

## **Phase II Environmental Site Assessment**

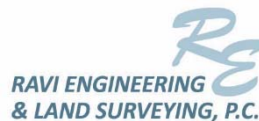
101-113 Franklin Street  
106 Pleasant Street  
City of Rochester, New York

PN 43-18-179-C

### **PREPARED FOR:**

City of Rochester  
Division of Environmental Quality

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## 1.0 INTRODUCTION

Ravi Engineering & Land Surveying, P.C. (RE&LS) was retained by the City of Rochester Division of Environmental Quality (DEQ) to perform a Phase II Environmental Site Assessment (ESA) of the subject properties located at 101-113 Franklin Street and 106 Pleasant Street in the City of Rochester (the “Site”) (Figure 1).

The Site consists of two City-owned parcels of undeveloped land currently addressed as 101-113 Franklin Street (SBL#106.80-1-25-.001, 0.58 acre, use code “parking lot”) and 106 Pleasant Street (SBL #106.39-1-33, 0.12 acre, use code “vacant commercial land”). The City regards this Site as a future mixed-use development site that could include apartments or townhouses.

A Phase I Environmental Site Assessment (Day Environmental, September 9, 2019-revised September 25, 2019) and geophysical survey (Wood E&I, January 10, 2019) were performed at the Site on behalf of the City. The information provided in the Phase I ESA indicates that the Site has a greater than 140 year history of residential and commercial use, outlined below:

- Residential parcels with structures as early as 1875
- A portion of a church and school property as early as 1888
- A YMCA building as early as 1910
- A commercial parking station with small building as early as 1950.

Day identified the following Recognized Environmental Conditions (RECs) in the Phase I ESA:

- Historical use of the assessed property: City of Rochester records document use as a “parking station” and a variance card to “install gasoline pumps in existing parking station.” An additional Sanborn map was discovered that depicted the presence of three “GTs” (gasoline tanks) on the northern part of the Site. Although not identified as a REC, the heating fuel source/type for the former YMCA building on the Site has not been identified. It is unknown if demolition debris was disposed of on site during demolition of former buildings, or if former foundations or building slabs are present.
- Historical use of adjoining/nearby properties: Information obtained as part of the Phase I ESA documented the following off-site RECs:
  - North – Printing shop, automobile repair facility, welding shop
  - East – Dry cleaning facility
  - South – gas station, dry cleaning facility, photographic facility, metal foundry
  - Southwest – Automobile repair facility, photo engraving facility, oil/refrigerant supply company
  - Known and suspected underground storage tanks (USTs) at off-site properties to the north, east, south, and southwest.

RE&LS conducted this Phase II ESA to address the above items as requested by the City of Rochester DEQ in the March 4, 2019 Request for Proposal (RFP). The scope of work performed to address the potential RECs included the following tasks:

- Advancement of soil test borings and installation of groundwater monitoring wells to evaluate potential contaminant source areas and migration pathways, including wells near the Site property lines, and to evaluate geotechnical considerations;
- Advancement of test pits to evaluate anomalies identified in the City-provided *Wood* geophysical report, and to evaluate subsurface geotechnical conditions (i.e., fill, old foundations, etc.);
- Screening and sampling for soil, fill material, and groundwater for analytical laboratory analysis;
- Toxicity characteristic leaching procedure (TCLP) sampling of soil or fill materials to evaluate for potential characteristic hazardous waste;
- Static water level measurements and survey of monitoring well evaluations;
- GPS recording of Phase II ESA and Preliminary Geotechnical investigation point locations;
- Characterization and disposal of investigation-derived waste; and
- A Preliminary Geotechnical Investigation was performed and is provided under separate cover.

## **2.0 METHODOLOGY**

### **2.1 Test Pits**

The test pit investigation was conducted on July 11 & 12, 2019 to determine if any USTs are present in the location of the anomalies identified in Wood's E-61 report, and to generate subsurface data for use in the Preliminary Geotechnical Investigation. TREC Environmental (TREC) was contracted to excavate the test pits. TREC utilized a Kubota mini-excavator to perform the test pitting and collect soil samples from nine test pit excavations.

Test pit observations, measurements, and soil screening details were logged in the field, and the open excavations were photographed. Once complete, the test pits were backfilled and the asphalt surface was restored. GPS locations of the nine test pits were collected using a handheld Trimble GeoXH GPS unit. Test pit logs and photographs are included in Appendix A. Test pit locations are provided on Figure 2.

Due to the large amount of C&D (construction and demolition) fill material excavated during test pitting, TREC was not able to backfill all of the soil and fill back into the excavation. The derived soils were staged on, and covered with plastic pending sampling for disposal.



## 2.2 Geoprobe Investigation

RE&LS conducted the subsurface soil investigation on July 17 and 18, 2019. Twenty-one borings were installed by Nature's Way Environmental (Nature's Way) using a direct-push technology sampling system. The Geoprobe utilizes a four-foot long macro-core sampler, with disposable polyethylene sleeves for continuous soil sampling. Soil borings were installed to a depth of twelve feet below ground surface (bgs) or Geoprobe refusal in all of the borings. Soils were screened in conjunction with the Geoprobe borings. The soil column obtained from each four-foot macro-core sampler tube was screened for visual and olfactory, indications of contamination. Organic vapors were screened with a photoionizing detector (PID) capable of detecting organic vapors from 1 to 15,000 part per million (ppm).

Boring observations and soil screening details were then logged on field forms, and GPS locations were collected. Boring logs are included in Appendix A.

Soil borings installed in grassy areas were backfilled with native material. Soil borings installed in asphalt were backfilled with native material to approximately six inches bgs. The remainder was filled with cold patch asphalt. Boring locations are included on Figure 2.

## 2.3 Soil Sampling and Analysis

One subsurface soil sample was collected from twenty of the twenty-one soil borings. A sample was not collected from BH-10 due to the absence of soil in the boring and low recovery overall. One subsurface sample was also collected from each of the deep overburden well borings. One surficial sample was also collected due to the proximity of the sample area to an historic metal foundry on the south adjacent property.

Samples were submitted to Paradigm Environmental Services, Inc. (Paradigm), a New York State Department of Health (NYSDOH)-approved laboratory, and analyzed in conformance with New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methods. Category B deliverables were performed for all analytical reporting in order to provide the necessary documentation to evaluate the usability of the data, and provide calibration data needed to verify results, as necessary. Paradigm provided NYSDEC Equis electronic data deliverables (EDD).

Sample results were compared to 6 NYCRR Part 375 Unrestricted Use and Restricted Use-Residential Soil Cleanup Objectives (SCO).

RE&LS collected the following soil samples for analysis:

<b><u>Parameter</u></b>	<b><u>EPA Method</u></b>	<b><u># Samples</u></b>
TCL & CP-51 Volatile Organic Compounds	8260	25/25*
TCL Semivolatile Organic Compounds	8270	10/10*
TAL Metals	6010/7470/747	17/15*
PCBs	8082	6/6*

\*number of samples collected/number of samples proposed to be collected

## 2.4 Direct-Push Shallow Overburden Wells

Upon completion of the direct push borings, five of the borings were converted into temporary one-inch diameter polyvinyl chloride (PVC) microwells (Figure 2). Because none of the five wells initially produced any groundwater, the wells were left in place for several days before samples could be collected. RE&LS proposed to submit groundwater samples from each of the five wells for analysis; however, the only microwells that produced enough groundwater for sample analysis were MW-1 and MW-4. Once sampled, the PVC screen and risers were removed and the boreholes were backfilled with native materials. Soil borings installed in asphalt were backfilled with native material to approximately six inches bgs. The remainder was filled with cold patch asphalt.

Groundwater sample results were compared to 6 NYCRR Part 703 Technical & Operational Guidance Series 1.1.1 *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations* (TOGS 1.1.1) protection of groundwater (GA) standards and guidance values.

RE&LS collected the following overburden groundwater samples for analysis:

<b><u>Parameter</u></b>	<b><u>EPA Method</u></b>	<b><u># Samples</u></b>
TCL & CP-51 Volatile Organic Compounds	8260	2/5*
TCL Semivolatile Organic Compounds	8270	1/5*
TAL Metals	6010/7470/747	0/1*
PCBs	8082	0/1*

\*number of samples collected/number of samples proposed to be collected

## 2.5 Geotechnical Survey

Five borings were installed across the Site by Nature's Way on July 23-25, 2019 using a truck-mounted drill rig. Standard split-spoon sampling (one per five-foot interval) was performed for boring D1, D2, and D3. Continuous split-spoon sampling was utilized for D4 and D5. Borings were installed to apparent bedrock refusal, and soils were characterized and field screened for volatile organic vapors.

The field results were utilized for a geotechnical analysis; the August 27, 2019 *Preliminary Geotechnical Engineering Investigation* report is provided under separate cover. Field logs with observations including soil and fill descriptions, and soil screening results are provided in Appendix A.

## 2.6 Rotary-drilled Deep Overburden Groundwater Monitor Wells

Upon completion of the geotechnical borings, five deep overburden wells were installed (Figure 2). The wells were installed using 10 feet of 2-inch diameter PVC 010 slotted screen completed with a 2-inch PVC riser to the surface. The wells were completed with a protective flush-mounted road box. Well construction details are provided with the soil boring logs in Appendix A.

The wells were developed on August 1, 2018 using dedicated hand-bailers. Approximately 3 gallons of groundwater was purged from each well to remove sediments from the well and the sand-packed annular space. Purge water was drummed, and is stored on Site pending sampling for disposal.

## **2.7 Deep Overburden Groundwater Sampling**

Groundwater samples were collected from each of the five deep overburden monitor wells by adjustable rate peristaltic pump utilizing low-flow purging and sampling procedures in general accordance with ASTM Standard D 6771-02 Standard Practice for Low-Flow Purging and Sampling for Wells and Devices for Groundwater Quality Investigations. Water quality was monitored for pH, specific conductance, temperature, turbidity, dissolved oxygen, and oxygen reduction potential (ORP) until these parameters stabilize, or for a maximum of 2 hours. Groundwater quality parameters were measured using a YSI Pro Plus Quatro flow cell with continuous readout display. Purge water was drummed pending disposal.

Low-flow sampling logs are provided in Appendix B.

RE&LS collected the following deep overburden groundwater samples for analysis:

<b><u>Parameter</u></b>	<b><u>EPA Method</u></b>	<b><u># Samples</u></b>
TCL & CP-51 Volatile Organic Compounds	8260	5/5
TCL Semivolatile Organic Compounds	8270	5/5
TAL Metals	6010/7470/747	2/1
PCBs	8082	2/1

\*number of samples collected/number of samples proposed to be collected

## **2.8 Static Water Level Measurements, GPS Locations, & Survey of Well Elevations**

Soil boring and monitoring well locations were determined by GPS, and the elevations of the deep overburden wells were determined to 0.01 foot accuracy by the RE&LS survey department. Groundwater depths, site survey data, and GPS data was used to determine the depth to groundwater and the local hydraulic gradient (Table 1).

## **2.9 Waste Characterization & Disposal of Investigative Derived Waste**

Drill cuttings were staged on, and covered with polyethylene sheeting. Water generated during drilling was drummed pending sampling and analysis for disposal. Waste will be handled in accordance with applicable regulations upon receipt of the characterization results. Documentation of the waste characterization and disposal will be provided under separate cover.

### **3.0 SOIL INVESTIGATION RESULTS**

#### **3.1 Test Pits and Preliminary Geotechnical Survey**

RE&LS field personnel made the following test-pit observations:

- TP-1 was excavated to investigate Wood’s Anomaly “C” (Appendix A). No tanks or metal objects were found. In general, excavated materials consisted of brick and stone (rubble) intermixed with loamy soil to a depth of 8 feet bgs. The fill material/native soil interface was not reached due to the limitations of the excavator. None of the excavated materials exhibited any visual or olfactory impacts or elevated PID readings.
- TP-2 was excavated to investigate an anomaly identified by Wood. A steel I-beam encased in concrete was found in the excavation. In general, excavated materials were similar with TP-1 with lesser amounts of brick and stone rubble, and more loam/soil. The pit was excavated to approximately 6.5 feet bgs. The interface of fill and apparent native soils was encountered at a depth of 2 feet bgs on the north end of the pit, but was not encountered on the south end of the pit. None of the excavated materials exhibited any visual or olfactory impacts or elevated PID readings.
- TP-3 was excavated to investigate an anomaly identified by Wood. A loose 2-inch diameter, 30-inch long steel pipe, a crushed metal drum, and metal debris were found in the excavation. Excavated materials consisted of sand intermixed with brick and lesser amounts of glass, metal shards and other debris. The pit was excavated to refusal on a concrete slab at 4 feet bgs. None of the excavated materials exhibited any visual or olfactory impacts or elevated PID readings.
- TP-4 was excavated to investigate an anomaly identified by Wood. A small metal conduit and electrical box were found in the excavation. Excavated materials consisted of pieces of rock intermixed with loam/soil. A foundation wall situated in an east/west direction was observed near the middle and south end of the excavation. The pit was excavated to a depth of 60 inches bgs. Native soil was encountered at a depth of approximately 3 feet bgs. None of the excavated materials exhibited any visual or olfactory impacts or elevated PID readings.
- TP-5 was excavated to investigate Wood’s Anomaly “A”. A 1-inch metal conduit pipe was found in the excavation. Excavated materials consist of reworked loam/soil. Native soils were encountered at a depth of 5 feet bgs. A one-inch conduit was encountered on the south end of the excavation travelling in an east/west direction at a depth of approximately 2.5 feet bgs. None of the excavated materials exhibited any visual or olfactory impacts or elevated PID readings.
- TP-6 was excavated to investigate an anomaly identified by Wood. No metal objects were found in the excavation. Excavated materials consist of 10 inches of black sandy soil intermixed with stone and lesser amounts of brick and wood fragments, over a layer of clayey loam from 10 to 66 inches bgs. None of the excavated materials exhibited any visual or olfactory impacts or elevated PID readings.

- TP-7 was excavated to investigate Wood's Anomaly "B". Several metal objects, including a large steel safe and an I-beam encased in concrete were identified. Excavated materials consist of brick intermixed with sandy loam. A concrete slab was encountered at the south perimeter of the excavation at approximately 27 inches bgs over a foundation wall from 27-75 inches bgs. The wall trends in an east/west orientation and appears to be constructed of field stone and mortar with a painted plaster skim coating. The pit was excavated to refusal on a tile floor at 75 inches bgs. None of the excavated materials exhibited any visual or olfactory impacts or elevated PID readings.
- TP-8 was excavated to investigate the potential presence of gasoline tanks as identified on Sanborn Maps. Excavated materials consisted of stone and brick fill intermixed with sand to a depth of 48 inches bgs. A brick wall was encountered on the east perimeter of the excavation at a depth of 12 inches bgs. A chemical-like odor was detected from excavated materials but elevated PID readings and odors were not detected on any of the perimeter walls. North perimeter wall soils were stained but did not produce elevated PID readings. Only soils screened from materials in the excavator bucket were found to have elevated readings (112 ppm). The pit was excavated to refusal on a concrete slab at a depth of 48 inches bgs.
- TP-9 was excavated to investigate subsurface conditions on the west portion of the Site. Excavated materials consist of sandy loam intermixed with brick and stone. The pit was excavated to a depth of 60 inches bgs; apparent native soils were encountered at a depth of 30 inches bgs.

### **3.2 Hydrogeologic Conditions**

In general, soils on the east end of the Site were found to consist of varying amounts of brick and rock rubble intermixed with loamy fill soils from 0 to 10 feet bgs, with native materials encountered at a typical depth of 5 feet bgs across the Site. The brick and stone rubble that was predominant throughout the eastern portion of the Site was absent in borings advanced on the west side of the Site, with the exception of a small amount of brick rubble at shallow depths near the northwest portion of the Site. Typical soils on the west portion of the Site consist of sandy loam and silty fine sand. None of the borings exhibited petroleum or chemical impacts or had any elevated PID readings.

Saturated conditions were encountered between 8-9.5 bgs in a few of the borings (B1, B4, B21) near the northeast corner of the Site. However, the temporary overburden microwells that were installed in two of these borings produced little groundwater.

Saturated soils were also present between 17-22 feet bgs. Static groundwater levels measured in the deep overburden monitoring wells ranged from 13.3 to 18.3 feet bgs. Groundwater elevations indicate that the groundwater flow direction across the Site is to the southwest (Figure 3).

Bedrock was encountered at depths ranging from 17.4 to 27.0 feet bgs.

Boring logs are provided in Attachment A.

### **3.3 Soil Analytical Results**

#### **Volatile Organic Compound Results**

The Site is zoned “Center City Base District” with use codes 330-Vacant Commercial Land and 438-Parking Lot. Soil analytical results are compared to Unrestricted Use SCOs and Restricted Use-Residential SCOs.

Twenty-six subsurface soil samples were analyzed for volatile organic compounds (VOCs):

- VOCs were not detected in nineteen of these samples.
- Seven samples had detections of one or more of the following constituents (Table 2):
  - 2-butanone was detected in one sample at a concentration below the Part 375 Unrestricted Use SCO of 0.120 ppm.
  - Acetone was detected in five samples at a concentration below the Unrestricted Use SCO of 0.05 ppm and in one sample at a concentration of 0.103 ppm, above the Unrestricted Use SCO but below the Restricted Use-Residential SCO of 100 ppm.
  - m,p-xylene was detected in two samples at concentrations below the Unrestricted Use SCO of 0.26 ppm.

#### **Semivolatile Organic Compound Results**

Ten soil samples were analyzed for semivolatile organic compounds (SVOCs): SVOCs were not detected in any of the samples.

#### **Metals**

One surficial soil sample and sixteen subsurface soil samples were analyzed for TAL metals. Silver was the only TAL metal not detected in any of the samples.

- Lead was detected in two of the subsurface samples at a concentration above the Unrestricted Use SCO of 63 ppm, but below the Restricted Use-Residential SCO of 400 ppm.
- Mercury was detected in one subsurface sample above the Unrestricted Use SCO of 0.18 ppm, but below the Restricted Use-Residential SCO of 0.81 ppm.
- All other TAL metal detections were below the Unrestricted Use SCO.

#### **Polychlorinated Biphenyls**

Six subsurface soil samples were analyzed for polychlorinated biphenyls (PCBs); PCBs were not detected in any of the samples.

Laboratory data are provided as Appendix C. Table 2 provides a summary of compounds detected in soil. Figure 4 shows the location of VOC detections and metal exceedances.

## **4.0 GROUNDWATER RESULTS**

### **Volatile Organic Compounds**

Two overburden groundwater samples and five deep overburden groundwater samples were analyzed for VOCs:

- Acetone was detected in one overburden groundwater sample at a concentration below the TOGS 1.1.1 standard of 50 parts per billion (ppb).
- cis-1,2-dichloroethene was detected in one deep overburden groundwater sample at a concentration above the TOGS 1.1.1 standard of 5 ppb.
- Trichloroethene was detected in one top of bedrock groundwater sample at a concentration below the TOGS 1.1.1 standard of 5 ppb.

### **Semivolatile Organic Compounds**

One overburden groundwater sample and five deep overburden groundwater samples were analyzed for SVOCs:

- Caprolactam was detected in the overburden sample at a concentration of 850 ppb. There is no TOGS 1.1.1 standard or guidance value for Caprolactam.
- Diethyl phthalate was detected in all five deep overburden samples; two of these detections were at a concentration above the TOGS 1.1.1 guidance value of 50 ppb. Diethyl phthalate is a common plasticizer that is ubiquitous in the urban environment. Its presence in groundwater at the Site is not necessarily indicative of a contaminant source on or near the Site.

### **Metals**

Two deep overburden groundwater samples were analyzed for metals:

- Aluminum, barium, calcium, magnesium, manganese, potassium, and sodium were detected in one or more of the samples. None of the detections were at a concentration above the associated TOGS 1.1.1 standard or guidance value.

### **PCBs**

Two deep overburden groundwater samples were analyzed for PCBs; PCBs were not detected in either sample.

Table 3 provides a summary of compounds detected in groundwater. VOC and SVOC groundwater detections are shown on Figure 5.

## **5.0 DISCUSSION**

### **5.1 Test Pits**

Prior to this Phase II ESA a Geophysical Survey was completed by others to further evaluate whether USTs are present on the Site. The results of the study identified three locations as potential UST anomalies. None of these anomalies correspond with the locations of the three Sanborn mapped USTs believed to be historically located in the northeast portion of the survey area. The report indicated that these anomalies may be related to USTs or miscellaneous buried metals.

The test pit investigation did not identify any USTs. Metal objects consisting of a steel safe, a metal drum, metal conduits, pipes and miscellaneous debris were identified in the test pit excavations and appear to be responsible for the anomalies.

### **5.2 Soil Analysis**

Three VOCs (2-butanone, acetone, and m,p-xylene) were detected at low concentrations in one or more of the 25 soil samples analyzed for VOCs predominantly in soils collected from the eastern and southern portion of the Site. All three contaminants are potentially present in soils from the historic use of the northern adjacent property as a print shop. 2-butanone and acetone are common laboratory contaminants and their presence in the groundwater samples from the Site may not be indicative of actual conditions at the Site. All but one of the concentrations of these constituents are below the Part 375 Unrestricted Use SCO. One sample was above the Unrestricted Use SCO of 0.05 ppm but below the Restricted Use-Residential SCO of 100 ppm:

- Sample SS-5 was collected from boring BH-5, on the northeast portion of the Site and south of the historic print shop. The concentration of acetone in this sample was reported by the laboratory to be 0.103 ppm.

Lead was found in two samples above the Unrestricted Use SCO of 63 ppm but below the Restricted Use-Residential SCO of 400 ppm.

- Sample SS-3 was collected from boring BH-3 on the northeast portion of the Site, in close proximity to the historic gas tanks. The sample was collected at a depth of 2 feet bgs, above a depth that would typically be impacted from buried USTs. Lead was not detected in other samples collected from the vicinity of the historic gas tanks at deeper depths (SS-1 was collected at 9.5 feet bgs and SS-2 was collected at 7.5 feet bgs). It does not appear that this contaminant is from historic Site usage or from the historic gas tanks. The lead concentration was reported by the laboratory to be 132 ppm.
- Sample SS-9 was collected at a depth of 10 feet bgs from boring BH-9 near the southeast perimeter of the Site. The lead concentration was reported by the laboratory to be 151 ppm.
- Mercury was found in one sample above the Unrestricted Use SCO of 0.18 ppm but below the Restricted Use-Residential SCO of 0.81 ppm.



- Sample SS-19 was collected at the southwest perimeter of the Site at a depth of 4 feet bgs, and is potentially present in soils from the historic use of the southern adjacent property as a metal foundry. The mercury concentration was reported by the laboratory to be 0.181 ppm.

### 5.3 Groundwater

Low concentrations of three VOCs (acetone, cis 1,2-Dichloroethene (DCE), and trichloroethene (TCE)) were detected in two groundwater samples:

- Acetone was detected below the TOGS 1.1.1 guidance value of 50 ppm in MW-1, which is located near the northeast perimeter of the Site and is potentially associated with the historic use of the northern adjacent property as a print shop.
- Low concentrations of cis 1,2-DCE and TCE were detected in MW-D2, located at the northeast perimeter of the Site. Both of these contaminants are solvents typically and are potentially associated with the historic use of the north adjacent property as an auto repair shop. The concentration of cis 1,2-DCE (12.5 ppb) exceeds the NYS standard of 5 ppb for this contaminant; the concentration of TCE (2.27 ppb) was below the NYS standard of 5 ppb for this contaminant.

Two SVOCs were also detected in groundwater samples:

- Caprolactam was detected in MW-1, near the northeast perimeter of the Site. Caprolactam is used in the production of plastics and inks and is potentially associated with the historic use of the north adjacent property as a print shop.
- Diethyl phthalate was detected in all five of the deep overburden groundwater samples. Diethyl phthalate is a common plasticizer that is ubiquitous in the urban environment. Its presence in groundwater at the Site is not necessarily indicative of a contaminant source on or near the Site. The two highest concentrations of diethyl phthalate were found in MW-D1 (51.7 ppb) and MW-D2 (59.4 ppb). Both sample locations are adjacent to the historic print shop at the north perimeter of the Site. These concentrations exceed the NYS guidance value of 50 ppb.

