); the heating oil UST was taken out of service upon confirmation of a release.

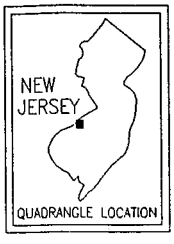
2.1 SURROUNDING LAND USE

Surrounding land use is mixed industrial and residential based on the results of RT's site inspection on February 19, 1998. To the southeast and southwest (across Collins St and Westmoreland St. respectively) are industrial properties. To the northeast and northwest (across Amber and Collins Sts. respectively) are primarily residential properties with some commercial garages. The first two lots along Collins St. are vacant.



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
CAMDEN, NJ–PA, DATED 1967, PR 1984
CONTOUR INTERVAL 10 FEET

SCALE (feet)
0 1000 2000



RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA. 19406

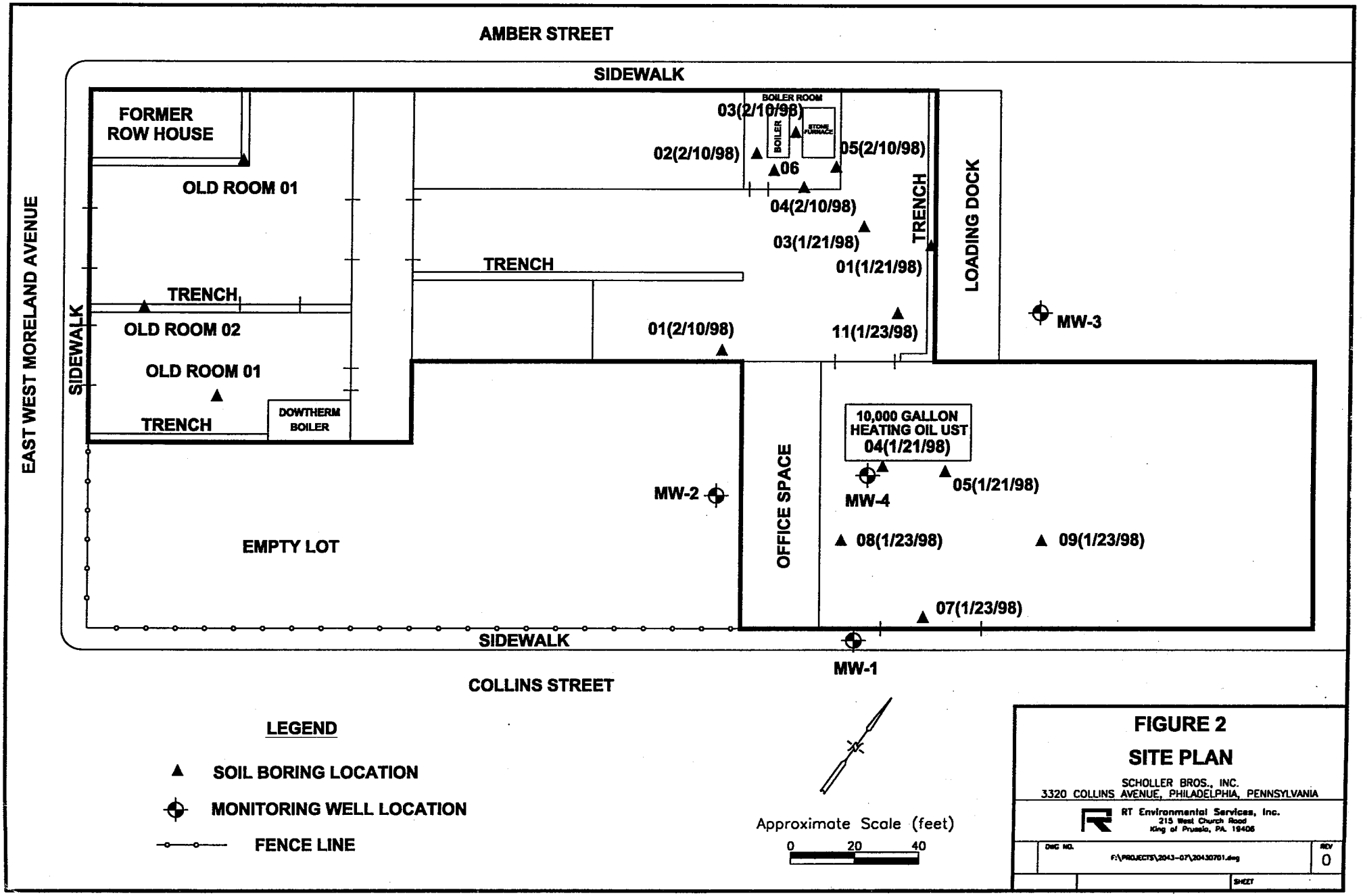
FIGURE 1
SITE LOCATION MAP

3320 COLLINS AVENUE
PHILADELPHIA, PENNSYLVANIA

Prepared For:

SCHOLLER BROS, INC.
3320 COLLINS AVENUE
PHILADELPHIA, PENNSYLVANIA

CHARGE	2043-07	AUTOCAD FILE	2043SLM	ENGINEER		DESIGNER		DRAFTSPERSON	SN
SCALE		DRAWING NUMBER	2043SLM					REVISION	
DATE	03/05/98								


AMBER STREET
SIDEWALK
EAST WEST MORELAND AVENUE
FORMER ROW HOUSE
OLD ROOM 01
TRENCH
OLD ROOM 02
OLD ROOM 01
TRENCH
SIDEWALK
DOWTHERM BOILER
BOILER ROOM
BOILER
STONE FURNACE
03(2/10/98)
02(2/10/98)
05(2/10/98)
06
04(2/10/98)
03(1/21/98)
01(1/21/98)
TRENCH
LOADING DOCK
TRENCH
01(2/10/98)
11(1/23/98)
MW-3
10,000 GALLON HEATING OIL UST
04(1/21/98)
05(1/21/98)
MW-4
MW-2
OFFICE SPACE
EMPTY LOT
08(1/23/98)
09(1/23/98)
07(1/23/98)
SIDEWALK
MW-1
COLLINS STREET
LEGEND
SOIL BORING LOCATION
MONITORING WELL LOCATION
FENCE LINE
Approximate Scale (feet)
0 20 40
FIGURE 2
SITE PLAN
SCHOLLER BROS., INC.
3320 COLLINS AVENUE, PHILADELPHIA, PENNSYLVANIA
RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406
DWG NO.
F:\PROJECTS\2043-07\20430701.dwg
REV
0
SHEET

2.2 SITE HISTORY

The site was once a primarily residential area of the City of Philadelphia. The site's one building consists of the original portion of the Scholler Brothers facility which was constructed prior to 1940. It was originally used as a small soap factory. The facility was expanded on several occasions after 1940, as the Scholler operations grew. Scholler moved most facility operations, except for the second floor laboratory and offices to an off-site location during the 1980's. A portion of the manufacturing area was then leased for a time to a tenant who manufactured flooring adhesives. The property was sold in 2000. The current owner is using a portion of the site to operate a sewing and garment assembly business.

2.3 SITE OWNERSHIP

The facility is presently owned by Arawak Holding Corporation who purchased it from Scholler Brothers, Inc. in 1998. Scholler purchased various portions of the property facility from several different entities, since the 1930's.

2.4 PHYSICAL SETTING

2.4.1 Topography

The site is located on a fairly level area within the Port Richmond section of the city of Philadelphia at approximately 20 feet above sea level based on the Camden, NJ-PA, USGS 7½ Minute Topographic Quadrangle (see Figure 1).

2.4.2 Geology

Based on soils encountered during soil boring and well drilling activities at the site, site soils generally consist of light to medium-brown silt and sand, and some gravel to approximately 30 feet below grade (maximum boring depth); this appears to be the natural soil type beneath the site. At

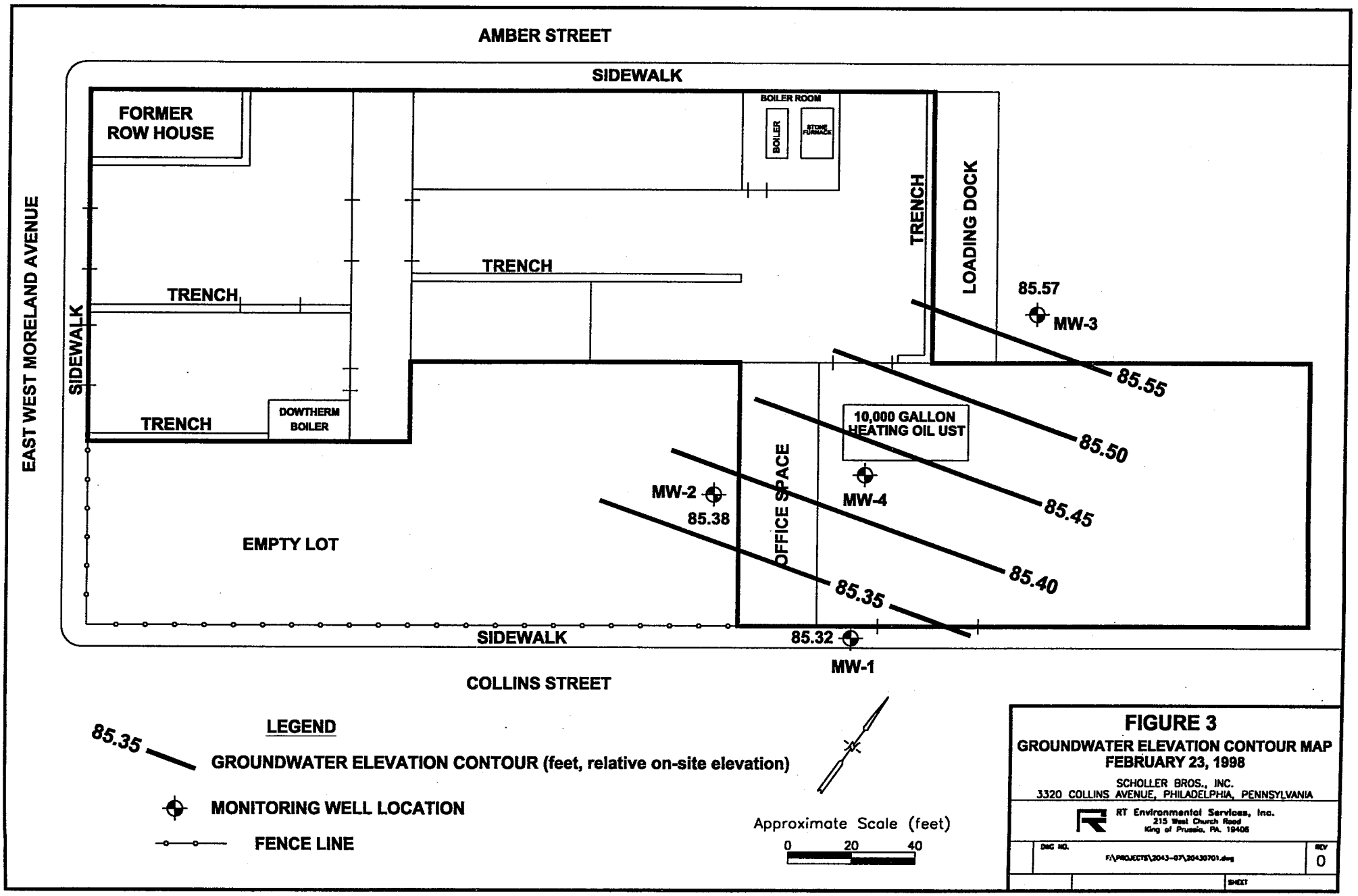
from the surface up to approximately 10 feet below grade. This appears to be fill and re-worked soil brought to the site when the original buildings were constructed. RT's soil boring and well logs were previously submitted in the RIR and are included in Appendix 1 to the current report.

According to the "Atlas of Preliminary Geologic Quadrangle Maps of Pennsylvania," Camden, NJ-PA Quadrangle, the site overlies the Quaternary-age Trenton Gravel of the Coastal Plain physiographic province. The Trenton Gravel is described as a gray or pale reddish-brown, very gravelly sand interstratified with cross-bedded sand or silt-clay beds, and includes area of Holocene-age alluvium or swamp deposits ("Geologic Map of Pennsylvania," 1980).

2.4.3 Hydrology

Regional groundwater flow is typically to the south, towards the Delaware River (located approximately 6,000 feet south of the site), and to the east towards Frankford Creek (located approximately 6,000 feet east of the site). Experience in this area of Philadelphia has shown that shallow groundwater flow gradients are typically very shallow, and flow directions may vary somewhat from what may typically be expected. This is probably due to the regional occurrence of fill and re-worked soil, in conjunction with the very flat topography, and high percentage of capped land (by roadways, parking lots, sidewalks, buildings, etc.) in urban areas.

Ground water beneath the site was encountered at approximately 14 to 17 feet below grade, as measured in on-site monitoring wells on February 23, 1998 (the date of the first groundwater sampling event). The relative groundwater elevations in the on-site wells were calculated using the measured depths to groundwater on February 23, 1998, and relative well casing elevations. ground water elevation contour maps using the February 23, 1998 and the February 22, 1999 data are presented as Figures 3 and 4. Based on these maps, the groundwater flow direction beneath the site is to the south. This is generally consistent with the observed site topography and expected flow direction towards the Delaware River.


AMBER STREET
SIDEWALK
EAST WEST MORELAND AVENUE
FORMER ROW HOUSE
BOILER ROOM
BOILER
STEAM FURNACE
TRENCH
LOADING DOCK
TRENCH
TRENCH
SIDEWALK
85.57
MW-3
85.55
TRENCH
DOWTHERM BOILER
10,000 GALLON HEATING OIL UST
85.50
MW-2
85.38
MW-4
OFFICE SPACE
85.45
EMPTY LOT
85.40
85.35
SIDEWALK
85.32
MW-1
COLLINS STREET
LEGEND
85.35
GROUNDWATER ELEVATION CONTOUR (feet, relative on-site elevation)
MONITORING WELL LOCATION
FENCE LINE
Approximate Scale (feet)
0
20
40
FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
FEBRUARY 23, 1998
SCHOLLER BROS., INC.
3320 COLLINS AVENUE, PHILADELPHIA, PENNSYLVANIA
RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA. 19406
DWG NO.
F:\PROJECTS\2043-07\20430701.dwg
REV
0
SHEET

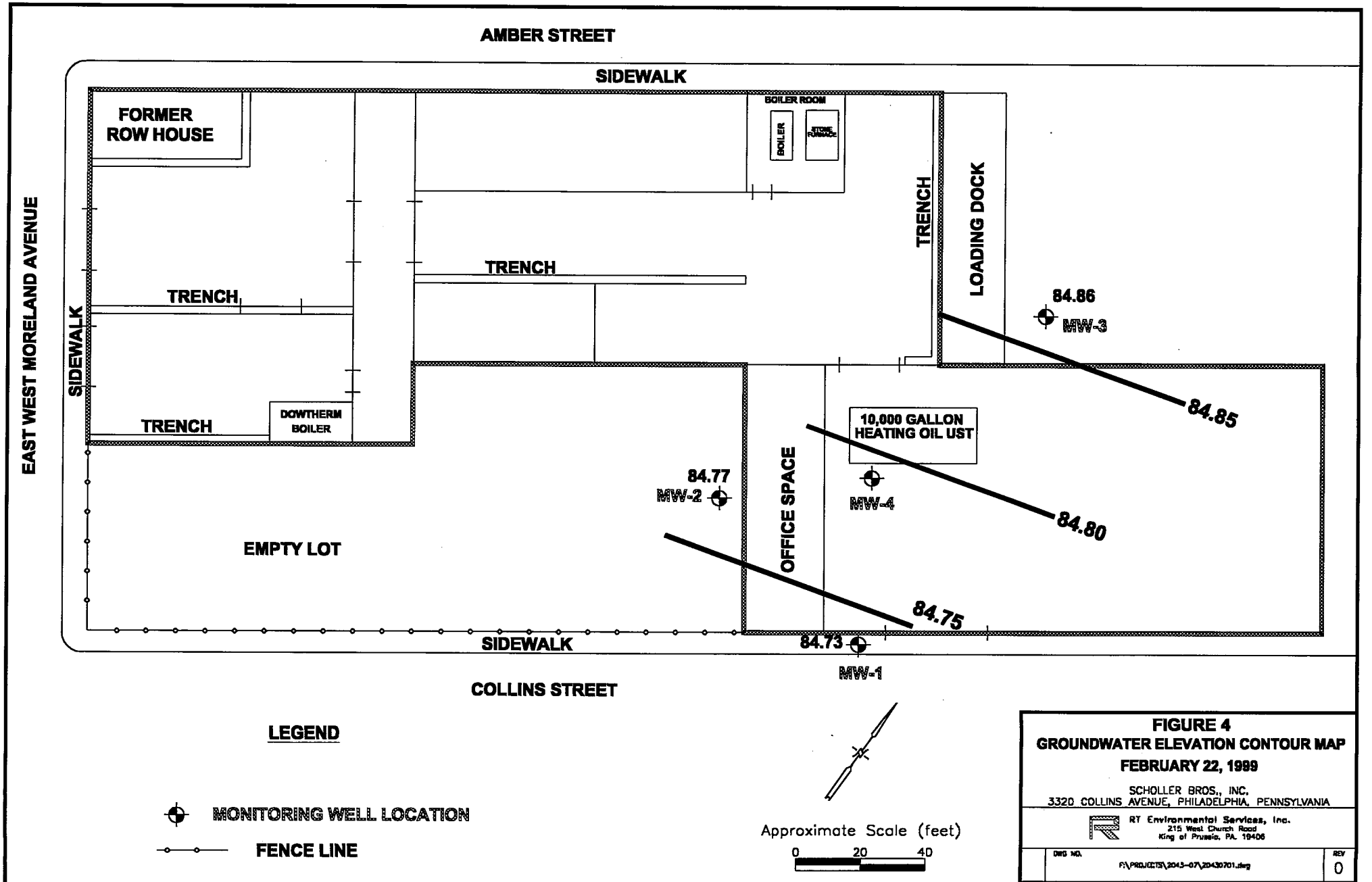


FIGURE 4
GROUNDWATER ELEVATION CONTOUR MAP
FEBRUARY 22, 1999

SCHOLLER BROS., INC.
3320 COLLINS AVENUE, PHILADELPHIA, PENNSYLVANIA

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA. 19406

DWG NO.	REV
F:\PROJECTS\2043-07\20430701.dwg	0

SHEET

3.0 SITE CHARACTERIZATION

3.1 PRIOR ENVIRONMENTAL ACTIVITIES

Prior to RT's Act 2 involvement at the site, the only environmentally related activity known to have been conducted are as follows:

- The closure of a 1,500 gallon fuel oil UST (Tank 004) used to fuel the Dowtherm boiler in place by filling with concrete in approximately 1960. No soil samples were collected at the time of closure, however, the tank was only a few years old at the time of closure. Soil samples collected by RT during subsequent Phase II activities showed no evidence of contamination.

- Two underground storage tanks (USTs) located in an open yard area on Amber Street (Tanks 002 and 003) were removed by RT on January 4, 1993. Based on soil samples collected at the time of their removal, no evidence of a release was detected from either UST. A copy of the tank closure report was previously submitted to PADEP on February 3, 1993.

3.2 RT PHASE I-III INVESTIGATIONS

RT began Phase I activities in December 1997. An RIR detailing these investigations was submitted in May 1998. The findings of these investigations are summarized below:

- A total of 10 registered ASTs and 4 registered USTs were identified as having historically been present at the site. Additional unregulated tanks, including mixing tanks and other ASTs were also found. The only environmental issue related to these tanks identified during these investigations was the 10,000 gallon fuel oil UST which was found to have leaked. This release and further soil and ground water investigations related to it are discussed in detail in this report. This release was the reason for entering into the Act 2 PADEP Land Recycling Program.

3.2.1 Soil Test Borings

RT supervised the installation of six Geoprobe soil test borings (01 through 03 by on January 21, 1998; 04 through 06 on January 23, 1998) at the subject site. These borings were advanced in trenches or below the building floor (01 through 03), the area of the operating10,000 Fuel Oil UST (04 & 05) and the Boiler Room area (06). The locations of the borings are shown on Figure 2. Borings were as deep as feet below ground surface (bgs). For the borings, core samples taken at continuous intervals until a depth of 20 feet was reached or until refusal occurred. A PID was used to field screen the recovered samples and select those appropriate for laboratory analysis. A total of six Geoprobe samples were submitted for laboratory analysis by hydrocarbon fingerprinting and PP metals analysis.

Laboratory results revealed that petroleum hydrocarbons were found above the detection limit in the area adjacent to the Fuel Oil UST beneath the building's parking garage. This indicated that soils and possibly ground water surrounding the Fuel Oil UST had been impacted by a release from this tank. Soil borings in the trenches or below the floors of the Boiler Room and the Old Room areas were below all analyzed parameters based on PADEP Non-Residential standards. Laboratory results are summarized on Tables 1A through 1C.

Based on the results of the initial soil sampling, an additional round of seven Geoprobe soil borings (through) were conducted by RT on January 23, 1998. Four Geoprobe borings were conducted in the older section of the building (Old Room 01through 03), one in the boiler room area (11) and three additional borings adjacent to the active Fuel Oil UST (07 through 09). These borings were advanced to a depth where refusal occurred (20 feet maximum depth). The locations of these borings are also shown on Figure 2. A total of 19 samples were selected for laboratory analysis. Results are summarized on Tables 3A through 3C and revealed that all analyzed parameters were below their applicable PADEP Non-Residential SWHS.

Table 1
Summary of Soil Sample Laboratory Analytical Results
Samples Collected in UST Areas

Parameter	Non-Residential MSCs (mg/kg)			Result (mg/kg)						
				January 21, 1998 Location and Depth		January 23, 1998 Location and Depth				
	Direct Contact		Soil-to-Groundwater							
	Surface Soils (0'-2')	Subsurface Soils (2'-15')	Non-Use Aquifer	04 7'	05 20'	07 17'	08 16'	09 16'	11 16'	Old Room 01 6.5'
PADEP Diesel Fuel Oil #2 Parameters										
benzo(a)anthracene	110	190,000	1,200	--	9.4	--	--	--	--	--
benzo(a)pyrene	11	190,000	870	3	7.9	--	--	--	--	--
fluorene	110,000	190,000	380	8	0.58	--	5.6	--	--	--
naphthalene	110,000	190,000	5,000	36	--	--	17	--	--	--
phenanthrene	190,000	190,000	11,000	30	14	--	20	0.13	--	--

Notes:

--: Not Detected Above Method Detection Limits

NA: Not Analyzed

Units: milligrams per kilogram, parts per million, except where noted

MSC: Medium Specific Concentration

Bold & Italics Text: Exceed MSCs.

Standard Source: Pennsylvania Act 2 MSCs.

A final round of five hand-augered borings were conducted by RT on February 10, 1998 in the Boiler Room area (borings 01 through 05). The locations of these and all previous borings are shown on Figure 2. The depth of these borings was a maximum of six feet depending on where refusal occurred. A total of samples were collected and submitted to GLA for laboratory analysis. Results showed that all analyzed parameters were below their applicable PADEP SWHS.

Results of these sampling events confirmed a petroleum release from the active 10,000 gallon Fuel Oil UST and determined soil contamination was limited to an area beneath the building. Due to the presence of petroleum saturated soils identified near the tank, installation of groundwater wells was required. Since the facility was planning to convert to natural gas as a heating source, removal of the leaking tank was recommended.

3.2.2 10,000 Fuel Oil UST Closure

RT conducted the closure of the out-of-service 10,000-gallon UST on May 7, 1998. This tank was registered with the PADEP, even though it is an unregulated tank. According to Scholler records, it was originally installed on January 1, 1935. A City of Philadelphia Operations permit was obtained for this work. No excavation was conducted as this tank is located beneath the floor of the site building. This tank was sealed in place by filling with a concrete slurry after cleaning.

The access port to the tank was opened and the tank interior was inspected to verify that it had previously been cleaned. No residual product or other materials were observed to be present within the tank. Prior to closure, an inspection was conducted by a representative of the City of Philadelphia Fire Inspectors' office. After approval by the inspector, the tank was filled with a lean concrete mixture, to ensure proper filling of all voids within the tank system. The tank void and nearby wells were monitored during the closure, and no evidence of concrete leakage was observed. The UST and access port were filled to approximately 1.5 feet below the grade of the floor in order to allow for a small degree of settling within the tank. Approximately 50 cubic yards of concrete were used to fill the tank. Following the closure, the manhole above the access port was replaced.

3.2.3 Monitoring Well Installation

Also on February 10, 1998, RT supervised the installation of three ground water monitoring wells (MW-1 through MW-3) and on potential free product recovery well (MW-4) at the site by B.L. Myers, Inc. These wells were completed using the hollow-stem auger drilling technique. The well borings were advanced to an approximate depth of 30 feet below ground surface (bgs), at which point a 2-inch diameter PVC screen and casing was inserted and grouted into the borehole at MW-1 through MW-3. MW-4 was installed immediately adjacent to the leaking 10,000 Fuel Oil UST with 4-inch diameter PVC casing and screen. Each well was completed with a flush-mount, cast iron curb box. Following completion, the wells were developed for approximately one-half hour utilizing an air compressor from the drilling rig. The locations of these wells are shown on Figure 2. Monitoring well elevations at the site were surveyed by RT on February 18, 1998 and tied to an arbitrary onsite datum of 100 feet above mean sea level.

3.2.4 Preliminary Ground water Investigation Results

Based on the presence of saturated soils near the tank, four ground water monitoring wells were installed at the site. These include one upgradient well (MW-3), two downgradient wells (MW-1 & MW-2), and a recovery well (MW-4) immediately adjacent to the position of the tank.

The initial two ground water sampling events were conducted by RT on February 23 and April 15, 1998. Water levels were measured prior to purging. Ground water was found at a depth of about 14 to 17 feet bgs in the monitoring wells. Historic ground water levels are summarized on Table 2. Sampling confirmed the ground water flow direction to be toward the south.

The wells were then purged of approximately three well volumes with a submersible pump. Samples were obtained using a separate, laboratory-cleaned Teflon bailer for each well. A thickness of 0.16 feet of free product was detected in MW-4 during the initial sampling event and 11.15 feet during the second event. Perimeter wells (MW-1, MW-2 and MW-3) showed no free product with analytical results all below PADEP non-used aquifer standards. The samples from the proposed recovery well (MW-4) exceeded the non-residential non-used aquifer standards for

chrysene and pyrene only. These and other historical ground water analytical results are summarized on Table 3.

Six additional rounds of ground water sampling were recommended for the four monitoring wells to complete 8 rounds of sampling as required under Act 2 guidelines. All samples were to be analyzed for PADEP # 2 and #4 heating oil parameters. Upon completion of the additional events, an Act 2 Final Report documenting demonstration of attainment of applicable PADEP MSCs would be submitted, and a liability release for ground water would be requested.

TABLE 2
GROUNDWATER ELEVATION DATA
SCHOLLER, INC.
3320 COLLINS STREET
PHILADELPHIA, PENNSYLVANIA

Monitoring Well Designation (Scr. interval)	Sampling Date	Casing Elevation (ft.)	Depth to Water (ft.)	Groundwater Elevation (ft.)	Free Product Thickness (ft.)
MW-1	02/18/98	100.00	14.17	85.83	None
(5-30 ft.)	02/23/98	100.00	14.68	85.32	None
	04/15/98	100.00	14.47	85.53	None
	08/07/98	100.00		100.00	None
	11/03/98	100.00	15.21	84.79	None
	02/22/99	100.00	15.27	84.73	None
	06/10/99	100.00	15.12	84.88	None
	09/23/99	100.00	14.32	85.68	None
	12/17/99	100.00	16.41	83.59	None
	02/29/00	100.00	14.85	85.15	None
MW-2	02/18/98	99.14	13.80	85.34	None
(5-30 ft.)	02/23/98	99.14	13.76	85.38	None
	04/15/98	99.14	13.80	85.34	None
	06/15/99	99.14	14.25	84.89	None
	08/07/98	99.14		99.14	None
	11/03/98	99.14	14.32	84.82	None
	02/22/99	99.14	14.37	84.77	None
	06/15/99	99.14	14.25	84.89	None
	09/23/99	99.14	NM	NM	NM
	12/17/99	99.14	NM	NM	NM
	02/29/00	99.14	DRY	Well Collapsed	NM
MW-3	02/18/98	102.39	16.87	85.52	None
(5-30 ft.)	02/23/98	102.39	14.68	85.57	None
	04/15/98	102.39	16.86	86.08	None
	08/07/98	102.39		102.39	None
	11/03/98	102.39	NM	NM	NM
	02/22/99	102.39	17.53	84.86	None
	06/10/99	102.39	17.32	85.07	None
	09/23/99	102.39	16.48	85.91	None
	12/17/99	102.39	14.30	88.09	None
	02/29/00	102.39	17.10	85.29	None
MW-4	02/18/98	100.26	16.86	83.40	2.15
(5-30 ft.)	02/23/98	100.26	14.68	83.45	2.16
	04/15/98	100.26	14.73	75.07	11.15
	11/03/98	100.26	NM	NM	NM
	02/22/99	100.26	NM	NM	NM
	06/10/99	100.26	NM	NM	NM
	09/23/99	100.26	NM	NM	NM
	12/17/99	100.26	NM	NM	NM
	02/29/00	100.26	NM	NM	NM

NOTES:
NM: Not Measured
DRY: Well was dry on sampling date

Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Scholler Inc Facility
3320 Collins Street, Philadelphia, Pennsylvania

Parameter	Non-Residential Non-Use Aquifer MSC	Result (µg/l) MW-1								MW-2							
		02/23/98	04/17/98	08/07/98	11/03/98	02/22/99	06/10/99	09/23/99	12/17/99	02/23/98	04/17/98	08/07/98	11/03/98	02/22/99	06/15/99	09/23/99	12/17/99
Volatile Organic Compounds																	
benzene	500	2.6	--	1.4	66	3.1	1.4	--	3.4	--	--	--	--	--	3	NT	NT
toluene	100,000	--	--	--	250	--	1.2	--	--	--	--	--	--	--	--	NT	NT
ethylbenzene	70,000	--	--	--	17	--	--	--	--	--	--	--	--	--	2	NT	NT
napthalene	20,000	--	--	--	--	--	--	--	--	--	--	--	--	--	10	NT	NT
isopropylbenzene (cumene)	5,200	--	2.4	--	--	2	--	--	--	--	--	--	--	--	--	NT	NT
Polynuclear Aromatic Hydrocarbons																	
fluorene	190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NT	NT
phenanthrene	1,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NT	NT
chrysene	1.8	--	--	--	NA	--	--	--	--	--	--	--	--	--	--	NT	NT
pyrene	13	--	--	--	NA	--	--	--	--	--	--	--	--	--	--	NT	NT

Parameter	Non-Residential Non-Use Aquifer MSC	Result (µg/l) MW-3								MW-4							
		02/23/98	04/17/98	08/07/98	11/03/98	02/22/99	06/10/99	09/23/99	12/17/99	02/23/98	04/17/98	08/07/98	11/03/98	02/22/99	06/10/99	09/23/99	12/17/99
Volatile Organic Compounds																	
benzene	500	89	17	14	NT	5.6	38	21	44	120	NT	--	NT	NT	NT	NT	NT
toluene	100,000	7	--	--	NT	--	1.8	3.8	6.4	55	NT	--	NT	NT	NT	NT	NT
ethylbenzene	70,000	33	15	13	NT	--	3.7	4.6	33	22	NT	--	NT	NT	NT	NT	NT
napthalene	20,000	19	8.3	--	NT	--	--	2.3	2.2	230	NT	25	NT	NT	NT	NT	NT
isopropylbenzene (cumene)	5,200	6.9	3.5	3.9	NT	--	5.5	6.8	9.6	3	NT	--	NT	NT	NT	NT	NT
Polynuclear Aromatic Hydrocarbons																	
fluorene	190	--	--	--	NT	--	--	--	--	--	NT	--	NT	NT	NT	NT	NT
phenanthrene	1,200	--	--	--	NT	--	--	--	--	1200	NT	--	NT	NT	NT	NT	NT
chrysene	1.8	--	--	--	NT	--	--	--	--	***340***	NT	--	NT	NT	NT	NT	NT
pyrene	13	--	--	--	NT	--	--	--	--	***500***	NT	--	NT	NT	NT	NT	NT

Notes:

Bold & Italics Text: Exceed MSCs.

--: Not Detected Above Method Detection Limits

MSCs - Statewide Health Medium-Specific Concentrations.

3.2.5 RT Phase I-III Conclusions

Based on the results of the soil and ground water sampling conducted at the subject site, it is concluded that the only areas in need of further remedial action were free product removal in the leaking fuel oil tank area.

Water quality results to date indicate that the tank release is not impacting ground water quality at the downgradient property boundary, as no contaminants were detected above the residential Statewide Health Standard for a used aquifer.

Based on the above conclusions, RT recommended the following:

- Implementation of free product recovery from well MW-4 via a downhole pneumatic pump. Extracted water and contaminants would be pumped to an oil-water separator tank. Recovered water is expected to meet the City of Philadelphia sewer discharge standard. The recovery system would run until no further product is being recovered.

- Perform an additional six rounds of ground water sampling for monitoring wells MW-1, through MW-3, to complete 8 rounds of sampling as required under Act 2. Well MW-4 would be sampled, if possible, depending on the level of product encountered during the free product remediation. Ground water samples would continue to be analyzed for fuel oil parameters.

- Upon completion of the six additional sampling events, an Act 2 Final Report would be submitted documenting demonstration of attainment of MSCs Non-Residential, Non-Used Aquifers, and a liability release for those compounds identified as being present in groundwater would be requested.

3.3 ADDITIONAL GROUNDWATER SAMPLING

Subsequent to the initial two groundwater sampling events, six additional events were conducted by RT on a quarterly basis from August 1998 through December 1999. Water levels were measured and the wells were purged of approximately three well volumes with a submersible pump. Samples were obtained using a separate, laboratory-cleaned Teflon bailer for each well. Based on the presence of free product in MW-4, an attempt was made to recover it by means of a pumping system. This remediation was unsuccessful due to the high viscosity of the material. Historic ground water levels are summarized on Table 2.

Samples were collected for analysis of Fuel Oil parameters and were submitted to Great Lakes Analytical Laboratories (GLA) in King of Prussia, PA for analysis. Details of these results are summarized on Table 2 with all historic ground water sampling results.

All of the proposed eight quarterly groundwater sampling events have been completed for monitoring wells MW-1 and MW-3. RT was unable to sample monitoring well MW-2 during the last three sampling events because, initially, construction and demolition debris blocked access to the well. On February 29, 2000 RT mobilized to the site to complete the final round of groundwater sampling and discovered that MW-2 had collapsed to a total depth 13.76' and was of no use.

Groundwater quality data continue to show concentrations for all parameters either non-detect or below their respective Statewide Health Standard Non-Used Aquifer MSCs for the perimeter wells. (see Table 3). Well MW-4 was not sampled except during event # 3 (8/7/98) due to the presence of free product in the well. Contaminant concentrations were considerably lower for this event indicating little dissolution of weathered fuel oil in groundwater.

3.4 HISTORIC GROUND WATER ELEVATIONS AND FLOW

Water-table elevation contour maps for two historic sampling events (2/23/98 and 6/15/99) are depicted on Figures 3 and 4. These contour map shows ground water flowing from the northern downgradient toward the southern portion of the site. This flow pattern identifies MW-2 and MW-3 as the downgradient Point of Compliance(POC) wells. Based on these water-table elevation maps, the ground water gradient at the site is approximately 0.002 feet per foot.

3.5 HYDROGEOLOGIC TESTING

On September 10, 1998, RT conducted a hydraulic conductivity pumping test on well MW-2 for a duration of 130 minutes at a constant discharge rate of 4.0 gallons per minute. The depth of the falling water level in this well was recorded by an electronic transducer in the well using a data logger at pre-programmed times along a logarithmic time scale. This data was plotted using the Neuman method for unconfined aquifers with a delayed watertable response .to calculate hydraulic conductivity. Results revealed a hydraulic conductivity of 0.0123 feet per minute or approximately 18.0 feet per day in this well. RT's final report as well as field and graphed data are included in Appendix 2 to the current report.

3.6 DISPOSAL ACTIVITIES

The RemTech Group of Lewisberry, Pennsylvania was contracted to manage the waste, which consisted of six, 55-gallon drums containing soil cuttings related monitoring well installations at the site. The drums were brought under manifest to their facility for consolidation, re-packed, as necessary, and sent to the disposal the non-hazardous material landfill facility identified below:

American Waste Landfill
7916 Chapel Street, SE
Waynesburg, OH 44688

The manifest for this waste is included in Appendix 5 to this report.

Purge water associated with the ground water sampling activities at the subject site was treated with a carbon filter before being discharged to the ground.

4.0 GROUNDWATER STANDARDS

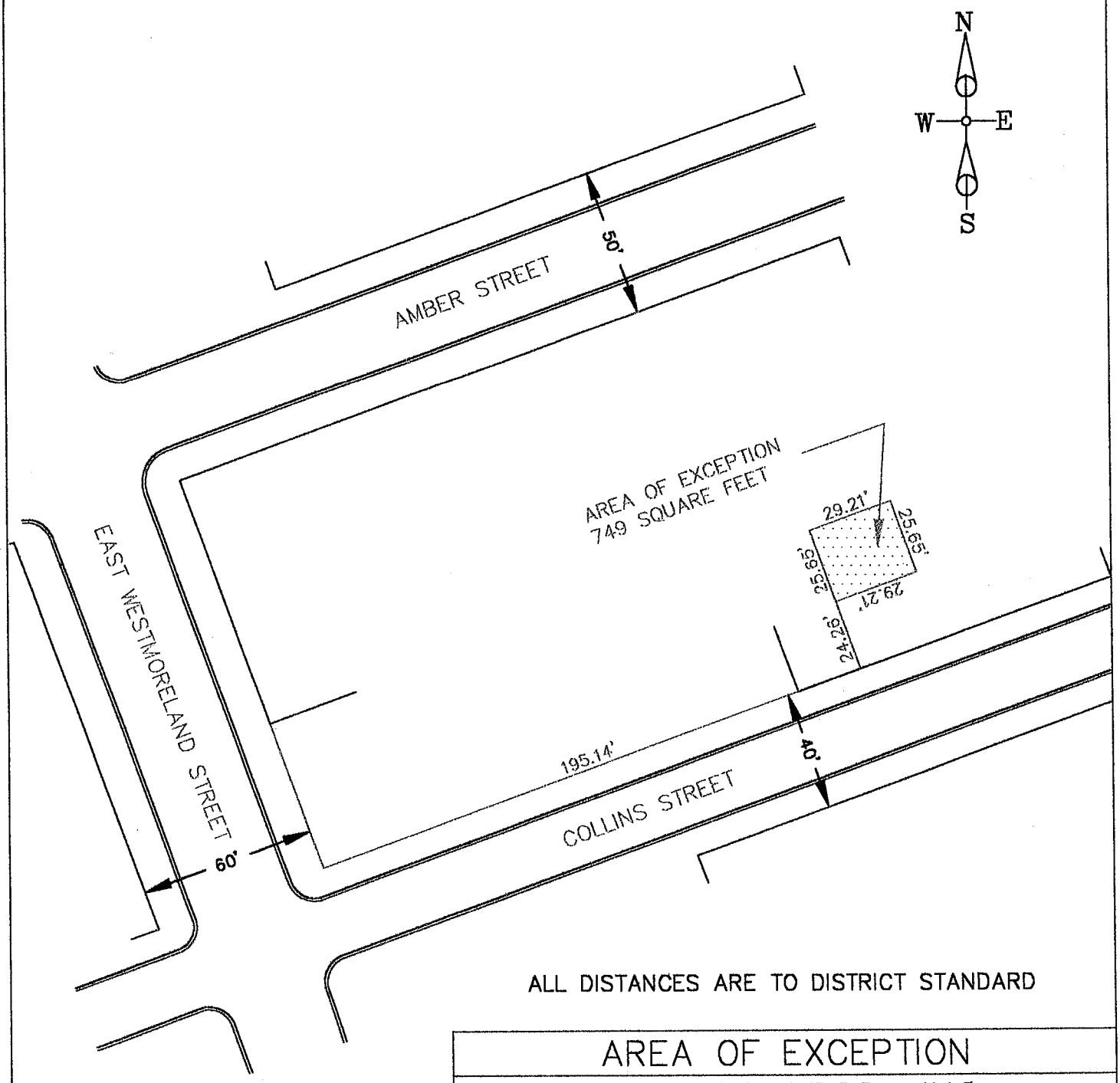
Based on the concentrations of concern in the groundwater at the subject site, a Statewide Health Standard will be used to address the impact on groundwater of the Fuel Oil compounds. Based on the results of the most recent sampling events, all detected compounds in the POC wells comply with these standards. A deed restriction will be used to address the soil impact in the area where the leaking UST was formerly located since this area cannot be remediated without involving considerable expense.

4.1 SOIL STANDARDS

In addition, a deed restriction will be applied to the property stating, future soil removal from the impacted area of the property would need to be treated as a waste and handled in the proper manner. The approximate deep restriction area is shown on Figure 5. A legal desriction of this area is included as Appendix 4.

4.2 GROUNDWATER STANDARDS

he remedial standard selected in order to obtain a liability release for ground water, as set forth in Chapter 5 of Act 2, is the Statewide Health Standard. Under this guideline, each contaminant identified on-site has a medium-specific concentration (MSC), which can not be exceeded to be eligible for the liability release. Residual fuel oil product remains in the soil beneath the site building. RT was unable to recover this material by pumping MW-4 due to its high viscosity. Compliance to these standards at the downgradient property boundary (POC wells) as well as Fate and Transport modeling for all applicable compounds has been demonstrated, however. Therefore, a request for a Release of Liability for heating oil compounds in ground water, demonstrating attainment of the Statewide Health Standard is being made.



ALL DISTANCES ARE TO DISTRICT STANDARD

AREA OF EXCEPTION

SCHOLLER BROS., INC.

3320 COLLINS STREET

45th WARD CITY OF PHILADELPHIA PENNSYLVANIA

JAMES M. STEWART, INC.
Land Surveyors
9622 EVANS STREET PHILADELPHIA, PA
215 969-1577

SCALE:	DATE:	DRAWN BY:	DWG. NO:	SHEET NO:
1"= 50'	03/09/01	DWS	2606	1
		CHECKED BY: JMS		

JAMES M. STEWART
LIC # 26105E

4.2.1 Aquifer Use Determination

An aquifer use determination request prepared by RT for the property, dated April 16, 1998 was submitted to the PADEP for review requesting that a non-used aquifer status by applied to the property. This request was based on the results of a well search conducted by RT for current and future planned ground water use in the vicinity of the subject site. The appropriate MSC, for each compound of concern aquifer for this classification with TDS < 2500 ppm is taken from Table 1, for Organic Regulated Substances, and Table 2, for Inorganic Regulated Substances presented in the Act 2 document are shown on Table 5. These standards were used to determine if on site contaminants were present above applicable MSCs. PADEP verbally approved this request.

RT performed an inventory of public and private wells within a one mile radius of the subject site was conducted by RT using the Pennsylvania Ground water Information System of the PA Dept. of Conservation and Natural Resources (PAGWIS). Telephone interviews were also conducted with personnel of the Philadelphia Water Dept. (PWD) and the Philadelphia Dept. of Licenses and Inspections (L & I).

The PAGWIS database located no water supply wells within 1,000 feet of the downgradient property boundary, and no municipal water supply wells within the prescribed one-half mile radius Seventeen private wells were identified by PAGWIS within a one-mile radius, but 14 are reported as being destroyed, and the remaining three are reported as unused.

The PWD and Philadelphia L & I informed RT that they had no knowledge of any potable domestic supply wells or surface water intakes within the prescribed one-half mile radius. Philadelphia L & I requires that all residential and commercial properties be connected to public water supply. The entire area within 1,000 feet of the subject site is serviced by municipal water.

In September 1998, PADEP requested that Fate & Transport modeling be incorporated into RT's aquifer use determination based on PADEP's Quick Domenico.xls (QD) guidance document dated April 24, 1998. Fate & Transport modeling was initially submitted to PADEP on September 22, 1998 and was revised by RT and re-submitted on October 8, 1998. PADEP gave final verbal approval to the results of this modeling and concurred with the Non-Residential, Non-Used aquifer determination for the subject site. Therefore, based on the approved non-used aquifer standard for the property, all soil and groundwater results are compared to PADEP non-used aquifer Statewide Health MSCs. A copy of RT's final Fate and Transport analysis letter is also included in Appendix 5 to the current report.

5.0 PATHWAY ELIMINATION

A pathway elimination analysis was conducted to determine potential exposure risk from soils and ground water beneath the subject site. This analysis was used to gauge potential risks associated with fuel oil compounds.

5.1 RECEPTOR SURVEY

RT previously performed a database search by contacting all local government agencies as well as local water and sewer utilities to compile available information regarding ground water use in the vicinity of the subject site (see Appendix 1). This receptor survey, conjunction with site and regional hydrogeologic data, provided the following results:

- No surface water body is present adjacent to or downgradient of the subject site.

- The areas surrounding the subject site are served by public water supply (Philadelphia Water Dept.). No actively used private wells were identified within a one mile radius of the subject property. The City of Philadelphia requires all properties in this area to be connected to public water and sewer systems.

- Private residences located downgradient of the subject site may be potential receptors if basements are present in these structures. There is no evidence, however, that any of the site's contaminants have migrated beyond the property boundary.

- A search of a Federal RCRIS database listed four small quantity and one large quantity generators of hazardous waste located within one-quarter mile of the subject site. One CERCLIS site and four NFRAP sites are also listed within a one-half mile radius of the site. None of these facilities appear to represent a significant risk of impacting the subject property, however.

Fate and Transport analyses related to fuel oil compounds in ground water have been conducted which show attainment of applicable ground water MSCs within the confines of the property boundaries using the maximum detected concentrations of these compounds from the source area monitoring well (MW-4). Additionally, the site's Point of Compliance monitoring wells (MW-2 & MW-3) have historically found all analyzed compounds at levels below their detection limits. Therefore, no sensitive receptors should be affected by any ground water contaminant related to the subject site.

5.2 EXPOSURE PATHWAYS

The identification and evaluation of site-specific exposure pathways is important to properly assess existing and future risks to human health and environmental risks related to the subject site. Act 2 regulations mandate that exposure pathways be reviewed and evaluated, especially those related to surface and subsurface soils (ingestion and soil to ground water pathways), ground water, surface water/wetlands, and air quality (ambient/indoor).

5.2.1 Soil Pathways

Based on soil sampling data from soil borings by RT, the immediate area surrounding the former UST contains concentrations of Fuel Oil compounds above their respective MSCs. This area is, however, beneath the floor of a building and is entirely paved over. These conditions minimize surface water infiltration. Approximately 80% of the subject property is currently covered by pavement or buildings. The risk of direct physical contact, ingestion or inhalation is minimal due to these conditions.

5.2.2 Groundwater Pathways

As discussed previously, benzene, cumene (isopropyl benzene) and naphthalene have been detected in ground water at the subject site above their applicable MSCs, but presently at less than 100 times their MSCs. Ground water is present at depths ranging from approximately 14 to 17 feet bgs at the subject site. Since the ground water surface is moderately deep and the majority of the site is paved, including 100% of the source area, no direct exposure routes related to ground water are reasonably possible.

Fate and Transport analyses related to benzene, toluene, ethylbenzene, naphthalene, cumene, fluorene, phenanthrene, chrysene and pyrene in MW-4 have been conducted which show attainment of their applicable groundwater MSCs within the site's property boundaries. Therefore, no downgradient ground water should be affected by the contaminants of concern associated with this site.

5.2.3 Surface Water Pathways

Since no wetlands are present on or adjacent to the subject site, surface water is not an issue at the subject site.

5.2.4 Air Pathways

Indoor air quality is also not an issue since approximately 80% of the site including 100% of the source area is covered by building foundations or pavement. This essentially precludes any exposure pathways for contaminated air migrating into site buildings.

6.0 RISK ASSESSMENT

Analysis of the existing data and the receptor survey described above indicates that present engineering controls and monitoring are adequately protective of human health and the environment, and there is no information to show that there are presently any significant health risks from site contamination to off-site residential receptors (i.e., groundwater users), since the potential receptors are not exposed to site contaminants.

7.0 REMEDIATION

The area where exceedences of soil and ground water MSCs were identified (fuel oil UST area), was delineated with Geoprobe soil borings. This area is completely covered by the site building preclude Direct Contact and the Soil to Ground Water pathways. Further soil remediation is not possible. The area of remaining soil contamination is being addressed by a deed restriction for this area. The area of this deed restriction is shown on Figure 5. This area was surveyed by a Pennsylvania registered surveyor under RT's direction The approximate area is 750 square feet. The estimated volume of impacted soil given the depth of the tank (about eight feet bgs) is about 6,000 cubic feet.

Groundwater monitoring was deemed necessary to obtain a Release of Liability using Statewide Health Standards for Non-Residential, Used Aquifers. This standard was required at the site by the PADEP based on surrounding land use. During the most recent sampling events, all analytes showed concentration levels below their applicable SWHS except in MW-4where free product has been detected. RT attempted to remove this product and contaminated groundwater with a downhole pumping system which was started in late 1998. By April 1999 the system was taken off-line since it was ineffective as a result of the high viscosity of the free product. The PADEP was contacted at this time and agreed to the termination of remedial activities.

It has been possible to demonstrate attainment of SWHS for the site's ground water, however, using Fate and Transport analyses for these compounds. Additionally, historical results for the downgradient POC wells have demonstrated that these compounds are not migrating off-site at concentrations above their applicable MSCs. Since the only identified source area for these compounds is contained beneath the site building, no future ground water remedial efforts are required.

8.0 NIR AND PUBLIC NOTIFICATIONS

The Notice of Intent to Remediate (NIR) and public notifications were made once all sources of soil and groundwater contamination had been identified. These documents were originally submitted io September 1, 2000. Municipal notification was given on September 4, 2000. The NIR was published on September 6, 2000 in the Philadelphia Inquirer. The PADEP approved these submittals by means of a letter dated September 14, 2000.

As all contaminants of concern were not covered in the initial NIR, a revised NIR was submitted on April 20, 2001. Public notification was also given and public notice was published on April 25, 2001 in the Philadelphia Inquirer. Copies of these documents are provided as Appendix 6.

9.0 ECOLOGICAL SCREENING

An ecological screening of the site has been conducted in accordance with the process described in the PADEP Act 2 technical guidance manual Section 250.311(b) and illustrated in Figure II-6 on page II-30. The following information is being submitted in accordance with the Ecological Screening Flow Chart found on page II-30.

9.1 STEP 1 - PRESENCE OF LIGHT PETROLEUM PRODUCT COMPOUNDS

Constituents associated with light petroleum product compounds were originally detected in site soils collected as subsurface samples during the UST closure and subsequent investigations (Appendix 1). Several #2 Fuel Oil constituents were detected in soil borings and the source area ground water monitoring well (MW-4) at concentrations exceeding Non-Residential, Non-Used Aquifer Medium Specific Concentrations (MSCs). Soil and ground water sample analytical results have been previously summarized in Section 3.0 of this report.

The areas of identified contamination have been fully delineated by soil and ground water sampling. The area where applicable Non-Residential MSC exceedences occur is limited to the immediate source area in the central portion of the property. This area paved over and is also covered by the site building to prohibit the possibility of direct contact contamination from site soils. For ground water, sampling of the POC wells and Fate and Transport modeling have demonstrated that contamination is limited to the source area and is not likely to migrate offsite.

9.2 STEP 2 - SITE SIZE

The aerial extent of surface soil exceeding PADEP Non-Residential MSCs is less than the 2 acre minimum and the 1,000 square feet of contaminated sediment cited in Act 2.

9.3 STEP 9 - NO FURTHER ECOLOGICAL EVALUATION REQUIRED

In accordance with the PADEP ecological screening flow chart, all conditions have been satisfied and a substantial ecological impact has not been identified. The subsurface investigation and associated analytical reports detailed in this Final Report conclude that no further ecological screening is required.

10.0 FATE AND TRANSPORT MODELING

To address PADEP concerns related to the delineation and downgradient extent of ground water contamination at the site as well as a downgradient sensitive receptor analysis, RT determined the contaminant fate using the PADEP Fate and Transport Analysis software. Aquifer parameters were input based on the physical characteristics of all #2 Fuel Oil compounds exceeding their respective MSCs, and aquifer properties derived from a pumping test performed by RT at monitoring well MW-2. The pumping test at MW-2 has previously been described and detailed data are included in Appendix 5 to the current report. This test yielded a hydraulic conductivity of approximately 18 feet/day.

10.1 MODELING

Fate and Transport calculations were performed using the maximum concentrations for #2 Fuel Oil constituents found to exceed their respective MSCs at source area monitoring well (MW-4). for the initial sampling event (2/23/98). This modeling was performed using the PADEP Quick Domenico Fate and Transport Analysis software. Aquifer parameters were input based on the physical characteristics of the applicable compounds as well as aquifer properties derived from a pumping test performed at MW-2 by RT. These results were previously submitted to PADEP in conjunction with the RT's Addendum to Aquifer Determination Report dated October 8, 1998 (Appendix 5). Revisions have been made for chrysene, phenanthrene and pyrene which were the only three compounds detected at concentrations above their Non-Residential, Non-Used Aquifer MSCs to refine concentrations near the property boundary. These and October 8, 1998 results are summarized on Table 4.

Results of RT's Fate and Transport modeling at MW-4 modeling indicate that all of the modeled compounds would attenuate below their respective PADEP Non-Residential, Non-Used Aquifer MSCs before reaching the POC wells (MW-2 & MW-3) and downgradient property boundary. Based on these results, none of the #2 Fuel Oil compounds detected appear to be a concern for properties downgradient of the subject site. The concentrations modeled were the worst-case concentrations from historical sampling data.

TABLE 4

QUICK DOMENICO FATE AND TRANSPORT MODELING RESULTS
SCHOLLER, INC.
3320 COLLINS ST.
PHILADELPHIA, PA

SOURCE WELL	DIST. TO DOWNGRAD. PROP. LINE (Ft.)	COMPOUND	NR,NU AQ MSC (mg\L)	SAMPLING DATE	CONC. (mg\L)	MIGRATION DIST. (ft.)	UPGRAD. DIST. (ft.)
MW-4	65	Benzene	0.50	02/23/98	0.120	0	65
MW-4	65	Toluene	100	02/23/98	0.055	0	65
MW-4	65	Ethylbenzene	70	02/23/98	0.022	0	65
MW-4	65	Naphthalene	20	02/23/98	0.230	0	65
MW-4	65	Cumene	5.20	02/23/98	0.003	0	65
MW-4	65	Phenanthrene	1.20	02/23/98	1.200	<20	45 min.
MW-4	65	Chrysene	0.0018	02/23/98	0.340	<20	45 min.
MW-4	65	Pyrene	0.013	02/23/98	0.500	<20	45 min.

NOTES:

Migration Dist.= Modeled migration distance before attenuating below applicable MSC

Upgradient Dist. = Distance upgradient from the site property line

11.0 ATTAINMENT

11.1 ATTAINMENT OF GROUNDWATER STATEWIDE HEALTH STANDARD

Demonstration of attainment for compounds of concern in ground water will also be accomplished through comparisons to the SWHS at the POC. The POC for ground water, as described in Section 250.302 of Act 2, is the property boundary that existed at the time contamination was discovered. In this case, the POCs are the downgradient monitoring wells MW-2 and MW-3. All analyzed compounds have been detected below their applicable Non-Residential, Non-Used Aquifer MSCs during all rounds of sampling completed by RT at this site and demonstration of compliance by Fate and Transport analysis has been achieved. Therefore, a Release of Liability is requested for the following compounds identified in the groundwater:

BTEX, PHCs and PAHs (Fuel Oil) compounds including

Benzene
Toluene
Ethylbenzene
Naphthalene
Isopropylbenzene (Cumene)
Fluorene
Phenanthrene
Chrysene
Pyrene

11.2 ATTAINMENT CONCLUSIONS

RT, therefore, concludes that analytical sampling and Fate and Transport analysis has demonstrated attainment of the SWHS for ground water, and hearby requests the liability protection afforded under Act 2 be given to the signatories listed in Section 14.0 of this report.

12.0 POST-REMEDIATION CARE PLAN

RT proposes that no additional post remedial care plan is needed for the following reasons:

- No institutional or engineering controls are needed to demonstrate attainment. Contaminant levels are below the Act 2 Site Specific Health Based Standards for Ground water MSCs.

- Asphalt and concrete in the form of buildings, sidewalks, driveways and parking lots cover in excess of 80 % of the site surface. Therefore, a very limited pathway of exposure to any soil contaminants exists at the subject property.

13.0 REFERENCES

1) Pennsylvania Bulletin Volume 27 Number 23
Saturday August 16, 1997, Harrisburg, P.A.
Part II, Environmental Quality Board
Administration of the Land Recycling Program (Act 2)

2) The Geology of Pennsylvania
Charles H. Schultz, ed.
Special Publication 1,
The Pennsylvania Geological Survey & The Pittsburgh Geological Society,
1999

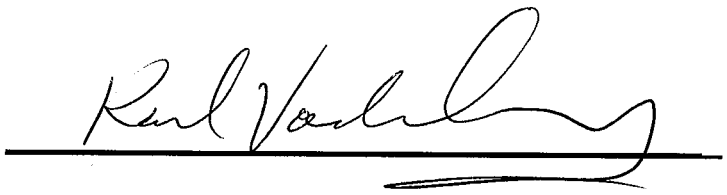
3) The Geologic Map of Pennsylvania,
Berg, T.M., Edmunds, W.E., Geyer, A.R. et al.
Pennsylvania Geological Survey, 4th series,
1980

4) "Atlas of Preliminary Geologic Quadrangle Maps of Pennsylvania,"
Camden, NJ-PA Quadrangle
Berg. T.M. & Dodge, C.M. compliers,
Pennsylvania Geological Survey, 4th series
map 61, 636 p.
1981

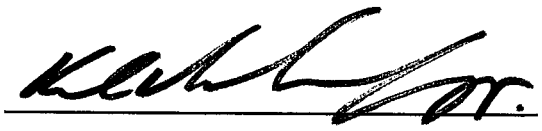
14.0 SIGNATURES

The following persons are seeking a release of liability for ground water at the subject site:

Mr. Karl Vonder Schmalz
Scholler, Inc.



Mr. Karl Vonder Schmalz, Jr.
Scholler, Inc.



Pursuant to the requirements of the Environmental Remediation Standards Act (Act 2), Adopted August 16, 1997, which states that:

> Interpretations of geologic and hydrogeologic data shall be prepared by a professional geologist licensed in this Commonwealth

I hereby attest that, as a Professional Geologist licensed in the Commonwealth of Pennsylvania, I am familiar with, and have reviewed and/or prepared the interpretations of the geology and hydrogeology presented in the attached report entitled:

> Act 2 Final Report, dated September 2001, for the Scholler, Inc. Property, 3320 Collins, Street, Philadelphia County, Pennsylvania

and, based on the available data presented in the report, believe that the geologic and hydrogeologic interpretations made therein are reasonable and accurate.

James Busanus, P.G. (seal)
PG-000829-G
Expires 9-30-03

Appendix 1

HISTORIC GROUND WATER LABORATORY DATA SHEETS: SAMPLING EVENTS #3-#8)

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT Environmental	Client Project ID:	Scholler 2043-08	Sampled:	Nov 3, 1998
215 West Church Road	Sample Descript:	Water	Received:	Nov 6, 1998
King of Prussia, PA 19406		MW-1		
Attention: Chris Orzechowski	Lab Number:	811-0323	Analyzed:	Nov 11-27, 1998
			Reported:	Nov 30, 1998

RECEIVED DEC 02 1998

PADEP Fuel Oil #2, Diesel Fuel Parameters

Analyte	EPA Method	Detection Limit ug/L	Sample Results ug/L
Benzene	5030B/8021B	1.0	66
Toluene	5030B/8021B	1.0	250
Ethyl benzene	5030B/8021B	1.0	17
Isopropylbenzene	5030B/8021B	2.0	N.D.
Naphthalene	3510C/8270C	2.0	N.D.
Fluorene	3510C/8270C	2.0	N.D.
Phenanthrene	3510C/8270C	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT Environmental	Client Project ID:	Scholler 2043-08	Sampled:	Nov 3, 1998
215 West Church Road	Sample Descript:	Water	Received:	Nov 6, 1998
King of Prussia, PA 19406		MW-2		
Attention: Chris Orzechowski	Lab Number:	811-0324	Analyzed:	Nov 11-27, 1998
			Reported:	Nov 30, 1998

PADEP Fuel Oil #2, Diesel Fuel Parameters

Analyte	EPA Method	Detection Limit ug/L	Sample Results ug/L
Benzene	5030B/8021B	1.0	N.D.
Toluene	5030B/8021B	1.0	N.D.
Ethyl benzene	5030B/8021B	1.0	N.D.
Isopropylbenzene	5030B/8021B	2.0	N.D.
Naphthalene	3510C/8270C	2.0	N.D.
Fluorene	3510C/8270C	2.0	N.D.
Phenanthrene	3510C/8270C	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

GLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT ENVIRONMENTAL
Address: 215 W. Church Rd.
King of Prussia PA 19406
Report to: Chris Orzechowski
Phone #: (610) 265-1510
Fax #: (610) 265-0687

Bill To:
Address: SAME
State & Program: PADEP Land Recycling
Phone #: ( )
Fax #: ( )

TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.
DATE RESULTS NEEDED: 11/13/98
TEMPERATURE UPON RECEIPT: _____
AIR BILL NO. _____

Project: Schaller
Sampler: CO
PO/Quote #: 2043-08-

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	PADEP #2 RUSH	SAMPLE CONTROL: CRACKED/BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW-1	11/3/98	1135	Aq	HCl	4	VOA Amber	X				8110323
2	MW-2	11/3/98	1240	Aq	HCl	4	VOA Amber	X				8110324 DR
3												
4												
5												
6												
7												
8												
9												
10												

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11/6/98 1217	Maine Tarantino 11-6-98 12:20PM		

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GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT Environmental
215 West Church Road
King of Prussia, PA 19406
Attention: Chris O.

Client Project ID: 2043-08
Sample Descript: Water
MW-1
Lab Number: 902-1521

Sampled: Feb 22, 1999
Received: Feb 23, 1999

Analyzed: Feb 24-27, 1999
Reported: Mar 2, 1999

RECEIVED MAR 1 1999

Laboratory Analysis

Analyte	EPA Method	Detection Limit ug/L	Sample Results ug/L
Benzene	5030B/8021B	1.0	3.1
Toluene	5030B/8021B	1.0	N.D.
Ethyl benzene	5030B/8021B	1.0	N.D.
Isopropylbenzene	5030B/8021B	2.0	2.0
Fluorene	3510C/8270C	2.0	N.D.
Phenanthrene	3510C/8270C	2.0	N.D.
Naphthalene	3510C/8270C	2.0	N.D.
Pyrene	3510C/8270C	2.0	N.D.
Chrysene	3510C/8270C	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

GLA
LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT Environmental
215 West Church Road
King of Prussia, PA 19406
Attention: Chris O.

Client Project ID: 2043-08
Sample Descript: Water
MW-2
Lab Number: 902-1522

Sampled: Feb 22, 1999
Received: Feb 23, 1999

Analyzed: Feb 24-27, 1999
Reported: Mar 2, 1999

Laboratory Analysis

Analyte	EPA Method	Detection Limit ug/L	Sample Results ug/L
Benzene	5030B/8021B	1.0	N.D.
Toluene	5030B/8021B	1.0	N.D.
Ethyl benzene	5030B/8021B	1.0	N.D.
Isopropylbenzene	5030B/8021B	2.0	N.D.
Fluorene	3510C/8270C	2.0	N.D.
Phenanthrene	3510C/8270C	2.0	N.D.
Naphthalene	3510C/8270C	2.0	N.D.
Pyrene	3510C/8270C	2.0	N.D.
Chrysene	3510C/8270C	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT Environmental
215 West Church Road
King of Prussia, PA 19406
Attention: Chris O.

Client Project ID: 2043-08
Sample Descript: Water
MW-3
Lab Number: 902-1523

Sampled: Feb 22, 1999
Received: Feb 23, 1999

Analyzed: Feb 24-27, 1999
Reported: Mar 2, 1999

Laboratory Analysis

Analyte	EPA Method	Detection Limit ug/L	Sample Results ug/L
Benzene	5030B/8021B	1.0	5.6
Toluene	5030B/8021B	1.0	N.D.
Ethyl benzene	5030B/8021B	1.0	N.D.
Isopropylbenzene	5030B/8021B	2.0	N.D.
Fluorene	3510C/8270C	2.0	N.D.
Phenanthrene	3510C/8270C	2.0	N.D.
Naphthalene	3510C/8270C	2.0	N.D.
Pyrene	3510C/8270C	2.0	N.D.
Chrysene	3510C/8270C	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

IGLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT Environmental Services, Inc.
Address: 215 W Church Rd
KOP PA 19406
Report to: C. Olszewski
Phone #: (610) 265-1510
Fax #: (610) 265-0687
Project: 2043-08
Sampler: DWT
PO/Quote #: 2043-08-01

Bill To: Same
Address:
State & Program: PA Land Recy. ~~UST~~
Phone #: ( )
Fax #: ( )

TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.
DATE RESULTS NEEDED: 3/1/99
TEMPERATURE UPON RECEIPT: _____
AIR BILL NO. _____

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	PA #4 Fuel 0.1	PA #2 Fuel 0.1	SAMPLE CONTROL: CRACKED/BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW-1	2/22/99	1330	Aq	ice & Nitric	5	40 ml & 1 l	X	X				9021521
2	MW-2	"	1410	"	"	5	"	X	X				9021522
3	MW-3	"	1450	"	"	5	"	X	X				9021523
4													
5													
6													
7													
8													
9													
10													

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[signature]	2-23-99	1305	[signature]	2-23-99	1305		
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COMMENTS: Run for all parameters listed for PA #2 and #4 Fuel 0.1.

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GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

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JUN 24 1999

RT Environmental
215 West Church Road
King of Prussia, PA 19406
Attention: Chris O.

Client Project ID: Scholler 2043-08
Sample Descript: Water
MW-1
Lab Number: 906-0609

Sampled: Jun 10, 1999
Received: Jun 11, 1999

Analyzed: Jun 15-22, 1999
Reported: Jun 22, 1999

PADEP Fuel Oil #2, #4 Parameters

Analyte	EPA Method	Reporting Limit ug/L	Sample Results ug/L
Benzene	5030B/8021B	1.0	1.4
Toluene	5030B/8021B	1.0	1.2
Ethyl benzene	5030B/8021B	1.0	N.D.
Isopropylbenzene	5030B/8021B	2.0	N.D.
Naphthalene	3510C/8270C	2.0	N.D.
Fluorene	3510C/8270C	2.0	N.D.
Phenanthrene	3510C/8270C	2.0	N.D.
Pyrene	3510C/8270C	2.0	N.D.
Chrysene	3510C/8270C	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT Environmental
215 West Church Road
King of Prussia, PA 19406
Attention: Chris O.

Client Project ID: Scholler 2043-08
Sample Descript: Water
MW-3
Lab Number: 906-0610

Sampled: Jun 10, 1999
Received: Jun 11, 1999
Analyzed: Jun 15-22, 1999
Reported: Jun 22, 1999

PADEP Fuel Oil #2, #4 Parameters

Analyte	EPA Method	Reporting Limit ug/L	Sample Results ug/L
Benzene	5030B/8021B	1.0	38
Toluene	5030B/8021B	1.0	1.8
Ethyl benzene	5030B/8021B	1.0	3.7
Isopropylbenzene	5030B/8021B	2.0	5.5
Naphthalene	3510C/8270C	2.0	N.D.
Fluorene	3510C/8270C	2.0	N.D.
Phenanthrene	3510C/8270C	2.0	N.D.
Pyrene	3510C/8270C	2.0	N.D.
Chrysene	3510C/8270C	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

GLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT	Bill To: RT	TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.
Address: 215 co. Church Rd. KOP, PA 19406	Address: 215 w. Church Rd. KOP, PA 19406	DATE RESULTS NEEDED: 6/18/99
Report to: CMTSO. Phone #: (610) 265-1510 Fax #: (610) 265-0688	State & Program: PADEP Phone #: (610) 265-1510 Fax #: (610) 265-0687	TEMPERATURE UPON RECEIPT: _____ AIR BILL NO. _____
Project: Scholler, 2043-08		
Sampler: LAURA BROTT		
PO/Quote #: 2043-08-01		

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	#8 Fuel/011	#4 Fuel/Oil	SAMPLE CONTROL: CRACKED-BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW1	6/10	1430	Aq	HCl	5	2 Amber 3 VOA	✓	✓			✓	9060609
2	MW3	6/10	1345	Aq	HCl	5	2 Amber 3 VOA	✓	✓			✓	9060610
3													
4													
5													
6													
7													
8													
9													
10													

RELINQUISHED	DATE/TIME	RECEIVED	DATE/TIME	RELINQUISHED	DATE/TIME	RECEIVED	DATE/TIME
[signature]	6/11 1306	O. Burgos	6/11/99 1400				

COMMENTS:

PAGE OF

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GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RECEIVED
OCT 05 1999

RT Environmental
215 West Church Road
King of Prussia, PA 19406
Attention: Chris Orzechowski

Client Project ID: 2043-08 - Scholler
Sample Descript: Water
MW-1
Lab Number: 909-1084

Sampled: Sep 23, 1999
Received: Sep 23, 1999

Analyzed: Sep 25 - 29, 99
Reported: Sep 30, 1999

PADEP Diesel Fuel, Fuel Oil #2 & #4,5,6 Parameters

Analyte	EPA Method	Reporting Limit ug/L	Sample Results ug/L
Benzene	5030B/8260B	1.0	N.D.
Toluene	5030B/8260B	1.0	N.D.
Ethyl benzene	5030B/8260B	1.0	N.D.
Isopropylbenzene	5030B/8260B	2.0	N.D.
Naphthalene	3510C/8270C	2.2	N.D.
Fluorene	3510C/8270C	2.2	N.D.
Phenanthrene	3510C/8270C	2.2	N.D.
Pyrene	3510C/8270C	2.2	N.D.
Chrysene	3510C/8270C	2.2	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT Environmental
215 West Church Road
King of Prussia, PA 19406
Attention: Chris Orzechowski

Client Project ID: 2043-08 -- Scholler
Sample Descript: Water
MW-3
Lab Number: 909-1085

Sampled: Sep 23, 1999
Received: Sep 23, 1999
Analyzed: Sep 25 - 28, 99
Reported: Sep 30, 1999

PADEP Diesel Fuel, Fuel Oil #2 & #4,5,6 Parameters

Analyte	EPA Method	Reporting Limit ug/L	Sample Results ug/L
Benzene	5030B/8260B	1.0	21
Toluene	5030B/8260B	1.0	3.8
Ethyl benzene	5030B/8260B	1.0	4.6
Isopropylbenzene	5030B/8260B	2.0	6.8
Naphthalene	3510C/8270C	2.2	2.3
Fluorene	3510C/8270C	2.2	N.D.
Phenanthrene	3510C/8270C	2.2	N.D.
Pyrene	3510C/8270C	2.2	N.D.
Chrysene	3510C/8270C	2.2	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

GLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT Env. Svc. Inc.	Bill To: RT Env. Svc., Inc.	TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.	
Address: 215 W Church Rd	Address: 215 W. Church Rd.	DATE RESULTS NEEDED: 9/30/99	
KOP, PA 19406	KOP, PA 19406	TEMPERATURE UPON RECEIPT:	
Report to: Chris O. Phone #: (610)265-1510 Fax #: 610)265-0687	State & Program: PADEP Phone #: (610)265-1510 Fax #: (610)265-0687	AIR BILL NO.	
Project: 2043-08 - Scholler			
Sampler: Laura Broh			
PO/Quote #: 2043-08-01			

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	PADEP #4 Fuel Oil	PADEP #2 Fuel Oil	SAMPLE CONTROL: CRACKED/BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW-1	9/23	1140	Aq	HCl	5	2 Amber 3 VOA	✓	✓			✓	9091084
2	MW-3	9/23	1051	Aq	HCl	5	2 Amber 3 VOA	✓	✓			✓	9091085
3													
4													
5													
6													
7													
8													
9													
10													

RELINQUISHED 1	RECEIVED	RELINQUISHED	RECEIVED
9/23/99 1580	9:23-99 1548		
RELINQUISHED	RECEIVED	RELINQUISHED	RECEIVED
DATE TIME	DATE TIME		

COMMENTS:

PAGE OF

JG958198

GLA LABORATORIES
1088 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

JUN 26 1999

RT Environmental
215 West Church Road
King of Prussia, PA 19406
Attention: Chris O.