### 5.4 Preliminary Geotechnical Investigation Results

The September 10, 2019 *Preliminary Geotechnical Engineering Investigation*, provided under separate cover, indicates:

- Many of the subsurface explorations encountered random fill materials to depths as great as approximately 10 feet bgs. Greater depths of random fill may be present at other locations. It is likely that the greatest amounts of random fill exist within the outlines of former basements and underground tanks.
- In general, soils on the east end of the Site were found to consist of varying amounts of brick and rock rubble intermixed with loamy fill soils from 0 to 10 feet bgs, with native soils encountered at a typical depth of 5 feet bgs across the Site. The brick and stone rubble that is predominant throughout the eastern portion of the Site is absent in borings

advanced on the west side of the Site, with the exception of a small amount of brick rubble at shallow depths near the northwest portion of the Site. Typical soils on the west portion of the Site consist of sandy loam and silty fine sand.

- Per City requirements, if fill material is disturbed during redevelopment activities it cannot be reused on site and will need to be handled/disposed of as a regulated solid waste.
- The encountered natural soils contain varying amounts of silt, sand, and gravel. Lesser amounts of clay were also noted.
- Bedrock was not core sampled at any of the exploration locations. It appears likely, however that the depth to bedrock ranges from roughly 15 to 30 feet bgs.
- The depths to groundwater, measured in the five monitoring wells, indicated depths to groundwater of approximately 13 to 18 feet bgs across the Site.
- It should be noted that groundwater levels will vary with factors including location, time, precipitation, season, and Site activities.
- More detailed descriptions of the subsurface conditions, as encountered by the subsurface explorations, are provided on the logs in Attachment B.
- The *Preliminary Geotechnical Engineering Investigation* discusses options for the design and construction of possible future buildings at the Site (including foundation systems, basement walls, floor slabs, utilities, pavements, etc.).
- The report also makes general recommendations for excavation, construction dewatering, subgrade preparation, and backfill/compaction.

## **6.0 AREAS OF CONCERN**

- These Phase II data do not indicate any discrete areas of concern (AOC) associated with historic Site usage. No specific source areas of environmental contaminants were identified on the Site.
- No soil samples have any compounds detected at concentrations greater than the Part 375 Restricted Use-Residential SCO.
- Although minor exceedances of the TOGS 1.1.1 Groundwater Standard or guidance values are identified, an on-site source is not indicated by the soil or groundwater data.
- Fill material (brick, rock rubble, metal, etc.) up to ten feet thick was encountered mostly on the eastern portion of the Site.
- If fill material is disturbed during redevelopment activities it may not be acceptable for re-use on the Site and will likely need to be handled/disposed of as a regulated solid waste. This could have significant cost implications for future development.

## 7.0 RECOMMENDATION

Due to the presence of fill material and historical uses of the Site (gasoline USTs) it is recommended that an environmental management plan (EMP) be developed for the Site. The EMP will provide guidance on health and safety monitoring, handling, characterization, and disposal of any regulated solid waste or other contaminants/structures that might be disturbed during site redevelopment. The EMP should also include a requirement to evaluate the potential for soil vapor intrusion into any new occupied structures at the Site, and mitigation of soil vapor intrusion if deemed necessary via the installation and operation of a sub-slab depressurization system (SSDS).

Sincerely,

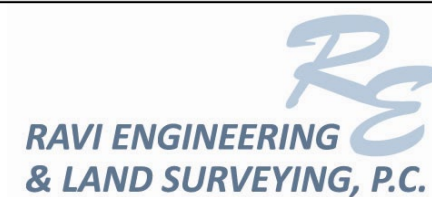
A handwritten signature in blue ink that reads "Lynn Zicari".

Lynn Zicari  
Environmental Scientist

A handwritten signature in blue ink that reads "Peter S. Morton".

Peter S. Morton, P.G., C.P.G.  
Project Manager





2110 SOUTH CLINTON AVENUE, SUITE 1 ROCHESTER, NEW YORK 14618  
TL: (585) 223-3660 FX (585) 223-4250

City of Rochester  
Phase II Environmental Site Assessment and Preliminary  
Geotechnical Assessment Services

**FIGURE 1: SITE LOCATION MAP**  
101-113 Franklin Street and 106 Pleasant Street

PROJECT NO.  
4318079 C


DATE:  
August 2019

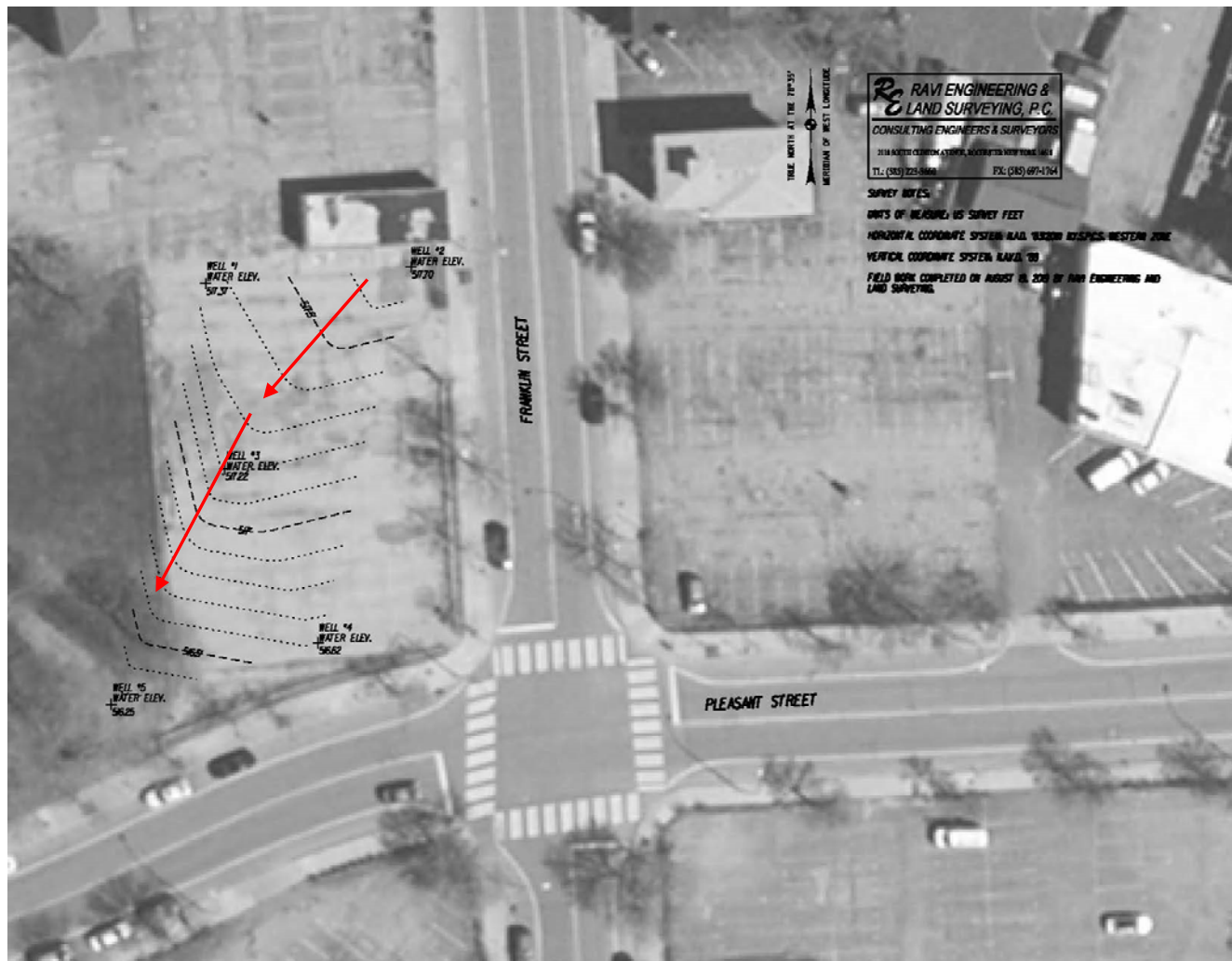
SCALE:  
N.T.S.

DRAWING NO:  
1





 <p><b>RAVI ENGINEERING &amp; LAND SURVEYING, P.C.</b></p>	<p>City of Rochester Phase II Environmental Site Assessment</p>	<p>Project No. 4318179 C</p>	<p>Figure No: 2</p>
<p>2110 S. CLINTON AVENUE, SUITE 1 ROCHESTER, NEW YORK 14618 TL: (585) 223-3660 FX: (585) 697-1764</p>	<p><b>FIGURE 2: SAMPLE LOCATION MAP</b> 101-113 Franklin Street and 106 Pleasant Street</p>	<p>Scale: NTS</p>	<p>Date: August 2019</p>



2110 S. CLINTON AVENUE, SUITE 1  
ROCHESTER, NEW YORK 14618  
TL: (585) 223-3660 FX: (585) 697-1764

City of Rochester  
Phase II Environmental Site Assessment

FIGURE 3: GROUNDWATER CONTOUR MAP  
101-113 Franklin Street and 106 Pleasant Street

Project No..  
4318079 C

Scale:  
NTS

Figure No:  
3

Date:  
August 2019



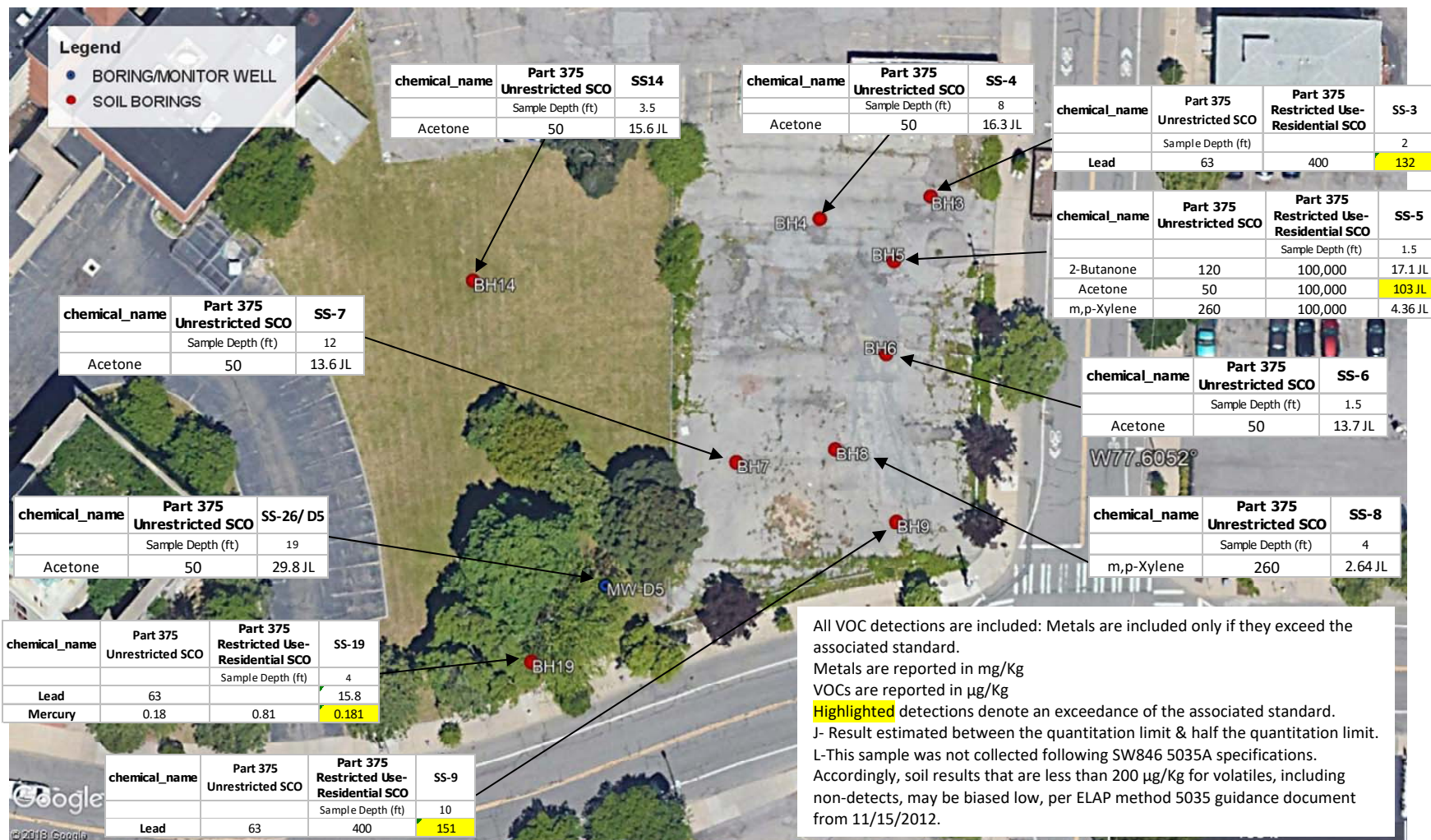






Table 1: Monitor Well Coordinates and Elevations  
City of Rochester  
101-103 Franklin Street, 106 Pleasant Street

Survey Date	8/19/2019					
Well ID	Top of Casing (ft)	Well Cover (ft)	Water Depth (ft)	Corrected Depth (ft)	Latitude	Longitude
MW-D1	531.63	531.84	14.27	517.36	43.15989199	77.60572
MW-D2	530.8	531.02	13.3	517.5	43.15990269	77.60544
MW-D3	531.71	532.14	14.49	517.22	43.1597116	77.6057
MW-D4	533.02	533.31	16.4	516.62	43.15953975	77.60558
MW-D5	534.51	534.95	18.32	516.19	43.15948797	77.60586

Table 2: Summary of Detected Compounds in Soil  
City of Rochester  
101-113 Franklin Street, 106 Pleasant Streatt  
Rochester NY 14604

chemical_name	Part 375/CP-51		SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-11	SS-12	SS-13	SS14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22/ D-1	SS-23/ D-2	SS-24/ D-3	SS-25/ D-4	SS-26/ D5	S-1 (D5)
	Unrestricted SCO	Part 375 Restricted Use-Residential SCO																										
VOCs*		Sample Depth (ft)	9.5	7.5	2	8	1.5	1.5	12	4	10	5	3	4	3.5	4	3	11.5	3	4	5	8	17	19	16	22	19	0-05
2-Butanone	120	100,000	<22.7	<22.9	<22.9	<23.5	17.1	<24.3	<20.7	<20.0	<20.5	<24.9	<22.0	<20.3	<21.3	<20.6	<20.4	<21.9	<23.6	<20.4	<22.4	<21.1	<22.8	<20.8	<20.2	<22.3	<22.0	--
Acetone	50	100,000	<22.7	<22.9	<22.9	16.3 J	103	13.7 J	13.6 J	<20.0	<20.5	<24.9	<22.0	<20.3	15.6 J	<20.6	<20.4	<21.9	<23.6	<20.4	<22.4	<21.1	<22.8	<20.8	<20.2	<22.3	29.8 J	--
m,p-Xylene	260	100,000	<4.53	<4.58	<4.58	<4.70	4.36	<4.86	<4.13	2.64 J	<4.09	<4.98	<4.40	<4.06	<4.26	<4.11	<4.08	<4.37	<4.71	<4.08	<4.47	<4.22	<4.76	<4.17	<4.03	<4.45	<4.39	--
Metals																												
Aluminum	NS	NS	6610	4080	8390	--	--	--	4650	--	4630	4900	6060	7000	--	--	--	4140	9880	12600	5490	--	4720	3550	--	3560	4240	5900
Antimony	NS	NS	<3.13	<3.18	<3.15	--	--	--	<3.30	--	<3.23	<3.50	<3.26	<3.24	--	--	--	<3.38	<3.11	2.10 J	<3.08	--	<3.50	<3.52	--	<3.12	<3.22	<3.14
Arsenic	13	16	1.47	1.64	1.70	--	--	--	1.43	--	1.81	1.87	1.51	5.22	--	--	--	1.80	3.61	1.39	1.37 M	--	1.40	0.722	--	1.07	1.41	4.06
Barium	350	350	42.3	34.1	70.7	--	--	--	32.8	--	43.8	34.0	53.1	51.7	--	--	--	32.5	47.7	83.5	51.4 DM	--	44.5	16.9	--	28.9	38.9	42.3
Beryllium	7.2	14	0.308	0.236 J	0.408	--	--	--	0.254 J	--	0.244 J	0.304	0.352	0.431	--	--	--	0.240 J	0.409	1.22	0.346 D	--	0.251 J	0.177 J	--	0.211 J	0.212 J	0.269
Cadmium	2.5	2.5	<0.261	<0.265	<0.263	--	--	--	<0.275	--	<0.269	<0.292	<0.272	<0.270	--	--	--	<0.281	<0.518	<0.279	<0.256	--	0.365	0.180 J	--	0.236 J	<0.269	<0.262
Calcium	NS	NS	25600	36200	8970	--	--	--	36800	--	49200	6580	1660	1880	--	--	--	47200	2480	11300	35500	--	52300	26100	--	43800	50800	39000
Chromium	30	36	8.30	5.86	9.14	--	--	--	6.78	--	8.88	6.91	6.96	8.84	--	--	--	5.71	8.35	5.99	5.20 M	--	9.73	4.99	--	5.71	6.58	9.97
Cobalt	NS	NS	2.77	3.21	3.59	--	--	--	3.38	--	3.07	3.81	3.48	4.11	--	--	--	3.17	5.31	12.4	5.19 DM	--	3.95	2.73 J	--	2.86	3.07	3.72
Copper	50	270	7.31	8.84	8.56	--	--	--	18.9	--	6.76	8.84	8.83	10.2	--	--	--	8.56	7.10	16.3	14.3 DM	--	9.58	5.64	--	4.25	6.63	17.0
Iron	NS	NS	8450	8620	11100	--	--	--	9580	--	8340	9570	9840	11400	--	--	--	8530	16300	33100	12200 D	--	9700	8310	--	7640	8770	9750
Lead	63	400	15.0	1.61	132	--	--	--	1.72	--	151	6.67	2.46	47.6	--	--	--	1.90	21.4	15.8	1.05 M	--	2.45	<0.587	--	1.24	2.47	60.7
Magnesium	NS	NS	8170	7730	4430	--	--	--	8690	--	9770	2980	1400	1800	--	--	--	10400	1780	4510	5570	--	12500	11000	--	12600	11300	9270
Manganese	1600	2,000	203	283	444	--	--	--	306	--	298	484	462	378	--	--	--	267	320	793	371 M	--	398	289	--	249	311	375
Mercury	0.18	0.81	0.0238	0.00505 J	0.101	--	--	--	0.00508 J	--	0.0109	0.0135	0.0131	0.124	--	--	--	<0.00897	0.0498	0.181	0.00493 J	--	<0.00836	<0.00895	--	<0.00833	<0.00766	0.110
Nickel	30	140	6.44	6.06	7.81	--	--	--	6.89	--	6.15	7.32	7.86	7.83	--	--	--	5.71	7.51	12.7	6.82 M	--	7.24	5.81	--	5.25	5.92	7.36
Potassium	NS	NS	1070	999	861	--	--	--	1030	--	983	865	753	695	--	--	--	1130	691	1900	905	--	1200	517	--	849	1020	963
Selenium	3.9	36	0.844 J	0.861 J	<1.05	--	--	--	<1.10	--	0.572 J	<1.17	<1.09	<1.08	--	--	--	0.827 J	<1.04	<1.12	<1.03	--	0.870 J	<1.17	--	0.859 J	1.31	1.36
Sodium	NS	NS	278	110 J	483	--	--	--	119 J	--	214	86.1 J	<136	102 J	--	--	--	101 J	<130	370	579 DM	--	174	121 J	--	139	132 J	101 J
Thallium	NS	NS	<1.30	0.754 J	<1.31	--	--	--	<1.38	--	2.13	<1.46	<1.36	<1.35	--	--	--	1.48	<1.30	<1.40	0.928 JM	--	1.39 J	<1.47	--	1.12 J	2.37	1.19 J
Vanadium	NS	NS	11.4	10.4	15.1	--	--	--	10.9	--	12.4	11.6	12.7	15.1	--	--	--	9.57	15.9	<1.40	21.9 DM	--	11.3	9.47	--	10.1	10.9	11.7
Zinc	109	2,200	23.6	16.5	52.0	--	--	--	18.1	--	29.9	26.4	20.6	54.9	--	--	--	18.3	36.8	66.1	19.6 M	--	24.1	18.2	--	16.3	16.7	60.6

VOC units are in ug/Kg

Metals units are in mg/Kg

**Bold** result indicates the analyte was detected by laboratory analysis

**Highlighted result** is above the associated standard

<=Analyzed for but not detected at or above the quantitation limit.

J=Result estimated between the quantitation limit & half the quantitation limit.

D=Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit

M=Matrix spike recoveries outside QC limits. Matrix bias indicated

\* VOCs were not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance ocument from 11/15/2012.

-- Sample not analyzed for the associated constituent

Table 3: Summary of Detected Compounds in Groundwater  
City of Rochester  
101-113 Franklin Street, 106 Pleasant Streatt  
Rochester NY 14604

<u><b>cas_rn</b></u>	<u><b>chemical_name</b></u>	<u><b>TOGS 1.1.1</b></u>	<b>MW-1</b>	<b>MW-4</b>	<b>MW-D1</b>	<b>MW-D2</b>	<b>MW-D3</b>	<b>MW-D4</b>	<b>MW-D5</b>
<u><b>VOCs</b></u>									
67-64-1	Acetone	50	<b>7.64 J</b>	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
156-59-2	cis-1,2-Dichloroethene	5	<2.0	<2.0	<2.00	<b>12.5</b>	<2.00	<2.00	<2.00
79-01-6	Trichloroethene	5	<2.0	<2.0	<2.00	<b>2.27</b>	<2.00	<2.00	<2.00
<u><b>SVOCs</b></u>									
105-60-2	Caprolactam	NS	--	<b>850</b>	<10.0	<10.0	<10.0	<10.0	<10.0
84-66-2	Diethyl phthalate	50*	--	<100	<b>51.7</b>	<b>59.4</b>	<b>31.4</b>	<b>22.9</b>	<b>23.2</b>
<u><b>Metals</b></u>									
7429-90-5	Aluminum	100	--	--	<0.100	<b>0.217</b>	--	--	--
7440-39-3	Barium	1000	--	--	<b>0.155</b>	<b>0.133</b>	--	--	--
7440-70-2	Calcium	NS	--	--	<b>132</b>	<b>88.5</b>	--	--	--
7439-89-6	Iron	300	--	--	<0.100	<b>0.733</b>	--	--	--
7439-95-4	Magnesium	35,000*	--	--	<b>24.8 M</b>	<b>29.4</b>	--	--	--
7439-96-5	Manganese	300	--	--	<b>0.138</b>	<b>0.154</b>	--	--	--
7440-09-7	Potassium	NS	--	--	<b>7.41 M</b>	<b>10.7</b>	--	--	--
7440-23-5	Sodium	20,000	--	--	<b>154</b>	<b>825</b>	--	--	--

Units are in µg/L

**Bold** result indicates the analyte was detected by laboratory analysis

**Highlighted** result is above the associated standard

<=<=Analyzed for but not detected at or above the quantitation limit.

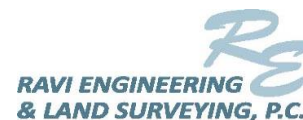
J=Result estimated between the quantitation limit & half the quantitation limit.

-- Sample not analyzed for the associated constituents

## APPENDIX A

### Test Pit and Soil Boring Logs

# Test Pit Log



Test Pit No. TP-1 Project Name 101-113 Franklin Street,  
106 Pleasant Street Page 1 of 1  
 Approx. Elev. 533 Project Number 4318179C Date 7-11-19

Location: 101-113 Franklin Street

Field Eng./Geo. L. Zicari

Weather: Cloudy 80F

Equipment Used: Mini Excavator

Test Pit Dimensions: 9 ft. 9 ft. 8 ft. 648 cf  
length width depth volume

Ground Water Data		
Date	Actual Time	Depth
Not encountered		X

Depth	PID Reading	Description
0-6"	0.0	Asphalt, 1.5" thick over 6" crushed stone.
6" to 8.25'	0.0	Dry, loose, brown loam with crushed brick and large blocky stone (up to 1 cf). More brick than stone.