Client Project ID: Scholler ~~2405-68~~
Sample Descript: Water 2043-08
MW-2
Lab Number: 906-0810

Sampled: Jun 15, 1999
Received: Jun 15, 1999

Analyzed: Jun 17-23, 1999
Reported: Jun 24, 1999

PADEP Fuel Oil #2, Diesel Fuel/Fuel Oil #4 Parameters

Analyte	EPA Method	Reporting Limit ug/L	Sample Results ug/L
Benzene	5030B/8021B	1.0	3.0
Toluene	5030B/8021B	1.0	N.D.
Ethyl benzene	5030B/8021B	1.0	2.0
Isopropylbenzene	5030B/8021B	2.0	10
Naphthalene	3510C/8270C	2.0	N.D.
Fluorene	3510C/8270C	2.0	N.D.
Phenanthrene	3510C/8270C	2.0	N.D.
Pyrene	3510C/8270C	2.0	N.D.
Chrysene	3510C/8270C	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

GLA LABORATORIES

Crystal Pollock
Laboratory Director

IGLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT Env.	Bill To: RT	TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.	
Address: 215 W. Church Rd KOP, PA 19406	Address: 215 W. Church Rd KOP, PA 19406	DATE RESULTS NEEDED: 6/22	
Report to: Laura B. Chris O.	Phone #: (610)265-1510 Fax #: (610)265-0687	State & Program: PADEP	Phone #: (610)265-1510 Fax #: (610)265-0687
Project: Scholler 2403-08		TEMPERATURE UPON RECEIPT:	
Sampler: LAURA BROH		AIR BILL NO.	
PO/Quote #: 2403-08-01			

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	PADEP FUEL OIL #2	PADEP FUEL OIL #4	SAMPLE CONTROL: CRACKED/BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW2	6/15	1151	Aq	HCl	5	2 Amber 3 VOA	✓				✓	9060810
2													
3													
4													
5													
6													
7													
8													
9													
10													

RELINQUISHED	RECEIVED	RELINQUISHED	RECEIVED
6/15 1616 DATE TIME	C. Bryan 6/15/99 1616 DATE TIME	DATE TIME	DATE TIME
RELINQUISHED	RECEIVED	RELINQUISHED	RECEIVED
DATE TIME	DATE TIME	DATE TIME	DATE TIME

COMMENTS:

PAGE OF

JG958198

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT ENVIRONMENTAL	Project:	Scholler	Sampled: 12/17/99
215 W. Church Rd.	Project Number:	Scholler	Received: 12/17/99
King of Prussia, PA 19406	Project Manager:	Chris Orzechowski	Reported: 1/3/00 13:32

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-3	K912277-01	Water	12/17/99
MW-1	K912277-02	Water	12/17/99

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.

Andrea Speck

Andrea Speck, Project Manager

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT ENVIRONMENTAL	Project:	Scholler	Sampled: 12/17/99
215 W. Church Rd.	Project Number:	Scholler	Received: 12/17/99
King of Prussia, PA 19406	Project Manager:	Chris Orzechowski	Reported: 1/3/00 13:32

Volatile Organic Compounds by EPA Method 8021B
GLA Laboratories, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-3			**K912277-01**				**Water**	
Surrogate: a,a,a-Trifluorotoluene	*9120338*		*12/29/99*	*80-120*		*110*	*%*	
Benzene	"	"	"		1.0	**44**	ug/l	
Ethylbenzene	"	"	"		2.0	**33**	"	
Isopropylbenzene	"	"	"		2.0	**9.6**	"	
Toluene	"	"	"		2.0	**6.4**	"	
MW-1			**K912277-02**				**Water**	
Surrogate: a,a,a-Trifluorotoluene	*9120338*		*12/29/99*	*80-120*		*95*	*%*	
Benzene	"	"	"		1.0	**3.4**	ug/l	
Ethylbenzene	"	"	"		2.0	ND	"	
Isopropylbenzene	"	"	"		2.0	ND	"	
Toluene	"	"	"		2.0	ND	"	

GLA Laboratories, Inc.

**Refer to end of report for text of notes and definitions.*

Andrea Speck

Andrea Speck, Project Manager

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT ENVIRONMENTAL	Project:	Scholler	Sampled: 12/17/99
215 W. Church Rd.	Project Number:	Scholler	Received: 12/17/99
King of Prussia, PA 19406	Project Manager:	Chris Orzechowski	Reported: 1/3/00 13:32

Semivolatile Organic Compounds by EPA Method 8270C
GLA Laboratories, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-3			**K912277-01**				**Water**	
Chrysene	9120231	12/21/99	12/22/99		2.0	ND	ug/l	
Fluorene	"	"	"		2.0	ND	"	
Naphthalene	"	"	"		2.0	**2.2**	"	
Naphthalene	"	"	"		2.0	**2.2**	"	
Phenanthrene	"	"	"		2.0	ND	"	
Phenanthrene	"	"	"		2.0	ND	"	
Pyrene	"	"	"		2.0	ND	"	
Surrogate: Nitrobenzene-d5	"	"	"	*35-110*		*64*	*%*	
Surrogate: Nitrobenzene-d5	"	"	"	*35-110*		*64*	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43-120*		*64*	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43-120*		*64*	"	
Surrogate: Terphenyl-d14	"	"	"	*33-140*		*89*	"	
Surrogate: Terphenyl-d14	"	"	"	*33-140*		*89*	"	
MW-1			**K912277-02**				**Water**	
Chrysene	9120231	12/21/99	12/22/99		2.0	ND	ug/l	
Fluorene	"	"	"		2.0	ND	"	
Naphthalene	"	"	"		2.0	ND	"	
Naphthalene	"	"	"		2.0	ND	"	
Phenanthrene	"	"	"		2.0	ND	"	
Phenanthrene	"	"	"		2.0	ND	"	
Pyrene	"	"	"		2.0	ND	"	
Surrogate: Nitrobenzene-d5	"	"	"	*35-110*		*68*	*%*	
Surrogate: Nitrobenzene-d5	"	"	"	*35-110*		*68*	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43-120*		*70*	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43-120*		*70*	"	
Surrogate: Terphenyl-d14	"	"	"	*33-140*		*89*	"	
Surrogate: Terphenyl-d14	"	"	"	*33-140*		*89*	"	

GLA Laboratories, Inc.

**Refer to end of report for text of notes and definitions.*

Andrea Speck

Andrea Speck, Project Manager

GLA LABORATORIES
1008 W. Ninth Avenue • King of Prussia, Pennsylvania 19406 (610) 337-9992 FAX (610) 337-9939

RT ENVIRONMENTAL	Project:	Scholler	Sampled: 12/17/99
215 W. Church Rd.	Project Number:	Scholler	Received: 12/17/99
King of Prussia, PA 19406	Project Manager:	Chris Orzechowski	Reported: 1/3/00 13:32

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

GLA Laboratories, Inc.

Andrea Speck, Project Manager

GLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT Env.	Bill To: RT Env.	TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.	
Address: 215 W. Church Rd. KOP, PA 19406	Address: 215 W. Church Rd KOP, PA	DATE RESULTS NEEDED: 12/24/99	
Report to: Chris O, Phone #: (610) 265-1510 Fax #: (610) 265-0687	State & Program: PADEP	Phone #: (610) 265-1510 Fax #: (610) 265-0687	TEMPERATURE UPON RECEIPT:
Project: Scholler			AIR BILL NO.
Sampler: LAURA B.			
PO/Quote #: 2043-08-01			

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	#3 Fuel(O)	#4 Fuel(O)	SAMPLE CONTROL: CONTAINERS OK? (Y/N)	SAMPLE CONTROL: pH OK? (Y/N)	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW3	12/17	1126	Aq	HCl	3	VOA	✓	✓				K912277-01
					—	2	Amber						
2	MW-1	12/17	1219	Aq	HCl	3	VOA	✓	✓				K912277-02
					—	2	Amber						
3													
4													
5													
6													
7													
8													
9													
10													

RELINQUISHED: [signature] 12/17/99 17:30	RECEIVED: [signature] 12/17/99 17:30	RELINQUISHED	RECEIVED
RELINQUISHED	RECEIVED	RELINQUISHED	RECEIVED

COMMENTS:

PAGE OF

Appendix 2

RT GROUND WATER SAMPLING FIELD NOTES ,
HYDROGEOLOGIC TEST RESULTS (MW-2)
&
MW-2 PUMPING TEST ANALYSIS DATA (09/10/98)

G. B.
M. G.
C. O.
FILE

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client: Scholler Inc.	Project #: 2043 0017	Initials: C.O.
Job Location: Philadelphia, PA	Date: 5/11/98	Weather: Rainy / 50°
Site Address: 3320 Collins Street		
Equipment: N/A		
Equipment Calibration: Model: N/A		
PID/FID: Gas/Lot #: N/A	Gas ppm = N/A	Instrument ppm = N/A
pH Meter: 4.0 = N/A 7.0 = N/A	10.0 = N/A	Meter Reading (7.0): N/A
H & S: Hospital Name:		
Location:	Number:	
Ambulance Number:	Police Number:	
Explosive Atmosphere/Conditions:	Yes No	
Utility Clearance Serial #:	Client Approval (On Site Utilities)	Name Date/Time
Drums on Site: (No)	Yes/# Soil Pile: No	Yes/Size

Field Activity:

RTES arrived on site @ 11:40 to oversee the closure of an eight inch supply well. Paul & Greg. from B.L. Myers had removed the pump, wiring and approximately 150' of piping by 11:50. Subsequent to removal, the well was sounded and found to have a depth greater than 200'. B.L. Myers informed RTES, that they would need to get bentonite to backfill the whole as they did not have enough grout. B.L. Myes left the site @ 13:00, at which time, the client was informed of the problem, and give RTES verbal go ahead to proceed with the well closure. B.L. Myers returned to the site at 14:40 with medium size bentonite chips. 30 Bags of Bentonite was placed down the well which subsequently backfilled with grout to the ground surface. RTES left the site @ 15:30.

Comments:

Signature: [signature]

Page _____ of _____

RT Environmental
Groundwater Sampling
Summary Sheet

Date: 11/3/98 Client ~~RT~~ Schiller Job #: C 2043-02
Weather: Sunny 5-8° Site Location Colling Crew: CO

Well Number	Depth to Water (ft.)	Total Well Depth (ft.)	Water Column (ft.)	Purge Volume (gal.)	Start Purgin End Purging (time)	Total Volum Purged (gal)	Purge Rate (gpm)	Time Sampled	Meter Readings				Comments
									pH	Cond.	DO	Temp	
MW-1	15.21	28.4	13.19	2.3	1120 1135	7	0.5	1135					
MW-2	14.32	28	14	2.3	1230	7	1	1240					

GLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT Environmental	Bill To:	TAT: 5 DAY 4 DAY 3 DAY 2 DAY 1 DAY <24 HRS.
Address: 215 W. Church Rd.	Address: Same	DATE RESULTS NEEDED: 11/13/98
King of Prussia PA 19406		TEMPERATURE UPON RECEIPT:
Report to: Chris Critchlow Phone #: (610) 265-1580 Fax #: (610) 265-0687	State & Program: PA/GW Cleanup Prog	Phone #: ( ) Fax #: ( ) AIR BILL NO.
Project: Schiller		
Sampler: CC		
PO/Quote #: 2043-08-		

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	FIELD FILT.	ANALYSIS TYPE	SAMPLE CONTROL: CRACKED/BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW-1	11/3/98	1135	Aq	HCl	4	VOA Amb	X					
2	MW-2	11/3/98	1240	Aq	HCl	4	VOA Amb	X					
3													
4													
5													
6													
7													
8													
9													
10													

RELINQUISHED 11/6/98 1217	RECEIVED Maine Tarantino 11-6-98 1220PM	RELINQUISHED DATE TIME	RECEIVED DATE TIME
RELINQUISHED DATE TIME	RECEIVED DATE TIME	RELINQUISHED DATE TIME	RECEIVED DATE TIME

COMMENTS:

PAGE OF

JG956198

C: GRB, CO, DWT
2043-10F
2043-08F

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client:		Project #: 2043-08/10	Initials: DWT
Job Location: Scholler		Date: 2/22/99	Weather: Sunny, 20°
Site Address: Collins St			
Equipment: Gen, Generators, GW Sampling Gear			
Equipment Calibration: Model:			
PID/FID: Gas/Lot #:		Gas ppm =	Instrument ppm =
pH Meter: 4.0 =	7.0 =	10.0 =	Meter Reading (7.0):
H & S: Hospital Name:			
Location:		Number:	
Ambulance Number:		Police Number:	
Explosive Atmosphere/Conditions:		Yes	No
Utility Clearance Serial #: N/A		Client Approval (On Site Utilities)	Name / Date/Time
Drums on Site: No	Yes/#	Soil Pile: No	Yes/Size

Field Activity:

10:30 Load gear, pick up bottles, mobilize to site.
12:30 Arrive on site. Dogs not locked up. Contacted OJ, & proceeded w/ GW Sampling.
3:00 Completed GW Sampling. Entered bldg & locked & retrieved compressor to our Separator Room. Reconnected valves & fittings to restore function to compressor. Assembled new hoses & fittings onto pump. Installed pump, submerged to bottom of well. Bottom at ~29', intake at ~26'. Installed/refitted couplings @ wellhead. Tested system. System began pumping oil. Fitting bleed @ wellhead, will return 2/23 to replace & follow pump cycles through.
5:30 Left site for office.

Comments:
OJ Phone # (215) 425-1720

Signature: _____

F:\LOTUS\123R24\FORMS\000006

RT Environmental
Groundwater Sampling
Summary Sheet

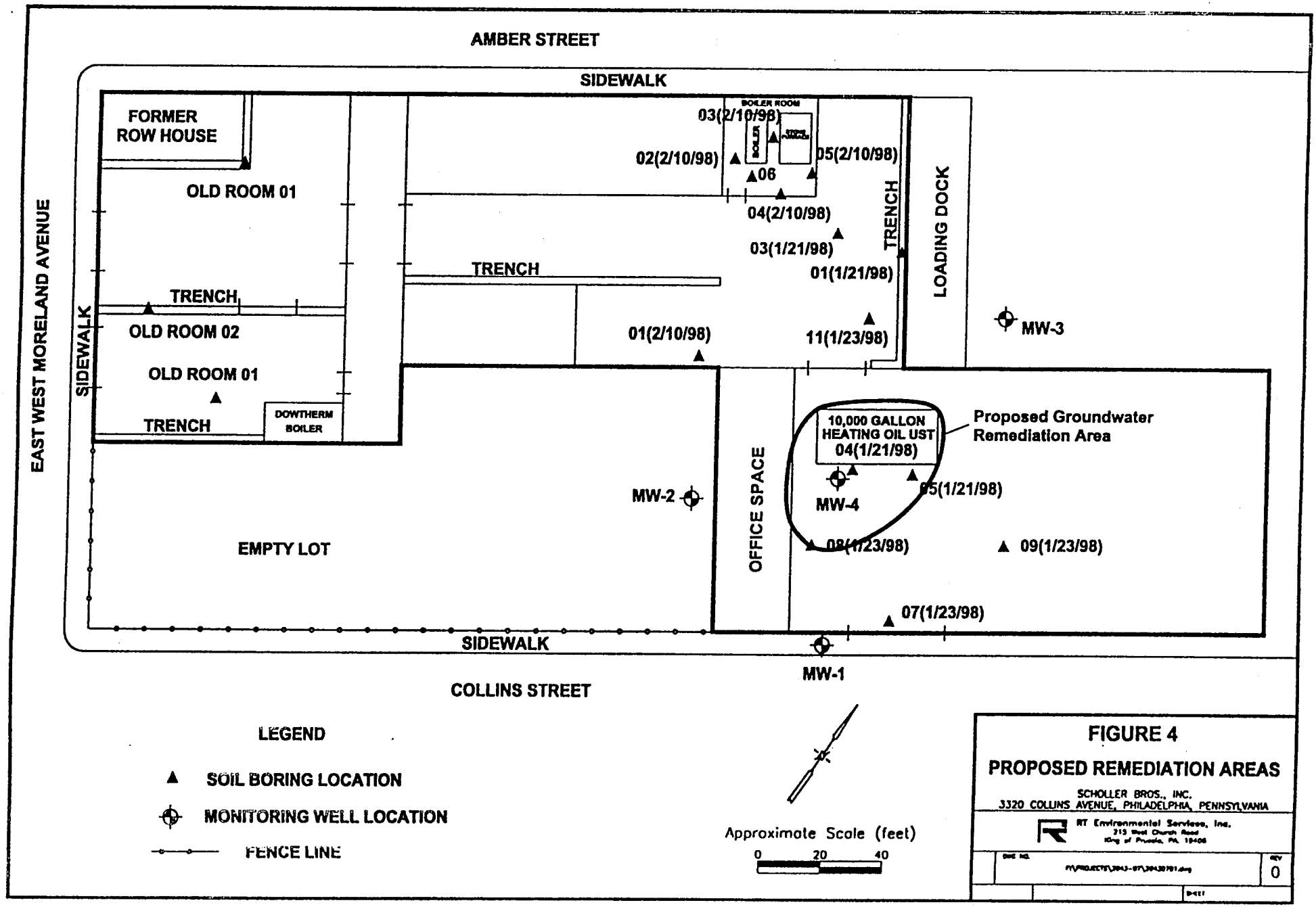
Date: 2/22/99 Client
Weather: Sunny, 20° Site Location Schuller - Collins St

Job #: 2043-08
Crew: BMT

Well Number	Depth to Water (ft.)	Total Well Depth (ft.)	Water Column (ft.)	Purge Volume (gal.)	Start Purging / End Purging (time)	Total Volume Purged (gal)	Purge Rate (gpm)	Time Sampled	Meter Readings: pH	Cond.	DO	Temp	Comments
MW-1 (2" well)	15.27	28.30	13.03 (2 gal)	6 gal	1314 / 1330	26	2/1	1330					10 min @ 2gpm, 5@ 1gpm. Orange, turbid, cleared somewhat for sampling.
MW-2 (")	14.37	28.50	14.13 (2.3 gal)	7 gal	1400 / 1410	20	2	1410					Very orange, turbid @ first, cleared quickly
MW-3 (")	17.53	21.91	4.38 (0.7 gal)	3 gal	1435 / 1450	15	1	1450					Orange, turbid. Cleared slowly.

Water Analyzer Not working.

2/3


AMBER STREET
SIDEWALK
EAST WEST MORELAND AVENUE
FORMER ROW HOUSE
OLD ROOM 01
TRENCH
OLD ROOM 02
OLD ROOM 01
TRENCH
DOWTHERM BOILER
SIDEWALK
EMPTY LOT
BOILER ROOM
BOILER
03(2/10/98)
02(2/10/98)
05(2/10/98)
06
04(2/10/98)
03(1/21/98)
01(1/21/98)
TRENCH
TRENCH
01(2/10/98)
11(1/23/98)
LOADING DOCK
MW-3
10,000 GALLON HEATING OIL UST
04(1/21/98)
Proposed Groundwater Remediation Area
MW-2
MW-4
05(1/21/98)
OFFICE SPACE
08(1/23/98)
09(1/23/98)
07(1/23/98)
SIDEWALK
MW-1
COLLINS STREET
LEGEND
SOIL BORING LOCATION
MONITORING WELL LOCATION
FENCE LINE
Approximate Scale (feet)
0 20 40
FIGURE 4
PROPOSED REMEDIATION AREAS
SCHOLLER BROS., INC.
3320 COLLINS AVENUE, PHILADELPHIA, PENNSYLVANIA
RT Environmental Services, Inc.
0

GLA LABORATORIES
1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

CHAIN OF CUSTODY REPORT

Client: RT Environmental Services, Inc.
Address: 215 W Church Rd
KOP PA 19406
Report to: C. Ozechowski
Phone #: (610) 265-1570
Fax #: (610) 265-0687
Project: 2043-08
Sampler: DWT
PO/Quote #: 2043-08-01

Bill To: Same
Address:
State & Program: PA Low Risk
Phone #: ( )
Fax #: ( )

TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.
DATE RESULTS NEEDED: 3/1/99
TEMPERATURE UPON RECEIPT:
AIR BILL NO.

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	PA #4 Fuel 0.1	PA #2 Fuel 0.1	SAMPLE CONTROL: CRACKED/BROKEN	ANALYSES REQUESTED	SEALED	GOOD CONDITION	LABORATORY ID NUMBER
1	MW-1	2/22/99	1330	Aq	Ice & HNO3	5	40 ml 1 l	X	X					9021521
2	MW-2	"	1410	"	"	5	"	X	X					9021522
3	MW-3	"	1450	"	"	5	"	X	X					9021523
4														
5														
6														
7														
8														
9														
10														

RELINQUISHED	DATE/TIME	RECEIVED	DATE/TIME	RELINQUISHED	RECEIVED
[signature]	2-23-99 1305	[signature]	2-23-99 1305		
RELINQUISHED		RECEIVED		RELINQUISHED	RECEIVED

COMMENTS: Run for all parameters listed for PA #2 and #4 Fuel 0.1.

PAGE 1 OF 1

TOTAL P.01

610 337 9939 P.01/01

GLA LABS

APR-02-1999 15:56

C: GRB, CO, DWT
2043-10C

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client:	Project #: 2043-10;	Initials: DWT
Job Location: Scholler	Date: 2/23/99	Weather: cloudy, 25°
Site Address: Collins, St, Phila.		
Equipment:		
Equipment Calibration: Model:		
PID/FID: Gas/Lot #:	Gas ppm =	Instrument ppm =
pH Meter: 4.0 = 7.0 =	10.0 =	Meter Reading (7.0):
H & S: Hospital Name:		
Location:	Number:	
Ambulance Number:	Police Number:	
Explosive Atmosphere/Conditions:	Yes	No
Utility Clearance Serial #:	Client Approval (On Site Utilities)	Name / Date/Time
Drums on Site: No	Yes/#	Soil Pile: No / Yes/Size

Field Activity:

2:30 Arrived on site w/ replacement fittings. Dog not locked up.

3:00 Entered & replaced fittings @ wellhead. Restarted pump. Now flow of oil only.

4:30 Left site for office. Explained to Oji how to shut down system if emergency or malfunction.

Comments: Recommend check up on system operation by end of week.

Signature: _____

Page 1 of 1

F:\LOTUS\123R24\FORMS\000006

CO
GRB
File

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client:	Project #: 2043-06	Initials: LB + CO
Job Location: Phila, PA	Date: 4/7/99	Weather: Sunny ~70°
Site Address: Collins		
Equipment: ~~C~~ Barlus, IFan Probe, Level D safety		
Equipment Calibration: Model:		
PID/FID: Gas/Lot #:	Gas ppm =	Instrument ppm =
pH Meter: 4.0 = 7.0 =	10.0 =	Meter Reading (7.0):
H & S: Hospital Name:		
Location:		Number:
Ambulance Number:		Police Number:
Explosive Atmosphere/Conditions:		Yes No
Utility Clearance Serial #:	Client Approval (On Site Utilities)	Name Date/Time
Drums on Site: (No)	Yes/#	Soil Pile: (No) Yes/Size

Field Activity:

1000 on site 14.35 - Depth to top of Product
Unable to determine product thickness

1020 Oogi on site. to open doors

1050 begin bailing
bailed apprx 5 gallons of product + did not reach water

Pulled pump to be repaired

1330 left site

Oogi 426-6510

Comments:

Signature: _____

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GRB
CO
File

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client: Karl Van Dr Schwarz Jr	Project #: 2043-08	Initials: CRS
Job Location: Phila.	Date: 6/10/99	Weather: 70's
Site Address: 4220 Collins		
Equipment: GW sampling		
Equipment Calibration: Model:		
PID/FID: Gas/Lot #:	Gas ppm =	Instrument ppm =
pH Meter: 4.0 = 7.0 =	10.0 =	Meter Reading (7.0):
H & S: Hospital Name:		
Location:		Number:
Ambulance Number:		Police Number:
Explosive Atmosphere/Conditions:		Yes No
Utility Clearance Serial #:	Client Approval (On Site Utilities)	Name Date/Time
Drums on Site: No	Yes/#	Soil Pile: No Yes/Size

Field Activity:

1130 - on site
opened gates - tried to find MW2. Oji came over & helped me look. Could not find it because weeds were to thick
~~1300~~. had Oji tie up dog
1300 ~~Set up on MW1~~ DTW @ Both wells
Oji fixed garage door to get van through
1330 Set up on MW3
1339 Began Purging MW3
1342 Finished Purging MW3
1345 ~~Sampled~~ Began Sampling MW3 - sampled w/ bailer
1415 Set up on MW1
1422 Began Purging MW1
1428 Finished Purging MW1
1430 Began Sampling MW1 - sampled w/ bailer
Packed up equpt. & left site
1450 - off site

Comments:

Signature: _____

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RT Environmental
Groundwater Sampling
Summary Sheet

Date: 6/10/99 Client: Karl VonDe Schmadz, Jr. Job #: 2043-08
Weather: Sunny 70's Site Location: 3220 Collins St Crew: LQB

Well Number	Depth to Water (ft.)	Total Well Depth (ft.)	Water Column (ft.)	Purge Volume (gal.)	Start Purging / End Purging (time)	Total Volume Purged (gal)	Purge Rate (gpm)	Time Sampled	Meter Readings pH	Cond.	DO	Temp	Comments
MW1	15.12	28.30	13.18	2	~~1422~~ 1428	6	1gpm	1430 ~~1435~~					very turbid - tan color - fishy & petroll
MW3	17.32	21.91	4.59	.9	1342	3	1gpm	1345					Very turbid - tan odor

28.30 − 15.12 = 3.18

21.91 − 17.32 = 4.59

GLA LABORATORIES

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

CHAIN OF CUSTODY REPORT

610 337 9939 P.02/02
JUN-15-1999 09:36 GLA LABS
TOTAL P.02

Client: RT	Bill To: RT
Address: 215 W. Church Rd. KOP, PA 19406	Address: 215 W. Church Rd. KOP, PA 19406
Report to: Chris O. Phone #: (610) 265-1510 Fax #: (610) 265-0688	State & Program: PADEP Phone #: (610) 265-1510 Fax #: (610) 265-0688
Project: Scholler, 2043-08	
Sampler: Laura Brott	
PO/Quote #: 2043-08-01	

TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.
DATE RESULTS NEEDED: 6/18/99
TEMPERATURE UPON RECEIPT: _____
AIR BILL NO. _____

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	TCL Full VOA	TAL Full VOA	SAMPLE CONTROL: CRACKED/BROKEN	ABSORBENT	SEALED	GOOD CONDITION	LABORATORY ID NUMBER
1	MW1	6/10	1430	Aq	HCl	5	2 Amb 3 VOA	✓	✓				✓	9060609
2	MW3	6/10	1345	Aq	HCl	5	2 Amb 3 VOA	✓	✓				✓	9060610
3														
4														
5														
6														
7														
8														
9														
10														

RELINQUISHED 6/11 1306	RECEIVED C. Burgos 6/11/99 1400	RELINQUISHED	RECEIVED
RELINQUISHED	RECEIVED	RELINQUISHED	RECEIVED

COMMENTS:

PAGE OF

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RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client: VanDenSchmitz, JT	Project #: 2403-08	Initials: LQB
Job Location: Phila.	Date: 4/15/99	Weather: Sunny, 80's
Site Address: 3220 Collins		
Equipment: GW sampling		
Equipment Calibration: Model:		
PID/FID: Gas/Lot #:	Gas ppm =	Instrument ppm =
pH Meter: 4.0 = 7.0 =	10.0 =	Meter Reading (7.0):
H & S: Hospital Name:		
Location:		Number:
Ambulance Number:		Police Number:
Explosive Atmosphere/Conditions:		Yes No
Utility Clearance Serial #:	Client Approval (On Site Utilities)	Name Date/Time
Drums on Site: No	Yes/#	Soil Pile: No Yes/Size

Field Activity:

1039 - left office
1130 on site. C.O. already on site located well
1134 DTW
1143 begin pursing
1151 Finish pursing + sample decon/pack equipt.
1206 - Finish packing up / close gate
1209 off site

Comments:

Signature: _____ Page 1 of 1

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RT Environmental
Groundwater Sampling
Summary Sheet

Date: 6/15 Client Van Den Schmalz Jr Job #: 2407-08
Weather: warm, clear Site Location 3320 E Collins Crew: LQB

Well Number	Depth to Water (ft.)	Total Well Depth (ft.)	Water Column (ft.)	Purge Volume (gal.)	Start Purging / End Purging (time)	Total Volume Purged (gal)	Purge Rate (gpm)	Time Sampled	Meter Readings pH	Cond.	DO	Temp	Comments
MW2	14.25	28.46	14.21	2.6	1143 1151	8	1	1151					Brown, turbid

GLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT Env.	Bill To: RT	TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.	
Address: 215 W. Church Rd	Address: 215 W. Church Rd	DATE RESULTS NEEDED: 6/22	
KOP, PA 19406	KOP, PA 19406	TEMPERATURE UPON RECEIPT:	
Report to: Laura B. Gulso. Phone #: (610) 265-1510 Fax #: (610) 265-0012	State & Program: PADEP Phone #: (610) 265-1510 Fax #: (610) 265-0012	AIR BILL NO.	
Project: Schlick 2403-08			
Sampler: Laura Brod			
PO/Quote #: 2403-08-01			

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	FILTER FIELD (Y/N)	FILTER LAB (Y/N)	ANALYSIS TYPE	SAMPLE CONTROL: CRACKED/BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW2	6/15	1151	Aq	HCl	5	3 Amber 3 VOA	✓						
2														
3														
4														
5														
6														
7														
8														
9														
10														

RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME	RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME
[signature]	6/15 1615	[signature]	6/15/22 1615				
RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME	RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME

COMMENTS:

PAGE OF

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RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client: Karl Van der Schmalz Jr.	Project #: 2043-018		Initials: LQB
Job Location: Collins St., Phila.	Date: 9/23/99		Weather: ~75°
Site Address: 3320 Collins			
Equipment: GW sampling			
Equipment Calibration: Model:			
PID/FID: Gas/Lot #:	Gas ppm =		Instrument ppm =
pH Meter: 4.0 = 7.0 =	10.0 =		Meter Reading (7.0):
H & S: Hospital Name:			
Location:		Number:	
Ambulance Number:		Police Number:	
Explosive Atmosphere/Conditions:		Yes	No
Utility Clearance Serial #: NA	Client Approval (On Site Utilities)	~~NA~~	
		Name	Date/Time
Drums on Site: (No)	Yes/#	Soil Pile: (No)	Yes/Size

Field Activity:

1000 · On site. MW-2 has been covered w debris (concrete blocks, rocks, dirt, burnt boards, bricks etc...)
Called Ouji to let him know to come to site & let me in.
Called Osca to tell C.O. condition of site.
1010 · Ouji on site to let me in bldg. Set up @ MW-3
DTW @ MW-1 & MW-3

1049 Begin purging MW-3
1051
1123 · Set up @ MW-1
~~1200 Off site.~~
1133 Begin purging MW-1
1140 Stop purging & sample MW-1. decon-ppt.
1203: Off site

Comments:

Signature: _____

Page 1 of 1

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RT Environmental
Groundwater Sampling
Summary Sheet

Date: 9/23/99
Weather: 75°
Client: VanDe. Schmatz, Jr.
Site Location: Collins St., Phila.
Job #: 2043-08
Crew: LAB

Well Number	Depth to Water (ft.)	Total Well Depth (ft.)	Water Column (ft.)	Purge Volume (gal.)	Start Purging / End Purging (time)	Total Volume Purged (gal)	Purge Rate (gpm)	Time Sampled	Meter Readings: pH	Cond.	DO	Temp	Comments
MW-3	16.48	21.91	5.43	.9	1049 1051	3	1	1059					brown. turbid H2O w/ slight petrol odor
MW-1	14.32	28.30	13.98	~2.3	1133 1140	7	1	1140					manhole full of water. little white worms in well. Brownish-red, Turbid. Strong odor

GLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT Env. Svc. Inc.	Bill To: RT Env. Svc., Inc.	TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.
Address: 215 W Church Rd	Address: 215 W. Church Rd.	DATE RESULTS NEEDED: 9/30/99
KOP, PA 19406	KOP, PA 19406	TEMPERATURE UPON RECEIPT:
Report to: Chris C. Phone #: (610) 265-1510 Fax #: (610) 265-0607	State & Program: PADEP Phone #: (610) 265-1510 Fax #: (610) 265-0607	AIR BILL NO.
Project: 2043-08 - Schaller		
Sampler: Lance Bish		
PO/Quote #: 2043-08-01		

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	PADEP #4 Fuel Oil	PADEP #2 Fuel Oil	ANALYSIS TYPE	SAMPLE CONTROL: CRACKED/BROKEN	SAMPLE CONTROL: IMPROPERLY SEALED	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW-1	9/23	1140	Aq	HCl	5	2 Amb 3 VOA	✓	✓					
2	MW-3	9/23	1051	Aq	HCl	5	2 Amb 3 VOA	✓	✓					
3														
4														
5														
6														
7														
8														
9														
10														

RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME	RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME
[illegible]	9/23/99	X3.14 [illegible]	9/23/99				
RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME	RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME

COMMENTS:

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File

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client: Scholler	Project #: 7043-08	Initials: LQB
Job Location: Scholler	Date: 12/17/99	Weather: Clear, 50's
Site Address: Collins St. Phila		
Equipment: GW Samp, truck, generator		
Equipment Calibration: Model:		
PID/FID: Gas/Lot #:	Gas ppm =	Instrument ppm =
pH Meter: 4.0 = 7.0 =	10.0 =	Meter Reading (7.0):
H & S: Hospital Name:		
Location:	Number:	
Ambulance Number: 911	Police Number: 911	
Explosive Atmosphere/Conditions:	Yes (No)	
Utility Clearance Serial #: N/A	Client Approval (On Site Utilities) N/A	Name Date/Time
Drums on Site: (No)	Yes/#	Soil Pile: (No) Yes/Size

Field Activity:

10:50 : on site . Set up @ MW-#3
11:14 : Begin Purging MW-3
11:26 Stop purging / Sample MW-3

11:55 : Set up on MW-1
12:04 - Begin purging MW-1
12:19 Sto purging, sample MW-1

Comments:

Signature: _____

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RT Environmental
Groundwater Sampling
Summary Sheet

Date: 12/17
Weather: clear, 50's

Client Scholle
Site Location Scholler

Job #: 2043-08
Crew: LRB

Well Number	Depth to Water (ft.)	Total Well Depth (ft.)	Water Column (ft.)	Purge Volume (gal.)	Start Purging / End Purging (time)	Total Volume Purged (gal)	Purge Rate (gpm)	Time Sampled	Meter Readings pH	Meter Readings Cond.	Meter Readings DO	Meter Readings Temp	Comments
MW-3	—	21.91	5.5	1	11:14 / 11:26	3	.25	11:26					Slightly turbid, light brown color petrol. odor
MW-1	—	28.30	14	2.5	12:04 / 12:19	7.5	.5	12:19					Slightly turbid. Petrol odor. White bags in water

2

2843

GLA LABORATORIES

CHAIN OF CUSTODY REPORT

1008 W. NINTH AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
(610) 337-9992 FAX (610) 337-9939

Client: RT Env.	Bill To: RT Env.	TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.
Address: 215 W. Church Rd. KOP, PA 19406	Address: 215 W. Church Rd KOP, PA	DATE RESULTS NEEDED: 12/24/99
Report to: Chris O. Phone #: (610) 265-1510 Fax #: (610) 265-0687	State & Program: PADEP Phone #: (610) 265-1510 Fax #: (610) 265-0687	TEMPERATURE UPON RECEIPT: AIR BILL NO.
Project: Scholler		
Sampler: LAURA B.		
PO/Quote #: 2043-08-01		

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	#3 Filtered	#4 Filtered	ANALYSIS TYPE	SAMPLE CONTROL: CONTAINERS OK? (Y/N)	SAMPLE CONTROL: pH OK? (Y/N)	SAMPLE CONTROL: GOOD CONDITION	LABORATORY ID NUMBER
1	MW-3	12/17	1126	Aq	HCl	5	VOA	✓	✓					
					—	2	Amber							
2	MW-1	12/17	1219	Aq	HCl	3	VOA	✓	✓			—		
					—	2	Amber							
3														
4														
5														
6														
7														
8														
9														
10														

RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME	RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME
[illegible]	12/14/99 1730	Mark	12/15/99 1710				

COMMENTS:

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1-16

RT ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Client:	Project #: 2043-08	Initials: LaB
Job Location: Phila., PA	Date: 2/29/00	Weather: Sunny, Windy, 40°
Site Address: 3321 Collins St.		
Equipment: DTW meter		
Equipment Calibration: Model: N/A		
PID/FID: Gas/Lot #:	Gas ppm =	Instrument ppm =
pH Meter: 4.0 = 7.0 =	10.0 =	Meter Reading (7.0):
H & S: Hospital Name:		
Location:		Number:
Ambulance Number: 911		Police Number: 911
Explosive Atmosphere/Conditions:		Yes (No)
Utility Clearance Serial #: N/A	Client Approval (On Site Utilities)	N/A Name Date/Time
Drums on Site: (No)	Yes/#	Soil Pile: (No) Yes/Size

Field Activity:

12:00 On site. Attempt to locate MW-2.
leave site to call Ouji, let him know I am at site.
12:11 Return to site. Ouji arrives.
locate MW-2
Measure DTW. well is dry & has collapsed to 13.76'. Measure DTW @ MW-1.
12:36 Call office speak w/ C.O. & inform of condition of well. Decide not to sample
12:47 Measure DTW @ MW-3
decon meter & pack eqpt.
13:07 off site

Comments:

Signature: _____

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RT Environmental
Groundwater Sampling
Summary Sheet

Date: 2/29/00 Client
Weather: Sunny, 40's Site Location 3321 Collins St. Job #: 2043.01
Crew: LQB

Well Number	Depth to Water (ft.)	Total Well Depth (ft.)	Water Column (ft.)	Purge Volume (gal.)	Start Purging End Purging (time)	Total Volume Purged (gal)	Purge Rate (gpm)	Time Sampled	Meter Readings pH	Cond.	DO	Temp	Comments
MW-3	17.10	21.91											
MW-2	DRY	~~28.40~~ 13.76											well has collapsed to this depth
MW-1	14.85	28.30											

2 of 2

Appendix 3

MONITORING WELL SOIL CUTTING DISPOSAL MANIFESTS

STRAIGHT BILL OF LADING—SHORT FORM—ORIGINAL—NOT NEGOTIABLE

SHIPPER'S NO.

NAME OF CARRIER: REMTECH ENVIRONMENTAL LEWISBERRY, INC.

CARRIER'S NO.

DATE: 4-29-98

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading.

the property described below in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth-[1] in Uniform Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

FROM:
SHIPPER (ORIGIN): SCHOLLER, INC.
3320 COLLINS AVENUE
PHILADELPHIA, PA 19134

Pick-up Site:
SAME

EMERGENCY RESPONSE PHONE NO.: 215-739-0900

TO: REMTECH ENVIRONMENTAL LEWISBERRY, INC.
CONSIGNEE

STREET: 550 INDUSTRIAL DRIVE

DESTINATION: LEWISBERRY, PA 17339 ZIP

DELIVERING CARRIER

ROUTE: BEST AVAILABLE

VEHICLE NUMBER

NO. PACKAGES	* HM	KIND OF PACKAGE, DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	✓	CHARGES (FOR CARRIER USE ONLY)
6 D M		NON DOT/EPA REGULATED SOLID #4 FUEL OIL AND SOIL	2640 P			
		a. 132360-A-LD, ERG# RNC #503				

REMIT C.O.D. TO:
RECEIVED BY [signature] 5-1-98
On behalf of REMTECH ENVIRONMENTAL LEWISBERRY, INC.

COD Amt. $

C.O.D. FEE:
☐ Prepaid
☐ Collect $

"If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight". N/A

†Shipper's imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission. N/A

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding
$ N/A per

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
N/A
(Signature of Consignor)

TOTAL CHARGES $ N/A

Freight charges are PREPAID unless marked collect. ☐ Check box if charges are Collect.

"This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation".

SCHOLLER, INC.
Permanent post office address of shipper

Shipper, Per [signature] Agent, or Driver Charles Willey

* MARK WITH "X" TO DESIGNATE HAZARDOUS MATERIAL AS DEFINED IN TITLE 49 OF FEDERAL REGULATIONS.

When transporting hazardous materials include the technical or chemical name for n.o.s. (not otherwise specified) or generic description of material with appropriate UN or NA number as defined in US DOT Emergency Response Communication Standard (HM-126C) Provide emergency response phone number in case of incident or accident.

1

R01B1

OCT-26-2000 14:36 CYCLE CHEM INC 1 717 938 3301 P.03
TOTAL P.03

NVIRONMENTAL SERVICES, INC.

RECORD OF TELEPHONE CONVERSATION

Route: _____

File: _____

Date: 4-24-98 Time: 4:30 PM Job No.: 2043-16

Subject: REMTECH'S COST QUOTE FOR SCHOLLER DRUM DISPOSAL

Call Placed By: A. POTTER Of: REMTECH

To: DAVE COYNE Of: RT

Notes: COST QUOTE, DRUM DISPOSAL AT SCHOLLER:

$80/drum × 6 = $480.00

$50 LAB FEE = $ 50.00

TRANSPORTATION = $300.00

$830.00

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Signature:

.ONMENTAL SERVICES, INC.

CC: DSC
RM
Accts

e Order No: 2043-16-01

d By: D. COYNE

Fax: Yes / No
Date: 4/28
By: MA

ıg Address: RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406
(610) 265-1510 FAX: (610) 265-0687

ɔping Address: SAME

ɔject Name: SCHOLLER DRUM DISP.

·oject No.: 2043-16

endor: RGMTECH GROUP
550 INDUSTRIAL DRIVE
LEWISBERRY, PA 17339-9537
(717)-938-4700 / FAX (717)-935-3301

Invoicing Instructions:

2 Copies to Project Manager (Above Address)
1 Copy marked "Copy Not For Payment" to:
Work shall be as described in Vendor's Proposal Dated 4/26/98, attached
or as described below:

COLLECTION AND DISPOSAL OF 6 DRUMS CONTAINING NO. 4 FUEL OIL AS VERBALLY QUOTED BY A. POTTER AND SPECIFIED ON ATTACHED SHEET.

Not to Exceed Total ---------- $ 830.00

RT Authorization By: Robert K Mahn 4/28/98

Terms Accepted By Subcontractor:

Date:

F:\Lotus\123R24\Forms\000010.WK1

SAME TERMS & CONDITIONS AS P.O. # 1298-01-04.

form part of this agreement (CIRCLE): A B C D E F G H

RT Environmental Services, Inc.

Mr. Karl Vonder Schmalz, Jr.
Scholler, Inc.
3320 Collins Street
Philadelphia, PA 19134
(215) 739-0900 fax (215) 739-0900

April 27, 1998

RE: REVISED PROPOSAL FOR DRILL CUTTING DISPOSAL
SCHOLLER, INC. FACILITY, 3320 COLLINS STREET, PHILADELPHIA, PA
RT PROPOSAL #5007A

Dear Mr. Vonder Schmalz:

RT Environmental Services, Inc. (RT) is pleased to provide this revised proposal for the transportation and disposal of six drums of soil cuttings generated during the installation of the monitoring wells at the above referenced site.

Prior to disposal of the cuttings, RT will conduct a "due diligence" review of the proposed disposal facility, obtain Scholler's approval of the disposal facility, and submit the necessary disposal paperwork for Scholler's signature. The disposal contractor has indicated that waste classification analyses will not be needed; "Generator (Scholler) knowledge" as to the source of contamination (#4 fuel oil) will be adequate. To minimize costs, we have assumed Scholler personnel will be on site to supervise drum load-out and sign necessary paperwork, RT will not be on-site during load-out.

The cost for the transportation and disposal of the six drums of soil drill cuttings, including completing all necessary paperwork, is estimated not-to-exceed $1,092. Work will be conducted under the same term and conditions as agreed upon for previous work conducted by RT at the site.

RT appreciates the opportunity to be of further service to Scholler, Inc. Please feel free to call with any questions you may have.

Very truly yours,
RT ENVIRONMENTAL SERVICES, INC.

Michael Gonshor, P.G.
Senior Hydrogeologist

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P.S. Please sign below and return a copy of this proposal to act as your authorization.

Authorized By

Date

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

RT Environmental Services, Inc.

Mr. Karl Vonder Schmalz, Jr.
Scholler, Inc.
3320 Collins Street
Philadelphia, PA 19134
(215) 739-0900 fax (215) 739-0905

April 23, 1998

RE: PROPOSAL FOR DRILL CUTTING DISPOSAL
SCHOLLER, INC. FACILITY, 3320 COLLINS STREET, PHILADELPHIA, PA
RT PROPOSAL #5007

Dear Mr. Vonder Schmalz:

RT Environmental Services, Inc. (RT) is pleased to provide this proposal for the transportation and disposal of six drums of soil cuttings generated during the installation of the monitoring wells at the above referenced site.

Prior to disposal of the cuttings, RT will conduct a "due diligence" review of the proposed disposal facility, obtaine Scholler's approval of the disposal facility, and prepare the necessary disposal paperwork for Scholler's signature. The disposal contractor has indicated that waste classification analyses will not be needed; "Generator (Scholler) knowledge" as to the source of contamination (#4 fuel oil) will be adequate.

The cost for the transportation and disposal of the six drums of soil drill cuttings, including completing all necessary paperwork, is estimated not-to-exceed $1,769. Work will be conducted under the same term and conditions as agreed upon for previous work conducted by RT at the site.

RT appreciates the opportunity to be of further service to Scholler, Inc. Please feel free to call with any questions you may have.

Very truly yours,

RT ENVIRONMENTAL SERVICES, INC.

Michael Gonshor, P.G.
Senior Hydrogeologist

F:\PROJECTS\9110-005\C07

P.S. Please sign below and return a copy of this proposal to act as your authorization.

Authorized By _____ Date _____

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

RT Environmental Services, Inc.

Mr. Karl Vonder Schmalz, Jr.
Scholler, Inc.
3320 Collins Street
Philadelphia, PA 19134
(215) 739-0900 fax (215) 739-0900

April 27, 1998

RE: REVISED PROPOSAL FOR DRILL CUTTING DISPOSAL
SCHOLLER, INC. FACILITY, 3320 COLLINS STREET, PHILADELPHIA, PA
RT PROPOSAL #5007A

Dear Mr. Vonder Schmalz:

RT Environmental Services, Inc. (RT) is pleased to provide this revised proposal for the transportation and disposal of six drums of soil cuttings generated during the installation of the monitoring wells at the above referenced site.

Prior to disposal of the cuttings, RT will conduct a "due diligence" review of the proposed disposal facility, obtain Scholler's approval of the disposal facility, and submit the necessary disposal paperwork for Scholler's signature. The disposal contractor has indicated that waste classification analyses will not be needed; "Generator (Scholler) knowledge" as to the source of contamination (#4 fuel oil) will be adequate. To minimize costs, we have assumed Scholler personnel will be on site to supervise drum load-out and sign necessary paperwork, RT will not be on-site during load-out.

The cost for the transportation and disposal of the six drums of soil drill cuttings, including completing all necessary paperwork, is estimated not-to-exceed $1,092. Work will be conducted under the same term and conditions as agreed upon for previous work conducted by RT at the site.

RT appreciates the opportunity to be of further service to Scholler, Inc. Please feel free to call with any questions you may have.

Very truly yours,
RT ENVIRONMENTAL SERVICES, INC.

Michael Gonsher, P.G.
Senior Hydrogeologist

F:\PROJECTS\9110-00\5007a

P.S. Please sign below and return a copy of this proposal to act as your authorization.

Authorized By _____ Date _____

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AGL.COM ■ Web Address http://www.RTENV.COM

Appendix 4

DEED RESTRICTION AREA OF EXCEPTION DOCUMENTS

RECEIVED
MAR 2 0 2001

Area of Exception – Scholler Brothers, Inc.
3320 Collins Street – Philadelphia, PA

All the certain parcel of land situate in the 45th Ward, City of Philadelphia, Commonwealth of Pennsylvania shown and described on a map number 2606 prepared for Scholler Brothers, Inc. by James M. Stewart, Inc., dated March 9, 2001.

BEGINNING at an interior point, said point being the follow two courses and distances from the point of intersection with the easterly side of East Westmoreland Street (60' wide) and the northerly side of Collins Street (40' wide) 1) along the northerly side of Collins Street in an easterly direction 195.14 feet to a point; 2) leaving said side of Collins Street in a northerly direction and perpendicular to Collins Street 24.26 feet to the point of beginning; thence in an easterly direction and parallel to Collins Street 29.21 feet and extending of that width in length or depth in a northerly direction and between parallel lines 26.65 feet.

Containing 749 square feet more or less

Appendix 5

ADDENDUM TO PADEP NON-USED AQUIFER STATUS APPROVAL LETTER - FATE AND TRANSPORT ANALYSIS (10/08/98) & REVISED FATE AND TRANSPORT PRINTOUTS

RT Environmental Services, Inc.

October 8, 1998

Mr. Walter Payne
Pennsylvania Department of Environmental Protection
555 North Lane, Suite 6010
Conshohocken, PA 19428

RE: REVISED FATE AND TRANSPORT ANALYSIS - SCHOLLER, INC. FACILITY
ADDENDUM TO AQUIFER-USE DETERMINATION REPORT DATED APRIL 16, 1998
SCHOLLER, INC., 3320 COLLINS AVENUE, PHILADELPHIA
PADEP ID # 1-51-0-27331
RT PROJECT 2043-08

Dear Mr. Payne:

RT Environmental Services, Inc. (RT) is pleased to submit this revised letter report summarizing the results of the fate and transport analysis for the above-referenced property. It should be noted that the original fate and transport analysis outlined in the September 22, 1998 addendum was conducted using a corrupted version of the model. Therefore the information contained herein reflects the revised fate and transport analysis using an uncorrupted version of model.

The transport modeling procedures were consistent with those presented in the September 22, 1998 addendum, except the bulk density which was changed from 1.4 to 1.8 and the effective porosity from 15% to 20%, per your request.

CALCULATED RESULTS

Groundwater quality data obtained from monitoring well MW-4 on February 23, 1998 were used for each modeling run. The groundwater data from this well was used as it historically demonstrated the highest concentrations, and is located within the source area . Table 1, below, summarizes the February 23, 1998 groundwater quality data for well MW-4 used in the modeling exercise.

Compound	Result (µg/l)
Benzene	120
Toluene	55
Ethylbenzene	22
Naphthalene	230
Cumene	3
Fluorene	ND
Phenanthrene	1,200
Chrysene	340
Pyrene	500

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E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

According to the modeling results, groundwater concentrations above the current MSCs will not extend beyond the prescribed 1,000 foot radius. In part, this is due to the nature of the contamination, which is from a heating oil release, a substance which contains compound which will not readily dissolve in groundwater. The most mobile compound modeled is benzene, and modeling results suggest over the thirty year time span benzene will be below its MSC of 5 µg/L approximately 780 feet downgradient of the source area. This is well within the prescribed 1,000 foot distance downgradient of the property boundary prescribed by Act 2. It should be noted that RT assumed degradation to be zero which significantly increases the transport distance. The QD model also assumes an infinite source, which is not the case for the property, as RT plans to actively remediate the source area.

The revised QD spreadsheets for each contaminant are included as Attachment A.

CONCLUSIONS

The modeling results coupled with quarterly monitoring data, suggests that groundwater contamination at the Scholler facility is limited in extent. The fate and transport of the contaminants of concern were quantified using the QD spreadsheet developed by PADEP. Results indicted that dissolved-phase contamination will not migrate more than 1,000 feet downgradient at concentration above the used-aquifer standards and therefore will not impact any sensitive receptors. In the two compliance point monitoring wells MW-1 and MW-2, groundwater quality data obtained over the past three quarters, have shown contaminant concentrations which were non-detect or below the current compound-specific used aquifer MSCs.

Based on the information presented herein, and in the previously approved Aquifer Use Determination letter report dated April 16, 1998, we believe the aquifer meets the PADEP Act 2 criteria for a Non-Used Aquifer under the Land Recycling regulations. These criteria include:

- No private water withdrawal wells located within 1,000 feet downgradient of the point of compliance.
- No public/municipal water supply wells or intakes are located within 0.5 mile radius of the downgradient point of compliance.
- The area is served by municipal water supply, and there are no known plans to add supply wells in the area of the site within 30 years.
- The compounds of concern will not migrate more than 1,000 feet downgradient of the point of compliance at concentrations above the used-aquifer MSC for a period of 30 years.

We therefore request confirmation of the previous PADEP approval that the non-used aquifer standards apply to the Scholler site at 3320 Collins Avenue, in Philadelphia, Pennsylvania.

Please feel free to contact me or Gary Brown, If you have any questions regarding this report.

Respectfully Submitted,

RT ENVIRONMENTAL SERVICES, INC.

Christopher Orzechowski
Hydrogeologist

c: Karl Vonder Schmalz, Jr.
Phillip Hinerman, Esq.
Gary Brown - RT
Michael Gonshor

ATTACHMENT A

MODELING OUTPUT DATA SHEETS

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Benzene				
	X						
SOURCE CONC (MG/L)	DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.12	1000	4.8	0.5	0.001	0	60	5

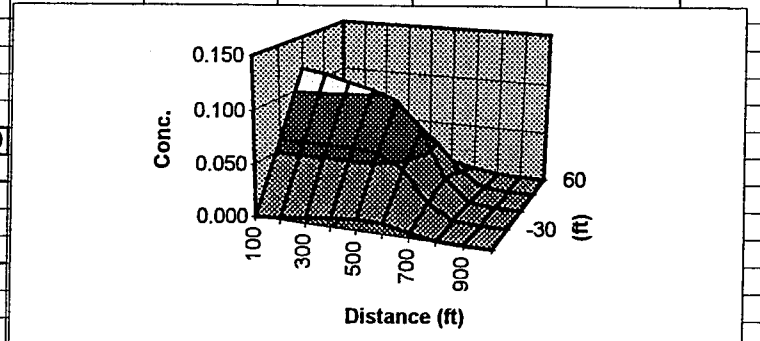
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.4	58	5.00E-03	3.03	0.059405941

	y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at	1000	0	0
at 10950 days			
0.000 mg/l			

AREAL MODEL CALCULATION DOMAIN	
Length (ft)	1000
Width (ft)	60

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DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation



	100	200	300	400	500	600	700	800	900	1000
60	0.000	0.002	0.005	0.008	0.010	0.010	0.004	0.001	0.000	0.000
30	0.060	0.060	0.060	0.060	0.058	0.044	0.016	0.002	0.000	0.000
0	0.120	0.116	0.110	0.104	0.096	0.069	0.024	0.002	0.000	0.000
-30	0.060	0.060	0.060	0.060	0.058	0.044	0.016	0.002	0.000	0.000
-60	0.000	0.002	0.005	0.008	0.010	0.010	0.004	0.001	0.000	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc				
		Contaminant:	Toluene				
	X						
SOURCE	DISTANCE T	Ax	Ay	Az	LAMBDA	SOURCE	SOURCE
CONC	LOCATION	(ft)	(ft)	(ft)		WIDTH	THICKNESS
(MG/L)	CONCERN (ft)			>=.001	day-1	(ft)	(ft)
0.055	1000	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.8	130	5.00E-03	6.85	0.026277372

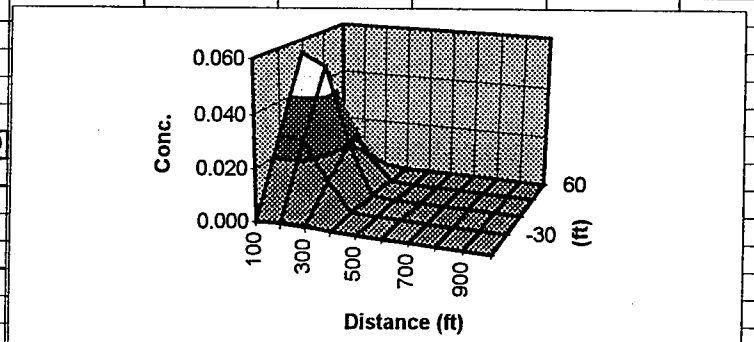
	y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at	1000	0	0
at	10950	days	
0.000	mg/l		

AREAL MODEL	CALCULATION DOMAIN
Length (ft)	1000
Width (ft)	60

	100	200	300	400	500	600	700	800	900	1000
60	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.027	0.026	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.055	0.051	0.021	0.001	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.027	0.026	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000

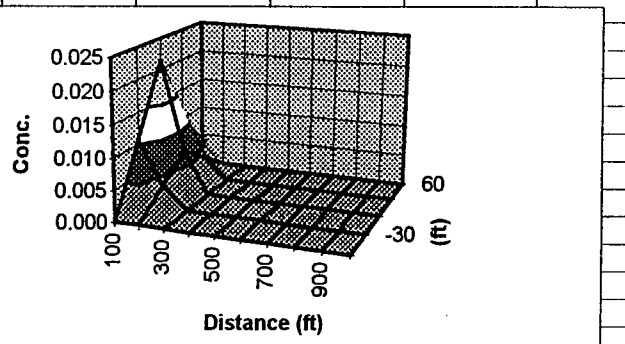
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P.A. Domenico (1987)
Modified to Include Retardation



ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Ethylbenzene				
	X						
SOURCE CONC (MG/L)	DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.022	1000	4.8	0.5	0.001	0	60	5
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.9	220	5.00E-03	10.9	0.016513761
	y(ft)	z(ft)	Time (days)				
1000	0	0	10950				

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Projected Conc. at	1000	0	0
at	10950	days	
0.000	mg/l		

AREAL MODEL CALCULATION DOMAIN

Length (ft)	1000
Width (ft)	60

	100	200	300	400	500	600	700	800	900	1000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.011	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.021	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.011	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Cumene				
	X						
SOURCE	DISTANCE T	Ax	Ay	Az	LAMBDA	SOURCE	SOURCE
CONC	LOCATION	(ft)	(ft)	(ft)		WIDTH	THICKNESS
(MG/L)	CONCERN (ft)			>=.001	day-1	(ft)	(ft)
0.003	1000	4.8	0.5	0.001	0	60	5

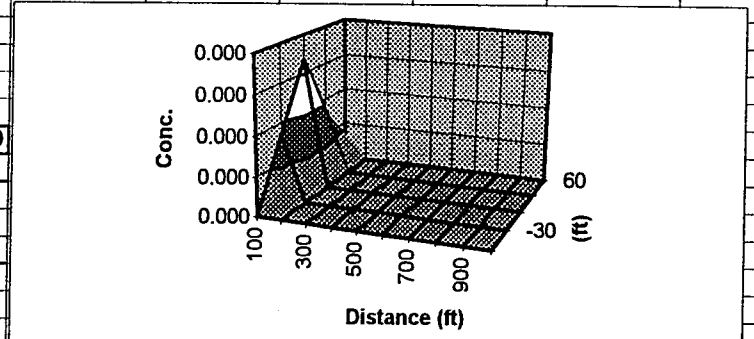
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.8	2800	6.00E-03	127	0.001417323

	y(ft)	z(ft)	Time (days)
	1000	0	0
			10950

Projected Conc. at		1000	0	0
at	10950	days		
0.000	mg/l			

AREAL MODEL	CALCULATION DOMAIN
Length (ft)	1000
Width (ft)	60

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	100	200	300	400	500	600	700	800	900	1000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project: Scholler

Date: 9/18/98 Prepared by: Chris Orzechowski - RT Environmental Services, Inc.

Contaminant: Naphthalene

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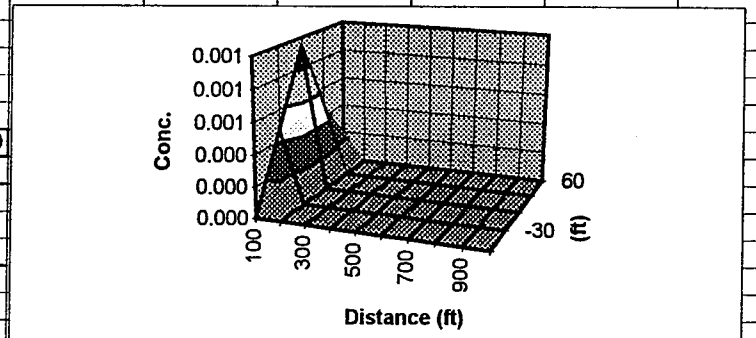
	X						
SOURCE CONC (MG/L)	DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.23	1000	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.8	950	5.00E-03	43.75	0.004114286

y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at 1000 0 0 at 10950 days

0.000 mg/l



AREAL MODEL CALCULATION DOMAIN

Length (ft) 1000

Width (ft) 60

	100	200	300	400	500	600	700	800	900	1000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Phenanthrene				
	X						
SOURCE CONC (MG/L)	DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
1.2	1000	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.8	38000	5.00E-03	1711	0.000105202

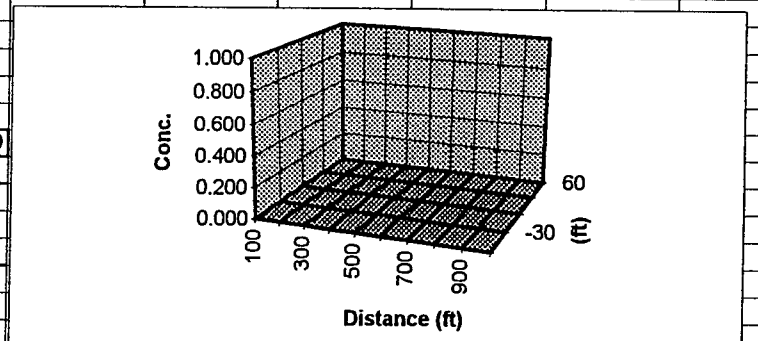
y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at 1000 0 0

at 10950 days

0.000 mg/l

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P.A. Domenico (1987)
Modified to Include Retardation



AREAL MODEL CALCULATION DOMAIN

Length (ft) 1000

Width (ft) 60

	100	200	300	400	500	600	700	800	900	1000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Chrysene				
	X						
SOURCE CONC (MG/L)	DISTANCE TO LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.34	1000	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retardation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.8	490000	5.00E-03	22051	8.1629E-06

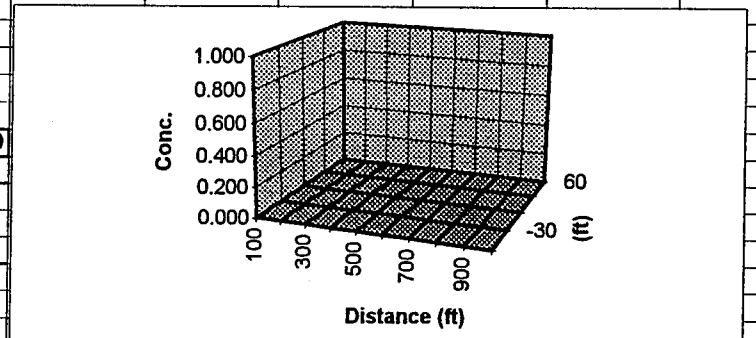
y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at 1000 0 0

at 10950 days

0.000 mg/l

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P.A. Domenico (1987)
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AREAL MODEL CALCULATION DOMAIN

Length (ft) 1000

Width (ft) 60

	100	200	300	400	500	600	700	800	900	1000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

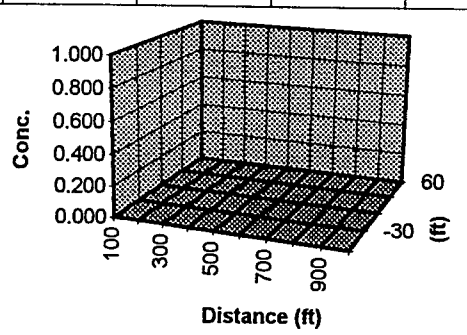
Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Pyrene				
	X						
SOURCE CONC (MG/L)	DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.5	1000	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.8	490000	6.00E-03	22051	8.1629E-06

PA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
SPREADSHEET APPLICATION OF
"AN ANALYTICAL MODEL FOR
MULTIDIMENSIONAL TRANSPORT OF A
DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

	y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at		1000	0	0
at	10950	days		
0.000	mg/l			



AREAL MODEL CALCULATION DOMAIN

Length (ft)	1000
Width (ft)	60

	100	200	300	400	500	600	700	800	900	1000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

RT Environmental Services, Inc.

September 22, 1998

Mr. Walter Payne
Pennsylvania Department of Environmental Protection
555 North Lane, Suite 6010
Conshohocken, PA 19428

RE: FATE AND TRANSPORT ANALYSIS - SCHOLLER, INC. FACILITY
ADDENDUM TO AQUIFER-USE DETERMINATION REPORT DATED APRIL 16, 1998
SCHOLLER, INC., 3320 COLLINS AVENUE, PHILADELPHIA
PADEP ID # 1-51-0-27331
RT PROJECT 2043-08

Dear Mr. Payne:

RT Environmental Services, Inc. (RT) is pleased to submit this letter report summarizing the results of the fate and transport analysis for the above-referenced property. The following letter report was prepared as addendum to the Aquifer Use Determination letter report prepared by RT dated April 16, 1998, previously submitted to and approved by the PADEP.

TRANSPORT MODELING

Transport modeling was conducted for the compounds of concern (benzene, toluene, ethylbenzene, cumene, naphthalene, phenanthrene, and pyrene) by using the procedures described in the PADEP Quick Domenico.xls (QD) , guidance document dated April 24, 1998. This method was used as it has been accepted by the PADEP to determine the transport and fate of contaminants in groundwater. The QD spreadsheet is based on an analytical model developed by P.A. Domenico.

The methods and input values used to determine the projected transport data are summarized below.

1. Using the equations provided in QD supporting document, the longitudinal dispersivity (Ax) was determined by dividing the plume length by 10 (value provided in the supporting documentation). The transverse dispersivity (Ay) was calculated by dividing the longitudinal dispersivity by 10 (value provide in the supporting documentation). A value of 0.001 (provided in the supporting documentation) was used for the vertical dispersivity (Az).

2. The compound-specific first order decay (lambda) values provided in Appendix A, Table 5, of the Act 2 regulations were not used. Rather, for the purpose of modeling the worst case scenario, a value of zero was substituted for lambda, effectively assuming no degradation.

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

3. Based on results from the soil boring program, which delineated the extent of phase-separated hydrocarbons (PSH), the areal extent of PSH was estimated to be 40 feet. For the purpose of modeling, a conservative source width of 60 feet was used. This distance was used as it is the straight line distance from the source to compliance-point monitoring well MW-2, which is consistently non-detect. A map illustrating the extent of phase-separated hydrocarbons is presented in Attachment A . During the soil boring program, PSH was observed to be approximately two feet thick, but for each modeling run, a conservative thickness of five feet was used.

4. The groundwater flow velocity beneath the site was calculated using the estimated hydraulic conductivity (K), porosity, and hydraulic gradient for the water-table aquifer. The K values were calculated based on site-specific, short-term pumping test conducted in monitoring well MW-2. Pumping test results and analysis are presented in Attachment B. The calculated K (18 ft/day) was compared to a published range of K values for silt to sand sized materials ("typical K values for consolidated and unconsolidated aquifers" from Groundwater and Wells [pg. 75], Driscoll 1986), and was found to be reasonable.

5. A site specific hydraulic gradient of 0.002 was used in the fate and transport modeling calculation spreadsheet. This hydraulic gradient was determined using the groundwater elevation contour map generated using groundwater elevations measured on February 23, 1998. A copy of this map is presented in Attachment A.

6. The retardation factor is determined by the model after inputting several values. A literature value 1.4 grams/cubic centimeter was used to quantify the soil bulk density. Since, no site specific fraction of organic carbon data is available, the default value of 0.005 presented in model documentation was used. The KOC value for each of the respective compounds was obtained from Appendix A, Table 5, of the Act 2 regulations.

7. The transport rate is calculated by the spreadsheet by dividing the groundwater flow velocity by the retardation factor.

8. The travel distance for the VOCs of concern to reach the PADEP Used Aquifer MSC is determined within the structure of the spreadsheet by multiplying the pollutant transport rate by the projected duration of 30 years (timeframe used when requesting non-use aquifer status).