## Comments

- ☒ No rock encountered; or  
 Rock encountered at 0-2 feet
- ☐ Perch/Seepage water encountered at \_\_\_\_\_ feet
- X No groundwater encountered; or
- ☐ Ground water encountered at \_\_\_\_\_ feet

Remarks: \_\_\_\_\_

No tanks or metal objects (anomaly C not found)

No odors or staining; no C&D debris

Did not reach bottom of fill due to equipment limitations (excavator could not reach any deeper).











# Test Pit Log



Test Pit No. TP-3 Project Name 101-113 Franklin Street,  
106 Pleasant Street Page 1 of 2  
Approx. Elev. 533 ft. Project Number 4318179C Date 7-11-19

Location: 101-113 Franklin Street (parking lot)

Field Eng./Geo. L. Zicari

Weather: Cloudy 80F

Equipment Used: Mini Excavator

Test Pit Dimensions: 6.5 ft. 8 ft. 4 ft. 208 cf  
length width depth volume

Ground Water Data		
Date	Actual Time	Depth
Not encountered		X

Depth	PID Reading	Description
0-12"	0.0	Asphalt, 6" thick over 6" black sandy crushed stone
12"-48"	0.0	Fill consisting of tan sand intermixed with brick and brick fragments, coarse tan sand with some ash, glass, metal shards and other debris. Loose 2" pipe (30" length) and buried rusted crushed metal drum at 4' depth.
48"		Refusal on Slab at 4 ft.

## Comments

- ☒ No rock encountered; or  
Rock encountered at 0-2 feet
- ☐ Perch/Seepage water encountered at \_\_\_\_\_ feet
- X No groundwater encountered; or
- ☐ Ground water encountered at \_\_\_\_\_ feet

Remarks: \_\_\_\_\_

Anomaly #1 appears to be 30" length of water pipe and remnants of a crushed steel drum found in pit.



# Test Pit Log

Test Pit No.	<u>TP-4</u>	Project Name	<u>101-113 Franklin Street, 106 Pleasant Street</u>	Page	<u>1</u>	of	<u>      </u>
Approx. Elev.	<u>533 ft.</u>	Project Number	<u>4318179C</u>	Date	<u>7-11-19</u>		

Location: 101-113 Franklin Street (parking lot)

Field Eng./Geo. L. Zicari

Weather: Cloudy 80F

Equipment Used: Mini Excavator

Test Pit	$\frac{8 \text{ ft.}}{\text{length}}$	$\frac{8 \text{ ft.}}{\text{width}}$	$\frac{5 \text{ ft.}}{\text{depth}}$	$\frac{320 \text{ cf}}{\text{volume}}$
----------	---------------------------------------	--------------------------------------	--------------------------------------	--

Ground Water Data			
Date	Actual Time	Depth	
	Not encountered		X

Depth	PID Reading	Description
0-24"	0.0	Asphalt, 2-3" thick over fill consisting of light gray angular rock (limestone, dolostone) intermixed with dry clayey loam. Foundation wall encountered near middle of excavation in E/W direction, then south near the east end of pit.
24"-60"	0.0	Moist, brown clayey loam. Metal conduit and electrical box at southwest corner of pit approximately 2.5-3 ft bgs.

### Comments

- ☒ No rock encountered; or  
Rock encountered at 0-2 feet
- ☐ Perch/Seepage water encountered at \_\_\_\_\_ feet
- X No groundwater encountered; or  
☐ Ground water encountered at \_\_\_\_\_ feet

Remarks: \_\_\_\_\_  
No tanks or other large metal objects to explain Anomaly #2. A small metal conduit and electrical box are only metal found at approximately 2.5-3 ft bgs.





# Test Pit Log



Test Pit No. TP-5 Project Name 101-113 Franklin Street, 106 Pleasant Street Page 1 of       
 Approx. Elev. 533 ft. Project Number 4318179C Date 7-11-19

Location: 101-113 Franklin Street (parking lot)

Field Eng./Geo. L. Zicari

Weather: Cloudy 80F

Equipment Used: Mini Excavator

Test Pit Dimensions: 7 ft. 7 ft. 5.5 ft. 269.5 cf  
length width depth volume

Ground Water Data		
Date	Actual Time	Depth
Not encountered		X

Depth	PID Reading	Description
0-6"	0.0	Asphalt, 1.5" thick over 3-4" brown sand and gravel.
6"-65"	0.0	Reworked soil/fill consisting of moist, brown clay loam, few large limestone boulders, trace brick. Native clay loam at 5". One inch conduit on south end of excavation running E/W direction approximately 2.5" bgs.

## Comments

- ☒ No rock encountered; or  
 Rock encountered at 0-2 feet  
☐ Perch/Seepage water encountered at                      feet  
 X No groundwater encountered; or  
☐ Ground water encountered at                      feet

Remarks: 1" metal conduit pipe is only metal object found. No tanks or other metal to explain anomaly.





**RAVI ENGINEERING  
& LAND SURVEYING, P.C.**

Ground Water Data			
Date	Actual Time	Depth	
	Not encountered	X	

Depth	PID Reading	Description
0-10"	0.0	Asphalt 1.5" over black sandy soil intermixed with crushed stone, trace brick and wood fragments.
10"-66"	0.0	Moist, brown clayey loam, no debris.

Remarks: \_\_\_\_\_  
No metal found to explain Anomaly #3.























# Test Pit Log



Test Pit No. TP-9 Project Name 101-113 Franklin Street, 106 Pleasant Street Page 1 of 1  
 Approx. Elev. 530 ft. Project Number 4318179C Date 7-11-19

Location: 106 Pleasant Street

Field Eng./Geo. L. Zicari

Weather: Cloudy 80F

Equipment Used: Mini Excavator

Test Pit Dimensions: 5' length 8' width 5' depth 200 cf volume

Ground Water Data		
Date	Actual Time	Depth
Not encountered		X

Depth	PID Reading	Description
0-6"	0.0	Topsoil - dry, loose, brown sandy loam
12" - 30"	0.0	Dry, loose, brown sandy loam with some brick (large and small fragments) and light gray angular rock (limestone). Loose 2" steel pipe encountered at 24" deep on north end of excavation. Small amount of sand, ash, debris at bottom of interval.
30"-60"	0.00	Moist, brown fine sandy loam.

## Comments


- ☒ No rock encountered; or  
 Rock encountered at 0-2 feet  
☐ Perch/Seepage water encountered at \_\_\_\_\_ feet  
 X No groundwater encountered; or  
☐ Ground water encountered at \_\_\_\_\_ feet

Remarks: \_\_\_\_\_  
 Black film (possibly a vapor barrier) observed on one limestone block  
 Pipe appears to be debris, not attached to anything. Approximately 8' in length.  
 \_\_\_\_\_  
 \_\_\_\_\_







					101-113 Franklin Street 106 Pleasant Street		BORING      BH-1  PROJECT #:    4318179C CHKD. BY:		
CONTRACTOR:      Nature's Way DRILLER:            Tom RE&LS PERSONNEL:    L.Zicari					BORING LOCATION:      WEST OF HISTORIC GAS TANKS GROUND SURFACE ELEVATION: N/A DATE:                        7/17/2019				
TYPE OF DRILL RIG:    Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:    NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	PID (ppm)			
Sample Data									
1						Asphalt over weathered rock base to 6"			0.0
2					75%	0.5'-4': Fill consisting of loose dk brown sandy loam grading to tan sandy loam			0.0
3									
4									
5									
6					80%	4'-12.0': Dense silty f sand. Saturated at 9.5 ft. bgs.			0.0
7									
8									
9									
10					90%				
11									
12									
13									
14						End of boring @ 12'  Sample SS-1 collected above saturated interval at 9.5 ft. bgs.			
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									

**LEGEND**

S- Surficial Soil Sample

SS Subsurface Soil Sample

**GENERAL NOTES:**


1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.

2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.

bgs = below ground surface

ppm = parts per million


BORING #      B1

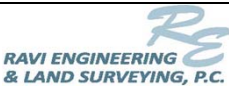
 <b>RAVI ENGINEERING &amp; LAND SURVEYING, P.C.</b>		101-113 Franklin Street 106 Pleasant Street		BORING                      BH-2  PROJECT #:                4318179C CHKD. BY:																										
CONTRACTOR:            Nature's Way DRILLER:                 Tom RE&LS PERSONNEL:    L.Zicari		BORING LOCATION:    NORTH OF HISTORIC GAS TANKS GROUND SURFACE ELEVATION: N/A DATE:                    7/17/2019																												
TYPE OF DRILL RIG:    Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:    NA		<table border="1"> <thead> <tr> <th colspan="5">WATER LEVEL DATA</th> </tr> <tr> <th>DATE</th> <th>TIME</th> <th>WATER</th> <th>CASING</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				WATER LEVEL DATA					DATE	TIME	WATER	CASING	REMARKS															
WATER LEVEL DATA																														
DATE	TIME	WATER	CASING	REMARKS																										
P	Sample Data					PID																								
T	BLOW	NO.	DEPTH	N-VALUE	RECOVERY	PID (ppm)																								
H	/6"		(FT.)	/RQD(%)	(%)																									
1					50%	0-6" 'Asphalt and crushed stone based	0.0																							
2						0.5-3.5": Fill consisting of crushed brick intermixed with dry, tan,	0.0																							
3																														
4																														
5					50%	3.5-4: Dry, tan, mf sand	0.0																							
6						4'-7'- Fill consisting of gravel intermixed with sandy loam. Light gray layered/fractured rock (basement slab?) at 7'.	0.0																							
7																														
8																														
9					75%	7'-12': 'Tan, mf sand; wet at 12'	0.0																							
10																														
11																														
12																														
13						End of boring at 12'																								
14						Sample SS-2 collected at 7.5-8'																								
15						NOTE: DRILLER MADE THREE ATTEMPTS TO ADVANCE BORING BUT HIT SHALLOW REFUSAL ON FIRST TWO ATTEMPTS.																								
16																														
17																														
18																														
19																														
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22																														
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25																														
26																														

**LEGEND**  
 S- Surficial Soil Sample  
 SS Subsurface Soil Sample

**GENERAL NOTES:**  
 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.  
 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.  
 bgs = below ground surface  
 ppm = parts per million

BORING #                      B2


					101-113 Franklin Street 106 Pleasant Street		BORING      BH-3  PROJECT #:      4318179C CHKD. BY:		
CONTRACTOR:      Nature's Way DRILLER:      Tom RE&LS PERSONNEL:      L.Zicari					BORING LOCATION:      EAST OF HISTORIC GAS TANKS GROUND SURFACE ELEVATION:      N/A DATE:      7/17/2019				
TYPE OF DRILL RIG:      Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:      NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)			PID (ppm)	
1					85%	Asphalt		0.0	
2						0.5'-2'; Dry, brown loamy fill (reworked soil or fill), few rocks.			
3						75%	2'-7.5": Dry, tan silty vf sand (till)		0.0
4									
5									
6									
7									
8									
9						Refusal at 7.5' on tight silt/sand			
10						Sample SS-3 - sampled fill material @ 2'			
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample									
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million									
						BORING #      B3			

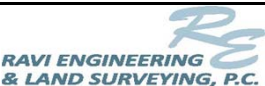
		101-113 Franklin Street 106 Pleasant Street		BORING                      BH-4  PROJECT #:                      4318179C CHKD. BY:																										
CONTRACTOR:                      Nature's Way DRILLER:                              Tom RE&LS PERSONNEL:              L.Zicari		BORING LOCATION:              SOUTHWEST OF HISTORIC GAS TANKS GROUND SURFACE ELEVATION: N/A DATE:                                  7/17/2019																												
TYPE OF DRILL RIG:              Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:              NA		<table border="1"> <tr> <th colspan="5">WATER LEVEL DATA</th> </tr> <tr> <th>DATE</th> <th>TIME</th> <th>WATER</th> <th>CASING</th> <th>REMARKS</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>				WATER LEVEL DATA					DATE	TIME	WATER	CASING	REMARKS															
WATER LEVEL DATA																														
DATE	TIME	WATER	CASING	REMARKS																										
P	Sample Data					PID (ppm)																								
T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)																									
1					65%	0-1.5': 'Weathered asphalt over black organic material	0.0																							
2						1.5'-4': 'Fill - dry, very dense, light brown silty f sand grading to f sand, tr. clay																								
3																														
4																														
5					75%	4-8.5': Dry, dense light brown mf sand	0.0																							
6																														
7																														
8																														
9					70%	8.5-10.0': Saturated Gravel	0.0																							
10						10.0'-12.0': Brown silty f sand grading to f sand	0.0																							
11																														
12																														
13						End of boring @ 12'																								
14						Sample SS-4 collected at 8' above saturated interval.																								
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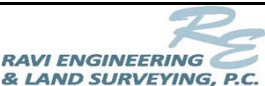
**LEGEND**  
 S- Surficial Soil Sample  
 SS Subsurface Soil Sample


**GENERAL NOTES:**  
 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.  
 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.  
 bgs = below ground surface  
 ppm = parts per million

BORING #                      B4

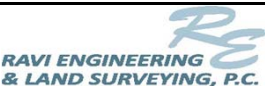
				101-113 Franklin Street 106 Pleasant Street		BORING      BH-5  PROJECT #:      4318179C CHKD. BY:		
CONTRACTOR:      Nature's Way DRILLER:      Tom RE&LS PERSONNEL:      L.Zicari				BORING LOCATION:      SOUTH OF HISTORIC GAS TANKS GROUND SURFACE ELEVATION: N/A DATE:      7/17/2019				
TYPE OF DRILL RIG:      Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:      NA				WATER LEVEL DATA				
				DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	PID (ppm)		
1					80%	Asphalt and weathered asphalt intermixed with silt and sand		
2						0.0	1.5-3.5': 'Fill - Dry, dense, black silt over dry, tan f sand, wet at 3.25'	
3								
4					75%		3.5' - 12': Dry, dense, tan, silty f sand grading to moist	
5								
6								
7								
8					80%	0.0		
9								
10								
11								
12						End of boring at 12'		
13						Sample SS-5 - sampled black silt fill at 2'		
14								
15								
16								
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23								
24								
25								
26								
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample								
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million								
						BORING #      B5		

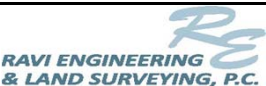
		101-113 Franklin Street 106 Pleasant Street		BORING                      BH-6  PROJECT #:                4318179C CHKD. BY:			
CONTRACTOR:            Nature's Way DRILLER:                 Tom RE&LS PERSONNEL:    L.Zicari		BORING LOCATION:    CENTER OF PARKING LOT GROUND SURFACE ELEVATION: N/A DATE:                    7/17/2019					
TYPE OF DRILL RIG:    Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:    NA		WATER LEVEL DATA					
		DATE	TIME	WATER	CASING	REMARKS	
P T H	Sample Data					PID (ppm)	
	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)		
1					30%	Asphalt, weathered asphalt over dry, stiff, brown clayey loam (fill) Moist, dark br/gray sandy silt (fill)	0.0
2							
3						Refusal at 1.5'  Note: Driller made two attempts to advance boring but hit shallow refusal both times.  Sample SS-6 collected from 1-1.5'	
4							
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26							
<u>LEGEND</u> S- Surficial Soil Sample SS Subsurface Soil Sample							
GENERAL NOTES: 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million							
					BORING #	B6	

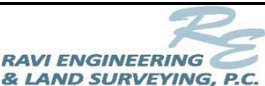
					101-113 Franklin Street 106 Pleasant Street		BORING BH-7  PROJECT #: 4318179C CHKD. BY:		
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari					BORING LOCATION: SOUTHWEST CORNER OF PARKING LOT GROUND SURFACE ELEVATION: N/A DATE: 7/17/2019				
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)			PID (ppm)	
1						4" Asphalt		0.0	
2					60%	Fill material consisting of light brown sand intermixed with crushed brick		0.0	
3									
4									
5									
6									
7					40%				
8									
9									
10					80%	Moist, medium dense, tan, silty f sand, dense at 10'.		0.0	
11									
12									
13						End of boring at 12'  SS-7 collected beneath fill materials at 12'			
14									
15									
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22									
23									
24									
25									
26									
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample									
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million									
						BORING # B7			

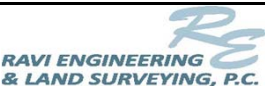
		101-113 Franklin Street 106 Pleasant Street		BORING BH-8			
CONTRACTOR: Nature's Way		BORING LOCATION: SOUTH CENTRAL SECTION OF PARKING LOT					
DRILLER: Tom		GROUND SURFACE ELEVATION: N/A					
RE&LS PERSONNEL: L.Zicari		DATE: 7/17/2019					
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA		WATER LEVEL DATA					
		DATE	TIME	WATER	CASING	REMARKS	
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)		PID (ppm)
1					75%	Asphalt	0.0
2						Crushed brick intermixed with clayey loam (fill)	
3							
4						Very dark gray gravelly fmc sand (fill)	
5						Refusal @ 5'	
6						Driller made three attempts to advance boring with shallow refusal (2') in first two borings.  Sample SS-8 collected at 4'	
7							
8							
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26							
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample							
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million							
						BORING #	B8



					101-113 Franklin Street 106 Pleasant Street					BORING BH-9  PROJECT #: 4318179C CHKD. BY:				
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari					BORING LOCATION: SOUTHEAST CORNER OF PARKING LOT GROUND SURFACE ELEVATION: N/A DATE: 7/17/2019									
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA					WATER LEVEL DATA									
					DATE	TIME	WATER	CASING	REMARKS					
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)						PID (ppm)			
1					70%	3-4" 'weathered asphalt					0.0			
2						40%	Fill consisting of broken/crushed/weathered brick intermixed with sand to 9'					0.3		
3														
4														
5														
6					95%	Dry, dense, light-brown silty f sand grading to moist					0.3			
7														
8														
9														
10					100%	Refusal @ 14'								
11														
12														
13														
14					Two attempts to advance boring with no recovery in first two locations  SS-9 collected at 10' BGS  Microwell MW-5 Installed									
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
<b>LEGEND</b> S- Surficial Soil Sample SS- Subsurface Soil Sample														
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million														
										BORING #		B9		

		101-113 Franklin Street 106 Pleasant Street		BORING BH-10			
CONTRACTOR: Nature's Way		BORING LOCATION: EAST BOUNDARY LINE					
DRILLER: Tom		GROUND SURFACE ELEVATION: N/A					
RE&LS PERSONNEL: L.Zicari		DATE: 7/17/2019					
TYPE OF DRILL RIG: Truck Mounted Geoprobe		WATER LEVEL DATA					
CASING SIZE AND TYPE:		DATE	TIME	WATER	CASING	REMARKS	
OVERBURDEN SAMPLING METHOD:							
ROCK DRILLING METHOD: NA							
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	PID (ppm)	
1					20%	Asphalt, crushed stone intermixed with dark gray sand and gravel over crushed brick intermixed with a small amount of sand	0.0
2							
3							
4							
5					5%	Crushed brick and brick fragments	0.0
6							
7					Refusal at 6'		
8					Driller had difficulties advancing probe. Probe kept getting kicked out an an angle and became lodged in borehole. Probe moved several times but encountered same problem. Very little recovery. No soil sample collected in this location.		
9							
10							
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25							
26							
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample							
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million							
						BORING # B10	

<div></div>				101-113 Franklin Street 106 Pleasant Street		BORING BH-11 PROJECT #: 4318179C CHKD. BY:			
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari				BORING LOCATION: SOUTH BOUNDARY LINE GROUND SURFACE ELEVATION: N/A DATE: 7/17/2019					
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA				WATER LEVEL DATA					
				DATE		TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	PID (ppm)			
1					10%	Ashphalt, little recovery	0.4		
2									
3									
4									
5					100%	Dry, dense, light brown silty f sand, tr clay with orange streaks. Loose, silty f sand at 5'-6'	0.5		
6									
7									
8									
9					75%				
10									
11									
12									
13					75%	Moist, tan silt, some gravel (till)	0.6		
14									
15									
16									
17					100%				
18									
19									
20									
21						Refusal @ 19'			
22						Microwell MW-4 installed			
23						SS-9 collected @ 5'-6'			
24									
25									
26									
<div>LEGEND</div> <div>S- Surficial Soil Sample</div> <div>SS Subsurface Soil Sample</div>									
<div>GENERAL NOTES:</div> <div>1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.</div> <div>2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.</div> <div>bgs = below ground surface</div> <div>ppm = parts per million</div>									
						BORING # B11			

		101-113 Franklin Street 106 Pleasant Street		BORING      BH-12  PROJECT #:      4318179C CHKD. BY:				
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari		BORING LOCATION: NORTHWEST CORNER OF PROPERTY GROUND SURFACE ELEVATION: N/A DATE: 7/17/2019						
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA		WATER LEVEL DATA						
		DATE	TIME	WATER	CASING	REMARKS		
P	Sample Data				PID			
T	BLOW	NO.	DEPTH	N-VALUE	RECOVERY	PID (ppm)		
H	/6"		(FT.)	/RQD(%)	(%)			
1					95%	4" topsoil and 3" crushed stone over loose, dry, light brown silty f. sand (fill)	0.0	
2						Dry, light brown, dense silty f sand	0.0	
3							SAA - very dense	0.0
4								SAA - less dense, moist from 11'-12'
5					End of boring @ 12'			
6								
7								
8								
9					50%	SAA - less dense, moist from 11'-12'	0.0	
10								
11								
12								
13					End of boring @ 12'	SS-12 collected @ 3'-4'		
14								
15								
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26								

**LEGEND**

S- Surficial Soil Sample

SS Subsurface Soil Sample

**GENERAL NOTES:**

1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.

2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.

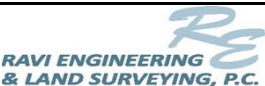
bgs = below ground surface

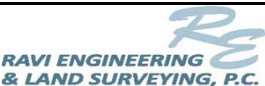
ppm = parts per million

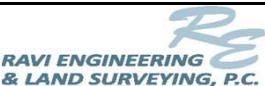
BORING #

B12



				101-113 Franklin Street 106 Pleasant Street		BORING                      BH-13  PROJECT #:                4318179C CHKD. BY:		
CONTRACTOR:            Nature's Way DRILLER:                   Tom RE&LS PERSONNEL:    L.Zicari				BORING LOCATION:    NORTH BOUNDARY LINE GROUND SURFACE ELEVATION: N/A DATE:                    7/17/2019				
TYPE OF DRILL RIG:    Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:    NA				WATER LEVEL DATA				
				DATE	TIME	WATER	CASING	REMARKS
P	Sample Data					PID (ppm)		
T	BLOW	NO.	DEPTH	N-VALUE	RECOVERY			
H	/6"		(FT.)	/RQD(%)	(%)			
1					80%	3" topsoil over very loose, dry, brown silty loam (reworked soil or fill)		
2								
3								
4					95%	Dry, dense, tan, silty f sand, tr clay, grading to light brown, moist.		
5								
6								
7								
8					60%			
9								
10								
11								
12							End of boring @ 12'  SS-13 sampled at 4'-4.5'	
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26								
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample								
GENERAL NOTES: 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million								
BORING #						B13		

					101-113 Franklin Street 106 Pleasant Street		BORING                      BH-14  PROJECT #:                4318179C CHKD. BY:		
CONTRACTOR:            Nature's Way DRILLER:                 Tom RE&LS PERSONNEL:    L.Zicari					BORING LOCATION:    NORTHWEST BOUDARY LINE GROUND SURFACE ELEVATION: N/A DATE:                    7/18/2019				
TYPE OF DRILL RIG:    Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:    NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)				PID (ppm)
1					75%	4" topsoil over loose fill consisting of brick and sand (fill)			0.0
2						Loose, dry, light brown loam, tr. brick fragments (fill)			0.0
3									
4					95%	Dry, dense, light brown silty f sand, moist at 11.5'-12'			0.0
5									
6									
7									
8					90%	End of boring @ 12'			
9									
10									
11									
12						SS-14 collected at 3.5'-4'			
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26									
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample									
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million									
BORING #								B14	

					101-113 Franklin Street 106 Pleasant Street		BORING BH-15  PROJECT #: 4318179C CHKD. BY:		
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari					BORING LOCATION: CENTER OF GRASSY FIELD GROUND SURFACE ELEVATION: N/A DATE: 7/18/2019				
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	REMARKS		PID (ppm)	
1						8" topsoil over dry, loose, dark brown sandy loam		0.1	
2					90%	Dry, dense, light brown silty f sand		0.0	
3									
4									
5									
6					90%	Very dense, dry, light brown silty f. sand, moist at 10'-10.5'		0.0	
7									
8									
9									
10					90%	Refusal @ 10.5"		0.0	
11									
12									
13									
14						Microwell MW-2 Installed  SS-15 collected at 4'			
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									

**LEGEND**

S- Surficial Soil Sample

SS Subsurface Soil Sample

**GENERAL NOTES:**

1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.

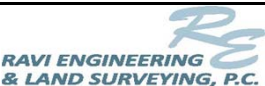
2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.

bgs = below ground surface

ppm = parts per million

BORING #

B15

					101-113 Franklin Street 106 Pleasant Street		BORING                      BH-16  PROJECT #:                4318179C CHKD. BY:		
CONTRACTOR:            Nature's Way DRILLER:                 Tom RE&LS PERSONNEL:    L.Zicari					BORING LOCATION:    WEST BOUNDARY LINE GROUND SURFACE ELEVATION: N/A DATE:                    7/18/2019				
TYPE OF DRILL RIG:    Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:    NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	Sample Data REMARKS PID (ppm)			
1					90%	6" topsoil			0.0
2						Loose, dry, light brown sandy loam			0.0
3						Dense, dry, tan sandy loam			0.0
4									
5					95%	Loose, slightly moist, silty f sand			0.0
6									
7						Dense, moist, light brown, silty loam (till)			0.0
8									
9					95%	Loose, moist, light brown, silty loam (till)			0.0
10									
11						Dense, moist silt (till)			0.0
12									
13						End of boring @ 12"			
14						SS-16 collected at 3'-4'			
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									

**LEGEND**

S- Surficial Soil Sample

SS Subsurface Soil Sample

**GENERAL NOTES:**

1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.

2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.

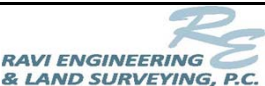
bgs = below ground surface

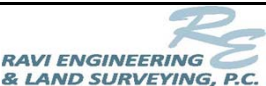
ppm = parts per million

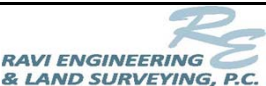
BORING #

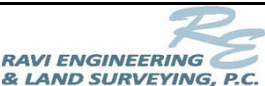
B16



					101-113 Franklin Street 106 Pleasant Street		BORING      BH-17  PROJECT #:    4318179C CHKD. BY:		
CONTRACTOR:      Nature's Way DRILLER:            Tom RE&LS PERSONNEL: L.Zicari					BORING LOCATION:    SOUTHERN AREA OF GRASSY LOT GROUND SURFACE ELEVATION: N/A DATE:                    7/18/2019				
TYPE OF DRILL RIG:    Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD:    NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)			PID (ppm)	
1					90%	Topsoil		0.0	
2						Loose, black loam		0.9	
3								0.7	
4					Loose, dry, tan silty f sand, tr clay with orange mottles				
5					95%	Dry, loose, light brown silty f sand			
6									
7									
8									
9					95%	Dry, dense light brown silty f sand	0.7		
10									
11									
12						Moist, dense, light brown silty f sand, grading to wet.			
13						End of boring @ 12'			
14						SS-17 collected at 11.5'-12'			
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample									
GENERAL NOTES: 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million									
BORING #						B17			

		101-113 Franklin Street 106 Pleasant Street		BORING      BH-18  PROJECT #:      4318179C CHKD. BY:		
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari		BORING LOCATION: WEST BOUNDARY LINE GROUND SURFACE ELEVATION: N/A DATE: 7/18/2019				
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA		WATER LEVEL DATA				
		DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	PID (ppm)
1						Topsoil
2						0.0
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						End of boring @ 12'
14						SS-18 collected at 3'-4'
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample						
GENERAL NOTES: 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million						
BORING #						B18

					101-113 Franklin Street 106 Pleasant Street		BORING BH-19  PROJECT #: 4318179C CHKD. BY:		
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari					BORING LOCATION: SOUTHWEST CORNER OF PROPERTY GROUND SURFACE ELEVATION: N/A DATE: 7/18/2019				
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)			PID (ppm)	
1						topsoil		0.0	
2					80%	Loose, moist, light brown sandy loam (appears to be reworked native soil)		0.0	
3									
4									
5					85%	Dense, moist, tan silty f sand		0.0	
6									
7									
8									
9									
10					95%	Loose, dry, tan silty f sand		0.0	
11						Dense, moist, tan silty f sand		0.0	
12									
13						End of boring @ 12'			
14						SS-19 collected from 4'-5'			
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample									
GENERAL NOTES: 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million									
						BORING # B19			

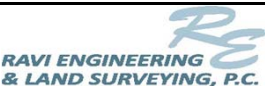
					101-113 Franklin Street 106 Pleasant Street		BORING      BH-20  PROJECT #:      4318179C CHKD. BY:		
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari					BORING LOCATION: SOUTH OF HISTORIC GAS TANKS GROUND SURFACE ELEVATION: N/A DATE: 7/18/2019				
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA					WATER LEVEL DATA				
					DATE	TIME	WATER	CASING	REMARKS
P	Sample Data							PID	
T	BLOW	NO.	DEPTH	N-VALUE	RECOVERY			(ppm)	
H	/6"		(FT.)	/RQD(%)	(%)				
1						Asphalt		0.0	
2					75%	Moist, dense, silty f. sand, tr clay, more dense from 5'-12'		0.8	
3									
4									
5									
6					75%				
7									
8									
9									
10					75%	Dry, loose light brown silty f sand.		0.4	
11									
12									
13					75%				
14						Moist, dense light brown silty f sand tr gravel			
15						Refusal @ 14.2'			
16						Microwell MW-1 installed			
17						SS-20 collected at 5'-6'			
18									
19									
20									
21									
22									
23									
24									
25									
26									

LEGEND


S- Surficial Soil Sample  
 SS Subsurface Soil Sample


GENERAL NOTES:  
 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.  
 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.  
 bgs = below ground surface  
 ppm = parts per million


BORING #      B20

		101-113 Franklin Street 106 Pleasant Street		BORING      BH-21  PROJECT #:      4318179C CHKD. BY:			
CONTRACTOR: Nature's Way DRILLER: Tom RE&LS PERSONNEL: L.Zicari		BORING LOCATION: EAST CENTRAL BOUNDARY LINE GROUND SURFACE ELEVATION: N/A DATE: 7/17/2019					
TYPE OF DRILL RIG: Truck Mounted Geoprobe CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: ROCK DRILLING METHOD: NA		WATER LEVEL DATA					
		DATE	TIME	WATER	CASING	REMARKS	
P T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	PID (ppm)	
1						Asphalt and weathered asphalt over 4" dark gray clayey fill grading to brown clay loam (fill)	0.0
2						Moist, loose, silty f sand, grading to dense. Saturated at 8'-8.5	0.0
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15						SS-21 collected from 8'-8.5	
16						Microwell MW-3 installed	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample							
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million							
BORING #						B21	



						101-113 Franklin Street 106 Pleasant Street		BORING BH-22 MW-D1 PROJECT # 4318179C CHKD. BY:			
CONTRACTOR: Nature's Way DRILLER: Steve/Nate RE&LS PERSONNEL: L. Zicari						BORING LOCATION: EAST CENTRAL BOUNDARY LINE GROUND SURFACE ELEVATION: N/A DATE: 7/24/2019					
TYPE OF DRILL RIG: Drill Rig CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: Split Spoon ROCK DRILLING METHOD: NA						WATER LEVEL DATA					
						DATE	TIME	WATER	CASING		REMARKS
P	Sample Data						PID (ppm)	Well Construction			
T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)						
1						Moist, dense, gray clayey silt with orange/brown mottles grading to brown and loose.	0.0	Flush Mount/protective casing			
2							Portland Cement				
3							Bentonite Seal				
4	2										
5	3										
6	12	1	4-6	8				2" PVC Riser			
7						Moist, brown silty f sand, tr clay, some gravel	0.1	Filter Sand Pack			
8											
9											
10	3										
11	6										
12	5	2	9-11	11		Moist, dense, tan silt, some gravel (till)	0.0	2" PVC Screen (010 slot)			
13											
14											
15	6										
16	15										
17	26					Refusal 17.4"					
18	29	3	14-16	41							
19	50/1	4	16-16.5								
20											
21											
22						SS-22 collected at 17'					
23											
24											
25											
26											
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample											
GENERAL NOTES: 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million											
						BORING # B22					

						101-113 Franklin Street 106 Pleasant Street		BORING BH-23 MW-D2 PROJECT #: 4318179C CHKD. BY:							
CONTRACTOR: Nature's Way DRILLER: Steve/Nate RE&LS PERSONNEL: L. Zicari						BORING LOCATION: EAST CENTRAL BOUNDARY LINE GROUND SURFACE ELEVATION: N/A DATE: 7/24/2019									
TYPE OF DRILL RIG: Drill Rig CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: Split spoon ROCK DRILLING METHOD: NA						WATER LEVEL DATA									
						DATE	TIME	WATER	CASING			REMARKS			
P	Sample Data							PID (ppm)		Well Construction					
T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)										
1										Flush → Mount/protective casing					
2															
3															
4															
5	6														
5	15				80%	Moist, loose, brown silty f sand, tr. Clay, some gravel		0.4		Portland Cement →					
6	17	1	4-6	32											
7															
8															
9															
10	6														
10	14				75%							Moist, loose, brown silty f sand, some gravel. Dense from 10'-11'		0.2	
11	16														
11	17	2	9-11	30											
12															
13															
14															
15	10									Bentonite Seal →					
15	25				65%							Moist, dense, brown silty f sand, some gravel. Very dense at 15'. Wet at 16'		0.2	
16	33														
16	26	3	14-16	58											
17															
18															
19															
20	18									Filter Sand Pack →					
20	15				75%							Wet, very dense, brown grading to gray, silty f sand, some gravel to 20'. Saturated, gray very dense silt, tr fine gravel, tr f sand from 20.5'-21'		0.2	
21	50/5	4	19-20.5	65											
22															
23															
24															
25	10									2" PVC Screen (010 slot) →					
25	27				60%							Saturated, loose, gray coarse sand over saturated medium dense/grading to loose, gray silty f sand		0.1	
26	49														
26	50/5	5	24-26	76											
27															
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample						Refusal 27.0' SS-23 collected at 19'									
GENERAL NOTES: 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million															
						BORING # B23									

		101-113 Franklin Street 106 Pleasant Street		BORING BH-24 MW-D3 PROJECT #4318179C CHKD. BY:				
CONTRACTOR: Nature's Way		BORING LOCATION: EAST CENTRAL BOUNDARY LINE						
DRILLER: Steve/Nate		GROUND SURFACE ELEVATION: N/A						
RE&LS PERSONNEL: L. Zicari		DATE: 7/24/2019						
TYPE OF DRILL RIG: Drill Rig		WATER LEVEL DATA						
CASING SIZE AND TYPE:		DATE	TIME	WATER	CASING	REMARKS		
OVERBURDEN SAMPLING METHOD: Split spoon								
ROCK DRILLING METHOD: NA								
P	Sample Data					PID	Well Construction	
T H	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	(ppm)		
1							Flush Mount/protective casing	
2								
3								
4								
5	1				20%	Fill: Sand, brick, cinders and ash	0.3	Portland Cement
6	0	1	4-6	2				
7								Bentonite Seal
8								
9								
10	4				20%	Soft, dry, brown clay loam 9'-9.5'	0.1	
11	13					Stiff, dry, brown clay loam 9.5'-10.5'		2" PVC Riser
12	13					Moist, medium dense, brown silty f sand, tr gravel		
13	10	2	9-11	26				Filter Sand Pack
14								
15	4				75%		0.1	
16	9							
17	11							2" PVC Screen (010 slot)
18	12	3	14-16	20	50%	Moist, medium dense, brown silty f sand, some fine gravel. Dense at 17', saturated from 17'-18'.	0.1	
19	4							
20	10				60%		0.1	
21	22							Refusal 22.5
22	29	4	16-18	32	30%	Saturated, fine to coarse gravel intermixed with fmc sand.	0.2	
23	22							
24	24							
25	27	5	18-20	46				
26	10							
27	25							
28	31							
29	21	6	20-22	56				
30	29							
31	50/5	7	22-22.5	-				
32								
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100								
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample								
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million								
BORING # B24								

					101-113 Franklin Street 106 Pleasant Street		BORING BH-25 MW-D4 PROJECT #: 4318179C CHKD. BY:		<div>RAVI ENGINEERING &amp; LAND SURVEYING, P.C.</div>		
CONTRACTOR: Nature's Way DRILLER: Steve/Nate RE&LS PERSONNEL: L.Zicari					BORING LOCATION: EAST CENTRAL BOUNDARY LINE GROUND SURFACE ELEVATION: N/A DATE: 7/25/2019						
TYPE OF DRILL RIG: Drill Rig CASING SIZE AND TYPE: OVERBURDEN SAMPLING METHOD: Split spoon ROCK DRILLING METHOD: NA					WATER LEVEL DATA						
					DATE	TIME	WATER	CASING	REMARKS		
P	Sample Data									PID (ppm)	Well Construction
T	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)						
H											
1	--				75%	Asphalt (no blow count)				0.0	Flush Mount/protective casing
	7										
	14										
2	12	1	0-2	21	40%	Fill: Crushed/weathered brick and stone				0.2	Portland Cement
	10										
	5										
3	3				25%	Fill consisting of intermixed soils and debris (glass, concrete)				0.1	
	4	2	2-4	8							
	7										
5	9				65%	Moist, soft, light brown clay loam (fill)				0.0	
	3										
	3	3	4-6	12							
6	2				50%						
	3										
	16										
7	2				50%	Moist, soft, light brown, silty f sand, tr clay, tr fine gravel				0.0	
	3										
	14										
8	3	4	6-8	5	70%	Moist, dense, silty f sand, some gravel. Wet at 13.5'.				0.0	Bentonite Seal
	3										
	4										
9	16				75%						2" PVC Riser
	14										
	5										
13	9				70%	Moist, very dense, light brown grading to tan, silty f sand, some gravel				0.1	Filter Sand Pack
	8	7	12-14	14							
	3										
15	6				75%	Coarse gravel				0.1	2" PVC Screen (010 slot)
	7										
	10	8	14-16	13							
16	3				75%	Moist, very dense, tan, silty f sand, tr coarse sand/fine gravel				0.1	
	9										
	9										
18	13	9	16-18	18	50%	Saturated, silty fmc sand and fmc gravel				0.1	
	7										
	21										
19	31				75%	Moist, tan silt, fmc sand and fine gravel. Saturated at 25'				0.1	
	43	10	18-20	52							
	9										
21	27				75%	Refusal 25.5'					
	32					SS-25 collected from 21.5'-22'					
	31	11	20-22	59							
22	16				50%						
	20										
	21										
24	27	12	22-26	41	75%						
	7										
	33										
25	50/4	13	24-25	>50							
26											
27											
<b>LEGEND</b> S- Surficial Soil Sample SS Subsurface Soil Sample											
<b>GENERAL NOTES:</b> 1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual. 2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring. bgs = below ground surface ppm = parts per million											
					BORING # B25						

						Street 106 Pleasant Street		BORING BH-26 MW-D5		<div>RAVI ENGINEERING &amp; LAND SURVEYING, P.C.</div>		
CONTRACTOR: Nature's Way						BORING LOCATION: EAST CENTRAL BOUNDARY LINE						
DRILLER: Steve/Nate						GROUND SURFACE ELEVATION: N/A						
RE&LS PERSONNEL: L.Zicari						DATE: 7/26/2019						
TYPE OF DRILL RIG: Drill Rig CASING SIZE AND TYPE: OVERBURDEN SAMPLING ME: Split spoon ROCK DRILLING METHOD: NA						WATER LEVEL DATA						
						DATE	TIME	WATER	CASING	REMARKS		
P	Sample Data						PID (ppm)	Well Construction				
T	BLOW /6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)							
H												
1	3				75%	8" topsoil over 4' concrete		0.0	Flush Mount/protective casing			
	7											
	7											
2	9	1	0-2	14	75%	Dry, loose, dark brown sandy loam. Brick fragments and rock from 3'-3.25'		0.0				
	8											
	11											
3	9				75%							
	9											
	3											
5	10				75%	Dry, med dense/soft dark brown loam, some gravel		0.0	Portland Cement			
	16											
	20	3	4-6	26								
6	8				75%							
	15											
	21											
8	24	4	6-8	36	75%							
	9											
	15											
9	19				75%							
	22	5	8-10	34								
	7											
10	18				60%	Dry, dense/stiff dark brown loam, some gravel		0.0				
	21											
	21	6	10-12	34								
12	4				60%				Bentonite Seal			
	11											
	13											
14	16	7	12-14	24	60%							
	3											
	7											
15	14				60%	Moist, dense, light brown, silty f sand, some gravel		0.0	2" PVC Riser			
	19	8	14-16	23								
	7											
16	18				60%							
	24											
	26	9	16-18	42					Filter Sand Pack			
18	17				60%							
	28											
	32											
19	30	10	18-20	60	50%	Saturated, dense, light brown silty f sand		0.0				
	10											
	27											
20	50/5	11	20-21.5	72	40%	Wet, dense, light brown, silty f sand		0.0	2" PVC Screen (010 slot)			
	12											
	36											
21	33				40%							
	34	12	22-24	69								
	18											
22	50/5	13	24-25	-	40%	Saturated, dense, fmc sand, fmc gravel		0.0				
23					40%							
24					40%							
25					40%							
26					40%							
27					40%							
LEGEND												
S- Surficial Soil Sample												
SS Subsurface Soil Sample												
GENERAL NOTES:												
1) Stratification Lines represent approximate boundary between soil types; transitions may be gradual.												
2) PID readings were taken directly on exposed soil in disposable sleeve, immediately following retrieval from boring.												
bgs = below ground surface												
ppm = parts per million												
BORING # B26												



## APPENDIX B

### Low-Flow Sampling Logs

## LOW-FLOW SAMPLING DATA LOG

Site Location: 101-113 Franklin Street								Well ID: MW-D1							
Client: City of Rochester								START Depth to Water: 14.27							
Project Number: 4318179C								Depth to Bottom: 17.1							
Date of Sampling: 8-7-19								Well Information: 2" PVC - 10' Screen							
Field Personnel: LZ								Weather Conditions: 75 Rain							
PURGING METHOD: Peristaltic pump, low flow								Pump Intake Depth: 16							
Time Elapsed (Min)	pH (± 0.1 unit)		SPECIFIC CONDUCTIVITY (mS/cm)		Redox Potential (mV)		DISSOLVED OXYGEN (MG/L)		TURBIDITY (NTU)		TEMPERATURE ©		FLOW RATE (ml/min)	Water Level	
	READING	CHANGE	READING	CHANGE %	READING	CHANGE	READING	CHANGE %	READING	CHANGE %	READING	CHANGE %			
1220	7.00		1.323		76.5		5.57		27.5		18.9		100	14.46	
1225	6.79	0.21	1.315	0.605	29.0	47.5	5.28	5.2	31.5	-14.5	18.2	3.7	100	14.46	
1240	6.8	-0.01	1.336	-1.597	24.0	5.0	5.41	-2.5	4.8	84.9	19.3	-6.0	100	14.46	
1245	6.78	0.02	1.341	-0.374	14.3	9.7	5.07	6.3	2.7	43.4	19.2	0.5	70	14.46	
1250	6.72	0.06	1.332	0.671	2.3	12.0	4.24	16.4	-0.5	117.8	18.9	1.6	70	14.48	
1255	6.69	0.03	1.331	0.075	3.7	-1.4	3.72	12.3	-3.0	-520.8	18.9	0.0	70	14.48	
1300	6.67	0.02	1.333	-0.150	-3.6	7.3	2.98	19.9	-4.2	-40.9	18.8	0.5	50	14.48	
1305	6.67	0.00	1.351	-1.350	-37.7	34.1	3.62	-21.5	-3.2	23.8	19.1	-1.6	70	14.48	
1310	6.66	0.01	1.388	-2.739	-60.7	23.0	2.36	34.8	-2.8	13.8	18.7	2.1	70	14.49	
1315	6.65	0.01	1.386	0.144	-64.1	3.4	2.30	2.5	-2.7	2.2	18.8	-0.5	70	14.49	
1320	6.65	0.00	1.388	-0.144	-62.7	-1.4	2.27	1.3	-2.1	23.7	18.9	-0.5	70	14.49	
1325	6.65	0.00	1.395	-0.504	-69.0	6.3	2.04	10.1	-1.3	37.9	18.7	1.1	70	14.49	
1330	6.65	0.00	1.404	-0.645	-78.1	9.1	1.98	2.9	-1.1	18.0	18.7	0.0	70	14.49	

**Notes:**

1.25 gallons generated during low flow sampling

3 gallons generated during purging

P10 Headspace = 1.0 ppm

## LOW-FLOW SAMPLING DATA LOG

Site Location: 101-113 Franklin Street							Well ID: MW-D2							
Client: City of Rochester							START Depth to Water: 13.3							
Project Number: 4318179C							Depth to Bottom: 25.51							
Date of Sampling: 8-7-19							Well Information: 2" PVC, 70' screen							
Field Personnel: LZ							Weather Conditions: Cloudy, 70 degrees							
PURGING METHOD: Peristaltic pump, low flow							Pump Intake Depth: 21.5 feet							
Time Elapsed (Min)	pH (± 0.1 unit)		SPECIFIC CONDUCTIVITY		Redox Potential (mV)		DISSOLVED OXYGEN (MG/L)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		FLOW RATE (ml/min)	Water Level (ft.)
	READING	CHANGE	READING	CHANGE %	READING	CHANGE	READING	CHANGE %	READING	CHANGE %	READING	CHANGE %		
8:36	7.43		0.002				8.58		182		20.7		110	13.70
8:40	7.45	-0.02	1.269	-63350	119.0		1.68	80.4	89	51.1	16.7	19.3	110	13.70
8:55	7.43	0.02	1.480	-16.6273	115.1	3.9	1.41	16.1	103	-15.7	17.0	-1.8	115	13.70
9:00	7.42	0.01	1.610	-8.78378	110.3	4.8	1.70	-20.6	130	-26.2	17.0	0.0	115	13.70
9:05	7.40	0.02	1.780	-10.559	98.6	11.7	1.21	28.8	115	11.5	16.9	0.6	115	13.70
9:13	7.38	0.02	2.010	-12.9213	63.4	35.2	1.04	14.0	107	7.0	17.0	-0.6	115	13.70
9:20	7.31	0.07	2.620	-30.3483	6.6	56.8	1.23	-18.3	75	29.9	16.8	1.2	115	13.70
9:25	7.25	0.06	3.220	-22.9008	39.2	-32.6	1.37	-11.4	48	36.0	17.1	-1.8	115	13.70
9:30	7.21	0.04	3.470	-7.76398	-56.7	95.9	1.26	8.0	43	10.4	17.0	0.6	115	13.70
9:35	7.17	0.04	3.660	-5.4755	-71.2	14.5	1.23	2.4	41	4.7	17.0	0.0	115	13.70
9:40	7.16	0.01	3.860	-5.46448	-87.9	16.7	1.05	14.6	23	43.9	17.0	0.0	115	13.65
9:45	7.15	0.01	3.960	-2.59067	-98.9	11.0	0.92	12.4	24	-4.3	17.3	-1.8	115	13.65
9:50	7.14	0.01	4.100	-3.53535	-106.2	7.3	0.97	-5.4	23	4.2	17.7	-2.3	115	13.65
9:55	7.14	0	4.120	-0.4878	-108.1	1.9	0.90	7.2	24	-4.3	17.8	-0.6	115	13.65
10:00	7.15	-0.01	4.130	-0.24272	-106.3	-1.8	0.92	-2.2	25	-4.2	17.9	-0.6	115	13.65
10:05	7.14	0.01	4.120	0.242131	-108.0	1.7	0.95	-3.3	27	-8.0	17.7	1.1	115	13.65