CALCULATED RESULTS

Groundwater quality data obtained from monitoring well MW-4 on February 23, 1998 were used for each modeling run. The groundwater data from this well was used as it historically demonstrated the highest concentrations, and is located within the source area . Table 1, below, summarizes the February 23, 1998 groundwater quality data for well MW-4 used in the modeling exercise.

Compound	Result (µg/l)
Benzene	120
Toluene	55
Ethylbenzene	22
Naphthalene	230
Cumene	3
Fluorene	ND
Phenanthrene	1,200
Chrysene	340
Pyrene	500

According to the modeling results, groundwater concentrations above the current MSCs will not migrate off the property. In part, this is due to the nature of the contamination, which is from a heating oil release, a substance which contains compound which will not readily dissolve in groundwater. Benzene, however is a relatively mobile compound, and modeling suggests that benzene concentrations will be below its used-aquifer MSC of 5 µg/L 38.5 feet from the source area, and is within the property boundary. This is well within the prescribed 1,000 foot distance downgradient of the property boundary prescribed by Act 2.

The remaining transport runs exhibit similar patterns. QD spreadsheets for each contaminant are included as Attachment C.

CONCLUSIONS

The modeling results coupled with quarterly monitoring data, suggests that groundwater contamination at the Scholler facility is limited in extent. The fate and transport of the contaminants of concern were quantified using the QD spreadsheet developed by PADEP. Results indicted that dissolved-phase contamination above the current MSCs will not migrate off the property, and therefore will not impact any sensitive receptors. In the two compliance point monitoring wells MW-1 and MW-2, groundwater quality data obtained over the past three quarters, have shown contaminant concentrations which were non-detect or below the current compound-specific used aquifer MSCs.

Based on the information presented herein, and in the previously approved Aquifer Use

Determination letter report dated April 16, 1998, we believe the aquifer meets the PADEP Act 2 criteria for a Non-Used Aquifer under the Land Recycling regulations. These criteria include:

- No private water withdrawal wells located within 1,000 feet downgradient of the point of compliance.
- No public/municipal water supply wells or intakes are located within 0.5 mile radius of the downgradient point of compliance.
- The area is served by municipal water supply, and there are no known plans to add supply wells in the area of the site within 30 years.
- The compounds of concern will not migrate more than 1,000 feet downgradient of the point of compliance at concentrations above the used-aquifer MSC for a period of 30 years.

We therefore request confirmation of the previous PADEP approval that the non-used aquifer standards apply to the Scholler site at 3320 Collins Avenue, in Philadelphia, Pennsylvania.

Please feel free to contact me or Gary Brown, If you have any questions regarding this report.

Respectfully Submitted,

RT ENVIRONMENTAL SERVICES, INC.

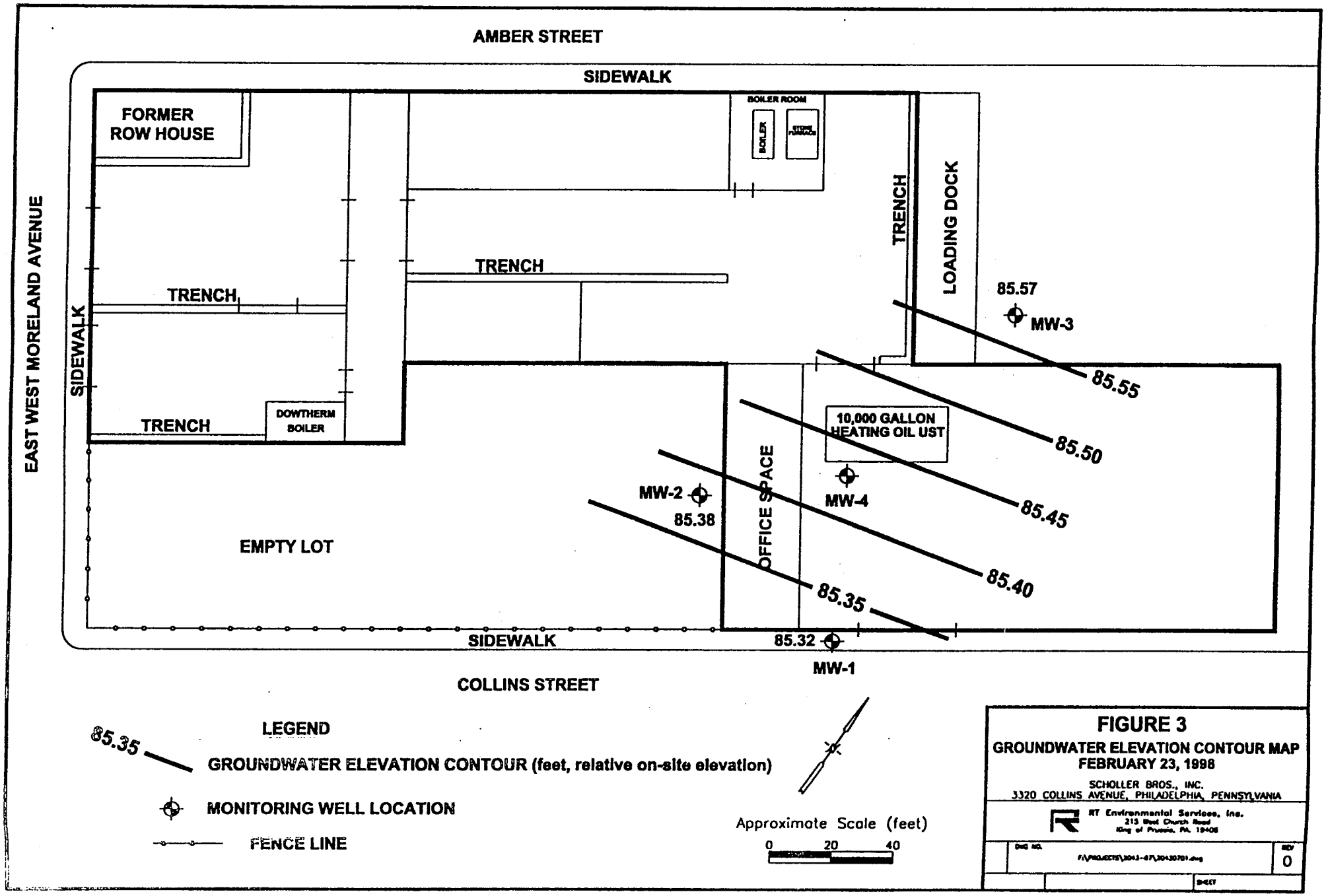
(seal)

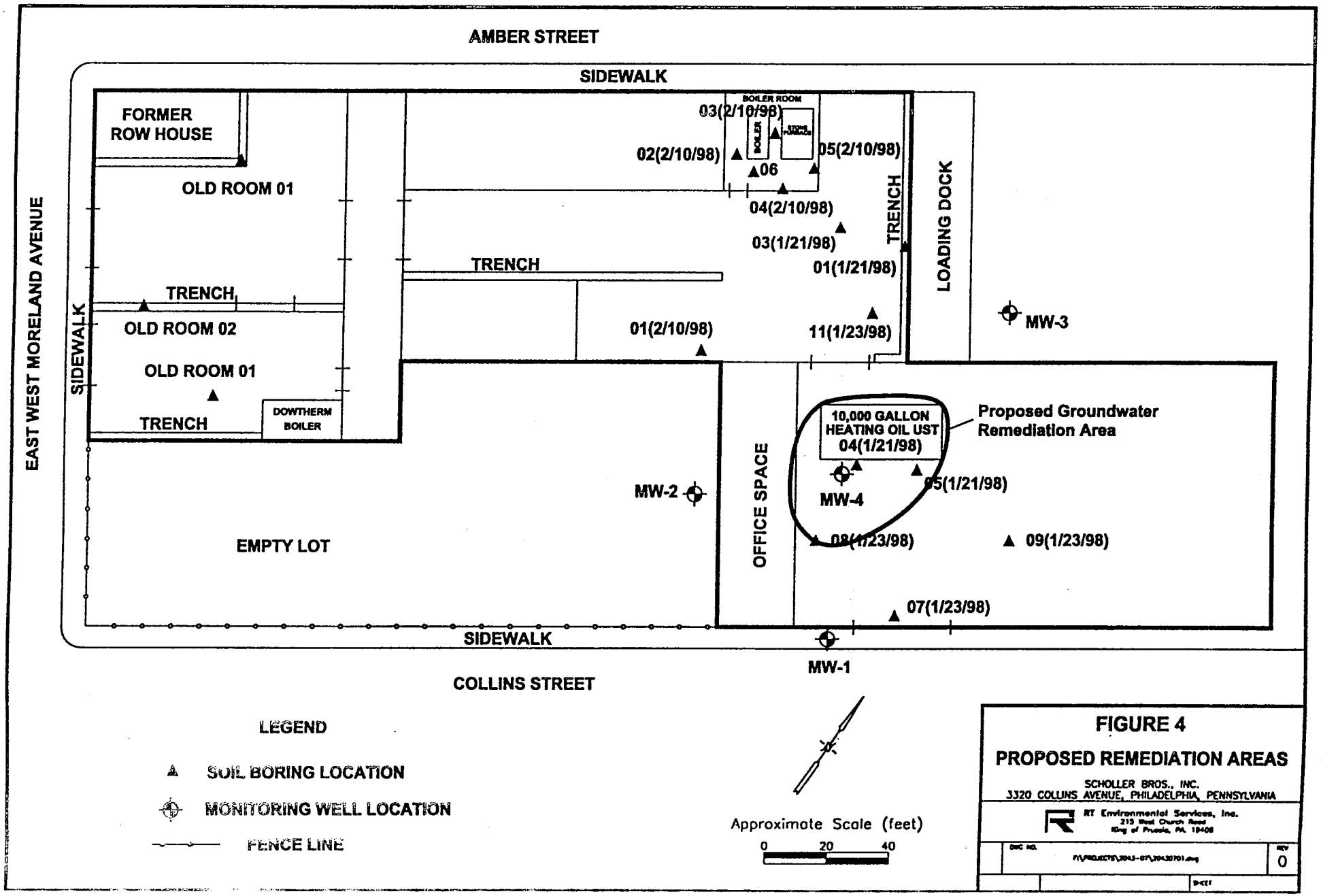
Michael Gonshor, P.G.
Senior Hydrogeologist
Pennsylvania Registered Professional Geologist
PG-000041-G(seal)

c: Karl Vonder Schmalz, Jr.
Phillip Hinerman, Esq.
Gary Brown - RT
Chris Orzechowski - RT

ATTACHMENT A

FIGURES

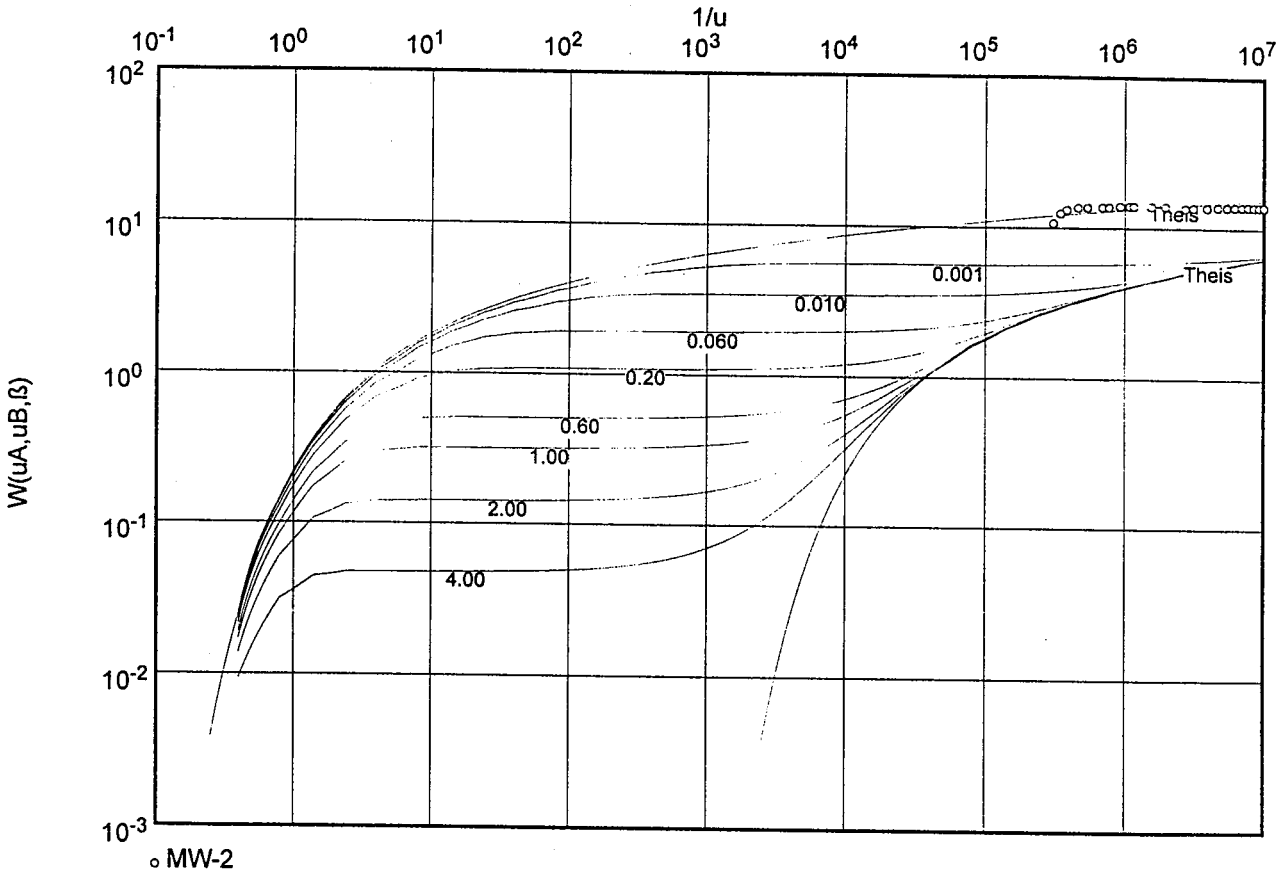

AMBER STREET
SIDEWALK
EAST WEST MORELAND AVENUE
FORMER ROW HOUSE
BOILER ROOM
BOILER
TRENCH
LOADING DOCK
TRENCH
TRENCH
SIDEWALK
85.57
MW-3
85.55
TRENCH
DOWTHERM BOILER
10,000 GALLON HEATING OIL UST
85.50
OFFICE SPACE
MW-2
85.38
MW-4
85.45
EMPTY LOT
85.40
85.35
SIDEWALK
85.32
MW-1
COLLINS STREET
LEGEND
85.35
GROUNDWATER ELEVATION CONTOUR (feet, relative on-site elevation)
MONITORING WELL LOCATION
FENCE LINE
Approximate Scale (feet)
0
20
40
FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
FEBRUARY 23, 1998
SCHOLLER BROS., INC.
3320 COLLINS AVENUE, PHILADELPHIA, PENNSYLVANIA
RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406
DWG NO.
REV
0
SHEET


AMBER STREET
SIDEWALK
EAST WEST MORELAND AVENUE
FORMER ROW HOUSE
OLD ROOM 01
TRENCH
OLD ROOM 02
SIDEWALK
OLD ROOM 01
TRENCH
DOWTHERM BOILER
EMPTY LOT
MW-2
BOILER ROOM
BOILER
03(2/10/98)
02(2/10/98)
05(2/10/98)
06
04(2/10/98)
03(1/21/98)
01(1/21/98)
TRENCH
TRENCH
01(2/10/98)
11(1/23/98)
LOADING DOCK
MW-3
10,000 GALLON HEATING OIL UST
04(1/21/98)
Proposed Groundwater Remediation Area
MW-4
05(1/21/98)
OFFICE SPACE
08(1/23/98)
09(1/23/98)
07(1/23/98)
SIDEWALK
MW-1
COLLINS STREET
LEGEND
SOIL BORING LOCATION
MONITORING WELL LOCATION
FENCE LINE
Approximate Scale (feet)
0 20 40
FIGURE 4
PROPOSED REMEDIATION AREAS
SCHOLLER BROS., INC.
3320 COLLINS AVENUE, PHILADELPHIA, PENNSYLVANIA
RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406
0

ATTACHMENT B

PUMPING TEST DATA AND AQUIFER ANALYSIS

RT Environmental Service, Inc. 215 W. Church Road King of Prussia, PA !9406 ph.(610) 265-1510	Pumping test analysis NEUMAN's method Unconfined aquifer with delayed watertable response	Date: 18.09.1998 Page 1 Project: Scholler Evaluated by: Christopher Orzechowski
Pumping Test No. 1		Test conducted on: 9/10/98
MW-2		
Discharge 4.00 U.S.gal/min		



Transmissivity [ft²/min]: 2.46×10^{-1}

Hydraulic conductivity [ft/min]: 1.23×10^{-2}

Aquifer thickness [ft]: 20.00

Storativity: 1.28×10^{5}

Specific yield: 1.28×10^{9}

thejhewkolaqsolhdqoihdoq

RT Environmental Service, Inc. 215 W. Church Road King of Prussia, PA !9406 ph.(610) 265-1510	Pumping test analysis NEUMAN's method Unconfined aquifer with delayed watertable response	Date: 18.09.1998	Page 3
		Project: Scholler	
		Evaluated by: Christopher Orzechowski	

Pumping Test No. 1	Test conducted on: 9/10/98
MW-2	MW-2
Discharge 4.00 U.S.gal/min	
Static water level: 14.0500 ft below datum	

	Pumping test duration [min]	Water level [ft]	Drawdown [ft]
2	1.0000	14.8800	0.8300
3	1.5000	14.9000	0.8500
4	2.0000	14.9000	0.8500
5	2.5000	14.9000	0.8500
6	3.0000	15.9000	1.8500
7	3.5000	14.9000	0.8500
8	4.0000	15.9000	1.8500
9	4.5000	16.2000	2.1500
10	5.0000	16.3100	2.2600
11	6.0000	16.3900	2.3400
12	7.0000	16.4000	2.3500
13	9.0000	16.4200	2.3700
14	10.0000	16.4200	2.3700
15	12.0000	16.4500	2.4000
16	14.0000	16.4500	2.4000
17	15.0000	16.4500	2.4000
18	20.0000	16.4500	2.4000
19	25.0000	16.4500	2.4000
20	30.0000	14.7700	0.7200
21	35.0000	16.3800	2.3300
22	40.0000	16.4000	2.3500
23	50.0000	16.4200	2.3700
24	60.0000	16.4400	2.3900
25	70.0000	16.4400	2.3900
26	80.0000	16.4500	2.4000
27	90.0000	16.4500	2.4000
28	100.0000	16.4600	2.4100
29	110.0000	16.4500	2.4000
30	120.0000	16.4500	2.4000
31	130.0000	16.4500	2.4000

ATTACHMENT C

MODELING OUTPUT DATA SHEETS

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project: Scholler

Date: 9/18/98 Prepared by: Chris Orzechowski - RT Environmental Services, Inc.

Contaminant: Benzene

PA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
SPREADSHEET APPLICATION OF
"AN ANALYTICAL MODEL FOR
MULTIDIMENSIONAL TRANSPORT OF A
DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

	X						
SOURCE CONC (MG/L)	DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.12	1000	4.8	0.5	0.001	0	60	5

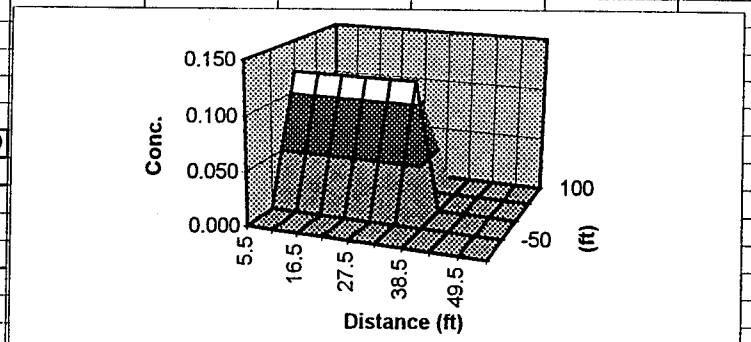
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.15	1.4	58	5.00E-03	3.706666667	0.064748201

	y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at 1000 0 0

at 10950 days

#NAME? mg/l



AREAL MODEL CALCULATION DOMAIN

Length (ft) 55

Width (ft) 100

	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
0	0.120	0.120	0.120	0.120	0.120	0.120	#NAME?	#NAME?	#NAME?	#NAME?
-50	0.000	0.000	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project: Scholler

Date: 9/18/98 Prepared by: Chris Orzechowski - RT Environmental Services, Inc.

Contaminant: Toluene

PA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
SPREADSHEET APPLICATION OF
"AN ANALYTICAL MODEL FOR
MULTIDIMENSIONAL TRANSPORT OF A
DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

	X						
SOURCE CONC (MG/L)	DISTANCE TO LOCATION OF CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.055	1000	4.8	0.5	0.001	0	60	5

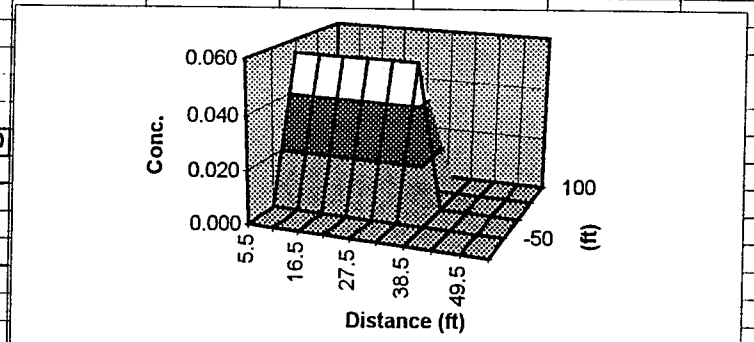
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retardation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.4	130	5.00E-03	5.55	0.032432432

y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at 1000 0 0

at 10950 days

#NAME? mg/l



AREAL MODEL CALCULATION DOMAIN

Length (ft) 55

Width (ft) 100

	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	#NAME?	#NAME?
50	0.000	0.000	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
0	0.055	0.055	0.055	0.055	0.055	0.055	#NAME?	#NAME?	#NAME?	#NAME?
-50	0.000	0.000	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	#NAME?	#NAME?

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

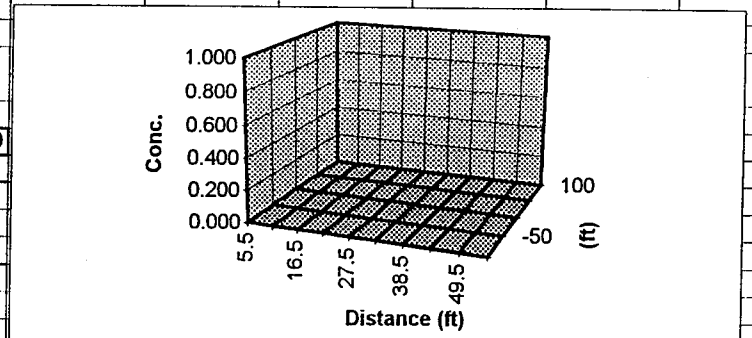
Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Ethylbenzene				
	X						
SOURCE CONC (MG/L)	DISTANCE TO LOCATION OF CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.022	1000	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retardation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.15	1.4	220	6.00E-03	11.26666667	0.021301775

	y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at	1000	0	0
at	10950	days	
#NAME?	mg/l		

PA DEPARTMENT
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DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation



AREAL MODEL	CALCULATION DOMAIN
Length (ft)	55
Width (ft)	100

	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
100	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-100	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?

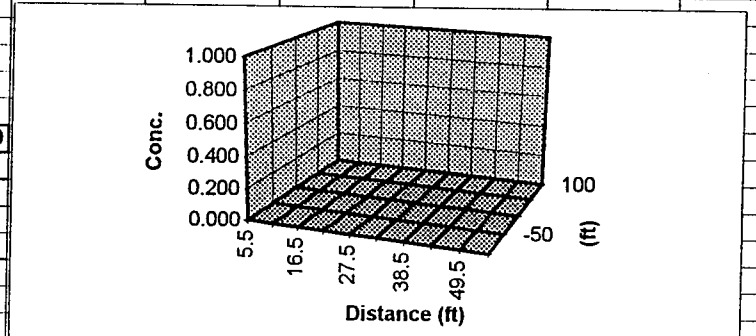
ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Schaller						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Cumene				
	X						
SOURCE CONC (MG/L)	DISTANCE TO LOCATION OF CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.003	1000	4.8	0.5	0.001	0	60	5
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retardation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.15	1.4	2800	5.00E-03	131.6666667	0.001822785

PA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
SPREADSHEET APPLICATION OF
"AN ANALYTICAL MODEL FOR
MULTIDIMENSIONAL TRANSPORT OF A
DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

	y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at	1000	0	0
at	10950	days	
#NAME?	mg/l		



AREAL MODEL CALCULATION DOMAIN	
Length (ft)	55
Width (ft)	100

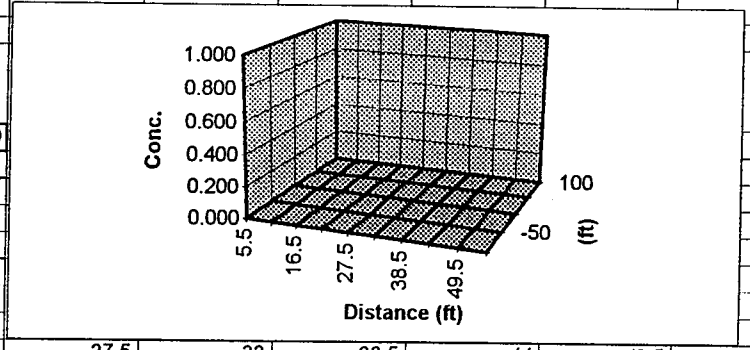
	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
100	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-100	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Naphthalene				
	X						
SOURCE CONC (MG/L)	DISTANCE TO LOCATION OF CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.23	1000	4.8	0.5	0.001	0	60	5
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.15	1.4	950	5.00E-03	45.33333333	0.005294118

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
SPREADSHEET APPLICATION OF
"AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

y(ft)	z(ft)	Time (days)
1000	0	0	10950



Projected Conc. at	1000	0	0
at 10950 days			
#NAME? mg/l			

AREAL MODEL CALCULATION DOMAIN	
Length (ft)	55
Width (ft)	100

	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
100	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-100	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler						
Date:	9/18/98	Prepared by:	Chris Orzechowski - RT Environmental Services, Inc.				
		Contaminant:	Phenanthrene				
	X						
SOURCE CONC (MG/L)	DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
1.2	1000	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.15	1.4	38000	5.00E-03	1774.333333	0.000135262

y(ft)	z(ft)	Time (days)
1000	0	0	10950

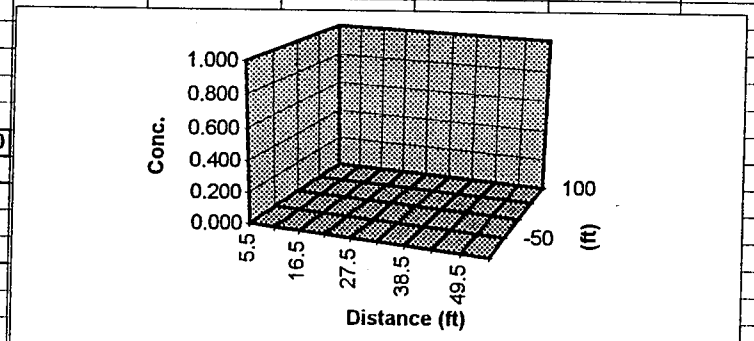
Projected Conc. at	1000	0	0
at	10950	days	
#NAME?	mg/l		

AREAL MODEL DOMAIN

Length (ft) 55

Width (ft) 100

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION QUICK_DOMENICO.XLS SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation



	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
100	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	0.000
50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-100	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project: Scholler
Date: 9/18/98 Prepared by: Chris Orzechowski - RT Environmental Services, Inc.
Contaminant: Chyrsene

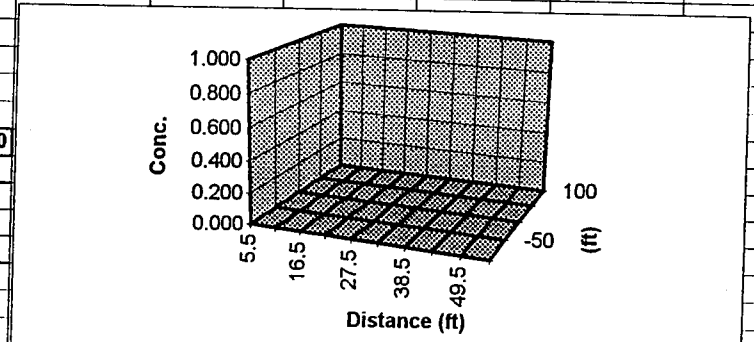
PA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
SPREADSHEET APPLICATION OF
"AN ANALYTICAL MODEL FOR
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P.A. Domenico (1987)
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SOURCE CONC (MG/L)	X DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.34	1000	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.15	1.4	490000	5.00E-03	22867.66667	1.04952E-05

	y(ft)	z(ft)	Time (days)
1000	0	0	10950

Projected Conc. at 1000 0 0
at 10950 days
#NAME? mg/l



AREAL MODEL CALCULATION DOMAIN
Length (ft) 55
Width (ft) 100

	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
100	#NAME?	#NAME?	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
0	#NAME?	#NAME?	0.000	0.000	0.000	0.000	#NAME?	#NAME?	#NAME?	#NAME?
-50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-100	#NAME?	#NAME?	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project: Scholler

Date: 9/18/98 Prepared by: Chris Orzechowski - RT Environmental Services, Inc.

Contaminant: Pyrene

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
SPREADSHEET APPLICATION OF
"AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

SOURCE CONC (MG/L)	X DISTANCE T LOCATION CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.5	1000	4.8	0.5	0.001	0	60	5

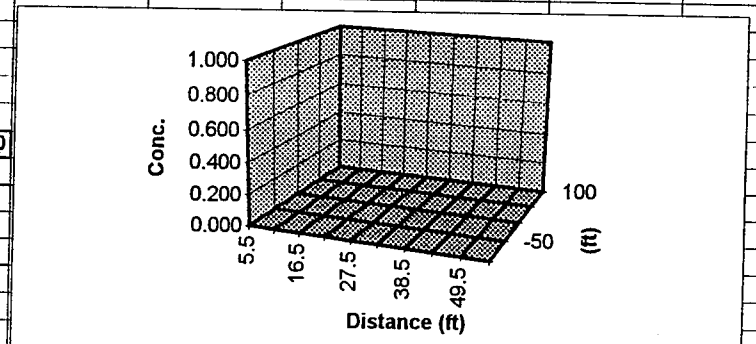
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.15	1.4	490000	5.00E-03	22867.66667	1.04952E-05

y(ft)	z(ft)	Time (days)
1000	0	0 10950

Projected Conc. at 1000 0 0

at 10950 days

#NAME? mg/l



AREAL MODEL CALCULATION DOMAIN

Length (ft) 55

Width (ft) 100

	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
100	#NAME?	#NAME?	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
0	#NAME?	#NAME?	0.000	0.000	0.000	0.000	#NAME?	#NAME?	#NAME?	#NAME?
-50	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
-100	#NAME?	#NAME?	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TABLE 1
SOIL QUALITY DATA
SCHOLLER, INC.
PHILADEPHIA, PA

	MW-4 2/23/98
Parameter	
Benzene	120 µg/L
Toluene	55 µg/L
Ethylbenzene	22 µg/L
Naphthalene	230 µg/L
Cumene	3 µg/L
Phenanthrene	1,200 µg/L
Chyrsene	340 µg/L
Pyrene	500 µg/L

PHENANTHRENE
Maximum Concentration at MW-4 (2/23/98)

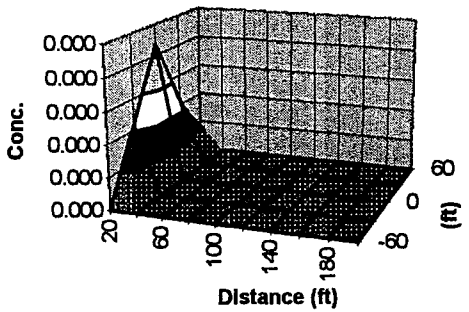
ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler, Inc.: RT #2043--08						
Date:	9/13/00	Prepared by:	J.W. Busanus				
		Contaminant:	Phenanthrene				
	X						
SOURCE CONC (MG/L)	DISTANCE TO LOCATION OF CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
1.2	500	4.8	0.5	0.001	0	60	6
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retardation (R)	V (=K*I/n*R) (ft/day)
1.80E+01	0.002	0.2	1.8	38000	5.00E-03	1711	0.000105202

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P.A. Domenico (1987)
Modified to Include Retardation

	y(ft)	z(ft)	Time (days)
	500	0	0	10950

Projected Conc. at	500	0	0
at	10950	days	
0.000	mg/l		



	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	200
	Width (ft)	60

	20	40	60	80	100	120	140	160	180	200
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

PYRENE
Maximum Concentration at MW-4 (2/23/98)

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler, Inc.: RT #2043--08						
Date:	9/13/00	Prepared by:	J.W. Busanus				
		Contaminant:	Pyrene				
	X						
SOURCE CONC (MG/L)	DISTANCE TO LOCATION OF CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)
0.5	500	4.8	0.5	0.001	0	60	5

Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retardation (R)	V (=K*i/n*R) (ft/day)
1.80E+01	0.002	0.2	1.8	68000	5.00E-03	3061	5.88043E-05

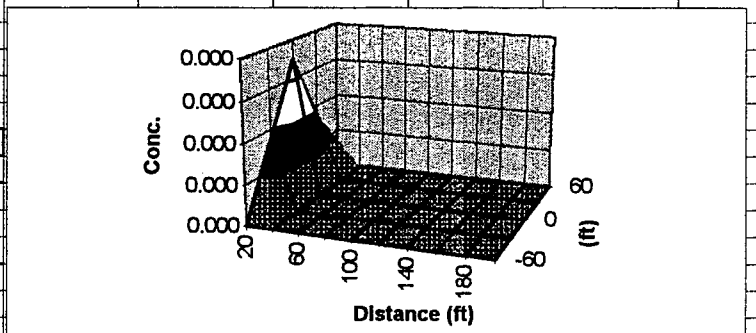
y(ft)	z(ft)	Time (days)
500	0	0	10950

Projected Conc. at 500 0 0

at 10950 days

0.000 mg/l

PA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
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DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation



AREAL MODEL CALCULATION DOMAIN

Length (ft) 200

Width (ft) 60

	20	40	60	80	100	120	140	160	180	200
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

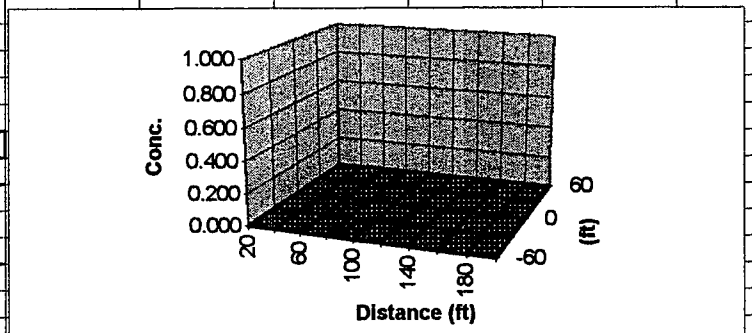
CHRYSENE

Maximum Concentration at MW-4 (2/23/98)

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION AND 1ST ORDER DECAY and RETARDATION

Project:	Scholler, Inc.: RT #2043-08										
Date:	9/13/00	Prepared by:	J.W. Busanus								
		Contaminant:	Crysene								
	X										
SOURCE CONC (MG/L)	DISTANCE TO LOCATION OF CONCERN (ft)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)				
0.34	500	4.8	0.5	0.001	0	60	5				
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm^3)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*I/n*R) (ft/day)				
1.80E+01	0.002	0.2	1.8	490000	6.00E-03	22051	8.1629E-06				
	y(ft)	z(ft)	Time (days)								
500	0	0	10950								
Projected Conc. at		500	0	0							
at	10950	days									
0.000	mg/l										
	AREAL MODEL	CALCULATION DOMAIN									
	Length (ft)	200									
	Width (ft)	60									
	20	40	60	80	100	120	140	160	180	200	
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
QUICK_DOMENICO.XLS
SPREADSHEET APPLICATION OF
"AN ANALYTICAL MODEL FOR
MULTIDIMENSIONAL TRANSPORT OF A
DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation



Appendix 6

NOTICE OF INTENT TO REMEDIATE (NIR)
& PUBLIC NOTIFICATIONS

2500-FM-LRWM0019 8/2000

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

NOTICE OF INTENT TO REMEDIATE

Name Scholler, Inc.

Site Address 3320 Collins Avenue, Philadelphia, PA 19134

Municipality City of Philadelphia **County** Philadelphia

Latitude 39 ° 59 ' 38.31 " **Longitude** 75 ° 06 ' 23.3"

How determined Camden, NJ-PA USGS Topographic Quadrangle Map (1984)

Identification Number

Contaminated Media and Contaminants Present: Use the appropriate cleanup standard abbreviation for each contaminant and media. The abbreviations are: Background - BKG, Statewide Health - SHS, Site Specific - SSS.

Contaminant	Soil	Groundwater	Surface Water
PCBs			
Lead			
Heavy Metals			
BTEX		SHS	
PHCs		SHS	
PAHs		SHS	
Solvents			
Pesticides			
Dioxin			

Sources of Contamination: ☐ Industrial Process ☐ Impoundment ☐ Landfill ☐ Contaminated Soil

☐ Drums/Containers ☒ Storage Tanks (not regulated by Act 32) ☐ Waste Pile

Other

Are you requesting Special Industrial Area designation? ☐ Yes ☒ No

Are you requesting Non-Use Aquifer designation? ☐ Yes ☒ No

Have you received Non-Use Aquifer designation? ☒ Yes ☐ No

Anticipated Future Use: ☐ Residential ☒ Non-Residential

Anticipated Date of Submission of Plan or Final Report April 2001

Name of newspaper and date of publication of NIR Summary. Newspaper Philadelphia Daily News

Date of publication April , 2001

Special Industrial Areas only:

A. Identify Enterprise Zone (if applicable)

B. Ownership History (as required by 25 Pa Code §250.520(3))

Industrial Sites Reuse Program ☐ Yes ☐ No. If yes, name of applicant _____

Proposed Remediation:

Remediation of the property has involved the removal of one 10,000 underground storage tank. No impacted soil was removed as the tank was beneath a building. Groundwater monitoring and risk assessment was utilized to demonstrate attainment of Act 2 standards.

Benefits of Future Use (Job creation, environmental remediation, acres of brownfields made available for use, community improvement, municipal tax base increase, preserving greenfields, etc.):

Remediation of the property will allow for its continued commercial use. No plans currently exist for property redevelopment.

Property Owner Name Ougi Parro **Address** 2330 Collins Street, Philadelphia, PA 19134

Remediator Name Scholler, inc. **Address** 95 James Way, Suite 100, Southampton, PA 18966

If the NIR was completed by someone other than the owner, was a copy of the NIR provided to the owner?
☐ Yes ☒ No

Preparer of Notice of Intent to Remediate: James Busanus/ Christopher Orzechowski

Name Christopher Orzechowski **Title** Sernoir Hydrogeologist/Associate

Address RT Environmental Services, Inc. 215 W. Church Road, King of Prussia, PA 19406

Signature _____ **Date** 4/22/01 **Telephone** (610) 265-1510

Proof of Publication In The Philadelphia Inquirer
Under Act. No 160, P.L. 877, July 9, 1976

STATE OF PENNSYLVANIA
COUNTY OF PHILADELPHIA

Anna Dickerson being duly sworn, deposes and says that **The Philadelphia Inquirer** is a daily newspaper published at Broad and Callowhill Streets, Philadelphia County, Pennsylvania, which was established in the year 1829, since which date said daily newspaper has been regularly published and distributed in said County, and that a copy of the printed notice of publication is attached hereto exactly as the same was printed and published in the regular editions and issues of said daily newspaper on the following dates:

April 25, 2001

Affiant further deposes and says that he is an employee of the publisher of said newspaper and has been authorized to verify the foregoing statement and that he is not interested in the subject matter of the aforesaid notice of publication, and that all allegations in the foregoing statement as to time, place and character of publication are true.

Anna Dickerson

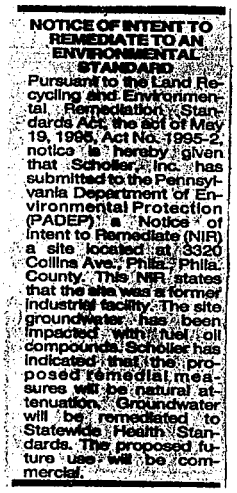
Sworn to and subscribed before me this 25th day of April, 2001.

Margaret C. Ruchalski
Notary Public

My Commission Expires:

NOTARIAL SEAL
Margaret C. Ruchalski, Notary Public
City of Philadelphia, Phila. County
My Commission Expires May 27, 2002

Copy of Notice of Publication



NOTICE OF INTENT TO REMEDIATE TO AN ENVIRONMENTAL STANDARD

Pursuant to the Land Recycling and Environmental Remediation Standards Act, the act of May 19, 1995, Act No. 1995-2, notice is hereby given that Schiller Inc. has submitted to the Pennsylvania Department of Environmental Protection (PADEP) a Notice of Intent to Remediate (NIR) a site located at 8320 Collins Ave., Phila., Phila. County. The NIR states that the site was a former industrial facility. The site groundwater has been impacted with fuel oil compounds. Schiller has indicated that the proposed remedial measures will be natural attenuation. Groundwater will be remediated to Statewide Health Standards. The proposed future use will be commercial.

Proof of Publication In The Philadelphia Inquirer
Under Act. No 160, P.L. 877, July 9, 1976

STATE OF PENNSYLVANIA
COUNTY OF PHILADELPHIA

Anna Dickerson being duly sworn, deposes and says that **The Philadelphia Inquirer** is a daily newspaper published at Broad and Callowhill Streets, Philadelphia County, Pennsylvania, which was established in the year 1829, since which date said daily newspaper has been regularly published and distributed in said County, and that a copy of the printed notice of publication is attached hereto exactly as the same was printed and published in the regular editions and issues of said daily newspaper on the following dates:

April 25, 2001

Affiant further deposes and says that he is an employee of the publisher of said newspaper and has been authorized to verify the foregoing statement and that he is not interested in the subject matter of the aforesaid notice of publication, and that all allegations in the foregoing statement as to time, place and character of publication are true.

Anna Dickerson

Sworn to and subscribed before me this 25th day of April, 2001.

Margaret C. Ruchalski
Notary Public

My Commission Expires:

NOTARIAL SEAL
Margaret C. Ruchalski, Notary Public
City of Philadelphia, Phila. County
My Commission Expires May 27, 2002

Copy of Notice of Publication

NOTICE OF INTENT TO REMEDIATE TO AN ENVIRONMENTAL STANDARD

Pursuant to the Land Recycling and Environmental Remediation Standards Act, the act of May 19, 1995, Act No. 1995-2, notice is hereby given that Scholler, Inc. has submitted to the Pennsylvania Department of Environmental Protection (PADEP) a Notice of Intent to Remediate (NIR) a site located at 3320 Collins Ave., Phila., Phila. County. This NIR states that the site was a former industrial facility. The site groundwater has been impacted with fuel oil compounds. Scholler has indicated that the proposed remedial measures will be natural attenuation. Groundwater will be remediated to Statewide Health Standards. The proposed future use will be commercial.

RT Environmental Services, Inc.

FILE

April 20, 2001

CERTIFIED MAIL

Mr. Richard Zippen, Chief of Environmental Engineering
Philadelphia Health Department
321 University Avenue
Philadelphia, PA 19104
(215) 685-7343/Fax (215) 685-9080

RE: NOTICE OF INTENT TO REMEDIATE - REVISED
SCHOLLER, INC., 3320 COLLINS AVENUE, PHILADELPHIA
RT PROJECT 2043-07

Dear Mr. Zippen:

The Land Recycling and Remediation Standards Act (Act 2) requires that a Notice of Intent to Remediate (NIR) a site be provided to the municipality in which the site is located. In accordance with this provision of Act 2, we are formally notifying you of Scholler, Inc's. intent to remediate the subject site. A copy of a revised NIR, which has been sent to the Pennsylvania Department on Environmental Protection (PADEP), is enclosed. The notice will also be published in the Pennsylvania Bulletin, and a summary on the notice will be placed in The Philadelphia Inquirer.

Please feel free to contact me or Chris Orzechowski if you have any questions of comments regarding the proposed remediation.

Sincerely,

RT ENVIRONMENTAL SERVICES, INC.

James Busanus, P.G.
Senior Hydrogeologist

Enclosure

cc: G. Brown - RT

F:\RT Projects\2000 series\2043-07\CityNotif.wpd

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

2500-FM-LRWM0019 8/2000

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

NOTICE OF INTENT TO REMEDIATE

Name Scholler, Inc.

Site Address 3320 Collins Avenue, Philadelphia, PA 19134

Municipality City of Philadelphia **County** Philadelphia

Latitude 39 ° 59 ' 38.31 " **Longitude** 75 ° 06 ' 23.3"

How determined Camden, NJ-PA USGS Topographic Quadrangle Map (1984)

Identification Number

Contaminated Media and Contaminants Present: Use the appropriate cleanup standard abbreviation for each contaminant and media. The abbreviations are: Background - BKG, Statewide Health - SHS, Site Specific - SSS.

Contaminant	Soil	Groundwater	Surface Water
PCBs			
Lead			
Heavy Metals			
BTEX		SHS	
PHCs		SHS	
PAHs		SHS	
Solvents			
Pesticides			
Dioxin			

Sources of Contamination: ☐ Industrial Process ☐ Impoundment ☐ Landfill ☐ Contaminated Soil

☐ Drums/Containers ☒ Storage Tanks (not regulated by Act 32) ☐ Waste Pile

Other

Are you requesting Special Industrial Area designation? ☐ Yes ☒ No

Are you requesting Non-Use Aquifer designation? ☐ Yes ☒ No

Have you received Non-Use Aquifer designation? ☒ Yes ☐ No

Anticipated Future Use: ☐ Residential ☒ Non-Residential

Anticipated Date of Submission of Plan or Final Report April 2001

Name of newspaper and date of publication of NIR Summary. Newspaper Philadelphia Daily News

Date of publication April , 2001

Special Industrial Areas only:

A. Identify Enterprise Zone (if applicable)

B. Ownership History (as required by 25 Pa Code §250.520(3))

Industrial Sites Reuse Program ☐ Yes ☐ No. If yes, name of applicant _____

Proposed Remediation:

Remediation of the property has involved the removal of one 10,000 underground storage tank. No impacted soil was removed as the tank was beneath a building. Groundwater monitoring and risk assessment was utilized to demonstrate attainment of Act 2 standards.

Benefits of Future Use (Job creation, environmental remediation, acres of brownfields made available for use, community improvement, municipal tax base increase, preserving greenfields, etc.):

Remediation of the property will allow for its continued commercial use. No plans currently exist for property redevelopment.

Property Owner Name Ougi Parro **Address** 2330 Collins Street, Philadelphia, PA 19134

Remediator Name Scholler, inc. **Address** 95 James Way, Suite 100, Southampton, PA 18966

If the NIR was completed by someone other than the owner, was a copy of the NIR provided to the owner?
☐ Yes ☒ No

Preparer of Notice of Intent to Remediate: James Busanus/ Christopher Orzechowski

Name Christopher Orzechowski **Title** Sernoir Hydrogeologist/Associate

Address RT Environmental Services, Inc. 215 W. Church Road, King of Prussia, PA 19406

Signature _____ **Date** 4/22/01 **Telephone** (610) 265-1510

Recycled Paper

RT Environmental Services, Inc.

FILE

CERTIFIED MAIL

April 20, 2001

Mr. Walter Payne
Pennsylvania Department of Environmental Protection
Land Recycling and Cleanup Program
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428-2233

RE: NOTICE OF INTENT TO REMEDIATE - REVISED
SCHOLLER, INC., 3320 COLLINS AVENUE, PHILADELPHIA, PA
PADEP #1-51-0-27331
RT PROJECT #2043-07

Dear Mr. Payne:

In accordance with the Land Recycling and Environmental Remediation Standards Act ("Act 2"), enclosed are two copies of the Notice of Intent to Remediate ("NIR") the subject property.

Proof of publication and certified mail receipt documentation of our public and municipal notification will be forwarded to you shortly.

Please call me with any questions.

Sincerely,

James Busanus
Senior Hydrogeologist

RT ENVIRONMENTAL SERVICES, INC.

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

2500-FM-LRWM0019 8/2000

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

NOTICE OF INTENT TO REMEDIATE

Name Scholler, Inc.

Site Address 3320 Collins Avenue, Philadelphia, PA 19134

Municipality City of Philadelphia **County** Philadelphia

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Lead			
Heavy Metals			
BTEX		SHS	
PHCs		SHS	
PAHs		SHS	
Solvents			
Pesticides			
Dioxin			

Sources of Contamination: ☐ Industrial Process ☐ Impoundment ☐ Landfill ☐ Contaminated Soil

☐ Drums/Containers ☒ Storage Tanks (not regulated by Act 32) ☐ Waste Pile

Other

Are you requesting Special Industrial Area designation? ☐ Yes ☒ No

Are you requesting Non-Use Aquifer designation? ☐ Yes ☒ No

Have you received Non-Use Aquifer designation? ☒ Yes ☐ No

Anticipated Future Use: ☐ Residential ☒ Non-Residential

Anticipated Date of Submission of Plan or Final Report April 2001

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☐ Yes ☒ No

Preparer of Notice of Intent to Remediate: James Busanus/ Christopher Orzechowski

Name Christopher Orzechowski **Title** Sernoir Hydrogeologist/Associate

Address RT Environmental Services, Inc. 215 W. Church Road, King of Prussia, PA 19406

Signature _____ **Date** 4/22/01 **Telephone** (610) 265-1510

2500-FM-LRWM0019 8/2000

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

NOTICE OF INTENT TO REMEDIATE

Name Scholler, Inc.

Site Address 3320 Collins Avenue, Philadelphia, PA 19134

Municipality City of Philadelphia **County** Philadelphia

Latitude 39 ° 59 ' 38.31 " **Longitude** 75 ° 06 ' 23.3"

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Solvents			
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Dioxin			

Sources of Contamination: ☐ Industrial Process ☐ Impoundment ☐ Landfill ☐ Contaminated Soil

☐ Drums/Containers ☒ Storage Tanks (not regulated by Act 32) ☐ Waste Pile

Other

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☐ Yes ☒ No

Preparer of Notice of Intent to Remediate: James Busanus/ Christopher Orzechowski

Name Christopher Orzechowski **Title** Sernoir Hydrogeologist/Associate

Address RT Environmental Services, Inc. 215 W. Church Road, King of Prussia, PA 19406

Signature _____ **Date** 4/22/01 **Telephone** (610) 265-1510

APPENDIX H

PADEP CORRESPONDANCE

pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

August 21, 2019

Arawak Holding Corp.
3320 Collins Street
Philadelphia, PA 19134-0000

Re: Environmental Covenant Notice
Scholler Inc.
eFACTS PF No. 619406
3320 Collins Street
City of Philadelphia
Philadelphia County

Dear Sir or Madam,

The Department of Environmental Protection (DEP) recently reviewed our records for the above-referenced property. We determined that a voluntary cleanup of environmental contamination was completed in accordance with Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Act 2 of 1995). DEP approved the Act 2 final report on October 28th, 2002, and we have enclosed a copy of that approval. Available records identify you as the current owner of the property.

DEP's records review found that the final report approval was based upon the property owner's implementation of the following activity and use limitations: (1) any concrete, asphalt or pavement surfaces used to cap contamination must be preserved, (2) groundwater use is prohibited, and (3) the property shall be uses solely for nonresidential purposes. These restrictions must be maintained to protect human health and to preserve the cleanup liability relief granted by Act 2. The Act 2 approval required the owner to record a notice on the deed documenting the activity and use limitations. However, DEP has not located documentation of the deed notice in our files or at the county Recorder of Deeds.

The Uniform Environmental Covenants Act (UECA, Act 68 of 2007) and accompanying regulations provide a standardized process for creating, documenting and assuring the enforceability of activity and use limitations on contaminated properties involving most remedies used to achieve Act 2 standards. Properties with Act 2 cleanups predating UECA that relied on activity and use limitations are required to have deed instruments converted to environmental covenants. Further information about the Uniform Environmental Covenants Act may be found on the DEP web site at www.dep.pa.gov using the search term "UECA".

The purpose of this letter is to inform you that the property lacks the required deed notice and ask you to correct this omission with an environmental covenant. We request that you provide a draft environmental covenant that includes all activity and use limitations required by the Act 2 final report approval for the property within 90 days.

Thank you for your cooperation in working with DEP to resolve this issue. If you have any questions or need further information regarding this matter, please contact me at cdbrown@pa.gov or by telephone at 484.250.5792.

Sincerely,

C. David Brown
Professional Geologist Manager
Environmental Cleanup and Brownfields

Enclosure: Act 2 final report approval

cc: Philadelphia Health Department
Regional File
Re 30 (TDB19) 233

NOTICE OF INTENT TO REMEDIATE

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

RECEIVED
SEP 23 2019
BY:

September 18, 2019

Mr. David Goldstein
Follow Through Capital
20 Conshohocken State Road, Apt. 312
Bala Cynwyd, PA 19004

Re: Receipt of Notice of Intent to Remediate
Site-Specific Standard/Statewide Health Standard
Scholler Inc. Property
3320 Collins Street
eFACTS PF No. 836850
City of Philadelphia
Philadelphia County

Dear Mr. Goldstein:

This letter acknowledges receipt of your Notice of Intent to Remediate (NIR) on September 12, 2019, pertaining to the subject property and submitted in accordance with the Land Recycling and Environmental Remediation Standards Act (Act 2). The procedures set forth in Act 2 must be followed in order for this site to qualify for the liability protection provided by the Act. The Department of Environmental Protection (DEP) will not accept plans and reports until after the 30-day comment period following submission of the NIR ends.

The 30-day comment period following submission of the NIR allows the municipality the opportunity to request to be involved in the development of remediation and reuse plans for the property. If the municipality requests a public involvement plan, any comments and responses must be included in any subsequent Site-Specific Standard reports. Remedial investigation reports, risk assessment reports, cleanup plans, and final reports submitted to DEP under the site-specific standard need to be accompanied by the required fees and documentation verifying compliance with the public notification requirements.

Additional technical and program information can be found at www.dep.pa.gov (Business>Land>Land Recycling). Also, please refer to the Land Recycling checklists which are helpful in assuring reports are complete before submittal. DEP uses the checklists to perform administrative and technical completeness reviews when plans and/or reports are submitted. It is strongly encouraged to include the appropriate completed checklist with your Final Report submission. Land Recycling checklists can also be found at the website under 'Forms, Checklists & Notifications' link.

Please refer to the Standard Attachment for considerations of other programs which may be applicable to this property.

Lauren Mapleton is the project officer assigned to your project and will be working with you towards the remediation of this property. Frequent contact is encouraged between your representatives and our staff. If you have any questions or need further clarifications of our procedures, please contact the project officer by email at lmapleton@pa.gov or by telephone at 484.250.5783.

Sincerely,

C. David Brown, P.G.
Professional Geologist Manager
Environmental Cleanup and Brownfields

Enclosure: Standard Attachment

cc: City of Philadelphia
Philadelphia Department of Health
Mr. Parro
Mr. Lydzinski, PG (RT Environmental Services Inc.)
Ms. Mapleton
Ms. Bass
Re 30 (cb19ecb) 262.9

RT Environmental Services, Inc.

September 12, 2019

Ms. Charline Bass
Pennsylvania Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

RE: SUBMITTAL OF A NOTICE OF INTENT TO REMEDIATE
FOLLOW THROUGH CAPITAL
FORMER SCHOLLER, INC. PROPERTY
3320 COLLINS STREET
PHILADELPHIA, PENNSYLVANIA
RT PROJECT #2043-20

Dear Ms. Bass:

RT Environmental Services, Inc., on behalf of Follow Through Capital (Remediator), is submitting this Notice of Intent to Remediate (NIR) for the above-referenced site.

The required NIR summary newspaper publication and municipal notifications are attached along with a copy of the NIR form. A copy of the notification letter and certified mail receipt are included.

We look forward to working you and your staff on this Land Recycling project.

Sincerely,

RT ENVIRONMENTAL SERVICES, INC.

John C. Lydzinski, P.G.
Geologist

cc: D. Goldstein – Follow Through Capital

H:\RT Projects\2400 SERIES\2043-20\NIR\NIRPADEP.doc

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

2610-FM-BECB0010 6/2014

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

For DEP Use Only
PF #_____
Rem ID #_____

NOTICE OF INTENT TO REMEDIATE

Act 1995-2 requires four general information items to be included in the NIR: the general location, listing of contaminants, intended use of property, and proposed remediation measures. In addition, indicate the standard(s) to be obtained (if known) and attach a scaled site map (if available).

Property Name 3320 Collins Street Property

Former Name(s) / AKA Scholler, Inc.

Address / Location 3320 Collins Street

City Philadelphia Zip Code 19134

Municipality(s) City of Philadelphia County(ies) Philadelphia

Latitude 39 ° (deg). 59 ' (min) 38.31 " (sec) Longitude 75 ° (deg). 06 ' (min) 23.3 " (sec)

Horizontal Collection Method

Horizontal Reference Datum NAD 83 Reference Point Approximate Center of Property

☐ Wish to participate in the DEP/EPA MOA. Contact the Land Recycling Program Manager at landrecycling@pa.gov for details.

EPA ID#, if known

DEP ID#(s), if known 1-51-0-27331
(i.e., eFACTS site ID#, storage tank facility ID#, water quality permit #, watershed permit, air quality permit #, etc.)

Date Release Occurred (if known) Historic

Provide a brief description of the site contamination in plain language (e.g. fuel oil spill, historical chemical industrial area contamination), the names of any know primary contaminants to be addressed, and the intended future use of the property.

Tetrachloroethene (PCE) and Trichloroethene (TCE) were recently detected in soil as determined through a site characterization boring drilled on 10/2/2018. TCE was also detected in a deep groundwater monitoring well althought the concentrations were below the non-used aquifer standard. The Site was approved as a non-use aquifer as part of the historic Act 2 work (Facility ID # 1-51-0-27331). Remediation will consist of excavation and disposal of the subsurface soil contamination. The property will be redeveloped for residential use. The remediator will demonstrate the attainment of the residential Statewide Health standard and Site Specific standard for soil and groundwater.

Provide a general description of proposed remediation measures.

Remedial action will consist of pathway elimination along with the removal of approximately 10-cubic yards of soil impacted with chlorinated solvents. The Site was historically remediated through the Act 2 Program for releases associated with a petroleum UST. The Site demonstrated attainment of the Site Specific non-residential standard for this release (Facility ID # 1-51-0-27331). During the investigation, chlorinated solvents were identified in groundwater which were not addressed at that time. Further characterization work was completed in 2018 related to the chlorinated solvent release.

Remediation Standard(s) planned (if known at this time):

☐ Unknown at this time	☐ Soil	☐ Groundwater
☐ Background Contaminants:	☐ Soil	☐ Groundwater
☒ Statewide Health - Residential Contaminants: Benzene, Ethylbenzene, Cumene, MTBE, Naphthlene, Toluene, 1,2,4,-Trimethylbenzene, 1,3,5-Trimethylbenzene, 1,1-Dichloroethene, trans-1,2-Dichloroethene, cis-1,2-Dichloroethane, 1,1,1-Trichloroethane, Trichloroethene (TCE), Tetrachloroethene (PCE), and Vinyl Chloride	☒ Soil	☒ Groundwater
☐ Statewide Health – Non-Residential Contaminants:	☐ Soil	☐ Groundwater
☒ Site Specific Contaminants: Benzene, Ethylbenzene, Cumene, MTBE, Naphthlene, Toluene, 1,2,4,-Trimethylbenzene, 1,3,5-Trimethylbenzene, 1,1-Dichloroethene, trans-1,2-Dichloroethene, cis-1,2-Dichloroethane, 1,1,1-Trichloroethane, Trichloroethene (TCE), Tetrachloroethene (PCE), and Vinyl Chloride	☒ Soil	☒ Groundwater
☐ Special Industrial Area* Contaminants:	☐ Soil	☐ Groundwater

*NOTE: Specific standard or Special Industrial Area require a 30-day municipal comment period

Remediator / Property Owner / Consultant. Complete the form below for *each* recipient obtaining a release of liability upon approval of the final report. Attach additional sheets as necessary.

Remediator

Contact Person/Title Mr. David Goldstein — eFACTS Client ID* _____

Relationship to Site Remediator — Client Type* _____
(e.g. owner, remediator, participant in cleanup, consultant, etc.)

Phone Number 215-771-2000 — Email Address david@followthroughcapital.com

Company Name Follow Through Capital — EIN or Federal ID # _____

Address (street, city, state, zip) 20 Conshohocken State Road Apt. 312 Bala Cynwyd, PA 19004

Property Owner

Contact Person/Title Mr. Oji Parro — eFACTS Client ID* _____

Relationship to Site Owner — Client Type* _____
(e.g. owner, remediator, participant in cleanup, consultant, etc.)

Phone Number 215-327-8620 — Email Address thegallerieisada@gmail.com

Company Name _____ — EIN or Federal ID # _____

Address (street, city, state, zip) 2330 Collins Street Philadelphia, PA 19134

Consultant

Contact Person/Title John C. Lydzinski, P.G. — eFACTS Client ID* _____

Relationship to Site Consultant — Client Type* _____
(e.g. owner, remediator, participant in cleanup, consultant, etc.)

Phone Number 610-265-1510 ext. 211 — Email Address jlydzinski@rtenv.com

Company Name RT Environmental Services, Inc. — EIN or Federal ID # _____

Address (street, city, state, zip) 215 West Church Road King of Prussia, PA 19406-3207

*Include eFACTS Client ID (if known) – "Client Types" below:

Association/Organization	Limited Liability company	Partnership-General
Authority	Limited Liability Partnership	Partnership-Limited
County	Municipality	School District
Estate/Trust	Non-Pennsylvania Government	Sole Proprietorship
Federal Agency	Other (Non-Government)	State Agency
Individual	Pennsylvania Corporation	

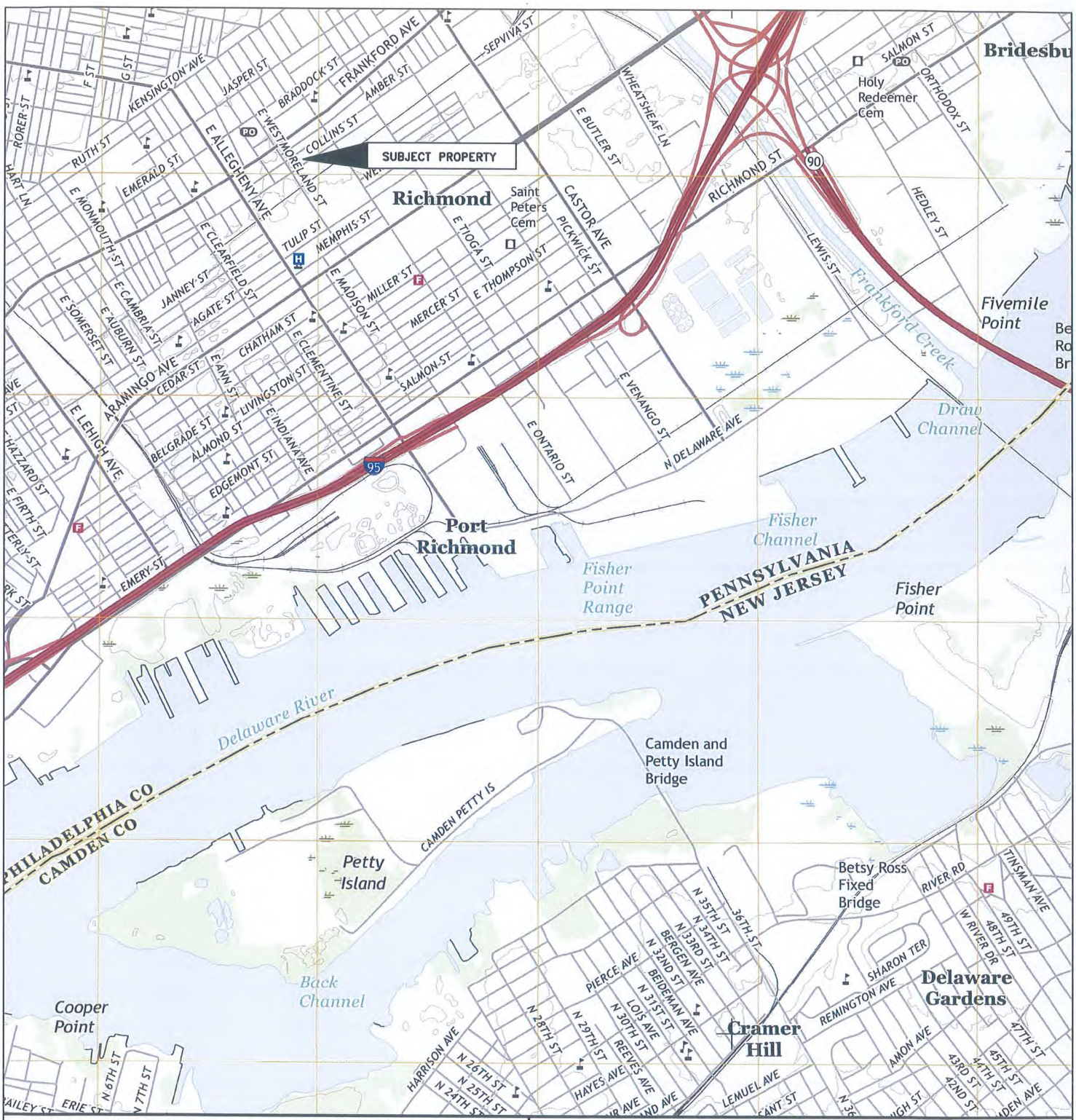
Preparer of Notice of Intent to Remediate

Name John C. Lydzinski, P.G. — Title Associate

Phone Number 610-265-1510 ext. 211 — Email Address jlydzinski@rtenv.com

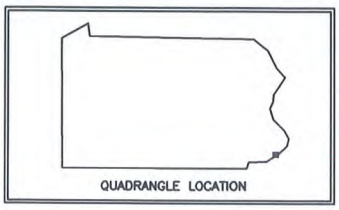
Company Name RT Environmental Services, Inc. eFACTS Client ID

Address (street, city, state, zip) 215 West Church Road King of Prussia, PA 19406-3207



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
CAMDEN, NJ–PA
CONTOUR INTERVAL 10 FEET
SCALE (feet)

0 2000′ 4000′



RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

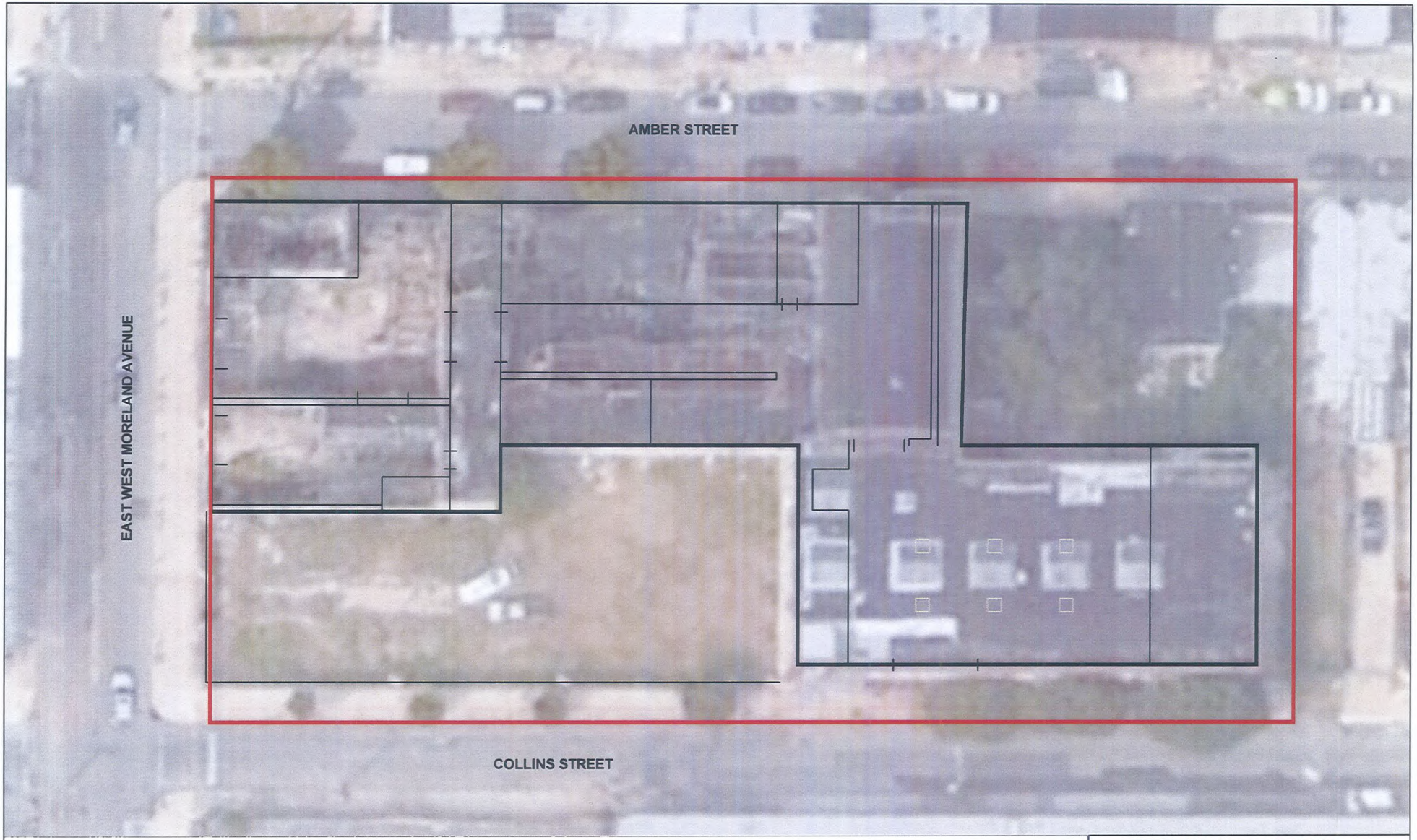
FIGURE 1
SITE LOCATION MAP

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:

FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	2043-20	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON	VL
SCALE	1" = 2000'	DRAWING NUMBER			REVISION	
DATE	4/4/19	y:\rt projects\2000 series\2043-20\figures\figures.dwg				



LEGEND

ACT 2 SITE BOUNDARY

0 40′ 80′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 2
AERIAL SITE MAP

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	2043-20	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
					VJL
SCALE	1" = 40'	DRAWING NUMBER			REVISION
DATE	4/4/19	y:\rt projects\2000 series\2043-20\figures\figures.dwg			1

Philadelphia Weekly Holdings, Inc.