**Notes:**

3 gallons generated during low flow sampling

3 gallons generated during purging

P10 Headspace 1.0 ppm

12.21 ft of water in well X 1.163=1.99 gallons X 3 well vols = 5.97 gallon

## LOW-FLOW SAMPLING DATA LOG

Site Location: 101-113 Franklin Street							Well ID: MW-D3							
Client: City of Rochester							START Depth to Water: 14.49							
Project Number: 4318179C							Depth to Bottom: 21.22							
Date of Sampling: 8-8-19							Well Information: 2" PVC, 10' screen							
Field Personnel: LZ							Weather Conditions: Clear							
PURGING METHOD: Peristaltic pump, low flow							Pump Intake Depth: 18.2 feet							
Time Elapsed (Min)	pH (± 0.1 unit)		SPECIFIC CONDUCTIVITY (mS/cm)		Redox Potential (mV)		DISSOLVED OXYGEN (MG/L)		TURBIDITY (NTU)		TEMPERATURE (C)		FLOW RATE (ml/min)	Water Level
	READING	CHANGE	READING	CHANGE %	READING	CHANGE	READING	CHANGE %	READING	CHANGE %	READING	CHANGE %		
8:00	8.13		1.106		116.20		5.60		134		19.2		150	14.70
8:10	8.01	0.12	1.087	1.718	118.3	-2.10	4.89	12.7	390	-191.0	16.6	13.54	120	14.74
8:15	7.90	0.11	1.095	-0.736	118.6	-0.30	4.45	9.0	824	-111.3	16.4	1.20		
8:20	7.80	0.10	1.104	-0.822	117.7	0.90	3.56	20.0	625	24.2	16.5	-0.61		
8:25	7.68	0.12	1.111	-0.634	116.4	1.30	3.16	11.2	446	28.6	16.6	-0.61	110	14.65
8:30	7.56	0.12	1.117	-0.540	115.3	1.10	2.90	8.2	350	21.5	16.6	0.00		
8:35	7.41	0.15	1.125	-0.716	112.8	2.50	2.65	8.6	248	29.1	16.6	0.00		
8:40	7.40	0.01	1.124	0.089	107.2	5.60	2.60	1.9	195	21.4	16.6	0.00		
8:45	7.30	0.10	1.125	-0.089	100.0	7.20	2.44	6.2	153	21.5	16.5	0.60	110	14.66
8:50	7.28	0.02	1.134	-0.800	92.8	7.20	2.13	12.7	112	26.8	16.5	0.00		
8:55	7.24	0.04	1.138	-0.353	83.0	9.80	1.86	12.7	86	23.2	16.6	-0.61		
9:00	7.24	0.00	1.138	0.000	75.5	7.50	2.17	-16.7	86	0.0	16.6	0.00		
9:05	7.18	0.06	1.146	-0.703	69.3	6.20	2.11	2.8	49	43.0	16.5	0.60	120	14.65
9:10	7.17	0.01	1.147	-0.087	58.9	10.40	2.03	3.8	52	-6.1	16.5	0.00		
9:15	7.15	0.02	1.151	-0.349	52.2	6.70	1.92	5.4	46	11.5	16.5	0.00		
9:30	7.11	0.04	1.156	-0.434	45.1	7.10	1.87	2.6	49	-6.5	16.5	0.00		
9:35	7.09	0.02	1.158	-0.173	38.4	6.70	1.84	1.6	45	8.2	16.5	0.00		
9:40	7.08	0.01	1.163	-0.432	32.2	6.20	1.67	9.2	42	6.7	16.5	0.00		

**Notes:**

3 gallons removed during low flow sampling

3 gallons removed during purging

P10 Headspace = 1.0 ppm

6.73 ft of water in well X 0.163=1.09 gallons X 3 well vols = 3.29 gallon (3 well vols)

## LOW-FLOW SAMPLING DATA LOG

Site Location: 101-113 Franklin Street							Well ID: MW-D4							
Client: City of Rochester							START Depth to Water: 16.40'							
Project Number: 4318179C							Depth to Bottom: 24.48							
Date of Sampling: 8-8-19							Well Information: 2" PVC, 10' screen							
Field Personnel: LZ							Weather Conditions: Cloudy, thunderstorms							
PURGING METHOD: Peristaltic pump, low flow							Pump Intake Depth: 20.5 feet							
Time	pH		SPECIFIC CONDUCTIVITY (mS/cm)		Redox Potential (mV)		DISSOLVED OXYGEN (MG/L)		TURBIDITY (NTU) (10%>5)		TEMPERATURE (degrees C)		FLOW RATE (ml/min)	Water Level
	READING	CHANGE	READING	% CHANGE	READING	CHANGE (mV)	READING	CHANGE %	READING	CHANGE %	READING	CHANGE %		
1455	9.20		2.059				5.53		101.4		17.0		110	16.74
1500	7.91	1.29	2.060	-0.049	63.8		5.46	1.27	111	-9.5	17.2	-1.2	110	16.74
1505	7.80	0.11	2.061	-0.049	31.5	32.3	5.22	4.40	126	-13.5	17.3	-0.6	110	16.74
1510	7.72	0.08	2.059	0.097	63.6	-32.1	5.16	1.15	135	-7.1	17.2	0.6	110	16.74
1515	7.62	0.10	2.060	-0.049	67.3	-3.7	5.15	0.19	115	14.8	17.6	-2.3	110	16.74
1525	7.44	0.18	2.055	0.243	70.1	-2.8	4.90	4.85	141	-22.6	16.9	4.0	110	16.74
1530	7.47	-0.03	2.031	1.168	77.8	-7.7	4.69	4.29	134	5.0	17.0	-0.6	102	17.05
1535	7.51	-0.04	2.039	-0.394	73.1	4.7	4.11	12.37	102	23.9	17.0	0.0	102	17.05
1540	7.49	0.02	2.040	-0.049	73.7	-0.6	4.08	0.73	103	-1.0	16.9	0.6	102	17.05
1545	7.46	0.03	2.036	0.196	74.8	-1.1	3.82	6.37	97	5.8	17.0	-0.6	102	17.05
1550	7.43	0.03	2.032	0.196	75.8	-1.0	3.64	4.71	86	11.3	17.0	0.0	102	17.05
1555	7.45	-0.02	2.026	0.295	73.9	1.9	3.42	6.04	79	8.1	16.9	0.6	102	17.05
1600	7.37	0.08	2.027	-0.049	78.4	-4.5	3.30	3.51	75	5.1	16.8	0.6	102	17.05
1605	7.35	0.02	2.027	0.000	78.6	-0.2	3.18	3.64	71	5.3	16.7	0.6	102	17.05
1610	7.36	-0.01	2.028	-0.049	77.7	0.9	3.06	3.77	76	-7.0	16.8	-0.6	102	17.05
1615	7.36	0.00	2.024	0.197	75.0	2.7	2.95	3.59	80	-5.3	16.8	0.0	102	17.05
1620	7.46	-0.10	2.019	0.247	66.1	8.9	2.8	5.08	85	-6.3	16.9	-0.6	102	17.05
1625	7.54	-0.08	2.013	0.297	62	4.1	2.75	1.79	90	-5.9	16.8	0.6	102	17.05
1630	7.64	-0.10	2.011	0.099	53.3	8.7	2.69	2.18	85	5.6	16.7	0.6	102	17.05
1635	7.81	-0.17	1.996	0.746	41.3	12.0	2.55	5.20	83	2.4	16.7	0.0	102	17.05
1640	7.80	0.01	1.990	0.301	39.7	1.6	2.43	4.71	77	7.2	16.6	0.6	102	17.05
1645	7.78	0.02	1.987	0.151	37.1	2.6	2.31	4.94	75	2.6	16.7	-0.6	102	17.05
1650	7.84	-0.06	1.981	0.302	29.2	7.9	2.22	3.90	73	2.7	16.7	0.0	102	17.05
1655	7.79	0.05	1.983	-0.101	25.1	4.1	2.09	5.86	67	8.2	16.9	-1.2	102	17.05

3 gallons removed during low flow sampling

3 gallons removed during surging

PID Headspace = 1.8 ppm

8.081 ft of water in well X 0.163=1.317 gallons X 3 well vols = 3.95 gallons (3 well vols)



## LOW-FLOW SAMPLING DATA LOG

Site Location: 101-113 Franklin Street							Well ID: MW-D5							
Client: City of Rochester							START Depth to Water: 18.32							
Project Number: 4318179C							Depth to Bottom: 24.22							
Date of Sampling: 8-8-19							Well Information: 2" PVC, 10' screen							
Field Personnel: LZ							Weather Conditions: Sunny, 80 degrees							
PURGING METHOD: Peristaltic pump, low flow							Pump Intake Depth: 21.5 feet							
Time Elapsed (Min)	pH (± 0.1 unit)		SPECIFIC CONDUCTIVITY (mS/cm)		Redox Potential (mV)		DISSOLVED OXYGEN (MG/L)		TURBIDITY (NTU)		TEMPERATURE (C)		FLOW RATE (ml/min)	Water Level
	READING	CHANGE	READING	CHANGE %	READING	CHANGE	READING	CHANGE %	READING	CHANGE %	READING	CHANGE %		
11:40:00 AM	8.71		0.923		-16.70		4.53		161		15.1		120	18.33
11:45:00 AM	8.78	-0.07	0.927	-0.433	-21.5	4.80	4.08	9.9	137	14.9	15.7	-4.0	120	18.48
11:50:00 AM	8.85	-0.07	0.933	-0.647	-38.3	16.80	3.59	12.0	134	2.2	15.5	1.3		
11:55:00 AM	8.84	0.01	0.940	-0.750	-55.2	16.90	3.16	12.0	110	17.9	15.3	1.3		
12:00:00 PM	8.81	0.03	0.945	-0.532	-66.4	11.20	2.90	8.2	96	12.7	15.1	1.3	120	18.48
12:05:00 PM	8.76	0.05	0.949	-0.423	-71.3	4.90	2.68	7.6	91	5.2	15.2	-0.7		
12:10:00 PM	8.67	0.09	0.956	-0.738	-74.1	2.80	2.46	8.2	90	1.1	14.9	2.0		
12:15:00 PM	8.52	0.15	0.958	-0.209	-67.3	-6.80	2.42	1.6	85	5.6	14.8	0.7		
12:20:00 PM	8.31	0.21	0.958	0.000	-58.0	-9.30	2.42	0.0	90	-5.9	14.7	0.7		
12:25:00 PM	7.82	0.49	0.962	-0.418	-29.0	-29.00	2.43	-0.4	95	-5.6	14.4	2.0		
12:30:00 PM	7.40	0.42	0.963	-0.104	-12.5	-16.50	2.37	2.5	99	-4.2	14.2	1.4		18.48
12:35:00 PM	7.30	0.10	0.963	0.000	-9.4	-3.10	2.32	2.1	105	-6.1	13.9	2.1		
12:40:00 PM	7.26	0.04	0.965	-0.208	-10.3	0.90	2.25	3.0	112	-6.7	13.8	0.7		
12:45:00 PM	7.23	0.03	0.965	0.000	-10.8	0.50	2.23	0.9	114	-1.8	13.8	0.0		
12:50:00 PM	7.21	0.02	0.969	-0.415	-13.2	2.40	2.12	4.9	105	7.9	13.8	0.0		
12:55:00 PM	7.20	0.01	0.970	-0.103	-16.4	3.20	2.06	2.8	105	0.0	13.8	0.0		18.48
13:00:00 PM	7.19	0.01	0.970	0.000	-20.7	4.30	2.01	2.4	113	-7.6	13.8	0.0		
13:05:00 PM	7.17	0.02	0.972	-0.206	-22.6	1.90	1.96	2.5	124	-9.7	13.8	0.0		
13:10:00 PM	7.15	0.02	0.973	-0.103	-23.5	0.90	1.90	3.1	145	-16.9	13.7	0.7		
13:15:00 PM	7.15	0.00	0.975	-0.206	-25.1	1.60	1.86	2.1	145	0.0	13.7	0.0		
13:20:00 PM	7.14	0.01	0.980	-0.513	-25.7	0.60	1.83	1.6	151	-4.1	13.7	0.0		
13:25:00 PM	7.12	0.02	0.981	-0.102	-24.6	-1.10	1.80	1.6	160	-6.0	13.6	0.7		18.48
13:30:00 PM	7.11	0.01	0.984	-0.306	-24.3	-0.30	1.75	2.8	165	-3.1	13.7	-0.7		
13:30:00 PM	7.10	0.01	0.985	-0.102	-24.7	0.40	1.72	1.7	166	-0.6	13.8	-0.7		
13:40:00 PM	7.10	0.0	0.983	0.203	-24.1	-0.60	1.70	1.2	172	-3.6	13.8	0.0		

**Notes:**

4.25 gallons generated during low flow sampling

3' Removed during surging of wells

PID Headspace = 3.2 ppm

5.9' ft of water X 0.163=1.96 gallons X 3 well vols = 2.88 gallons

## APPENDIX C

### Laboratory Data



**Lab Project ID: 193386**

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-1

**Lab Sample ID:** 193386-01

**Date Sampled:** 7/17/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.0238</b>	mg/Kg		7/22/2019 09:49

**Method Reference(s):** EPA 7471B

**Preparation Date:** 7/19/2019

**Data File:** Hg190722A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-1

Lab Sample ID: 193386-01

Matrix: Soil

Date Sampled: 7/17/2019

Date Received: 7/19/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	6610	mg/Kg		7/23/2019 10:26
Antimony	< 3.13	mg/Kg		7/23/2019 10:26
Arsenic	1.47	mg/Kg		7/23/2019 10:26
Barium	42.3	mg/Kg		7/23/2019 10:26
Beryllium	0.308	mg/Kg		7/23/2019 10:26
Cadmium	< 0.261	mg/Kg		7/23/2019 20:18
Calcium	25600	mg/Kg		7/23/2019 10:26
Chromium	8.30	mg/Kg		7/23/2019 10:26
Cobalt	2.77	mg/Kg		7/23/2019 10:26
Copper	7.31	mg/Kg		7/23/2019 10:26
Iron	8450	mg/Kg		7/23/2019 10:26
Lead	15.0	mg/Kg		7/23/2019 10:26
Magnesium	8170	mg/Kg		7/23/2019 10:26
Manganese	203	mg/Kg		7/23/2019 10:26
Nickel	6.44	mg/Kg		7/23/2019 10:26
Potassium	1070	mg/Kg		7/23/2019 10:26
Selenium	0.844	mg/Kg	J	7/23/2019 10:26
Silver	< 0.522	mg/Kg		7/23/2019 10:26
Sodium	278	mg/Kg		7/23/2019 10:26
Thallium	< 1.30	mg/Kg		7/23/2019 20:18
Vanadium	11.4	mg/Kg		7/23/2019 10:26
Zinc	23.6	mg/Kg		7/23/2019 10:26

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-1

**Lab Sample ID:** 193386-01

**Date Sampled:** 7/17/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-1

Lab Sample ID: 193386-01

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**PCBs**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
PCB-1016	< 0.151	mg/Kg		7/23/2019 02:33
PCB-1221	< 0.151	mg/Kg		7/23/2019 02:33
PCB-1232	< 0.151	mg/Kg		7/23/2019 02:33
PCB-1242	< 0.151	mg/Kg		7/23/2019 02:33
PCB-1248	< 0.151	mg/Kg		7/23/2019 02:33
PCB-1254	< 0.151	mg/Kg		7/23/2019 02:33
PCB-1260	< 0.151	mg/Kg		7/23/2019 02:33
PCB-1262	< 0.151	mg/Kg		7/23/2019 02:33
PCB-1268	< 0.151	mg/Kg		7/23/2019 02:33

<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>
Tetrachloro-m-xylene	75.1	21.7 - 82.5		7/23/2019 02:33

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/22/2019

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-1

Lab Sample ID: 193386-01

Matrix: Soil

Date Sampled: 7/17/2019

Date Received: 7/19/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 313	ug/Kg		7/24/2019 01:38
1,2,4,5-Tetrachlorobenzene	< 313	ug/Kg		7/24/2019 01:38
1,2,4-Trichlorobenzene	< 313	ug/Kg		7/24/2019 01:38
1,2-Dichlorobenzene	< 313	ug/Kg		7/24/2019 01:38
1,3-Dichlorobenzene	< 313	ug/Kg		7/24/2019 01:38
1,4-Dichlorobenzene	< 313	ug/Kg		7/24/2019 01:38
2,2-Oxybis (1-chloropropane)	< 313	ug/Kg		7/24/2019 01:38
2,3,4,6-Tetrachlorophenol	< 313	ug/Kg		7/24/2019 01:38
2,4,5-Trichlorophenol	< 313	ug/Kg		7/24/2019 01:38
2,4,6-Trichlorophenol	< 313	ug/Kg		7/24/2019 01:38
2,4-Dichlorophenol	< 313	ug/Kg		7/24/2019 01:38
2,4-Dimethylphenol	< 313	ug/Kg		7/24/2019 01:38
2,4-Dinitrophenol	< 1250	ug/Kg		7/24/2019 01:38
2,4-Dinitrotoluene	< 313	ug/Kg		7/24/2019 01:38
2,6-Dinitrotoluene	< 313	ug/Kg		7/24/2019 01:38
2-Chloronaphthalene	< 313	ug/Kg		7/24/2019 01:38
2-Chlorophenol	< 313	ug/Kg		7/24/2019 01:38
2-Methylnaphthalene	< 313	ug/Kg		7/24/2019 01:38
2-Methylphenol	< 313	ug/Kg		7/24/2019 01:38
2-Nitroaniline	< 313	ug/Kg		7/24/2019 01:38
2-Nitrophenol	< 313	ug/Kg		7/24/2019 01:38
3&4-Methylphenol	< 313	ug/Kg		7/24/2019 01:38
3,3'-Dichlorobenzidine	< 313	ug/Kg		7/24/2019 01:38

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-1			
Lab Sample ID:	193386-01		Date Sampled:	7/17/2019
Matrix:	Soil		Date Received:	7/19/2019
3-Nitroaniline	< 313	ug/Kg	7/24/2019	01:38
4,6-Dinitro-2-methylphenol	< 625	ug/Kg	7/24/2019	01:38
4-Bromophenyl phenyl ether	< 313	ug/Kg	7/24/2019	01:38
4-Chloro-3-methylphenol	< 313	ug/Kg	7/24/2019	01:38
4-Chloroaniline	< 313	ug/Kg	7/24/2019	01:38
4-Chlorophenyl phenyl ether	< 313	ug/Kg	7/24/2019	01:38
4-Nitroaniline	< 313	ug/Kg	7/24/2019	01:38
4-Nitrophenol	< 313	ug/Kg	7/24/2019	01:38
Acenaphthene	< 313	ug/Kg	7/24/2019	01:38
Acenaphthylene	< 313	ug/Kg	7/24/2019	01:38
Acetophenone	< 313	ug/Kg	7/24/2019	01:38
Anthracene	< 313	ug/Kg	7/24/2019	01:38
Atrazine	< 313	ug/Kg	7/24/2019	01:38
Benzaldehyde	< 313	ug/Kg	7/24/2019	01:38
Benzo (a) anthracene	< 313	ug/Kg	7/24/2019	01:38
Benzo (a) pyrene	< 313	ug/Kg	7/24/2019	01:38
Benzo (b) fluoranthene	< 313	ug/Kg	7/24/2019	01:38
Benzo (g,h,i) perylene	< 313	ug/Kg	7/24/2019	01:38
Benzo (k) fluoranthene	< 313	ug/Kg	7/24/2019	01:38
Bis (2-chloroethoxy) methane	< 313	ug/Kg	7/24/2019	01:38
Bis (2-chloroethyl) ether	< 313	ug/Kg	7/24/2019	01:38
Bis (2-ethylhexyl) phthalate	< 313	ug/Kg	7/24/2019	01:38
Butylbenzylphthalate	< 313	ug/Kg	7/24/2019	01:38
Caprolactam	< 313	ug/Kg	7/24/2019	01:38
Carbazole	< 313	ug/Kg	7/24/2019	01:38

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-1			
<b>Lab Sample ID:</b>	193386-01		<b>Date Sampled:</b>	7/17/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Chrysene	< 313	ug/Kg	7/24/2019	01:38
Dibenz (a,h) anthracene	< 313	ug/Kg	7/24/2019	01:38
Dibenzofuran	< 313	ug/Kg	7/24/2019	01:38
Diethyl phthalate	< 313	ug/Kg	7/24/2019	01:38
Dimethyl phthalate	< 313	ug/Kg	7/24/2019	01:38
Di-n-butyl phthalate	< 313	ug/Kg	7/24/2019	01:38
Di-n-octylphthalate	< 313	ug/Kg	7/24/2019	01:38
Fluoranthene	< 313	ug/Kg	7/24/2019	01:38
Fluorene	< 313	ug/Kg	7/24/2019	01:38
Hexachlorobenzene	< 313	ug/Kg	7/24/2019	01:38
Hexachlorobutadiene	< 313	ug/Kg	7/24/2019	01:38
Hexachlorocyclopentadiene	< 1250	ug/Kg	7/24/2019	01:38
Hexachloroethane	< 313	ug/Kg	7/24/2019	01:38
Indeno (1,2,3-cd) pyrene	< 313	ug/Kg	7/24/2019	01:38
Isophorone	< 313	ug/Kg	7/24/2019	01:38
Naphthalene	< 313	ug/Kg	7/24/2019	01:38
Nitrobenzene	< 313	ug/Kg	7/24/2019	01:38
N-Nitroso-di-n-propylamine	< 313	ug/Kg	7/24/2019	01:38
N-Nitrosodiphenylamine	< 313	ug/Kg	7/24/2019	01:38
Pentachlorophenol	< 625	ug/Kg	7/24/2019	01:38
Phenanthrene	< 313	ug/Kg	7/24/2019	01:38
Phenol	< 313	ug/Kg	7/24/2019	01:38
Pyrene	< 313	ug/Kg	7/24/2019	01:38

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** SS-1

**Lab Sample ID:** 193386-01

**Date Sampled:** 7/17/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>53.9</b>	34.9 - 92.6		7/24/2019	01:38
2-Fluorobiphenyl	<b>58.3</b>	39 - 77.6		7/24/2019	01:38
2-Fluorophenol	<b>63.1</b>	39.1 - 76.8		7/24/2019	01:38
Nitrobenzene-d5	<b>58.2</b>	35.4 - 75.3		7/24/2019	01:38
Phenol-d5	<b>62.7</b>	40.4 - 77.7		7/24/2019	01:38
Terphenyl-d14	<b>65.4</b>	42 - 93.5		7/24/2019	01:38

**Method Reference(s):** EPA 8270D

EPA 3546

**Preparation Date:** 7/22/2019

**Data File:** B39091.D

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*Report Prepared Friday, July 26, 2019*





Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-1

Lab Sample ID: 193386-01

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.53	ug/Kg		7/22/2019 14:37
1,1,2,2-Tetrachloroethane	< 4.53	ug/Kg		7/22/2019 14:37
1,1,2-Trichloroethane	< 4.53	ug/Kg		7/22/2019 14:37
1,1-Dichloroethane	< 4.53	ug/Kg		7/22/2019 14:37
1,1-Dichloroethene	< 4.53	ug/Kg		7/22/2019 14:37
1,2,3-Trichlorobenzene	< 11.3	ug/Kg		7/22/2019 14:37
1,2,4-Trichlorobenzene	< 11.3	ug/Kg		7/22/2019 14:37
1,2,4-Trimethylbenzene	< 4.53	ug/Kg		7/22/2019 14:37
1,2-Dibromo-3-Chloropropane	< 22.7	ug/Kg		7/22/2019 14:37
1,2-Dibromoethane	< 4.53	ug/Kg		7/22/2019 14:37
1,2-Dichlorobenzene	< 4.53	ug/Kg		7/22/2019 14:37
1,2-Dichloroethane	< 4.53	ug/Kg		7/22/2019 14:37
1,2-Dichloropropane	< 4.53	ug/Kg		7/22/2019 14:37
1,3,5-Trimethylbenzene	< 4.53	ug/Kg		7/22/2019 14:37
1,3-Dichlorobenzene	< 4.53	ug/Kg		7/22/2019 14:37
1,4-Dichlorobenzene	< 4.53	ug/Kg		7/22/2019 14:37
1,4-Dioxane	< 45.3	ug/Kg		7/22/2019 14:37
2-Butanone	< 22.7	ug/Kg		7/22/2019 14:37
2-Hexanone	< 11.3	ug/Kg		7/22/2019 14:37
4-Methyl-2-pentanone	< 11.3	ug/Kg		7/22/2019 14:37
Acetone	< 22.7	ug/Kg		7/22/2019 14:37
Benzene	< 4.53	ug/Kg		7/22/2019 14:37
Bromochloromethane	< 11.3	ug/Kg		7/22/2019 14:37

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-1			
Lab Sample ID:	193386-01		Date Sampled:	7/17/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.53	ug/Kg	7/22/2019	14:37
Bromoform	< 11.3	ug/Kg	7/22/2019	14:37
Bromomethane	< 4.53	ug/Kg	7/22/2019	14:37
Carbon disulfide	< 4.53	ug/Kg	7/22/2019	14:37
Carbon Tetrachloride	< 4.53	ug/Kg	7/22/2019	14:37
Chlorobenzene	< 4.53	ug/Kg	7/22/2019	14:37
Chloroethane	< 4.53	ug/Kg	7/22/2019	14:37
Chloroform	< 4.53	ug/Kg	7/22/2019	14:37
Chloromethane	< 4.53	ug/Kg	7/22/2019	14:37
cis-1,2-Dichloroethene	< 4.53	ug/Kg	7/22/2019	14:37
cis-1,3-Dichloropropene	< 4.53	ug/Kg	7/22/2019	14:37
Cyclohexane	< 22.7	ug/Kg	7/22/2019	14:37
Dibromochloromethane	< 4.53	ug/Kg	7/22/2019	14:37
Dichlorodifluoromethane	< 4.53	ug/Kg	7/22/2019	14:37
Ethylbenzene	< 4.53	ug/Kg	7/22/2019	14:37
Freon 113	< 4.53	ug/Kg	7/22/2019	14:37
Isopropylbenzene	< 4.53	ug/Kg	7/22/2019	14:37
m,p-Xylene	< 4.53	ug/Kg	7/22/2019	14:37
Methyl acetate	< 4.53	ug/Kg	7/22/2019	14:37
Methyl tert-butyl Ether	< 4.53	ug/Kg	7/22/2019	14:37
Methylcyclohexane	< 4.53	ug/Kg	7/22/2019	14:37
Methylene chloride	< 11.3	ug/Kg	7/22/2019	14:37
Naphthalene	< 11.3	ug/Kg	7/22/2019	14:37
n-Butylbenzene	< 4.53	ug/Kg	7/22/2019	14:37
n-Propylbenzene	< 4.53	ug/Kg	7/22/2019	14:37

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-1				
Lab Sample ID:	193386-01			Date Sampled:	7/17/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.53	ug/Kg		7/22/2019	14:37
p-Isopropyltoluene	< 4.53	ug/Kg		7/22/2019	14:37
sec-Butylbenzene	< 4.53	ug/Kg		7/22/2019	14:37
Styrene	< 11.3	ug/Kg		7/22/2019	14:37
tert-Butylbenzene	< 4.53	ug/Kg		7/22/2019	14:37
Tetrachloroethene	< 4.53	ug/Kg		7/22/2019	14:37
Toluene	< 4.53	ug/Kg		7/22/2019	14:37
trans-1,2-Dichloroethene	< 4.53	ug/Kg		7/22/2019	14:37
trans-1,3-Dichloropropene	< 4.53	ug/Kg		7/22/2019	14:37
Trichloroethene	< 4.53	ug/Kg		7/22/2019	14:37
Trichlorofluoromethane	< 4.53	ug/Kg		7/22/2019	14:37
Vinyl chloride	< 4.53	ug/Kg		7/22/2019	14:37
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>109</b>	71 - 141		7/22/2019 14:37
4-Bromofluorobenzene		<b>88.7</b>	60.2 - 128		7/22/2019 14:37
Pentafluorobenzene		<b>99.5</b>	86.6 - 111		7/22/2019 14:37
Toluene-D8		<b>96.1</b>	77.5 - 115		7/22/2019 14:37

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62789.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-2

Lab Sample ID: 193386-02

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	0.00505	mg/Kg	J	7/22/2019 09:51

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-2

Lab Sample ID: 193386-02

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	4080	mg/Kg		7/23/2019 10:30
Antimony	< 3.18	mg/Kg		7/23/2019 10:30
Arsenic	1.64	mg/Kg		7/23/2019 10:30
Barium	34.1	mg/Kg		7/23/2019 10:30
Beryllium	0.236	mg/Kg	J	7/23/2019 10:30
Cadmium	< 0.265	mg/Kg		7/23/2019 20:23
Calcium	36200	mg/Kg		7/23/2019 19:07
Chromium	5.86	mg/Kg		7/23/2019 10:30
Cobalt	3.21	mg/Kg		7/23/2019 10:30
Copper	8.84	mg/Kg		7/23/2019 10:30
Iron	8620	mg/Kg		7/23/2019 10:30
Lead	1.61	mg/Kg		7/23/2019 10:30
Magnesium	7730	mg/Kg		7/23/2019 10:30
Manganese	283	mg/Kg		7/23/2019 10:30
Nickel	6.06	mg/Kg		7/23/2019 10:30
Potassium	999	mg/Kg		7/23/2019 10:30
Selenium	0.861	mg/Kg	J	7/23/2019 10:30
Silver	< 0.531	mg/Kg		7/23/2019 10:30
Sodium	110	mg/Kg	J	7/23/2019 10:30
Thallium	0.754	mg/Kg	J	7/23/2019 20:23
Vanadium	10.4	mg/Kg		7/23/2019 10:30
Zinc	16.5	mg/Kg		7/23/2019 10:30

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Report Prepared Friday, July 26, 2019





**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-2

**Lab Sample ID:** 193386-02

**Date Sampled:** 7/17/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-2

Lab Sample ID: 193386-02

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**PCBs**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
PCB-1016	< 0.139	mg/Kg		7/23/2019 02:56
PCB-1221	< 0.139	mg/Kg		7/23/2019 02:56
PCB-1232	< 0.139	mg/Kg		7/23/2019 02:56
PCB-1242	< 0.139	mg/Kg		7/23/2019 02:56
PCB-1248	< 0.139	mg/Kg		7/23/2019 02:56
PCB-1254	< 0.139	mg/Kg		7/23/2019 02:56
PCB-1260	< 0.139	mg/Kg		7/23/2019 02:56
PCB-1262	< 0.139	mg/Kg		7/23/2019 02:56
PCB-1268	< 0.139	mg/Kg		7/23/2019 02:56

<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>
Tetrachloro-m-xylene	74.0	21.7 - 82.5		7/23/2019 02:56

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/22/2019

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-2

Lab Sample ID: 193386-02

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 298	ug/Kg		7/24/2019 02:06
1,2,4,5-Tetrachlorobenzene	< 298	ug/Kg		7/24/2019 02:06
1,2,4-Trichlorobenzene	< 298	ug/Kg		7/24/2019 02:06
1,2-Dichlorobenzene	< 298	ug/Kg		7/24/2019 02:06
1,3-Dichlorobenzene	< 298	ug/Kg		7/24/2019 02:06
1,4-Dichlorobenzene	< 298	ug/Kg		7/24/2019 02:06
2,2-Oxybis (1-chloropropane)	< 298	ug/Kg		7/24/2019 02:06
2,3,4,6-Tetrachlorophenol	< 298	ug/Kg		7/24/2019 02:06
2,4,5-Trichlorophenol	< 298	ug/Kg		7/24/2019 02:06
2,4,6-Trichlorophenol	< 298	ug/Kg		7/24/2019 02:06
2,4-Dichlorophenol	< 298	ug/Kg		7/24/2019 02:06
2,4-Dimethylphenol	< 298	ug/Kg		7/24/2019 02:06
2,4-Dinitrophenol	< 1190	ug/Kg		7/24/2019 02:06
2,4-Dinitrotoluene	< 298	ug/Kg		7/24/2019 02:06
2,6-Dinitrotoluene	< 298	ug/Kg		7/24/2019 02:06
2-Chloronaphthalene	< 298	ug/Kg		7/24/2019 02:06
2-Chlorophenol	< 298	ug/Kg		7/24/2019 02:06
2-Methylnaphthalene	< 298	ug/Kg		7/24/2019 02:06
2-Methylphenol	< 298	ug/Kg		7/24/2019 02:06
2-Nitroaniline	< 298	ug/Kg		7/24/2019 02:06
2-Nitrophenol	< 298	ug/Kg		7/24/2019 02:06
3&4-Methylphenol	< 298	ug/Kg		7/24/2019 02:06
3,3'-Dichlorobenzidine	< 298	ug/Kg		7/24/2019 02:06

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-2			
Lab Sample ID:	193386-02		Date Sampled:	7/17/2019
Matrix:	Soil		Date Received:	7/19/2019
3-Nitroaniline	< 298	ug/Kg	7/24/2019	02:06
4,6-Dinitro-2-methylphenol	< 597	ug/Kg	7/24/2019	02:06
4-Bromophenyl phenyl ether	< 298	ug/Kg	7/24/2019	02:06
4-Chloro-3-methylphenol	< 298	ug/Kg	7/24/2019	02:06
4-Chloroaniline	< 298	ug/Kg	7/24/2019	02:06
4-Chlorophenyl phenyl ether	< 298	ug/Kg	7/24/2019	02:06
4-Nitroaniline	< 298	ug/Kg	7/24/2019	02:06
4-Nitrophenol	< 298	ug/Kg	7/24/2019	02:06
Acenaphthene	< 298	ug/Kg	7/24/2019	02:06
Acenaphthylene	< 298	ug/Kg	7/24/2019	02:06
Acetophenone	< 298	ug/Kg	7/24/2019	02:06
Anthracene	< 298	ug/Kg	7/24/2019	02:06
Atrazine	< 298	ug/Kg	7/24/2019	02:06
Benzaldehyde	< 298	ug/Kg	7/24/2019	02:06
Benzo (a) anthracene	< 298	ug/Kg	7/24/2019	02:06
Benzo (a) pyrene	< 298	ug/Kg	7/24/2019	02:06
Benzo (b) fluoranthene	< 298	ug/Kg	7/24/2019	02:06
Benzo (g,h,i) perylene	< 298	ug/Kg	7/24/2019	02:06
Benzo (k) fluoranthene	< 298	ug/Kg	7/24/2019	02:06
Bis (2-chloroethoxy) methane	< 298	ug/Kg	7/24/2019	02:06
Bis (2-chloroethyl) ether	< 298	ug/Kg	7/24/2019	02:06
Bis (2-ethylhexyl) phthalate	< 298	ug/Kg	7/24/2019	02:06
Butylbenzylphthalate	< 298	ug/Kg	7/24/2019	02:06
Caprolactam	< 298	ug/Kg	7/24/2019	02:06
Carbazole	< 298	ug/Kg	7/24/2019	02:06

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-2		
Lab Sample ID:	193386-02	Date Sampled:	7/17/2019
Matrix:	Soil	Date Received:	7/19/2019
Chrysene	< 298	ug/Kg	7/24/2019 02:06
Dibenz (a,h) anthracene	< 298	ug/Kg	7/24/2019 02:06
Dibenzofuran	< 298	ug/Kg	7/24/2019 02:06
Diethyl phthalate	< 298	ug/Kg	7/24/2019 02:06
Dimethyl phthalate	< 298	ug/Kg	7/24/2019 02:06
Di-n-butyl phthalate	< 298	ug/Kg	7/24/2019 02:06
Di-n-octylphthalate	< 298	ug/Kg	7/24/2019 02:06
Fluoranthene	< 298	ug/Kg	7/24/2019 02:06
Fluorene	< 298	ug/Kg	7/24/2019 02:06
Hexachlorobenzene	< 298	ug/Kg	7/24/2019 02:06
Hexachlorobutadiene	< 298	ug/Kg	7/24/2019 02:06
Hexachlorocyclopentadiene	< 1190	ug/Kg	7/24/2019 02:06
Hexachloroethane	< 298	ug/Kg	7/24/2019 02:06
Indeno (1,2,3-cd) pyrene	< 298	ug/Kg	7/24/2019 02:06
Isophorone	< 298	ug/Kg	7/24/2019 02:06
Naphthalene	< 298	ug/Kg	7/24/2019 02:06
Nitrobenzene	< 298	ug/Kg	7/24/2019 02:06
N-Nitroso-di-n-propylamine	< 298	ug/Kg	7/24/2019 02:06
N-Nitrosodiphenylamine	< 298	ug/Kg	7/24/2019 02:06
Pentachlorophenol	< 597	ug/Kg	7/24/2019 02:06
Phenanthrene	< 298	ug/Kg	7/24/2019 02:06
Phenol	< 298	ug/Kg	7/24/2019 02:06
Pyrene	< 298	ug/Kg	7/24/2019 02:06

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-2

Lab Sample ID: 193386-02

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	64.0	34.9 - 92.6		7/24/2019 02:06
2-Fluorobiphenyl	64.2	39 - 77.6		7/24/2019 02:06
2-Fluorophenol	69.2	39.1 - 76.8		7/24/2019 02:06
Nitrobenzene-d5	63.9	35.4 - 75.3		7/24/2019 02:06
Phenol-d5	70.0	40.4 - 77.7		7/24/2019 02:06
Terphenyl-d14	75.6	42 - 93.5		7/24/2019 02:06

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/22/2019

Data File: B39092.D

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-2

Lab Sample ID: 193386-02

Matrix: Soil

Date Sampled: 7/17/2019

Date Received: 7/19/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.58	ug/Kg		7/22/2019 15:00
1,1,2,2-Tetrachloroethane	< 4.58	ug/Kg		7/22/2019 15:00
1,1,2-Trichloroethane	< 4.58	ug/Kg		7/22/2019 15:00
1,1-Dichloroethane	< 4.58	ug/Kg		7/22/2019 15:00
1,1-Dichloroethene	< 4.58	ug/Kg		7/22/2019 15:00
1,2,3-Trichlorobenzene	< 11.4	ug/Kg		7/22/2019 15:00
1,2,4-Trichlorobenzene	< 11.4	ug/Kg		7/22/2019 15:00
1,2,4-Trimethylbenzene	< 4.58	ug/Kg		7/22/2019 15:00
1,2-Dibromo-3-Chloropropane	< 22.9	ug/Kg		7/22/2019 15:00
1,2-Dibromoethane	< 4.58	ug/Kg		7/22/2019 15:00
1,2-Dichlorobenzene	< 4.58	ug/Kg		7/22/2019 15:00
1,2-Dichloroethane	< 4.58	ug/Kg		7/22/2019 15:00
1,2-Dichloropropane	< 4.58	ug/Kg		7/22/2019 15:00
1,3,5-Trimethylbenzene	< 4.58	ug/Kg		7/22/2019 15:00
1,3-Dichlorobenzene	< 4.58	ug/Kg		7/22/2019 15:00
1,4-Dichlorobenzene	< 4.58	ug/Kg		7/22/2019 15:00
1,4-Dioxane	< 45.8	ug/Kg		7/22/2019 15:00
2-Butanone	< 22.9	ug/Kg		7/22/2019 15:00
2-Hexanone	< 11.4	ug/Kg		7/22/2019 15:00
4-Methyl-2-pentanone	< 11.4	ug/Kg		7/22/2019 15:00
Acetone	< 22.9	ug/Kg		7/22/2019 15:00
Benzene	< 4.58	ug/Kg		7/22/2019 15:00
Bromochloromethane	< 11.4	ug/Kg		7/22/2019 15:00

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-2

Lab Sample ID: 193386-02

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

Bromodichloromethane	< 4.58	ug/Kg	7/22/2019 15:00
Bromoform	< 11.4	ug/Kg	7/22/2019 15:00
Bromomethane	< 4.58	ug/Kg	7/22/2019 15:00
Carbon disulfide	< 4.58	ug/Kg	7/22/2019 15:00
Carbon Tetrachloride	< 4.58	ug/Kg	7/22/2019 15:00
Chlorobenzene	< 4.58	ug/Kg	7/22/2019 15:00
Chloroethane	< 4.58	ug/Kg	7/22/2019 15:00
Chloroform	< 4.58	ug/Kg	7/22/2019 15:00
Chloromethane	< 4.58	ug/Kg	7/22/2019 15:00
cis-1,2-Dichloroethene	< 4.58	ug/Kg	7/22/2019 15:00
cis-1,3-Dichloropropene	< 4.58	ug/Kg	7/22/2019 15:00
Cyclohexane	< 22.9	ug/Kg	7/22/2019 15:00
Dibromochloromethane	< 4.58	ug/Kg	7/22/2019 15:00
Dichlorodifluoromethane	< 4.58	ug/Kg	7/22/2019 15:00
Ethylbenzene	< 4.58	ug/Kg	7/22/2019 15:00
Freon 113	< 4.58	ug/Kg	7/22/2019 15:00
Isopropylbenzene	< 4.58	ug/Kg	7/22/2019 15:00
m,p-Xylene	< 4.58	ug/Kg	7/22/2019 15:00
Methyl acetate	< 4.58	ug/Kg	7/22/2019 15:00
Methyl tert-butyl Ether	< 4.58	ug/Kg	7/22/2019 15:00
Methylcyclohexane	< 4.58	ug/Kg	7/22/2019 15:00
Methylene chloride	< 11.4	ug/Kg	7/22/2019 15:00
Naphthalene	< 11.4	ug/Kg	7/22/2019 15:00
n-Butylbenzene	< 4.58	ug/Kg	7/22/2019 15:00
n-Propylbenzene	< 4.58	ug/Kg	7/22/2019 15:00

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-2				
Lab Sample ID:	193386-02			Date Sampled:	7/17/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.58	ug/Kg		7/22/2019	15:00
p-Isopropyltoluene	< 4.58	ug/Kg		7/22/2019	15:00
sec-Butylbenzene	< 4.58	ug/Kg		7/22/2019	15:00
Styrene	< 11.4	ug/Kg		7/22/2019	15:00
tert-Butylbenzene	< 4.58	ug/Kg		7/22/2019	15:00
Tetrachloroethene	< 4.58	ug/Kg		7/22/2019	15:00
Toluene	< 4.58	ug/Kg		7/22/2019	15:00
trans-1,2-Dichloroethene	< 4.58	ug/Kg		7/22/2019	15:00
trans-1,3-Dichloropropene	< 4.58	ug/Kg		7/22/2019	15:00
Trichloroethene	< 4.58	ug/Kg		7/22/2019	15:00
Trichlorofluoromethane	< 4.58	ug/Kg		7/22/2019	15:00
Vinyl chloride	< 4.58	ug/Kg		7/22/2019	15:00
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		107	71 - 141		7/22/2019 15:00
4-Bromofluorobenzene		92.3	60.2 - 128		7/22/2019 15:00
Pentafluorobenzene		94.4	86.6 - 111		7/22/2019 15:00
Toluene-D8		94.5	77.5 - 115		7/22/2019 15:00

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62790.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-3

Lab Sample ID: 193386-03

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	<b>0.101</b>	mg/Kg		7/22/2019 09:53

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-3

Lab Sample ID: 193386-03

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	8390	mg/Kg		7/23/2019 10:35
Antimony	< 3.15	mg/Kg		7/23/2019 10:35
Arsenic	1.70	mg/Kg		7/23/2019 10:35
Barium	70.7	mg/Kg		7/23/2019 10:35
Beryllium	0.408	mg/Kg		7/23/2019 10:35
Cadmium	< 0.263	mg/Kg		7/23/2019 20:27
Calcium	8970	mg/Kg		7/23/2019 10:35
Chromium	9.14	mg/Kg		7/23/2019 10:35
Cobalt	3.59	mg/Kg		7/23/2019 10:35
Copper	8.56	mg/Kg		7/23/2019 10:35
Iron	11100	mg/Kg		7/23/2019 10:35
Lead	132	mg/Kg		7/23/2019 10:35
Magnesium	4430	mg/Kg		7/23/2019 10:35
Manganese	444	mg/Kg		7/23/2019 10:35
Nickel	7.81	mg/Kg		7/23/2019 10:35
Potassium	861	mg/Kg		7/23/2019 10:35
Selenium	< 1.05	mg/Kg		7/23/2019 10:35
Silver	< 0.525	mg/Kg		7/23/2019 10:35
Sodium	483	mg/Kg		7/23/2019 10:35
Thallium	< 1.31	mg/Kg		7/23/2019 20:27
Vanadium	15.1	mg/Kg		7/23/2019 10:35
Zinc	52.0	mg/Kg		7/23/2019 10:35

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-3

**Lab Sample ID:** 193386-03

**Date Sampled:** 7/17/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-3

Lab Sample ID: 193386-03

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**PCBs**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
PCB-1016	< 0.141	mg/Kg		7/23/2019 03:19
PCB-1221	< 0.141	mg/Kg		7/23/2019 03:19
PCB-1232	< 0.141	mg/Kg		7/23/2019 03:19
PCB-1242	< 0.141	mg/Kg		7/23/2019 03:19
PCB-1248	< 0.141	mg/Kg		7/23/2019 03:19
PCB-1254	< 0.141	mg/Kg		7/23/2019 03:19
PCB-1260	< 0.141	mg/Kg		7/23/2019 03:19
PCB-1262	< 0.141	mg/Kg		7/23/2019 03:19
PCB-1268	< 0.141	mg/Kg		7/23/2019 03:19

<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>
Tetrachloro-m-xylene	61.9	21.7 - 82.5		7/23/2019 03:19

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/22/2019

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-3

Lab Sample ID: 193386-03

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 297	ug/Kg		7/24/2019 02:35
1,2,4,5-Tetrachlorobenzene	< 297	ug/Kg		7/24/2019 02:35
1,2,4-Trichlorobenzene	< 297	ug/Kg		7/24/2019 02:35
1,2-Dichlorobenzene	< 297	ug/Kg		7/24/2019 02:35
1,3-Dichlorobenzene	< 297	ug/Kg		7/24/2019 02:35
1,4-Dichlorobenzene	< 297	ug/Kg		7/24/2019 02:35
2,2-Oxybis (1-chloropropane)	< 297	ug/Kg		7/24/2019 02:35
2,3,4,6-Tetrachlorophenol	< 297	ug/Kg		7/24/2019 02:35
2,4,5-Trichlorophenol	< 297	ug/Kg		7/24/2019 02:35
2,4,6-Trichlorophenol	< 297	ug/Kg		7/24/2019 02:35
2,4-Dichlorophenol	< 297	ug/Kg		7/24/2019 02:35
2,4-Dimethylphenol	< 297	ug/Kg		7/24/2019 02:35
2,4-Dinitrophenol	< 1190	ug/Kg		7/24/2019 02:35
2,4-Dinitrotoluene	< 297	ug/Kg		7/24/2019 02:35
2,6-Dinitrotoluene	< 297	ug/Kg		7/24/2019 02:35
2-Chloronaphthalene	< 297	ug/Kg		7/24/2019 02:35
2-Chlorophenol	< 297	ug/Kg		7/24/2019 02:35
2-Methylnaphthalene	< 297	ug/Kg		7/24/2019 02:35
2-Methylphenol	< 297	ug/Kg		7/24/2019 02:35
2-Nitroaniline	< 297	ug/Kg		7/24/2019 02:35
2-Nitrophenol	< 297	ug/Kg		7/24/2019 02:35
3&4-Methylphenol	< 297	ug/Kg		7/24/2019 02:35
3,3'-Dichlorobenzidine	< 297	ug/Kg		7/24/2019 02:35

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-3			
Lab Sample ID:	193386-03		Date Sampled:	7/17/2019
Matrix:	Soil		Date Received:	7/19/2019
3-Nitroaniline	< 297	ug/Kg		7/24/2019 02:35
4,6-Dinitro-2-methylphenol	< 594	ug/Kg		7/24/2019 02:35
4-Bromophenyl phenyl ether	< 297	ug/Kg		7/24/2019 02:35
4-Chloro-3-methylphenol	< 297	ug/Kg		7/24/2019 02:35
4-Chloroaniline	< 297	ug/Kg		7/24/2019 02:35
4-Chlorophenyl phenyl ether	< 297	ug/Kg		7/24/2019 02:35
4-Nitroaniline	< 297	ug/Kg		7/24/2019 02:35
4-Nitrophenol	< 297	ug/Kg		7/24/2019 02:35
Acenaphthene	< 297	ug/Kg		7/24/2019 02:35
Acenaphthylene	< 297	ug/Kg		7/24/2019 02:35
Acetophenone	< 297	ug/Kg		7/24/2019 02:35
Anthracene	< 297	ug/Kg		7/24/2019 02:35
Atrazine	< 297	ug/Kg		7/24/2019 02:35
Benzaldehyde	< 297	ug/Kg		7/24/2019 02:35
Benzo (a) anthracene	< 297	ug/Kg		7/24/2019 02:35
Benzo (a) pyrene	< 297	ug/Kg		7/24/2019 02:35
Benzo (b) fluoranthene	< 297	ug/Kg		7/24/2019 02:35
Benzo (g,h,i) perylene	< 297	ug/Kg		7/24/2019 02:35
Benzo (k) fluoranthene	< 297	ug/Kg		7/24/2019 02:35
Bis (2-chloroethoxy) methane	< 297	ug/Kg		7/24/2019 02:35
Bis (2-chloroethyl) ether	< 297	ug/Kg		7/24/2019 02:35
Bis (2-ethylhexyl) phthalate	< 297	ug/Kg		7/24/2019 02:35
Butylbenzylphthalate	< 297	ug/Kg		7/24/2019 02:35
Caprolactam	< 297	ug/Kg		7/24/2019 02:35
Carbazole	< 297	ug/Kg		7/24/2019 02:35

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-3			
<b>Lab Sample ID:</b>	193386-03		<b>Date Sampled:</b>	7/17/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Chrysene	< 297	ug/Kg	7/24/2019	02:35
Dibenz (a,h) anthracene	< 297	ug/Kg	7/24/2019	02:35
Dibenzofuran	< 297	ug/Kg	7/24/2019	02:35
Diethyl phthalate	< 297	ug/Kg	7/24/2019	02:35
Dimethyl phthalate	< 297	ug/Kg	7/24/2019	02:35
Di-n-butyl phthalate	< 297	ug/Kg	7/24/2019	02:35
Di-n-octylphthalate	< 297	ug/Kg	7/24/2019	02:35
Fluoranthene	< 297	ug/Kg	7/24/2019	02:35
Fluorene	< 297	ug/Kg	7/24/2019	02:35
Hexachlorobenzene	< 297	ug/Kg	7/24/2019	02:35
Hexachlorobutadiene	< 297	ug/Kg	7/24/2019	02:35
Hexachlorocyclopentadiene	< 1190	ug/Kg	7/24/2019	02:35
Hexachloroethane	< 297	ug/Kg	7/24/2019	02:35
Indeno (1,2,3-cd) pyrene	< 297	ug/Kg	7/24/2019	02:35
Isophorone	< 297	ug/Kg	7/24/2019	02:35
Naphthalene	< 297	ug/Kg	7/24/2019	02:35
Nitrobenzene	< 297	ug/Kg	7/24/2019	02:35
N-Nitroso-di-n-propylamine	< 297	ug/Kg	7/24/2019	02:35
N-Nitrosodiphenylamine	< 297	ug/Kg	7/24/2019	02:35
Pentachlorophenol	< 594	ug/Kg	7/24/2019	02:35
Phenanthrene	< 297	ug/Kg	7/24/2019	02:35
Phenol	< 297	ug/Kg	7/24/2019	02:35
Pyrene	< 297	ug/Kg	7/24/2019	02:35

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** SS-3

**Lab Sample ID:** 193386-03

**Date Sampled:** 7/17/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>73.8</b>	34.9 - 92.6		7/24/2019	02:35
2-Fluorobiphenyl	<b>69.5</b>	39 - 77.6		7/24/2019	02:35
2-Fluorophenol	<b>73.5</b>	39.1 - 76.8		7/24/2019	02:35
Nitrobenzene-d5	<b>66.4</b>	35.4 - 75.3		7/24/2019	02:35
Phenol-d5	<b>74.3</b>	40.4 - 77.7		7/24/2019	02:35
Terphenyl-d14	<b>78.0</b>	42 - 93.5		7/24/2019	02:35

**Method Reference(s):** EPA 8270D

EPA 3546

**Preparation Date:** 7/22/2019

**Data File:** B39093.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-3

Lab Sample ID: 193386-03

Matrix: Soil

Date Sampled: 7/17/2019

Date Received: 7/19/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.58	ug/Kg		7/22/2019 15:23
1,1,2,2-Tetrachloroethane	< 4.58	ug/Kg		7/22/2019 15:23
1,1,2-Trichloroethane	< 4.58	ug/Kg		7/22/2019 15:23
1,1-Dichloroethane	< 4.58	ug/Kg		7/22/2019 15:23
1,1-Dichloroethene	< 4.58	ug/Kg		7/22/2019 15:23
1,2,3-Trichlorobenzene	< 11.4	ug/Kg		7/22/2019 15:23
1,2,4-Trichlorobenzene	< 11.4	ug/Kg		7/22/2019 15:23
1,2,4-Trimethylbenzene	< 4.58	ug/Kg		7/22/2019 15:23
1,2-Dibromo-3-Chloropropane	< 22.9	ug/Kg		7/22/2019 15:23
1,2-Dibromoethane	< 4.58	ug/Kg		7/22/2019 15:23
1,2-Dichlorobenzene	< 4.58	ug/Kg		7/22/2019 15:23
1,2-Dichloroethane	< 4.58	ug/Kg		7/22/2019 15:23
1,2-Dichloropropane	< 4.58	ug/Kg		7/22/2019 15:23
1,3,5-Trimethylbenzene	< 4.58	ug/Kg		7/22/2019 15:23
1,3-Dichlorobenzene	< 4.58	ug/Kg		7/22/2019 15:23
1,4-Dichlorobenzene	< 4.58	ug/Kg		7/22/2019 15:23
1,4-Dioxane	< 45.8	ug/Kg		7/22/2019 15:23
2-Butanone	< 22.9	ug/Kg		7/22/2019 15:23
2-Hexanone	< 11.4	ug/Kg		7/22/2019 15:23
4-Methyl-2-pentanone	< 11.4	ug/Kg		7/22/2019 15:23
Acetone	< 22.9	ug/Kg		7/22/2019 15:23
Benzene	< 4.58	ug/Kg		7/22/2019 15:23
Bromochloromethane	< 11.4	ug/Kg		7/22/2019 15:23

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-3

Lab Sample ID: 193386-03

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

Bromodichloromethane	< 4.58	ug/Kg	7/22/2019 15:23
Bromoform	< 11.4	ug/Kg	7/22/2019 15:23
Bromomethane	< 4.58	ug/Kg	7/22/2019 15:23
Carbon disulfide	< 4.58	ug/Kg	7/22/2019 15:23
Carbon Tetrachloride	< 4.58	ug/Kg	7/22/2019 15:23
Chlorobenzene	< 4.58	ug/Kg	7/22/2019 15:23
Chloroethane	< 4.58	ug/Kg	7/22/2019 15:23
Chloroform	< 4.58	ug/Kg	7/22/2019 15:23
Chloromethane	< 4.58	ug/Kg	7/22/2019 15:23
cis-1,2-Dichloroethene	< 4.58	ug/Kg	7/22/2019 15:23
cis-1,3-Dichloropropene	< 4.58	ug/Kg	7/22/2019 15:23
Cyclohexane	< 22.9	ug/Kg	7/22/2019 15:23
Dibromochloromethane	< 4.58	ug/Kg	7/22/2019 15:23
Dichlorodifluoromethane	< 4.58	ug/Kg	7/22/2019 15:23
Ethylbenzene	< 4.58	ug/Kg	7/22/2019 15:23
Freon 113	< 4.58	ug/Kg	7/22/2019 15:23
Isopropylbenzene	< 4.58	ug/Kg	7/22/2019 15:23
m,p-Xylene	< 4.58	ug/Kg	7/22/2019 15:23
Methyl acetate	< 4.58	ug/Kg	7/22/2019 15:23
Methyl tert-butyl Ether	< 4.58	ug/Kg	7/22/2019 15:23
Methylcyclohexane	< 4.58	ug/Kg	7/22/2019 15:23
Methylene chloride	< 11.4	ug/Kg	7/22/2019 15:23
Naphthalene	< 11.4	ug/Kg	7/22/2019 15:23
n-Butylbenzene	< 4.58	ug/Kg	7/22/2019 15:23
n-Propylbenzene	< 4.58	ug/Kg	7/22/2019 15:23

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-3				
Lab Sample ID:	193386-03			Date Sampled:	7/17/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.58	ug/Kg		7/22/2019	15:23
p-Isopropyltoluene	< 4.58	ug/Kg		7/22/2019	15:23
sec-Butylbenzene	< 4.58	ug/Kg		7/22/2019	15:23
Styrene	< 11.4	ug/Kg		7/22/2019	15:23
tert-Butylbenzene	< 4.58	ug/Kg		7/22/2019	15:23
Tetrachloroethene	< 4.58	ug/Kg		7/22/2019	15:23
Toluene	< 4.58	ug/Kg		7/22/2019	15:23
trans-1,2-Dichloroethene	< 4.58	ug/Kg		7/22/2019	15:23
trans-1,3-Dichloropropene	< 4.58	ug/Kg		7/22/2019	15:23
Trichloroethene	< 4.58	ug/Kg		7/22/2019	15:23
Trichlorofluoromethane	< 4.58	ug/Kg		7/22/2019	15:23
Vinyl chloride	< 4.58	ug/Kg		7/22/2019	15:23
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>108</b>	71 - 141		7/22/2019 15:23
4-Bromofluorobenzene		<b>83.7</b>	60.2 - 128		7/22/2019 15:23
Pentafluorobenzene		<b>94.8</b>	86.6 - 111		7/22/2019 15:23
Toluene-D8		<b>93.5</b>	77.5 - 115		7/22/2019 15:23

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62791.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-4

Lab Sample ID: 193386-04

Matrix: Soil

Date Sampled: 7/17/2019

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.70	ug/Kg		7/22/2019 15:46
1,1,2,2-Tetrachloroethane	< 4.70	ug/Kg		7/22/2019 15:46
1,1,2-Trichloroethane	< 4.70	ug/Kg		7/22/2019 15:46
1,1-Dichloroethane	< 4.70	ug/Kg		7/22/2019 15:46
1,1-Dichloroethene	< 4.70	ug/Kg		7/22/2019 15:46
1,2,3-Trichlorobenzene	< 11.7	ug/Kg		7/22/2019 15:46
1,2,4-Trichlorobenzene	< 11.7	ug/Kg		7/22/2019 15:46
1,2,4-Trimethylbenzene	< 4.70	ug/Kg		7/22/2019 15:46
1,2-Dibromo-3-Chloropropane	< 23.5	ug/Kg		7/22/2019 15:46
1,2-Dibromoethane	< 4.70	ug/Kg		7/22/2019 15:46
1,2-Dichlorobenzene	< 4.70	ug/Kg		7/22/2019 15:46
1,2-Dichloroethane	< 4.70	ug/Kg		7/22/2019 15:46
1,2-Dichloropropane	< 4.70	ug/Kg		7/22/2019 15:46
1,3,5-Trimethylbenzene	< 4.70	ug/Kg		7/22/2019 15:46
1,3-Dichlorobenzene	< 4.70	ug/Kg		7/22/2019 15:46
1,4-Dichlorobenzene	< 4.70	ug/Kg		7/22/2019 15:46
1,4-Dioxane	< 47.0	ug/Kg		7/22/2019 15:46
2-Butanone	< 23.5	ug/Kg		7/22/2019 15:46
2-Hexanone	< 11.7	ug/Kg		7/22/2019 15:46
4-Methyl-2-pentanone	< 11.7	ug/Kg		7/22/2019 15:46
Acetone	16.3	ug/Kg	J	7/22/2019 15:46
Benzene	< 4.70	ug/Kg		7/22/2019 15:46
Bromochloromethane	< 11.7	ug/Kg		7/22/2019 15:46

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-4

Lab Sample ID: 193386-04

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

Bromodichloromethane	< 4.70	ug/Kg	7/22/2019 15:46
Bromoform	< 11.7	ug/Kg	7/22/2019 15:46
Bromomethane	< 4.70	ug/Kg	7/22/2019 15:46
Carbon disulfide	< 4.70	ug/Kg	7/22/2019 15:46
Carbon Tetrachloride	< 4.70	ug/Kg	7/22/2019 15:46
Chlorobenzene	< 4.70	ug/Kg	7/22/2019 15:46
Chloroethane	< 4.70	ug/Kg	7/22/2019 15:46
Chloroform	< 4.70	ug/Kg	7/22/2019 15:46
Chloromethane	< 4.70	ug/Kg	7/22/2019 15:46
cis-1,2-Dichloroethene	< 4.70	ug/Kg	7/22/2019 15:46
cis-1,3-Dichloropropene	< 4.70	ug/Kg	7/22/2019 15:46
Cyclohexane	< 23.5	ug/Kg	7/22/2019 15:46
Dibromochloromethane	< 4.70	ug/Kg	7/22/2019 15:46
Dichlorodifluoromethane	< 4.70	ug/Kg	7/22/2019 15:46
Ethylbenzene	< 4.70	ug/Kg	7/22/2019 15:46
Freon 113	< 4.70	ug/Kg	7/22/2019 15:46
Isopropylbenzene	< 4.70	ug/Kg	7/22/2019 15:46
m,p-Xylene	< 4.70	ug/Kg	7/22/2019 15:46
Methyl acetate	< 4.70	ug/Kg	7/22/2019 15:46
Methyl tert-butyl Ether	< 4.70	ug/Kg	7/22/2019 15:46
Methylcyclohexane	< 4.70	ug/Kg	7/22/2019 15:46
Methylene chloride	< 11.7	ug/Kg	7/22/2019 15:46
Naphthalene	< 11.7	ug/Kg	7/22/2019 15:46
n-Butylbenzene	< 4.70	ug/Kg	7/22/2019 15:46
n-Propylbenzene	< 4.70	ug/Kg	7/22/2019 15:46

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-4				
Lab Sample ID:	193386-04			Date Sampled:	7/17/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.70	ug/Kg		7/22/2019	15:46
p-Isopropyltoluene	< 4.70	ug/Kg		7/22/2019	15:46
sec-Butylbenzene	< 4.70	ug/Kg		7/22/2019	15:46
Styrene	< 11.7	ug/Kg		7/22/2019	15:46
tert-Butylbenzene	< 4.70	ug/Kg		7/22/2019	15:46
Tetrachloroethene	< 4.70	ug/Kg		7/22/2019	15:46
Toluene	< 4.70	ug/Kg		7/22/2019	15:46
trans-1,2-Dichloroethene	< 4.70	ug/Kg		7/22/2019	15:46
trans-1,3-Dichloropropene	< 4.70	ug/Kg		7/22/2019	15:46
Trichloroethene	< 4.70	ug/Kg		7/22/2019	15:46
Trichlorofluoromethane	< 4.70	ug/Kg		7/22/2019	15:46
Vinyl chloride	< 4.70	ug/Kg		7/22/2019	15:46
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>108</b>	71 - 141		7/22/2019 15:46
4-Bromofluorobenzene		<b>93.2</b>	60.2 - 128		7/22/2019 15:46
Pentafluorobenzene		<b>96.0</b>	86.6 - 111		7/22/2019 15:46
Toluene-D8		<b>93.8</b>	77.5 - 115		7/22/2019 15:46

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62792.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-5

Lab Sample ID: 193386-05

Matrix: Soil

Date Sampled: 7/17/2019

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.76	ug/Kg		7/22/2019 16:09
1,1,2,2-Tetrachloroethane	< 4.76	ug/Kg		7/22/2019 16:09
1,1,2-Trichloroethane	< 4.76	ug/Kg		7/22/2019 16:09
1,1-Dichloroethane	< 4.76	ug/Kg		7/22/2019 16:09
1,1-Dichloroethene	< 4.76	ug/Kg		7/22/2019 16:09
1,2,3-Trichlorobenzene	< 11.9	ug/Kg		7/22/2019 16:09
1,2,4-Trichlorobenzene	< 11.9	ug/Kg		7/22/2019 16:09
1,2,4-Trimethylbenzene	< 4.76	ug/Kg		7/22/2019 16:09
1,2-Dibromo-3-Chloropropane	< 23.8	ug/Kg		7/22/2019 16:09
1,2-Dibromoethane	< 4.76	ug/Kg		7/22/2019 16:09
1,2-Dichlorobenzene	< 4.76	ug/Kg		7/22/2019 16:09
1,2-Dichloroethane	< 4.76	ug/Kg		7/22/2019 16:09
1,2-Dichloropropane	< 4.76	ug/Kg		7/22/2019 16:09
1,3,5-Trimethylbenzene	< 4.76	ug/Kg		7/22/2019 16:09
1,3-Dichlorobenzene	< 4.76	ug/Kg		7/22/2019 16:09
1,4-Dichlorobenzene	< 4.76	ug/Kg		7/22/2019 16:09
1,4-Dioxane	< 47.6	ug/Kg		7/22/2019 16:09
2-Butanone	17.1	ug/Kg	J	7/22/2019 16:09
2-Hexanone	< 11.9	ug/Kg		7/22/2019 16:09
4-Methyl-2-pentanone	< 11.9	ug/Kg		7/22/2019 16:09
Acetone	103	ug/Kg		7/22/2019 16:09
Benzene	< 4.76	ug/Kg		7/22/2019 16:09
Bromochloromethane	< 11.9	ug/Kg		7/22/2019 16:09

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-5			
Lab Sample ID:	193386-05		Date Sampled:	7/17/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.76	ug/Kg		7/22/2019 16:09
Bromoform	< 11.9	ug/Kg		7/22/2019 16:09
Bromomethane	< 4.76	ug/Kg		7/22/2019 16:09
Carbon disulfide	< 4.76	ug/Kg		7/22/2019 16:09
Carbon Tetrachloride	< 4.76	ug/Kg		7/22/2019 16:09
Chlorobenzene	< 4.76	ug/Kg		7/22/2019 16:09
Chloroethane	< 4.76	ug/Kg		7/22/2019 16:09
Chloroform	< 4.76	ug/Kg		7/22/2019 16:09
Chloromethane	< 4.76	ug/Kg		7/22/2019 16:09
cis-1,2-Dichloroethene	< 4.76	ug/Kg		7/22/2019 16:09
cis-1,3-Dichloropropene	< 4.76	ug/Kg		7/22/2019 16:09
Cyclohexane	< 23.8	ug/Kg		7/22/2019 16:09
Dibromochloromethane	< 4.76	ug/Kg		7/22/2019 16:09
Dichlorodifluoromethane	< 4.76	ug/Kg		7/22/2019 16:09
Ethylbenzene	< 4.76	ug/Kg		7/22/2019 16:09
Freon 113	< 4.76	ug/Kg		7/22/2019 16:09
Isopropylbenzene	< 4.76	ug/Kg		7/22/2019 16:09
m,p-Xylene	4.36	ug/Kg	J	7/22/2019 16:09
Methyl acetate	< 4.76	ug/Kg		7/22/2019 16:09
Methyl tert-butyl Ether	< 4.76	ug/Kg		7/22/2019 16:09
Methylcyclohexane	< 4.76	ug/Kg		7/22/2019 16:09
Methylene chloride	< 11.9	ug/Kg		7/22/2019 16:09
Naphthalene	< 11.9	ug/Kg		7/22/2019 16:09
n-Butylbenzene	< 4.76	ug/Kg		7/22/2019 16:09
n-Propylbenzene	< 4.76	ug/Kg		7/22/2019 16:09

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-5				
Lab Sample ID:	193386-05			Date Sampled:	7/17/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.76	ug/Kg		7/22/2019	16:09
p-Isopropyltoluene	< 4.76	ug/Kg		7/22/2019	16:09
sec-Butylbenzene	< 4.76	ug/Kg		7/22/2019	16:09
Styrene	< 11.9	ug/Kg		7/22/2019	16:09
tert-Butylbenzene	< 4.76	ug/Kg		7/22/2019	16:09
Tetrachloroethene	< 4.76	ug/Kg		7/22/2019	16:09
Toluene	< 4.76	ug/Kg		7/22/2019	16:09
trans-1,2-Dichloroethene	< 4.76	ug/Kg		7/22/2019	16:09
trans-1,3-Dichloropropene	< 4.76	ug/Kg		7/22/2019	16:09
Trichloroethene	< 4.76	ug/Kg		7/22/2019	16:09
Trichlorofluoromethane	< 4.76	ug/Kg		7/22/2019	16:09
Vinyl chloride	< 4.76	ug/Kg		7/22/2019	16:09
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>111</b>	71 - 141		7/22/2019 16:09
4-Bromofluorobenzene		<b>75.3</b>	60.2 - 128		7/22/2019 16:09
Pentafluorobenzene		<b>101</b>	86.6 - 111		7/22/2019 16:09
Toluene-D8		<b>90.9</b>	77.5 - 115		7/22/2019 16:09

*Internal standard outliers indicate probable matrix interference*

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62793.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-6

Lab Sample ID: 193386-06

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.86	ug/Kg		7/22/2019 16:32
1,1,2,2-Tetrachloroethane	< 4.86	ug/Kg		7/22/2019 16:32
1,1,2-Trichloroethane	< 4.86	ug/Kg		7/22/2019 16:32
1,1-Dichloroethane	< 4.86	ug/Kg		7/22/2019 16:32
1,1-Dichloroethene	< 4.86	ug/Kg		7/22/2019 16:32
1,2,3-Trichlorobenzene	< 12.2	ug/Kg		7/22/2019 16:32
1,2,4-Trichlorobenzene	< 12.2	ug/Kg		7/22/2019 16:32
1,2,4-Trimethylbenzene	< 4.86	ug/Kg		7/22/2019 16:32
1,2-Dibromo-3-Chloropropane	< 24.3	ug/Kg		7/22/2019 16:32
1,2-Dibromoethane	< 4.86	ug/Kg		7/22/2019 16:32
1,2-Dichlorobenzene	< 4.86	ug/Kg		7/22/2019 16:32
1,2-Dichloroethane	< 4.86	ug/Kg		7/22/2019 16:32
1,2-Dichloropropane	< 4.86	ug/Kg		7/22/2019 16:32
1,3,5-Trimethylbenzene	< 4.86	ug/Kg		7/22/2019 16:32
1,3-Dichlorobenzene	< 4.86	ug/Kg		7/22/2019 16:32
1,4-Dichlorobenzene	< 4.86	ug/Kg		7/22/2019 16:32
1,4-Dioxane	< 48.6	ug/Kg		7/22/2019 16:32
2-Butanone	< 24.3	ug/Kg		7/22/2019 16:32
2-Hexanone	< 12.2	ug/Kg		7/22/2019 16:32
4-Methyl-2-pentanone	< 12.2	ug/Kg		7/22/2019 16:32
Acetone	13.7	ug/Kg	J	7/22/2019 16:32
Benzene	< 4.86	ug/Kg		7/22/2019 16:32
Bromochloromethane	< 12.2	ug/Kg		7/22/2019 16:32