Publication:
Philadelphia Weekly
1520 Locust St.- Suite 501
Philadelphia, PA 19102

John C. Lydzinski, P.G.
RT Environmental Services, Inc.
215 W. Church Road
King of Prussia, PA 19406-3207

This is to certify that the following Legal Notice:

NOTICE OF INTENT TO REMEDIATE

Pursuant to the Land Recycling and Environmental Remediation Standards Act, the act of May 29, 1995, P.L. 4, No. 1995-2, notice is hereby given that Follow Through Capital (the remediator) has submitted a Notice of Intent to Remediate to the Pennsylvania Department of Environmental Protection, Southeast Regional Office, for a site located at 3320 Collins Street, Philadelphia (the Site). The Remediator has indicated that the proposed remediation measures will be soil removal and pathway elimination and will result in the attainment of the residential Statewide Health and Site Specific Standard for soil and groundwater established under the Land Recycling and Environmental Remediation Standards Act. The future use of the site will be for residential use. Follow Through Capital plans to use the site-specific standard at the site. The Act provides for a 30-day public comment period for site-specific standard remediation. The 30-day comment period is initiated with the publication of this notice. Until September 29, 2019 the City of Philadelphia may submit a request to Follow Through Capital to be involved in the development of the remediation and reuse plans for the site. The City of Philadelphia may also submit a request to Follow Through Capital during this 30-day comment period to develop and implement a public involvement plan. Copies of these requests and of any comments should also be submitted to the Department of Environmental Protection- Southeast Regional Office, care of Mr. Ragesh Patel, located at 2 East Main Street, Norristown, PA 19401.
This notice is made under the provision of the Land Recycling and Environmental Remediation Standards Act, the Act of May 19, 1995, P.L. #4, No. 2.

Was published in the August 29th, 2019 issue of Philadelphia Weekly
A copy of the publication and ad are attached.

Scanned with CamScanner

Daniel Tangi, Account Manager, Philadelphia Weekly

4/29/19
Date

NOTICE OF INTENT TO REMEDIATE

Pursuant to the Land Recycling and Environmental Remediation Standards Act, the act of May 29, 1995, P.L. 4, No. 1995-2, notice is hereby given that Follow Through Capital (the remediator) has submitted a Notice of Intent to Remediate to the Pennsylvania Department of Environmental Protection, Southeast Regional Office, for a site located at 3320 Collins Street, Philadelphia (the Site). The Remediator has indicated that the proposed remediation measures will be soil removal and pathway elimination and will result in the attainment of the residential Statewide Health and Site Specific Standard for soil and groundwater established under the Land Recycling and Environmental Remediation Standards Act. The future use of the site will be for residential use. Follow Through Capital plans to use the site-specific standard at the site. The Act provides for a 30-day public comment period for site-specific standard remediation. The 30-day comment period is initiated with the publication of this notice. Until September 29, 2019 the City of Philadelphia may submit a request to Follow Through Capital to be involved in the development of the remediation and reuse plans for the site. The City of Philadelphia may also submit a request to Follow Through Capital during this 30-day comment period to develop and implement a public involvement plan. Copies of these requests and of any comments should also be submitted to the Department of Environmental Protection- Southeast Regional Office, care of Mr. Ragesh Patel, located at 2 East Main Street, Norristown, PA 19401. This notice is made under the provision of the Land Recycling and Environmental Remediation Standards Act, the Act of May 19, 1995, P.L. #4, No. 2.

Scanned with CamScanner

RT Environmental Services, Inc.

VIA CERTIFIED MAIL – 7012 1010 0002 3230 1478
Return Receipt Requested

August 27, 2019

Ms. Caroline Johnson, MD
Deputy Health Commissioner
Philadelphia Department of Public Health
Environmental Engineering Section
321 University Avenue
Philadelphia, PA 19104
(215) 685-7343 / Fax: (215) 382-1210

RE: NOTICE OF SUBMITTAL OF NOTICE OF INTENT TO REMEDIATE
FORMER SCHOLLER, INC. PROPERTY
3320 COLLINS STREET, PHILADELPHIA, PENNSYLVANIA
RT PROJECT #2043-20

Dear Ms. Johnson:

Follow Through Capital (the remediator) of the above-reference property (the "Site"), has retained RT Environmental Services, Inc. (RT) to assist in taking the Site through the Pennsylvania Land Recycling and Environmental Remediation Standards Act ("Act 2") remediation program. Pursuant to the requirements of Act 2, we are writing to provide formal notice to the City of Philadelphia (the "City") that the remediator has submitted a Notice of Intent to Remediate to the Pennsylvania Department of Environmental Protection, Southeast Regional Office, to demonstrate attainment of a residential Statewide Health and Site-specific Standard for the site located at 3320 Collins Street, Philadelphia PA. The remediator has indicated that the remediation measures taken will attain compliance with a residential Statewide Health and Site-specific Standard for soil and groundwater established under the Land Recycling and Environmental Remediation Standards Act.

Publication of this notice in a local newspaper initiates the 30-day public and municipal comment period. During this time, your municipality may request to become involved in the development of the remediation and reuse plans for the site. If the municipality wishes to become involved in this project, please send your comments to Follow Through Capital with copies submitted to the Department of Environmental Protection- Southeast Regional Office, care of Mr. Ragesh Patel, located at 2 East Main Street, Norristown, PA 19401.

This notice is made under the provision of the Land Recycling and Environmental Remediation Standards Act, the Act of May 19, 1995, P.L. #4, No. 2.

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

We appreciate your prompt attention to this matter. Please feel free to contact me if you have any questions at 610-265-1510 ext. 211.

RT ENVIRONMENTAL SERVICES, INC.

John C. Lydzinski, P.G.
Project Manager

Enclosure

cc: D. Goldstein – Follow Through Capital
W. Hungarter – RT

H:\72900 SERIES\2043-20\NIR_city_notice.doc

2610-FM-BECB0010 6/2014

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

For DEP Use Only
PF #_____
Rem ID #_____

NOTICE OF INTENT TO REMEDIATE

Act 1995-2 requires four general information items to be included in the NIR: the general location, listing of contaminants, intended use of property, and proposed remediation measures. In addition, indicate the standard(s) to be obtained (if known) and attach a scaled site map (if available).

Property Name 3320 Collins Street Property

Former Name(s) / AKA Scholler, Inc.

Address / Location 3320 Collins Street

City Philadelphia Zip Code 19134

Municipality(s) City of Philadelphia County(ies) Philadelphia

Latitude 39 ° (deg). 59 ' (min) 38.31 " (sec) Longitude 75 ° (deg). 06 ' (min) 23.3 " (sec)

Horizontal Collection Method

Horizontal Reference Datum NAD 83 Reference Point Approximate Center of Property

☐ Wish to participate in the DEP/EPA MOA. Contact the Land Recycling Program Manager at landrecycling@pa.gov for details.

EPA ID#, if known

DEP ID#(s), if known 1-51-0-27331
(i.e., eFACTS site ID#, storage tank facility ID#, water quality permit #, watershed permit, air quality permit #, etc.)

Date Release Occurred (if known) Historic

Provide a brief description of the site contamination in plain language (e.g. fuel oil spill, historical chemical industrial area contamination), the names of any know primary contaminants to be addressed, and the intended future use of the property.

Tetrachloroethene (PCE) and Trichloroethene (TCE) were recently detected in soil as determined through a site characterization boring drilled on 10/2/2018. TCE was also detected in a deep groundwater monitoring well althought the concentrations were below the non-used aquifer standard. The Site was approved as a non-use aquifer as part of the historic Act 2 work (Facility ID # 1-51-0-27331). Remediation will consist of excavation and disposal of the subsurface soil contamination. The property will be redeveloped for residential use. The remediator will demonstrate the attainment of the residential Statewide Health standard and Site Specific standard for soil and groundwater.

Provide a general description of proposed remediation measures.

Remedial action will consist of pathway elimination along with the removal of approximately 10-cubic yards of soil impacted with chlorinated solvents. The Site was historically remediated through the Act 2 Program for releases associated with a petroleum UST. The Site demonstrated attainment of the Site Specific non-residential standard for this release (Facility ID # 1-51-0-27331). During the investigation, chlorinated solvents were identified in groundwater which were not addressed at that time. Further characterization work was completed in 2018 related to the chlorinated solvent release.

Remediation Standard(s) planned (if known at this time):

☐ Unknown at this time ☐ Soil ☐ Groundwater
☐ Background ☐ Soil ☐ Groundwater
Contaminants:

☒ Statewide Health - Residential ☒ Soil ☒ Groundwater
Contaminants: Benzene, Ethylbenzene, Cumene, MTBE, Naphthlene, Toluene, 1,2,4,-Trimethylbenzene, 1,3,5-Trimethylbenzene, 1,1-Dichloroethene, trans-1,2-Dichloroethene, cis-1,2-Dichloroethane, 1,1,1-Trichloroethane, Trichloroethene (TCE), Tetrachloroethene (PCE), and Vinyl Chloride

☐ Statewide Health – Non-Residential ☐ Soil ☐ Groundwater
Contaminants:

☒ Site Specific ☒ Soil ☒ Groundwater
Contaminants: Benzene, Ethylbenzene, Cumene, MTBE, Naphthlene, Toluene, 1,2,4,-Trimethylbenzene, 1,3,5-Trimethylbenzene, 1,1-Dichloroethene, trans-1,2-Dichloroethene, cis-1,2-Dichloroethane, 1,1,1-Trichloroethane, Trichloroethene (TCE), Tetrachloroethene (PCE), and Vinyl Chloride

☐ Special Industrial Area* ☐ Soil ☐ Groundwater
Contaminants:

*NOTE: Specific standard or Special Industrial Area require a 30-day municipal comment period

Remediator / Property Owner / Consultant. Complete the form below for *each* recipient obtaining a release of liability upon approval of the final report. Attach additional sheets as necessary.

Remediator

Contact Person/Title Mr. David Goldstein eFACTS Client ID* _____
Relationship to Site Remediator Client Type* _____
(e.g. owner, remediator, participant in cleanup, consultant, etc.)
Phone Number 215-771-2000 Email Address david@followthroughcapital.com
Company Name Follow Through Capital EIN or Federal ID # _____
Address (street, city, state, zip) 20 Conshohocken State Road Apt. 312 Bala Cynwyd, PA 19004

Property Owner

Contact Person/Title Mr. Oji Parro eFACTS Client ID* _____
Relationship to Site Owner Client Type* _____
(e.g. owner, remediator, participant in cleanup, consultant, etc.)
Phone Number 215-327-8620 Email Address thegallerieisada@gmail.com
Company Name _____ EIN or Federal ID # _____
Address (street, city, state, zip) 2330 Collins Street Philadelphia, PA 19134

Consultant

Contact Person/Title John C. Lydzinski, P.G. eFACTS Client ID* _____
Relationship to Site Consultant Client Type* _____
(e.g. owner, remediator, participant in cleanup, consultant, etc.)
Phone Number 610-265-1510 ext. 211 Email Address jlydzinski@rtenv.com
Company Name RT Environmental Services, Inc. EIN or Federal ID # _____
Address (street, city, state, zip) 215 West Church Road King of Prussia, PA 19406-3207

*Include eFACTS Client ID (if known) – "Client Types" below:

Association/Organization	Limited Liability company	Partnership-General
Authority	Limited Liability Partnership	Partnership-Limited
County	Municipality	School District
Estate/Trust	Non-Pennsylvania Government	Sole Proprietorship
Federal Agency	Other (Non-Government)	State Agency
Individual	Pennsylvania Corporation	

Preparer of Notice of Intent to Remediate

Name John C. Lydzinski, P.G. Title Associate
Phone Number 610-265-1510 ext. 211 Email Address jlydzinski@rtenv.com

Company Name RT Environmental Services, Inc. eFACTS Client ID

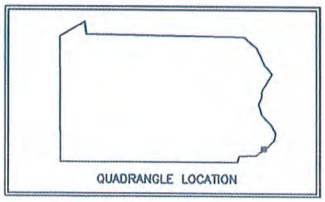
Address (street, city, state, zip) 215 West Church Road King of Prussia, PA 19406-3207



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
CAMDEN, NJ–PA
CONTOUR INTERVAL 10 FEET

SCALE (feet)

0 2000' 4000'



RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

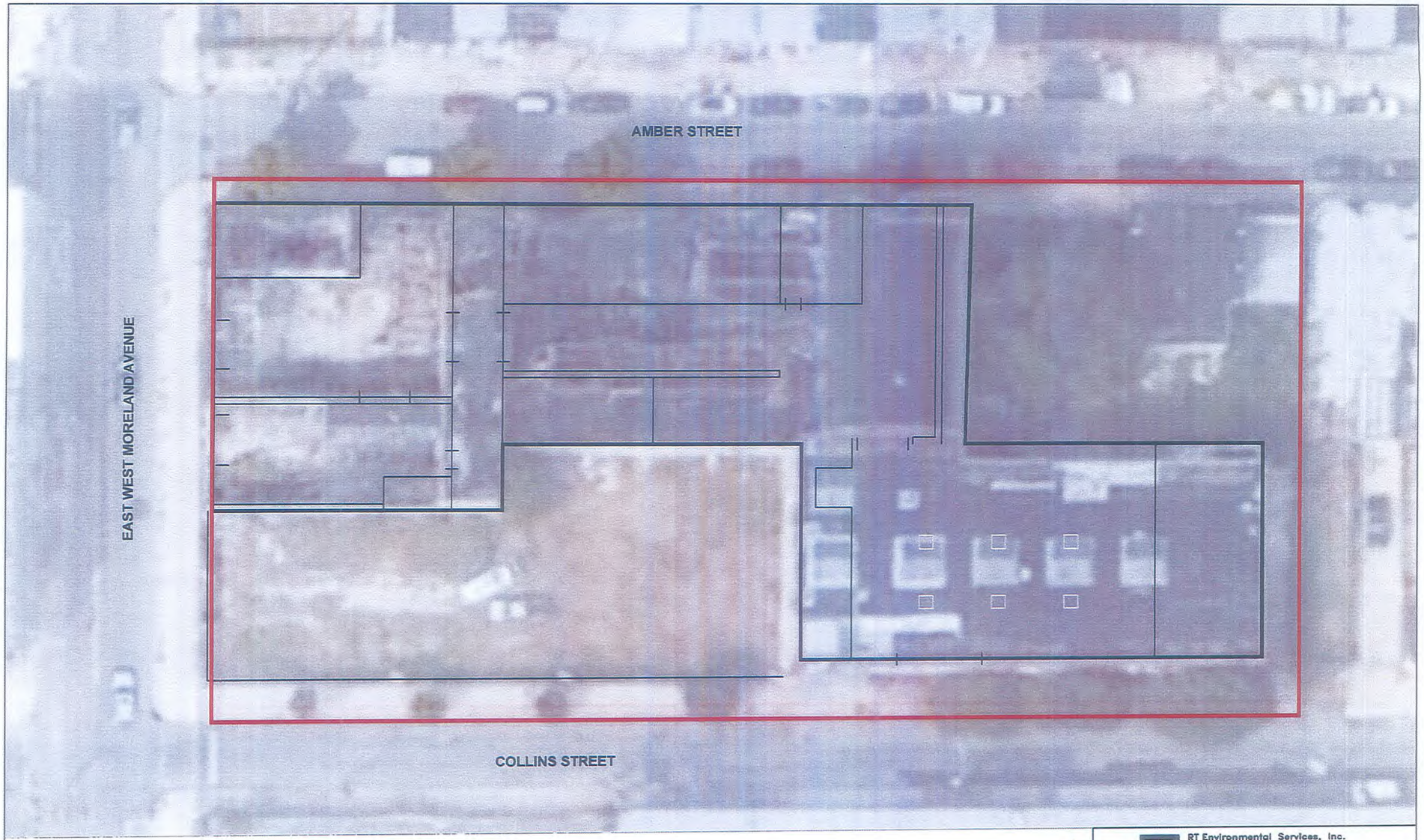
FIGURE 1
SITE LOCATION MAP

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:

FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	2043–20	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON	VL
SCALE	1" = 2000'	DRAWING NUMBER			REVISION	
DATE	4/4/19	y:\rt projects\2000 series\2043-20\figures\figures.dwg				



LEGEND

ACT 2 SITE BOUNDARY

0 40′ 80′

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 2
AERIAL SITE MAP

3320 COLLINS STREET, PHILADELPHIA, PA

Prepared For:
FOLLOW THROUGH CAPITAL
20 CONSHOHOCKEN ROAD, APT 312
CONSHOHOCKEN, PA

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
2043–20				VJL

SCALE	DRAWING NUMBER	REVISION
1" = 40′	y:\rt projects\2000 series\2043–20\figures\figures.dwg	1
DATE 4/4/19		

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Caroline Johnson, MD
Deputy Health Commissioner
Phila. Dept. of Public Health
Env. Engineering Section
321 University Avenue
Phila., PA 19104

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X
☐ Ag
☐ Ad

B. Received by (*Printed Name*)
Mara Yoh

C. Date of D

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

SEP 03 2019

USPS

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number
(*Transfer from service label*) 7012 1010 0002 3230 1478

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

LEGAL ADVERTISEMENT

Proof of Publication

The Philadelphia Weekly established in 1971, with general circulation in Philadelphia and located at 1520 Locust St, Philadelphia, PA. who published the following notice on July 9, 2020 for RT Environmental Services.

Public Notice

Notice is hereby given that Follow Through Capital has submitted a Remedial Investigation Report/Cleanup Plan to the Pennsylvania Department of Environmental Protection, Southeast Regional Office, to demonstrate attainment of a combination of the residential site-specific and statewide health standards for a portion of the site located at 3320 Collins Street in Philadelphia. Follow Through Capital has indicated that the remediation measures taken will attain compliance with the residential site-specific and statewide health cleanup standards established under the Land Recycling and Environmental Remediation Standards Act. This notice is made under the provision of the Land Recycling and Environmental Remediation Standards Act, the Act of May 19, 1995, P.L. #4, No. 2.

The affiant (owner/publisher/agent), Rachel Fox, is not interested in the subject matter of the notice or advertising, and that all of the allegations as to the time, place, and character of publication are true.

Affiant (owner/publisher/agent): Rachel Fox

State of New Jersey
County of Camden

Signed before me on July 9, 2020 (date) by Rachel Fox (name(s) of individual))

Signature of notarial officer Stamp

STEPHANIE L HAWKINS
NOTARY PUBLIC
NEW JERSEY

My commission expires: 9/5/23

PW MARKETPLACE

PHILADELPHIA WEEKLY

FOR RENT

Apartments for Rent

8500 BUSTLETON AVE.
Corner of Evart St.
Summer Special 1 & 2 BR
$875 - $1,100. Water & gas included. **215-742-2261**

Grant Garden Apartments
Summer Special, upgraded 1 & 2 BR, 1 BA. $750 - $980 includes water. Laundry rm on site. Off of Blvd. **215-464-6411**

Rittenhouse Square Condo
1BR, furnished. Long or short lease. Avail in June. Call **215-467-0495** or **215-307-9406**

Houses for Rent

32XX S. Juniper -3BR, 1.5BA newly renov. Private prkg, c/a, Avail. immed. **215-467-0495**

HOME IMPROVEMENT

Windows

HAPPY WINDOWS
Shutters, 2-Inch Wood, Pleated Shades, Roman Shades, Drapes, Verticals, Mini-Blinds
Discount Price With Installation
Call Eileen
215-465-7525

NOTICE

Public Notice

T-Mobile proposes to collocate antennas (tip heights 64.5') on the building at 100 West Coulter Street,Philadelphia, PA (20201009). Interested parties may contact Scott Horn (856-809-1202) (1012 IndustrialDr., West Berlin, NJ 08091) with comments regarding potential effects on historic properties.

WANTED

Help Wanted

Oregon Window Co. is looking for part time help to assist in multiple office duties. Computer experience a plus. Call Karen at 215-336-3448

EMPLOYMENT

General Employment

Construction Workers
Experience preferred.
215-908-3241 All trades.

GENERAL AND TREATMENT FOSTER PARENTS NEEDED
Open your heart and home to children of all ages
New Foundations, Inc.
215-203-8733
www.nfi4kids.org

FLAGGERS ($12.50/hr)
Traffic Plan seeks Flaggers to set up and direct traffic around construction sites. A valid PA driver license and clean driving record a must, good pay and benefits. If interested please fill out an application at 510 Hertzog Blvd, King of Prussia, PA on Monday's 9am - 12pm or online at **trafficplan.com**.

NOTICE

Public Notices

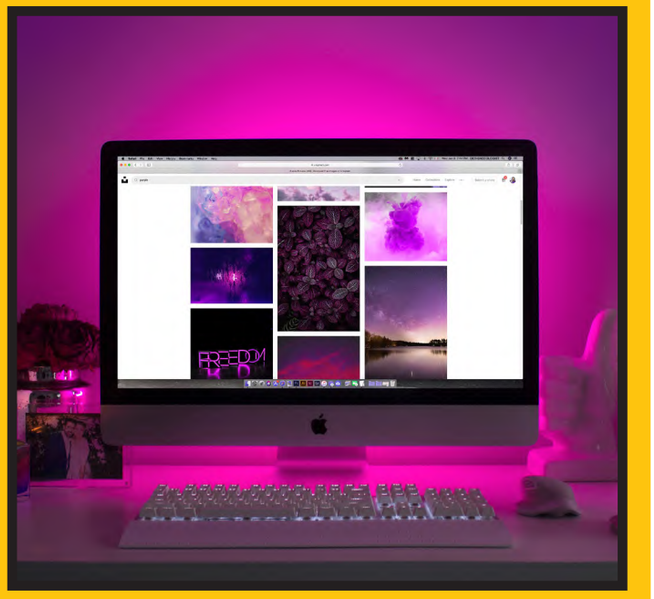
Notice is hereby given that Follow Through Capital has submitted a Remedial Investigation Report/Cleanup Plan to the Pennsylvania Department of Environmental Protection, Southeast Regional Office, to demonstrate attainment of a combination of the residential site-specific and statewide health standards for a portion of the site located at 3320 Collins Street in Philadelphia. Follow Through Capital has indicated that the remediation measures taken will attain compliance with the residential site-specific and statewide health cleanup standards established under the Land Recycling and Environmental Remediation Standards Act. This notice is made under the provision of the Land Recycling and Environmental Remediation Standards Act, the Act of May 19, 1995, P.L. #4, No. 2.

T-Mobile proposes to collocate antennas (tip heights 81.5') on the building at 3401 North 5th Street,Philadelphia, PA (20201010). Interested parties may contact Scott Horn (856-809-1202) (1012 IndustrialDr., West Berlin, NJ 08091) with comments regarding potential effects on historic properties.

T-Mobile proposes to collocate antennas (tip heights 106.5') on the building at 34 South 11th Street, Philadelphia, PA (20201007). Interested parties may contact Scott Horn (856-809-1202) (1012 Industrial Dr., West Berlin, NJ 08091) with comments regarding potential effects on historic properties.

Recent break up?

PW Classifieds is a great place to **sell your ex's stuff.**



classifieds@philadelphiaweekly.com

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No Commission. No Fees.
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Joe Catroppa
BHHS FOX & ROACH REALTORS
Cell: 215-432-6350

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SOLO REAL ESTATE
solorealty.com

Call us at 215-564-7656
or visit solorealty.com.
2017 Chancellor Street
Philadelphia, PA 19103

MUNICIPAL NOTIFICATION

RT Environmental Services, Inc.

VIA CERTIFIED MAIL – 7012 1010 0002 3230 1591
Return Receipt Requested

July 1, 2020

Ms. Caroline Johnson, MD
Deputy Health Commissioner
Philadelphia Department of Public Health
Environmental Engineering Section
321 University Avenue
Philadelphia, PA 19104
(215) 685-7343 / Fax: (215) 382-1210

RE: NOTICE OF SUBMITTAL OF REMEDIAL INVESTIGATION REPORT/CLEANUP PLAN
FORMER SCHOLLER, INC. PROPERTY
3320 COLLINS STREET, PHILADELPHIA, PENNSYLVANIA
RT PROJECT #2043-20

Dear Ms. Johnson:

Notice is hereby given that Follow Through Capital (the remediator) has submitted a Remedial Investigation Report/Cleanup Plan (RIR/CP) to the Department of Environmental Protection for a portion of the site known as the Former Scholler, Inc. Property at 3320 Collins Street. The RIR/CP indicates that the remediation planned will attain compliance with a combination of the statewide health and site-specific cleanup standards.

This notice is made under the provision of the Land Recycling and Environmental Standards Act, the Act of May 19, 1995, P.L. #4, No. 2.

We appreciate your prompt attention to this matter. Please feel free to contact me if you have any questions at 610-265-1510 ext. 211.

RT ENVIRONMENTAL SERVICES, INC.

John C. Lydzinski, P.G.
Project Manager

Enclosure

cc: D. Goldstein – Follow Through Capital
W. Hungarter – RT

Y:\2000 SERIES\2043-20\RIR-CP\Submittal Forms\RIR_city_notice.doc

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

7012 1010 0002 3230 1591

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For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ 0.50
Certified Fee	3.55
Return Receipt Fee (Endorsement Required)	2.85
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 6.90

Postmark Here 7/1/2020

Sent To Ms. Caroline Johnson, MD
Street, Apt. No.; or PO Box No. 321 University Ave.
City, State, ZIP+4 Philadelphia, PA 19104

PS Form 3800, August 2006 See Reverse for Instructions

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Caroline Johnson, MD
Deputy Health Commissioner
Phila. Dept. of Public Health
Env. Eng. Section
321 University Ave.
Phila, PA 19104

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7012 1010 0002 3230 1591

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

John Lydzinski

From: auto-reply@usps.com
Sent: Wednesday, July 08, 2020 11:58 AM
To: John Lydzinski
Subject: USPS® Item Delivered, Front Desk/Reception/Mail Room 70121010000232301591

UNITED STATES POSTAL SERVICE®

Hello **John Lydzinski**,

Your item was delivered to the front desk, reception area, or mail room at 11:53 am on July 8, 2020 in PHILADELPHIA, PA 19104.

Tracking Number: **70121010000232301591**

Delivered, Front Desk/Reception/Mail Room



Tracking & Delivery Options

My Account

Visit USPS Tracking® to check the most up-to-date status of your package. Sign up for Informed Delivery® to digitally preview the address side of your incoming letter-sized mail and manage your packages scheduled to arrive soon! To update how frequently you receive emails from USPS, log in to your USPS.com account.

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USPS Tracking®

FAQs >

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Tracking Number: 70121010000232301591 Remove ×

Your item was delivered to the front desk, reception area, or mail room at 11:53 am on July 8, 2020 in PHILADELPHIA, PA 19104.

Feedback

Delivered

July 8, 2020 at 11:53 am
Delivered, Front Desk/Reception/Mail Room
PHILADELPHIA, PA 19104

Get Updates ∨

Text & Email Updates ∨

Tracking History ∧

July 8, 2020, 11:53 am
Delivered, Front Desk/Reception/Mail Room
PHILADELPHIA, PA 19104
Your item was delivered to the front desk, reception area, or mail room at 11:53 am on July 8, 2020 in PHILADELPHIA, PA 19104.

July 8, 2020, 7:10 am
Out for Delivery
PHILADELPHIA, PA 19104

July 7, 2020, 11:39 am
Arrived at Unit
PHILADELPHIA, PA 19104

July 6, 2020
In Transit to Next Facility

July 4, 2020, 3:53 pm
Departed USPS Regional Facility
PHILADELPHIA PA DISTRIBUTION CENTER

July 3, 2020, 9:39 pm
Arrived at USPS Regional Facility
PHILADELPHIA PA DISTRIBUTION CENTER

Feedback

Product Information

See Less

Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

FAQs

PA DEP TECHNICAL DEFICIENCY LETTER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

October 13, 2020

Mr. David Goldstein
Follow Through Capital
20 Conshohocken State Road, Apt 312
Bala Cynwyd, PA 19004

Re: Letter of Technical Deficiency
Scholler Inc. Property
aka 3320 Collins Street Property
eFACTS PF ID No. 836850
3320 Collins Street Property
City of Philadelphia
Philadelphia County

Dear Mr. Goldstein:

The Department of Environmental Protection (DEP) has received and reviewed the July 2020 document titled "Remedial Investigation Report/Cleanup Plan" (report), received on July 15, 2020, for the property referenced above. The report was prepared by RT Environmental Services, Inc. and submitted to DEP in accordance with the Land Recycling and Environmental Remediation Standards Act (Act 2), and it constitutes a Remedial Investigation Report and Cleanup Plan as defined in Chapter 3.

The procedures and regulations set forth in Act 2 must be followed in order for your site to qualify for the liability protection provided by the Act. Upon initial review, DEP finds the submission is technically deficient and the following items are needed to complete your submission:

1. In a letter dated July 26, 2019 the City of Philadelphia requested that the remediator prepare a Public Involvement Plan for the site. A Public Involvement Plan was not submitted in the Remedial Investigation Report in accordance with 25 Pa. Code Section 250.6(d).

2. An evaluation of ecological receptors was not completed in accordance with 25 Pa. Code Sections 250.402(c) and 250.404(a).

3. The cleanup plan did not include information such as design plans or specifications regarding the remedy, a sub-slab vapor barrier and passive venting system, to be installed at new construction to eliminate the vapor intrusion to indoor air exposure pathway in accordance with 25 Pa. Code 250.410(b)(3).

4. The cleanup plan does not include a protocol for testing indoor air following renovations and implementation of the proposed remedy taking into account all pathways into buildings such as stairwells and utility chases in accordance with 25 Pa. Code Section 250.410(b)(3).

5. The Quick Domenico (QD) model is not always appropriate for predicting the fate and transport of dissolved-phase chlorinated hydrocarbon compounds in groundwater. The report lacks a justification for using the QD model to predict the transport of dissolved-phase trichloroethylene (TCE), a chlorinated hydrocarbon, in accordance with 25 Pa Code Section 250.408(a). Also, please provide a discussion of your method for calibrating the fate and transport model.

Please address the above summarized technical deficiencies within 60 days. If the deficiencies noted above are corrected and a report resubmitted to DEP within 60 days, it will not be necessary to resubmit report review fees, resend the municipal notice, or republish the public notice. Please include a copy of this correspondence with any resubmission to confirm to DEP staff that an administrative completeness check is not necessary. If the corrected report is resubmitted later than 60 days from the date of this letter, the resubmitted report will need to include the appropriate fees and proofs of municipal and public notices.

We look forward to assisting you in the remediation of this property and encourage you to contact us throughout this process. If you have any questions or need further information regarding this matter, please contact Lauren Mapleton by email at lmapleton@pa.gov or by telephone at 484.250.5783.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800.654.5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at http://ehb.courtapps.com or by contacting the Secretary to the Board at 717.787.3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717.787.3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

Sincerely,

Ragesh R Patel

Ragesh R. Patel
Regional Manager
Environmental Cleanup and Brownfields

cc: Mr. Lydzinski, PG, RT Environmental
City of Philadelphia L&I, North Central District
Ms. Rainford, Philadelphia Dept. of Public Health
Mr. Brown, P.G., DEP
Ms. Mapleton, DEP
Ms. Bass, DEP
Re 30 (hmw20ecb) 283-1

PADEP COMMENTS (FEBRUARY 18, 2021)

John Lydzinski

From: Mapleton, Lauren <lmapleton@pa.gov>
Sent: Thursday, February 18, 2021 11:56 AM
To: John Lydzinski
Subject: Scholler Rpt Addendum

John,
I spoke to Dave Brown. Because you submitted the NIR with Site-Specific Standards checked off, you need to follow the Eco Evaluation for site specific standards. A PNDI search is required and if anything is identified, further evaluation is required. Please submit a PNDI environmental review with results and supporting documents with your signatures as soon as possible. My review deadline is March 11.

One thing Dave and I talked about was Building #2 and the vapor barrier/passive vent system. I wondered if indoor air sampling was necessary after construction was complete. Dave said that if RT followed the manufacturer's recommendations for testing the tightness of the system, we will accept that with one caveat. Since the test is to be done prior to the installation of the concrete floor and construction of the apartments, RT should continue to monitor the construction to confirm that vapor barrier/vent system has not been compromised in anyway during construction that would cause the vapor intrusion pathway to be of a concern. Final Spec sheets for systems installed, testing results and pertinent information involving final construction with regards to the vapor barrier/vent system should be submitted in the final report.

For Building #1, please expand the indoor air sampling plan and also collect samples from the 1st floor apartment units as well as the stairwells and utility room.

I spoke with Dave about your PIP. Your website should have the revised RIR/CP available for viewing not just the July report. Your PIP should indicate that every report will be posted for viewing on your website once available. You need to revise your PIP to indicate this. Your notices for when reports are submitted that are sent to the City/City Council/and public informing them of this should also include the fact that comments will be accepted with the date of the comment period as you did for the public meeting.

Also, after talking with Dave I'm getting the impression the PIP should be a reviewable document that states how you will let the public/city/city council/ or any entity that wants to be involved with the project, how you plan to inform them of report availability and comment periods.

Please revise the addendum based on my comments and submit by the first week of March.
Let me know if you have questions or need clarification. I may have additional information on what we expect in the way of a PIP.

Lauren

Lauren T. Mapleton Geology Specialist
Department of Environmental Protection | Southeast Regional Office
2 E. Main Street | Norristown, PA 19401
Phone: 484.250.5783 | Fax: 484.250.5987
www.depweb.state.pa.us

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John Lydzinski

From: Mapleton, Lauren <lmapleton@pa.gov>
Sent: Thursday, February 18, 2021 3:40 PM
To: John Lydzinski
Subject: Scholler Addendum

John,
Two more comments.
Frank Nemec of DEP Central Office reviewed the Biochlor model and had the following comments:

- the model was utilized properly;
- field calibration data is non-existent
- therefore re-run the model post-remediation once field calibration data and site-specific degradation rates are obtained.

Just trying to think ahead, I guess if you re-run the model using input variables he suggests it may result in a plume extending farther than your current model shows. Which may put you in the position to reevaluate exposure pathways, like the vapor intrusion pathway.

Regarding your proposal to install a vapor mitigation system beneath the concrete foundation of Building #1 if indoor air sample results indicate the vapor intrusion pathway is complete.
Dave Brown suggested that if you need to install a vapor mitigation system then it might be best if you submit a cleanup plan addendum and get it approved first before installing the system and submitting the final report. That isn't strictly required, but if the report is deficient then we would have to disapprove both the addendum and final report and you/your client may end up having to do more work that is more difficult because the system is already in.

Let me know if you have questions/comments.
Lauren

Lauren T. Mapleton | Geologic Specialist
Department of Environmental Protection | Southeast Regional Office
2 E. Main Street | Norristown, PA 19401
Phone: 484.250.5783 | Fax: 484.250.5961
www.depweb.state.pa.us

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APPENDIX I

PUBLIC INVOLVEMENT PLAN INFORMATION

MUNICIPAL NOTIFICATIONS

RT Environmental Services, Inc.

VIA CERTIFIED MAIL –
Return Receipt Requested

October 30, 2020

Dr. Caroline Johnson, MD
Acting Deputy Health Commissioner
Environmental Engineering Section
Philadelphia Department of Public Health
1101 Market Street, Suite 1320
Philadelphia, PA 19107
(215) 685-7342
Leighanne.Rainford@Phila.gov

RE: PUBLIC INVOLVEMENT PLAN
FORMER SCHOLLER, INC.
3320 COLLINS STREET A/K/A
2101-2109 EAST WESTMORELAND STREET
PHILADELPHIA, PA 19134
RT PROJECT #2043-20

Dear Dr. Johnson:

As per the request of the City of Philadelphia, and on behalf of Follow Through Capital (Remediator), RT Environmental Services, Inc. has taken steps to inform the public about the remedial work that will take place at the above referenced site.

A copy of the Remedial Investigation Report (RIR)/Cleanup Plan has been made available for public review on the RT Environmental Services, Inc. website at www.rtenv.com under Resources. A virtual public information meeting is scheduled for Wednesday, November 18th at 5:00 pm on Zoom. The meeting can be joined by accessing the following address:
https://us04web.zoom.us/j/76145732763?pwd=aCtCOXp5Y1ZHK0NCY3BLeG5RYjRxdz09
Meeting ID: 761 4573 2763

A notice of this meeting will be published in the Philadelphia Weekly Newspaper on November 5th. The notice indicates that public comments may be submitted in writing at or prior to the meeting.

Please feel free to contact me if you have any questions at 610-265-1510 ext. 211.

Sincerely,

RT ENVIRONMENTAL SERVICES, INC.

John C. Lydzinski, PG
Geologist

Y:\2000 SERIES\2043-20\PIP\2043-20_PIP City Oct 2020.docx

215 West Church Road ■ King of Prussia, PA 19406 ■ (610) 265-1510 ■ Fax: (610) 265-0687
E-Mail RTENV@AOL.COM ■ Web Address http://www.RTENV.COM

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20473-20

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Philadelphia, PA 19107

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Caroline Johnson, MD
Acting Deputy Health Comm.
Phil. Dept. of Public Health
1101 Market St., Suite 1320
Philadelphia PA 19107

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2. Article Number *(Transfer from service label)*
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PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

RT Environmental Services, Inc.

VIA CERTIFIED MAIL –
Return Receipt Requested

October 30, 2020

Mr. Mark Squilla, Council Member
District 1
City Hall, Room 332
Philadelphia, PA 19107-3290
(215) 686-3458
(215) 686-3459

RE: PUBLIC INVOLVEMENT PLAN
FORMER SCHOLLER, INC.
3320 COLLINS STREET A/K/A
2101-2109 EAST WESTMORELAND STREET
PHILADELPHIA, PA 19134
RT PROJECT #2043-20

Dear Mr. Squilla:

As per the request of the City of Philadelphia's Department of Health, and on behalf of Follow Through Capital (Remediator), RT Environmental Services, Inc. has taken steps to inform the public about the remedial work that will take place at the above referenced site.

A copy of the Remedial Investigation Report (RIR)/Cleanup Plan has been made available for public review on the RT Environmental Services, Inc. website at www.rtenv.com under Resources. A virtual public information meeting is scheduled for Wednesday, November 18th at 5:00 pm on Zoom. The meeting can be joined by accessing the following address:
https://us04web.zoom.us/j/76145732763?pwd=aCtCOXp5Y1ZHK0NCY3BLeG5RYjRxdz09
Meeting ID: 761 4573 2763

A notice of this meeting will be published in the Philadelphia Weekly Newspaper on November 5th. The notice indicates that public comments may be submitted in writing at or prior to the meeting.

Please feel free to contact me if you have any questions at 610-265-1510 ext. 211.

Sincerely,

RT ENVIRONMENTAL SERVICES, INC.

John C. Lydzinski, PG
Geologist

Y:\2000 SERIES\2043-20\PIP\2043-20_PIP Council Oct 2020.docx

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2043-20

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Mark Squilla - District 1
Street and Apt. No., or PO Box No.
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City, State, ZIP+4®
Philadelphia, PA 19107-3290

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Mark Squilla
District 1
City Hall, Room 332
Philadelphia, PA 19107-3290

9590 9402 3975 8079 5955 44

2. Article Number (Transfer from service label)

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PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

NEWSPAPER NOTICE

Proof of Publication

The Philadelphia Weekly established in 1971, with general circulation in Philadelphia and located at 1520 Locust St, Philadelphia, PA. published the following notice on November 5, 2020 for RT Environmental Services, Inc.

Public Notice

NOTICE OF PUBLIC INVOLVEMENT MEETING

Pursuant to the Land Recycling and Environmental Remediation Standards Act, the act of May 19, 1995, Act No. 1995-2 (the "Act"), notice is hereby given that Follow Through Capital (Remediator) is coordinating a public meeting regarding the former Scholler, Inc. Site located at 3320 Collins Street a.k.a. 2101 – 2109 East Westmoreland Street in Philadelphia (the "Site"). The City of Philadelphia has requested a Public Involvement Plan regarding site remediation plans. The Site has been found to contain concentrations of Tetrachloroethene (PCE), Trichloroethene (TCE) and Benzo(a) pyrene in soil and Trichloroethene in groundwater. The Remediator has indicated that the proposed remediation measures will be a demonstration of a combination of the Act Statewide Health and Site-Specific Standards. The proposed future use of the property will be residential. A public information website has been established at www.rtenv.com under Resources which includes relevant documents regarding the remediation of this property. A virtual meeting (in lieu of an in-person meeting) will be held on Wednesday November 18th at 5:00 PM. Please join the Zoom meeting at the following address: https://us04web.zoom.us/j/76145732763?pwd=aCtCOXp5Y1ZHK0NCY3BLeG5RYjRxdz09
Meeting ID: 761 4573 2763
Public comments may be submitted in writing to RT Environmental Services, Inc., 215 W. Church Road, King of Prussia, PA 19406, Attention: Mr. John Lydzinski or via email to: jlydzinski@rtenv.com by November 18, 2020. Please feel free to contact me if you have any questions at (610) 265-1510 ext 211.

The affiant (owner/publisher/agent), Michael K. Chambers, is not interested in the subject matter of the notice or advertising, and that all of the allegations as to the time, place, and character of publication are true.

Affiant (owner/publisher/agent): Michael K Chambers

State of New Jersey
County of Camden

Signed before me on 11/5/2020 (date) by Michael K Chambers (name(s) of individual))

Signature of notarial officer Stamp

STEPHANIE L HAWKINS
NOTARY PUBLIC
NEW JERSEY

My commission expires: 09/05/2023

PW MARKETPLACE

PHILADELPHIA WEEKLY

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nsgprop@gmail.com
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Traffic Plan seeks Flaggers to set up and direct traffic around construction sites. A valid PA driver license and clean driving record a must, good pay and benefits. If interested please fill out an application at 510 Hertzog Blvd, King of Prussia, PA on Monday's 9am - 12pm or online at **trafficplan.com**.

Legal Notice

NOTICE OF DIVORCE
Kimberly Bagby Matthews, whose whereabouts are unknown, must answer Jerry Dewayne Matthews' Complaint for Divorce and other relief by December 9, 2020, or, thereafter, a judgment by default may be rendered against her in Case No. DR 2020-900525, Circuit Court of Tuscaloosa County, Alabama. The attorney for Jerry Dewayne Matthews is Jason Theodore Fleishman, 2317 Loop Road, Tuscaloosa, Alabama 35405, Telephone: 205-553-9764. Done this the 14th day of October, 2020. Magaria Bobo Clerk Circuit Court of Tuscaloosa County

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NM-00444453

Public Notice

Pursuant to the Land Recycling and Environmental Remediation Standards Act, the act of May 19, 1995, Act No. 1995-2 (the "Act"), notice is hereby given that Follow Through Capital (Remediator) is coordinating a public meeting regarding the former Scholler, Inc. Site located at 3320 Collins Street a.k.a. 2101 – 2109 East Westmoreland Street in Philadelphia (the "Site"). The City of Philadelphia has requested a Public Involvement Plan regarding site remediation plans. The Site has been found to contain concentrations of Tetrachloroethene (PCE), Trichloroethene (TCE) and Benzo(a) pyrene in soil and Trichloroethene in groundwater. The Remediator has indicated that the proposed remediation measures will be a demonstration of a combination of the Act 2 Statewide Health and Site-Specific Standards. The proposed future use of the property will be residential. A public information website has been established at www.rtenv.com under Resources which includes relevant documents regarding the remediation of this property. A virtual meeting (in lieu of an in-person meeting) will be held on Wednesday November 18th at 5:00 PM. Please join the Zoom meeting at the following address: https://us04web.zoom.us/j/76145732763?pwd=aCtCOXp5Y1ZHK0NCY3BLeG5RYjRxdz09 Meeting ID: 761 4573 2763
Public comments may be submitted in writing to RT Environmental Services, Inc., 215 W. Church Road, King of Prussia, PA 19406, Attention: Mr. John Lydzinski or via email to: jlydzinski@rtenv.com by November 18, 2020.

Public Notice

T-Mobile proposes to modify an existing facility (new tip heights 126.4') on the smokestack at 7500 Germantown Ave, Philadelphia, PA (20201575). Interested parties may contact Scott Horn (856-809-1202) (1012 Industrial Dr., West Berlin, NJ 08091) with comments regarding potential effects on historic properties.

Public Notice

T-Mobile proposes to collocate antennas (tip heights 81.4') on the (building) at 3101 West Oxford Street, Philadelphia PA (20201734). Interested parties may contact Scott Horn (856-809-1202) (1012 Industrial Dr., West Berlin, NJ 08091) with comments regarding potential effects on historic properties.

Public Notice

T-Mobile proposes to collocate antennas (tip heights 101.4') on the (smokestack) at 9800 Bustleton Avenue, Philadelphia PA (20201995). Interested parties may contact Scott Horn (856-809-1202) (1012 Industrial Dr., West Berlin, NJ 08091) with comments regarding potential effects on historic properties.

Help Wanted

Screen & Glass Repair Person Needed
Contact Karen at 1-877-286-3221

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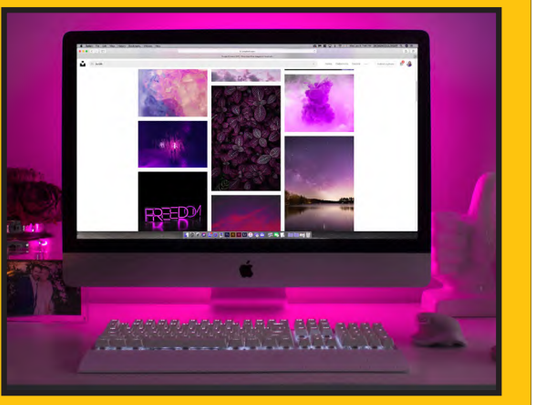


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WEB SITE DOCUMENTS

Former Scholler, Inc.

3320 Collins Street
a.k.a. 2101 – 2109 East Westmoreland Street

Act 2 Land Recycling
Public Involvement Program

John Lydzinski, P.G.
RT Environmental Services., Inc.

Site History

- Prior to 1930 - Residential Community
- Early 1930’s - Small Soap Factory constructed on Parcels
- Building expanded on several occasions up through 1940
- Scholler Brothers, Inc. later renamed Scholler, Inc. operated on the property until the 1980’s
- Property purchased by Arawak Holding Corporation in 1998
- DGPM1, LLC purchased a portion of the property for redevelopment in 2019.

Site History (Continued)

- Two USTs removed from open yard area on Amber Street in 1993
- 10,000-gallon fuel oil UST closed in 1998
- Non-use Aquifer Determination approved by PADEP on May 13, 1998
- Combined Remedial Investigation/Act 2 Final Report approved 2003
- Final Report demonstrated attainment of Site Specific Standard for No's. 2, 4 and 6 fuel oil constituents in soil & groundwater

Site History (Continued)

- Prohibits groundwater use and restricts development to non-residential
- Additional site characterization information obtained in 2018
- Fifteen soil borings indicated two areas in former warehouse impacted with chlorinated solvents and/or benzo(a)pyrene
- Four shallow and three deep groundwater wells installed in 2018
- Groundwater sampling completed in January & February 2020

Remediation & Groundwater Monitoring

- Two small affected soil areas (low level PCE, TCE & Benzo(a) pyrene) will be remediated (excavated) during building demolition
- Approximately 4-feet of soil will be removed from Area 1 and 2-feet from Area 2
- Excavated material will be disposed at PADEP permitted facility
- Groundwater will continue to be monitored for TCE concentrations which are currently below Non-Use Aquifer limits (50 mg/L) in well 19D

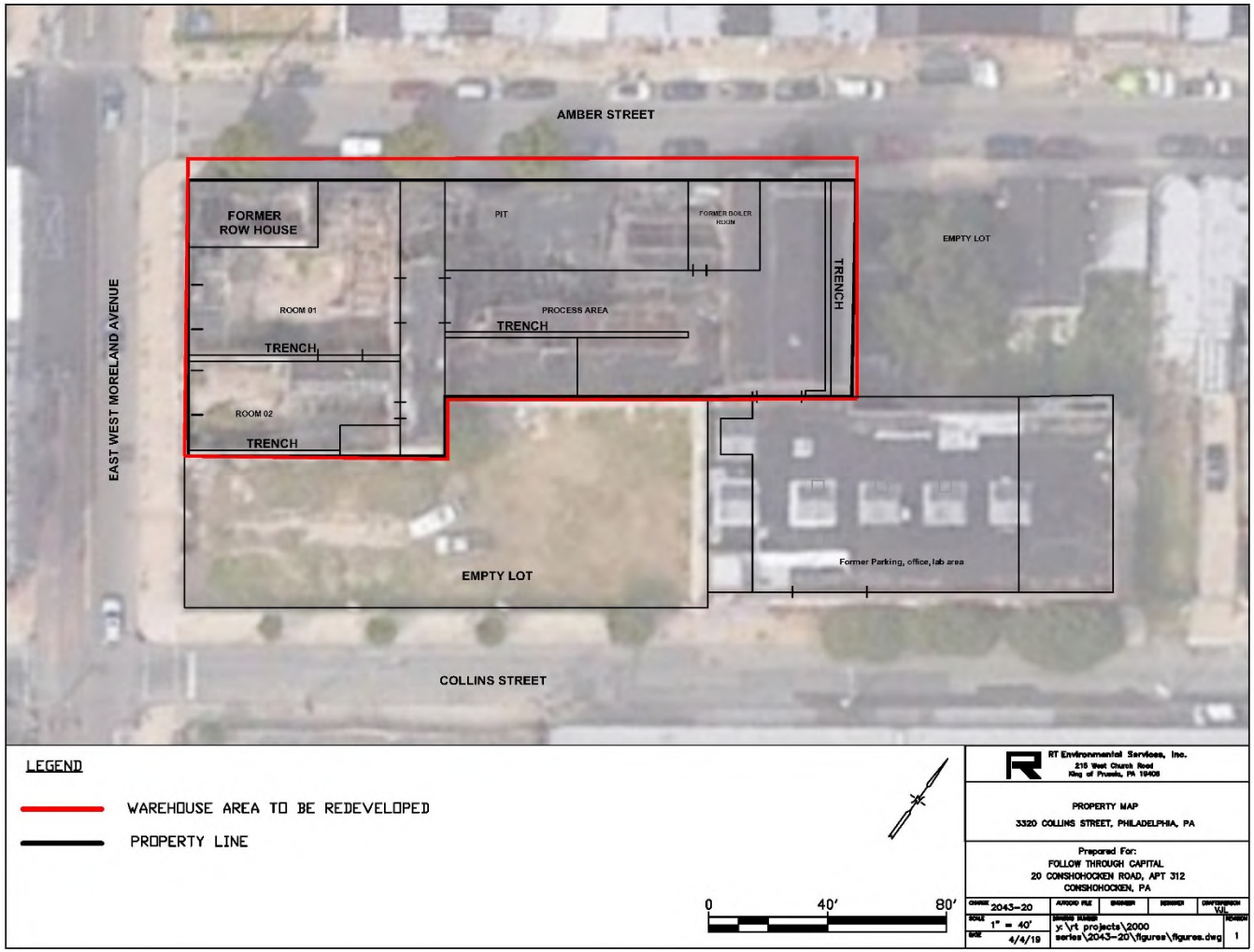
Land Use Modification

- Through the submittal of an Act 2 Final Report, DGPM1, LLC will request a change in land use from non-residential to residential development
- Groundwater use will continue to be restricted
- An Environmental Covenant restricting groundwater use will be submitted to the PADEP and attached to the current deed.

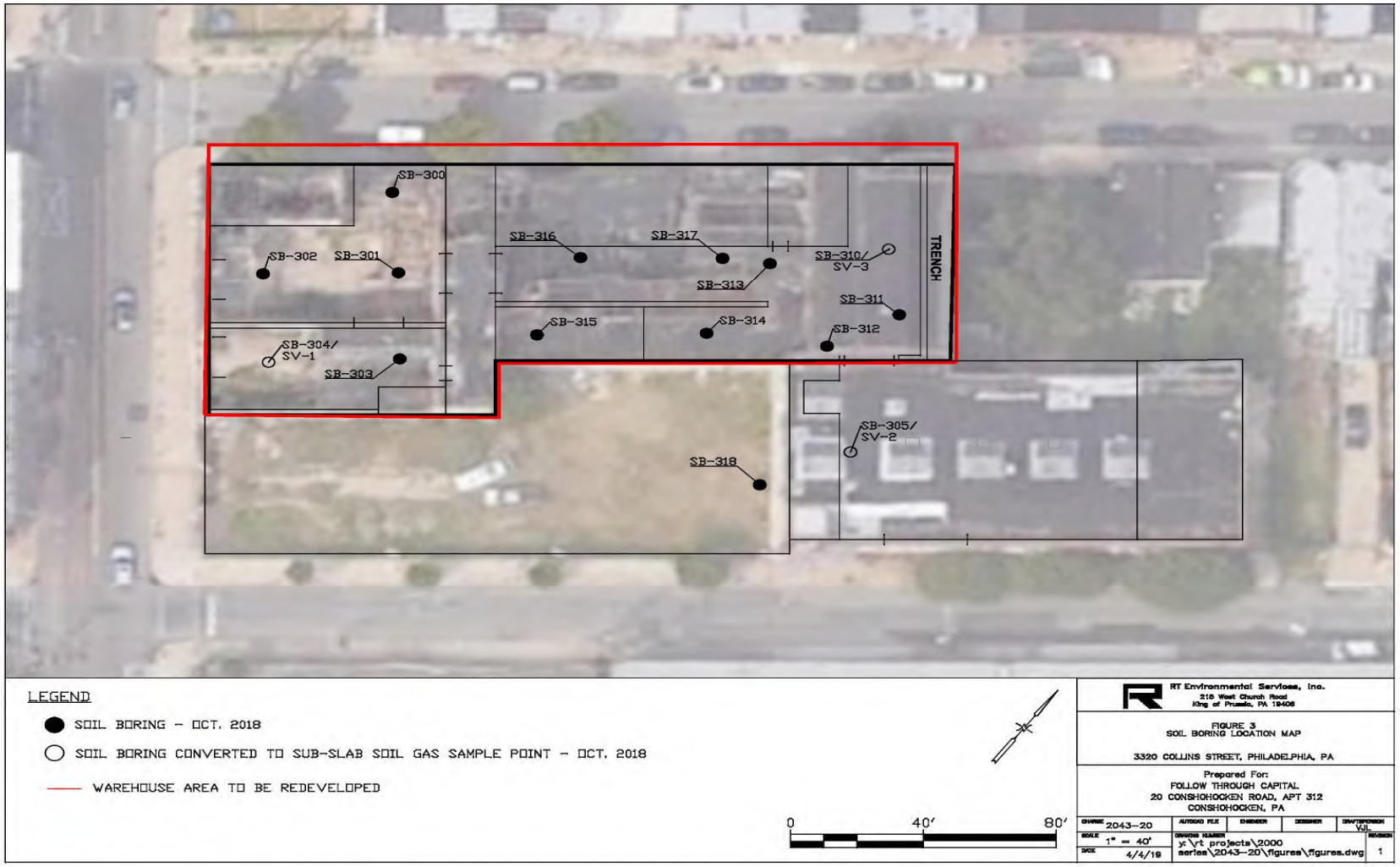
RE-DEVELOPMENT AREA

- Portion of the property to undergo redevelopment is located at 2101 – 09 E. Westmoreland Street
- Lot to be redeveloped consists of 17,085 ft^2
- Building 1 is an existing 4-story structure which will be renovated with 11 apartment units
- Building 2, currently occupied by brick warehouse to be razed, will consist of 4-story new construction (48 apartment units)
- Both buildings will front on Amber Street while Building 2 will also maintain frontage on E Westmoreland Street

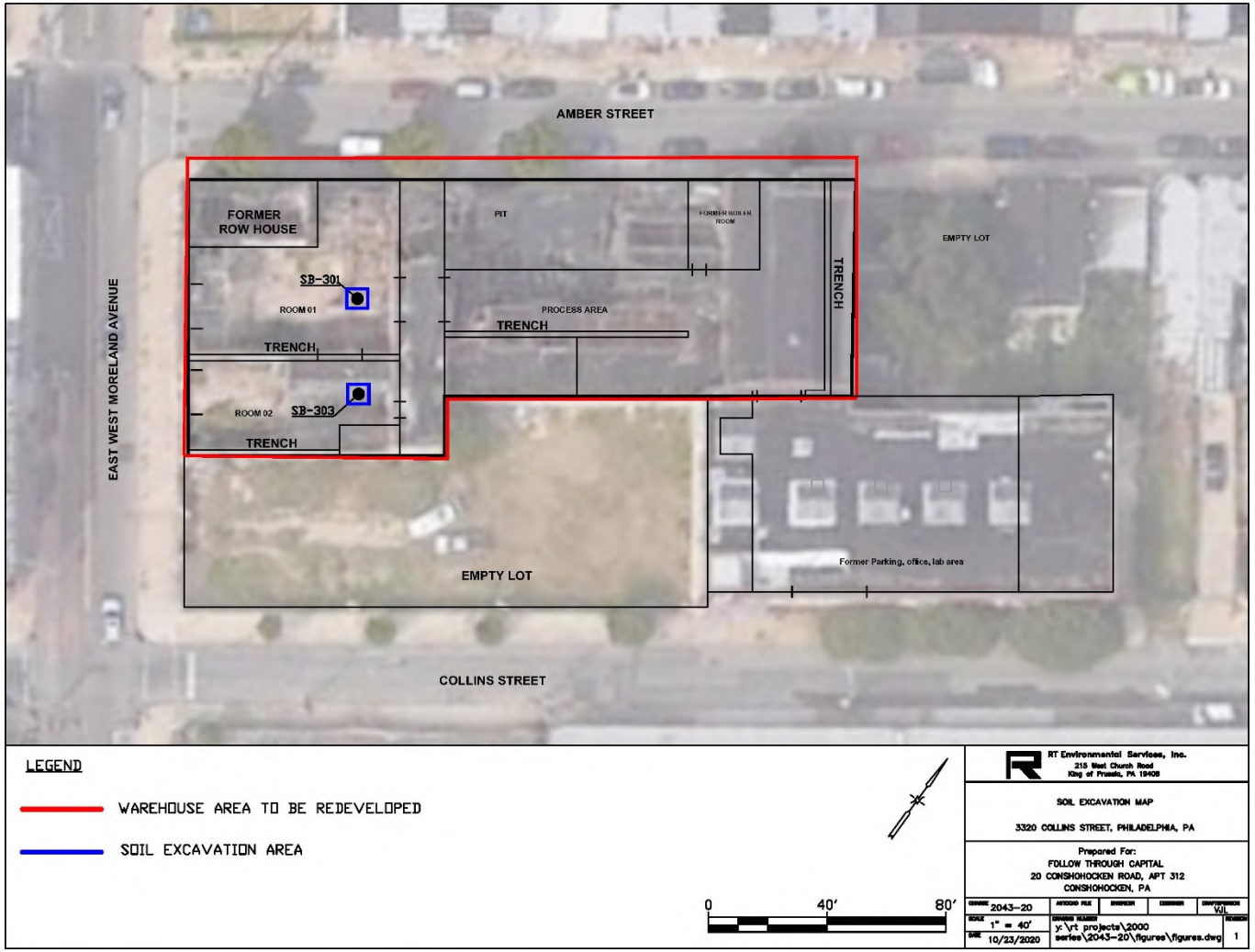
Property Map



Soil Boring Location Map



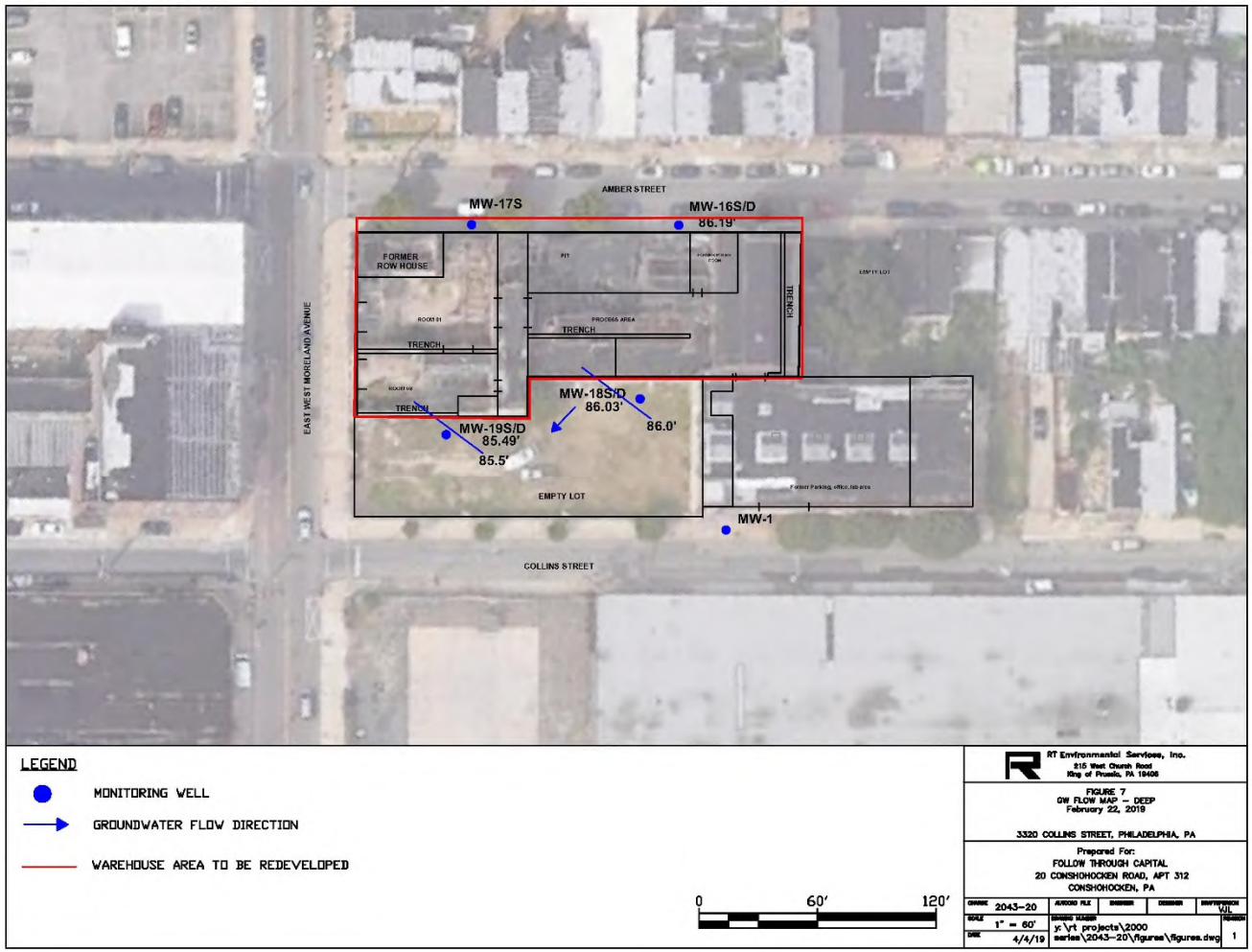
Area Excavation Map



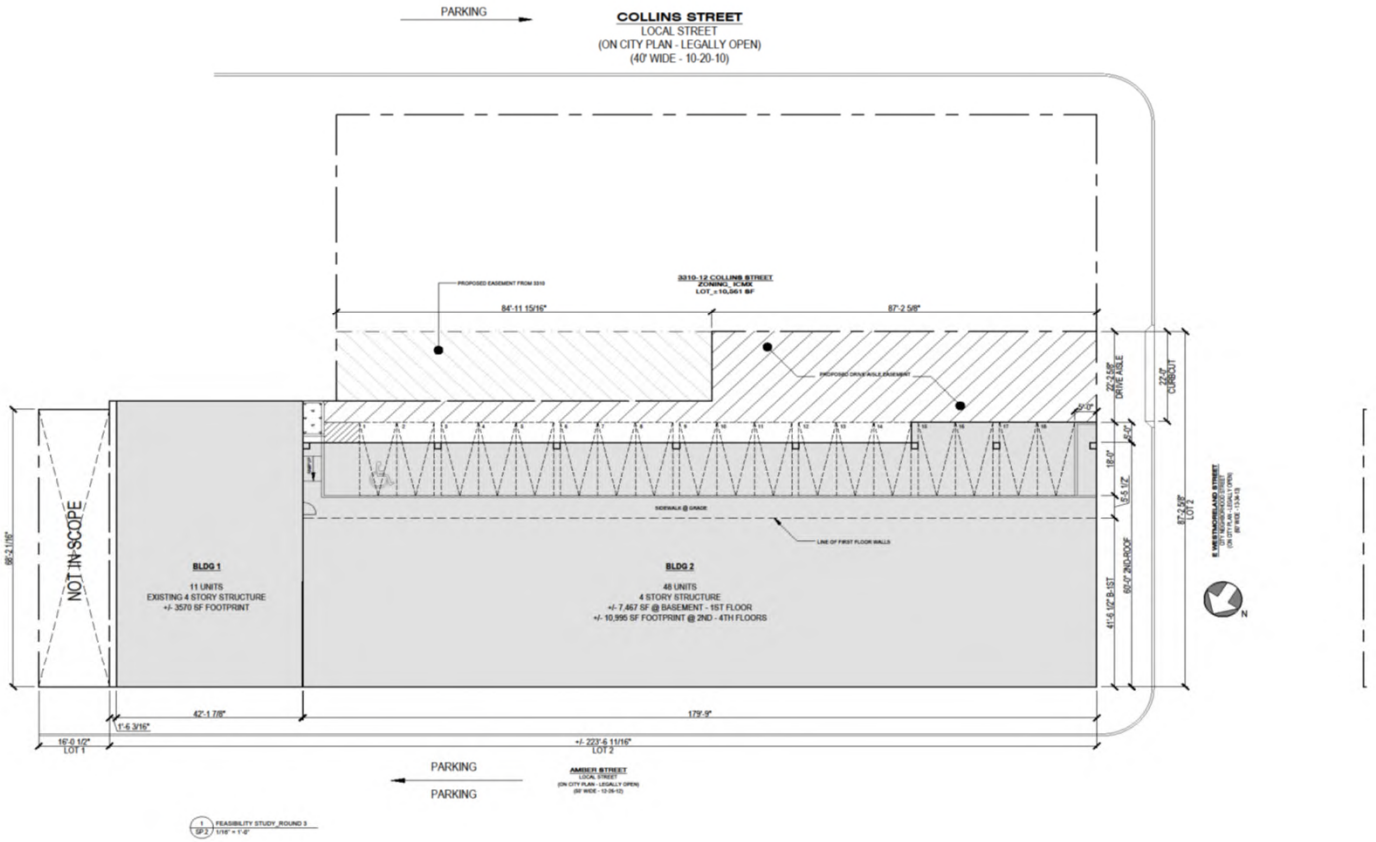
Groundwater Flow - Shallow



Groundwater Flow - Deep



Proposed Redevelopment Site Plan



harmandeutsch ARCHITECTURE

2101-09 E. WESTMORELAND ST
Philadelphia, PA

#	DATE	ISSUE / REVISION	DRAWN BY:	REVIEWED BY:
7	11.04.19	TRIPLEX OPTIONS	EG	EG
8	11.21.19	FEASIBILITY STUDY	EG	EG

SP.2
SITE FEASIBILITY

2101-09 E. WESTMORELAND STREET

Remedial Approach

- Pathway Elimination via Soil Excavation
  - Confirmed that all pathways are incomplete or residual contaminants pose negligible risk
    - Soil (site impact areas are excavated and vapor barrier installed in new construction)
    - Groundwater (no users or access to groundwater)
    - Submittal of Act 2 Final Report (Statewide Health –soil)
    - Vapor Intrusion (post construction vapor testing)
  - Environmental Covenant
    - Continue restriction of groundwater use

Public Involvement Program Information/Comments

- Remedial Investigation Report and Site Development Plan available for Review at the following link: www.rtenv.com under Resources
- Any comments can be submitted to:
  - RT Environmental Services, Inc.
    215 West Church Road
    King of Prussia, PA 19406
    Attention: John Lydzinski
    Email: jlydzinski@rtenv.com
- Comments Due by November 18, 2020

Virtual Public Meeting

- A Zoom Meeting will be held at 5:00 PM on Wednesday November 18th
- Join the meeting at the following address: https://us04web.zoom.us/j/76145732763?pwd=aCtCOXp5Y1ZHK0NCY3BLeG5RYjRxdz09
- Meeting ID: 761 4573 2763

APPENDIX J

PDNI SURVEY

1. PROJECT INFORMATION

Project Name: **Act 2 Land Recycling project; Redevelopment of historic industrial property**
Date of Review: **2/19/2021 09:44:49 AM**
Project Category: **Development, Additions/maintenance to existing development facilities**
Project Area: **0.57 acres**
County(s): **Philadelphia**
Township/Municipality(s): **PHILADELPHIA**
ZIP Code:
Quadrangle Name(s): **CAMDEN**
Watersheds HUC 8: **Lower Delaware**
Watersheds HUC 12: **Petty Island-Delaware River**
Decimal Degrees: **39.993710, -75.106720**
Degrees Minutes Seconds: **39° 59' 37.3574" N, 75° 6' 24.1926" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Act 2 Land Recycling project; Redevelopment of historic industrial property



Project Boundary

Buffered Project Boundary



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China

Act 2 Land Recycling project; Redevelopment of historic industrial property



Project Boundary

Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location, the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd, Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: John C. Lydzinski, PG
Company/Business Name: RT Environmental Services, Inc
Address: 215 W Church Road
City, State, Zip: King of Prussia, Pennsylvania 19406-3207
Phone: (610) 265-1510 Ext. 211 Fax (610) 265-0687
Email: jlydzinski@rtenv.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

applicant/project proponent signature

February 23, 2021
date