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-6

Lab Sample ID: 193386-06

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

Bromodichloromethane	< 4.86	ug/Kg	7/22/2019 16:32
Bromoform	< 12.2	ug/Kg	7/22/2019 16:32
Bromomethane	< 4.86	ug/Kg	7/22/2019 16:32
Carbon disulfide	< 4.86	ug/Kg	7/22/2019 16:32
Carbon Tetrachloride	< 4.86	ug/Kg	7/22/2019 16:32
Chlorobenzene	< 4.86	ug/Kg	7/22/2019 16:32
Chloroethane	< 4.86	ug/Kg	7/22/2019 16:32
Chloroform	< 4.86	ug/Kg	7/22/2019 16:32
Chloromethane	< 4.86	ug/Kg	7/22/2019 16:32
cis-1,2-Dichloroethene	< 4.86	ug/Kg	7/22/2019 16:32
cis-1,3-Dichloropropene	< 4.86	ug/Kg	7/22/2019 16:32
Cyclohexane	< 24.3	ug/Kg	7/22/2019 16:32
Dibromochloromethane	< 4.86	ug/Kg	7/22/2019 16:32
Dichlorodifluoromethane	< 4.86	ug/Kg	7/22/2019 16:32
Ethylbenzene	< 4.86	ug/Kg	7/22/2019 16:32
Freon 113	< 4.86	ug/Kg	7/22/2019 16:32
Isopropylbenzene	< 4.86	ug/Kg	7/22/2019 16:32
m,p-Xylene	< 4.86	ug/Kg	7/22/2019 16:32
Methyl acetate	< 4.86	ug/Kg	7/22/2019 16:32
Methyl tert-butyl Ether	< 4.86	ug/Kg	7/22/2019 16:32
Methylcyclohexane	< 4.86	ug/Kg	7/22/2019 16:32
Methylene chloride	< 12.2	ug/Kg	7/22/2019 16:32
Naphthalene	< 12.2	ug/Kg	7/22/2019 16:32
n-Butylbenzene	< 4.86	ug/Kg	7/22/2019 16:32
n-Propylbenzene	< 4.86	ug/Kg	7/22/2019 16:32

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-6				
Lab Sample ID:	193386-06			Date Sampled:	7/17/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.86	ug/Kg		7/22/2019	16:32
p-Isopropyltoluene	< 4.86	ug/Kg		7/22/2019	16:32
sec-Butylbenzene	< 4.86	ug/Kg		7/22/2019	16:32
Styrene	< 12.2	ug/Kg		7/22/2019	16:32
tert-Butylbenzene	< 4.86	ug/Kg		7/22/2019	16:32
Tetrachloroethene	< 4.86	ug/Kg		7/22/2019	16:32
Toluene	< 4.86	ug/Kg		7/22/2019	16:32
trans-1,2-Dichloroethene	< 4.86	ug/Kg		7/22/2019	16:32
trans-1,3-Dichloropropene	< 4.86	ug/Kg		7/22/2019	16:32
Trichloroethene	< 4.86	ug/Kg		7/22/2019	16:32
Trichlorofluoromethane	< 4.86	ug/Kg		7/22/2019	16:32
Vinyl chloride	< 4.86	ug/Kg		7/22/2019	16:32
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>111</b>	71 - 141		7/22/2019 16:32
4-Bromofluorobenzene		<b>80.6</b>	60.2 - 128		7/22/2019 16:32
Pentafluorobenzene		<b>97.2</b>	86.6 - 111		7/22/2019 16:32
Toluene-D8		<b>94.0</b>	77.5 - 115		7/22/2019 16:32

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62794.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-7

Lab Sample ID: 193386-07

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	0.00508	mg/Kg	J	7/22/2019 10:23

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-7

Lab Sample ID: 193386-07

Matrix: Soil

Date Sampled: 7/17/2019

Date Received: 7/19/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	4650	mg/Kg		7/23/2019 10:39
Antimony	< 3.30	mg/Kg		7/23/2019 10:39
Arsenic	1.43	mg/Kg		7/23/2019 10:39
Barium	32.8	mg/Kg		7/23/2019 10:39
Beryllium	0.254	mg/Kg	J	7/23/2019 10:39
Cadmium	< 0.275	mg/Kg		7/23/2019 20:32
Calcium	36800	mg/Kg		7/23/2019 19:12
Chromium	6.78	mg/Kg		7/23/2019 10:39
Cobalt	3.38	mg/Kg		7/23/2019 10:39
Copper	18.9	mg/Kg		7/23/2019 10:39
Iron	9580	mg/Kg		7/23/2019 10:39
Lead	1.72	mg/Kg		7/23/2019 10:39
Magnesium	8690	mg/Kg		7/23/2019 10:39
Manganese	306	mg/Kg		7/23/2019 10:39
Nickel	6.89	mg/Kg		7/23/2019 10:39
Potassium	1030	mg/Kg		7/23/2019 10:39
Selenium	< 1.10	mg/Kg		7/23/2019 10:39
Silver	< 0.550	mg/Kg		7/23/2019 10:39
Sodium	119	mg/Kg	J	7/23/2019 10:39
Thallium	< 1.38	mg/Kg		7/23/2019 20:32
Vanadium	10.9	mg/Kg		7/23/2019 10:39
Zinc	18.1	mg/Kg		7/23/2019 10:39

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-7

**Lab Sample ID:** 193386-07

**Date Sampled:** 7/17/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-7

Lab Sample ID: 193386-07

Matrix: Soil

Date Sampled: 7/17/2019

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.13	ug/Kg		7/22/2019 16:55
1,1,2,2-Tetrachloroethane	< 4.13	ug/Kg		7/22/2019 16:55
1,1,2-Trichloroethane	< 4.13	ug/Kg		7/22/2019 16:55
1,1-Dichloroethane	< 4.13	ug/Kg		7/22/2019 16:55
1,1-Dichloroethene	< 4.13	ug/Kg		7/22/2019 16:55
1,2,3-Trichlorobenzene	< 10.3	ug/Kg		7/22/2019 16:55
1,2,4-Trichlorobenzene	< 10.3	ug/Kg		7/22/2019 16:55
1,2,4-Trimethylbenzene	< 4.13	ug/Kg		7/22/2019 16:55
1,2-Dibromo-3-Chloropropane	< 20.7	ug/Kg		7/22/2019 16:55
1,2-Dibromoethane	< 4.13	ug/Kg		7/22/2019 16:55
1,2-Dichlorobenzene	< 4.13	ug/Kg		7/22/2019 16:55
1,2-Dichloroethane	< 4.13	ug/Kg		7/22/2019 16:55
1,2-Dichloropropane	< 4.13	ug/Kg		7/22/2019 16:55
1,3,5-Trimethylbenzene	< 4.13	ug/Kg		7/22/2019 16:55
1,3-Dichlorobenzene	< 4.13	ug/Kg		7/22/2019 16:55
1,4-Dichlorobenzene	< 4.13	ug/Kg		7/22/2019 16:55
1,4-Dioxane	< 41.3	ug/Kg		7/22/2019 16:55
2-Butanone	< 20.7	ug/Kg		7/22/2019 16:55
2-Hexanone	< 10.3	ug/Kg		7/22/2019 16:55
4-Methyl-2-pentanone	< 10.3	ug/Kg		7/22/2019 16:55
Acetone	13.6	ug/Kg	J	7/22/2019 16:55
Benzene	< 4.13	ug/Kg		7/22/2019 16:55
Bromochloromethane	< 10.3	ug/Kg		7/22/2019 16:55

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-7			
Lab Sample ID:	193386-07		Date Sampled:	7/17/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.13	ug/Kg	7/22/2019	16:55
Bromoform	< 10.3	ug/Kg	7/22/2019	16:55
Bromomethane	< 4.13	ug/Kg	7/22/2019	16:55
Carbon disulfide	< 4.13	ug/Kg	7/22/2019	16:55
Carbon Tetrachloride	< 4.13	ug/Kg	7/22/2019	16:55
Chlorobenzene	< 4.13	ug/Kg	7/22/2019	16:55
Chloroethane	< 4.13	ug/Kg	7/22/2019	16:55
Chloroform	< 4.13	ug/Kg	7/22/2019	16:55
Chloromethane	< 4.13	ug/Kg	7/22/2019	16:55
cis-1,2-Dichloroethene	< 4.13	ug/Kg	7/22/2019	16:55
cis-1,3-Dichloropropene	< 4.13	ug/Kg	7/22/2019	16:55
Cyclohexane	< 20.7	ug/Kg	7/22/2019	16:55
Dibromochloromethane	< 4.13	ug/Kg	7/22/2019	16:55
Dichlorodifluoromethane	< 4.13	ug/Kg	7/22/2019	16:55
Ethylbenzene	< 4.13	ug/Kg	7/22/2019	16:55
Freon 113	< 4.13	ug/Kg	7/22/2019	16:55
Isopropylbenzene	< 4.13	ug/Kg	7/22/2019	16:55
m,p-Xylene	< 4.13	ug/Kg	7/22/2019	16:55
Methyl acetate	< 4.13	ug/Kg	7/22/2019	16:55
Methyl tert-butyl Ether	< 4.13	ug/Kg	7/22/2019	16:55
Methylcyclohexane	< 4.13	ug/Kg	7/22/2019	16:55
Methylene chloride	< 10.3	ug/Kg	7/22/2019	16:55
Naphthalene	< 10.3	ug/Kg	7/22/2019	16:55
n-Butylbenzene	< 4.13	ug/Kg	7/22/2019	16:55
n-Propylbenzene	< 4.13	ug/Kg	7/22/2019	16:55

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-7			
Lab Sample ID:	193386-07		Date Sampled:	7/17/2019
Matrix:	Soil		Date Received:	7/19/2019
o-Xylene	< 4.13	ug/Kg	7/22/2019	16:55
p-Isopropyltoluene	< 4.13	ug/Kg	7/22/2019	16:55
sec-Butylbenzene	< 4.13	ug/Kg	7/22/2019	16:55
Styrene	< 10.3	ug/Kg	7/22/2019	16:55
tert-Butylbenzene	< 4.13	ug/Kg	7/22/2019	16:55
Tetrachloroethene	< 4.13	ug/Kg	7/22/2019	16:55
Toluene	< 4.13	ug/Kg	7/22/2019	16:55
trans-1,2-Dichloroethene	< 4.13	ug/Kg	7/22/2019	16:55
trans-1,3-Dichloropropene	< 4.13	ug/Kg	7/22/2019	16:55
Trichloroethene	< 4.13	ug/Kg	7/22/2019	16:55
Trichlorofluoromethane	< 4.13	ug/Kg	7/22/2019	16:55
Vinyl chloride	< 4.13	ug/Kg	7/22/2019	16:55
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	109	71 - 141		7/22/2019 16:55
4-Bromofluorobenzene	88.1	60.2 - 128		7/22/2019 16:55
Pentafluorobenzene	96.2	86.6 - 111		7/22/2019 16:55
Toluene-D8	94.7	77.5 - 115		7/22/2019 16:55

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62795.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-8

Lab Sample ID: 193386-08

Date Sampled: 7/17/2019

Matrix: Soil

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.01	ug/Kg		7/22/2019 17:18
1,1,2,2-Tetrachloroethane	< 4.01	ug/Kg		7/22/2019 17:18
1,1,2-Trichloroethane	< 4.01	ug/Kg		7/22/2019 17:18
1,1-Dichloroethane	< 4.01	ug/Kg		7/22/2019 17:18
1,1-Dichloroethene	< 4.01	ug/Kg		7/22/2019 17:18
1,2,3-Trichlorobenzene	< 10.0	ug/Kg		7/22/2019 17:18
1,2,4-Trichlorobenzene	< 10.0	ug/Kg		7/22/2019 17:18
1,2,4-Trimethylbenzene	< 4.01	ug/Kg		7/22/2019 17:18
1,2-Dibromo-3-Chloropropane	< 20.0	ug/Kg		7/22/2019 17:18
1,2-Dibromoethane	< 4.01	ug/Kg		7/22/2019 17:18
1,2-Dichlorobenzene	< 4.01	ug/Kg		7/22/2019 17:18
1,2-Dichloroethane	< 4.01	ug/Kg		7/22/2019 17:18
1,2-Dichloropropane	< 4.01	ug/Kg		7/22/2019 17:18
1,3,5-Trimethylbenzene	< 4.01	ug/Kg		7/22/2019 17:18
1,3-Dichlorobenzene	< 4.01	ug/Kg		7/22/2019 17:18
1,4-Dichlorobenzene	< 4.01	ug/Kg		7/22/2019 17:18
1,4-Dioxane	< 40.1	ug/Kg		7/22/2019 17:18
2-Butanone	< 20.0	ug/Kg		7/22/2019 17:18
2-Hexanone	< 10.0	ug/Kg		7/22/2019 17:18
4-Methyl-2-pentanone	< 10.0	ug/Kg		7/22/2019 17:18
Acetone	< 20.0	ug/Kg		7/22/2019 17:18
Benzene	< 4.01	ug/Kg		7/22/2019 17:18
Bromochloromethane	< 10.0	ug/Kg		7/22/2019 17:18

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-8			
Lab Sample ID:	193386-08		Date Sampled:	7/17/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.01	ug/Kg		7/22/2019 17:18
Bromoform	< 10.0	ug/Kg		7/22/2019 17:18
Bromomethane	< 4.01	ug/Kg		7/22/2019 17:18
Carbon disulfide	< 4.01	ug/Kg		7/22/2019 17:18
Carbon Tetrachloride	< 4.01	ug/Kg		7/22/2019 17:18
Chlorobenzene	< 4.01	ug/Kg		7/22/2019 17:18
Chloroethane	< 4.01	ug/Kg		7/22/2019 17:18
Chloroform	< 4.01	ug/Kg		7/22/2019 17:18
Chloromethane	< 4.01	ug/Kg		7/22/2019 17:18
cis-1,2-Dichloroethene	< 4.01	ug/Kg		7/22/2019 17:18
cis-1,3-Dichloropropene	< 4.01	ug/Kg		7/22/2019 17:18
Cyclohexane	< 20.0	ug/Kg		7/22/2019 17:18
Dibromochloromethane	< 4.01	ug/Kg		7/22/2019 17:18
Dichlorodifluoromethane	< 4.01	ug/Kg		7/22/2019 17:18
Ethylbenzene	< 4.01	ug/Kg		7/22/2019 17:18
Freon 113	< 4.01	ug/Kg		7/22/2019 17:18
Isopropylbenzene	< 4.01	ug/Kg		7/22/2019 17:18
m,p-Xylene	2.64	ug/Kg	J	7/22/2019 17:18
Methyl acetate	< 4.01	ug/Kg		7/22/2019 17:18
Methyl tert-butyl Ether	< 4.01	ug/Kg		7/22/2019 17:18
Methylcyclohexane	< 4.01	ug/Kg		7/22/2019 17:18
Methylene chloride	< 10.0	ug/Kg		7/22/2019 17:18
Naphthalene	< 10.0	ug/Kg		7/22/2019 17:18
n-Butylbenzene	< 4.01	ug/Kg		7/22/2019 17:18
n-Propylbenzene	< 4.01	ug/Kg		7/22/2019 17:18

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-8				
Lab Sample ID:	193386-08			Date Sampled:	7/17/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.01	ug/Kg		7/22/2019	17:18
p-Isopropyltoluene	< 4.01	ug/Kg		7/22/2019	17:18
sec-Butylbenzene	< 4.01	ug/Kg		7/22/2019	17:18
Styrene	< 10.0	ug/Kg		7/22/2019	17:18
tert-Butylbenzene	< 4.01	ug/Kg		7/22/2019	17:18
Tetrachloroethene	< 4.01	ug/Kg		7/22/2019	17:18
Toluene	< 4.01	ug/Kg		7/22/2019	17:18
trans-1,2-Dichloroethene	< 4.01	ug/Kg		7/22/2019	17:18
trans-1,3-Dichloropropene	< 4.01	ug/Kg		7/22/2019	17:18
Trichloroethene	< 4.01	ug/Kg		7/22/2019	17:18
Trichlorofluoromethane	< 4.01	ug/Kg		7/22/2019	17:18
Vinyl chloride	< 4.01	ug/Kg		7/22/2019	17:18
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>112</b>	71 - 141		7/22/2019 17:18
4-Bromofluorobenzene		<b>78.0</b>	60.2 - 128		7/22/2019 17:18
Pentafluorobenzene		<b>97.3</b>	86.6 - 111		7/22/2019 17:18
Toluene-D8		<b>91.1</b>	77.5 - 115		7/22/2019 17:18

*Internal standard outliers indicate probable matrix interference*

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62796.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-9

Lab Sample ID: 193386-09

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	0.0109	mg/Kg		7/22/2019 09:57

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-9

Lab Sample ID: 193386-09

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	4630	mg/Kg		7/23/2019 10:44
Antimony	< 3.23	mg/Kg		7/23/2019 10:44
Arsenic	1.81	mg/Kg		7/23/2019 10:44
Barium	43.8	mg/Kg		7/23/2019 10:44
Beryllium	0.244	mg/Kg	J	7/23/2019 10:44
Cadmium	< 0.269	mg/Kg		7/23/2019 20:36
Calcium	49200	mg/Kg		7/23/2019 19:16
Chromium	8.88	mg/Kg		7/23/2019 10:44
Cobalt	3.07	mg/Kg		7/23/2019 10:44
Copper	6.76	mg/Kg		7/23/2019 10:44
Iron	8340	mg/Kg		7/23/2019 10:44
Lead	151	mg/Kg		7/23/2019 10:44
Magnesium	9770	mg/Kg		7/23/2019 10:44
Manganese	298	mg/Kg		7/23/2019 10:44
Nickel	6.15	mg/Kg		7/23/2019 10:44
Potassium	983	mg/Kg		7/23/2019 10:44
Selenium	0.572	mg/Kg	J	7/23/2019 10:44
Silver	< 0.538	mg/Kg		7/23/2019 10:44
Sodium	214	mg/Kg		7/23/2019 10:44
Thallium	2.13	mg/Kg		7/23/2019 20:36
Vanadium	12.4	mg/Kg		7/23/2019 10:44
Zinc	29.9	mg/Kg		7/23/2019 10:44

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-9

**Lab Sample ID:** 193386-09

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-9

Lab Sample ID: 193386-09

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.09	ug/Kg		7/22/2019 17:41
1,1,2,2-Tetrachloroethane	< 4.09	ug/Kg		7/22/2019 17:41
1,1,2-Trichloroethane	< 4.09	ug/Kg		7/22/2019 17:41
1,1-Dichloroethane	< 4.09	ug/Kg		7/22/2019 17:41
1,1-Dichloroethene	< 4.09	ug/Kg		7/22/2019 17:41
1,2,3-Trichlorobenzene	< 10.2	ug/Kg		7/22/2019 17:41
1,2,4-Trichlorobenzene	< 10.2	ug/Kg		7/22/2019 17:41
1,2,4-Trimethylbenzene	< 4.09	ug/Kg		7/22/2019 17:41
1,2-Dibromo-3-Chloropropane	< 20.5	ug/Kg		7/22/2019 17:41
1,2-Dibromoethane	< 4.09	ug/Kg		7/22/2019 17:41
1,2-Dichlorobenzene	< 4.09	ug/Kg		7/22/2019 17:41
1,2-Dichloroethane	< 4.09	ug/Kg		7/22/2019 17:41
1,2-Dichloropropane	< 4.09	ug/Kg		7/22/2019 17:41
1,3,5-Trimethylbenzene	< 4.09	ug/Kg		7/22/2019 17:41
1,3-Dichlorobenzene	< 4.09	ug/Kg		7/22/2019 17:41
1,4-Dichlorobenzene	< 4.09	ug/Kg		7/22/2019 17:41
1,4-Dioxane	< 40.9	ug/Kg		7/22/2019 17:41
2-Butanone	< 20.5	ug/Kg		7/22/2019 17:41
2-Hexanone	< 10.2	ug/Kg		7/22/2019 17:41
4-Methyl-2-pentanone	< 10.2	ug/Kg		7/22/2019 17:41
Acetone	< 20.5	ug/Kg		7/22/2019 17:41
Benzene	< 4.09	ug/Kg		7/22/2019 17:41
Bromochloromethane	< 10.2	ug/Kg		7/22/2019 17:41

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-9			
Lab Sample ID:	193386-09		Date Sampled:	7/18/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.09	ug/Kg	7/22/2019	17:41
Bromoform	< 10.2	ug/Kg	7/22/2019	17:41
Bromomethane	< 4.09	ug/Kg	7/22/2019	17:41
Carbon disulfide	< 4.09	ug/Kg	7/22/2019	17:41
Carbon Tetrachloride	< 4.09	ug/Kg	7/22/2019	17:41
Chlorobenzene	< 4.09	ug/Kg	7/22/2019	17:41
Chloroethane	< 4.09	ug/Kg	7/22/2019	17:41
Chloroform	< 4.09	ug/Kg	7/22/2019	17:41
Chloromethane	< 4.09	ug/Kg	7/22/2019	17:41
cis-1,2-Dichloroethene	< 4.09	ug/Kg	7/22/2019	17:41
cis-1,3-Dichloropropene	< 4.09	ug/Kg	7/22/2019	17:41
Cyclohexane	< 20.5	ug/Kg	7/22/2019	17:41
Dibromochloromethane	< 4.09	ug/Kg	7/22/2019	17:41
Dichlorodifluoromethane	< 4.09	ug/Kg	7/22/2019	17:41
Ethylbenzene	< 4.09	ug/Kg	7/22/2019	17:41
Freon 113	< 4.09	ug/Kg	7/22/2019	17:41
Isopropylbenzene	< 4.09	ug/Kg	7/22/2019	17:41
m,p-Xylene	< 4.09	ug/Kg	7/22/2019	17:41
Methyl acetate	< 4.09	ug/Kg	7/22/2019	17:41
Methyl tert-butyl Ether	< 4.09	ug/Kg	7/22/2019	17:41
Methylcyclohexane	< 4.09	ug/Kg	7/22/2019	17:41
Methylene chloride	< 10.2	ug/Kg	7/22/2019	17:41
Naphthalene	< 10.2	ug/Kg	7/22/2019	17:41
n-Butylbenzene	< 4.09	ug/Kg	7/22/2019	17:41
n-Propylbenzene	< 4.09	ug/Kg	7/22/2019	17:41

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-9			
Lab Sample ID:	193386-09		Date Sampled:	7/18/2019
Matrix:	Soil		Date Received:	7/19/2019
o-Xylene	< 4.09	ug/Kg	7/22/2019	17:41
p-Isopropyltoluene	< 4.09	ug/Kg	7/22/2019	17:41
sec-Butylbenzene	< 4.09	ug/Kg	7/22/2019	17:41
Styrene	< 10.2	ug/Kg	7/22/2019	17:41
tert-Butylbenzene	< 4.09	ug/Kg	7/22/2019	17:41
Tetrachloroethene	< 4.09	ug/Kg	7/22/2019	17:41
Toluene	< 4.09	ug/Kg	7/22/2019	17:41
trans-1,2-Dichloroethene	< 4.09	ug/Kg	7/22/2019	17:41
trans-1,3-Dichloropropene	< 4.09	ug/Kg	7/22/2019	17:41
Trichloroethene	< 4.09	ug/Kg	7/22/2019	17:41
Trichlorofluoromethane	< 4.09	ug/Kg	7/22/2019	17:41
Vinyl chloride	< 4.09	ug/Kg	7/22/2019	17:41
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	112	71 - 141		7/22/2019 17:41
4-Bromofluorobenzene	88.4	60.2 - 128		7/22/2019 17:41
Pentafluorobenzene	95.4	86.6 - 111		7/22/2019 17:41
Toluene-D8	96.0	77.5 - 115		7/22/2019 17:41

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62797.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-21

Lab Sample ID: 193386-10

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.22	ug/Kg	M	7/22/2019 21:29
1,1,2,2-Tetrachloroethane	< 4.22	ug/Kg		7/22/2019 21:29
1,1,2-Trichloroethane	< 4.22	ug/Kg		7/22/2019 21:29
1,1-Dichloroethane	< 4.22	ug/Kg		7/22/2019 21:29
1,1-Dichloroethene	< 4.22	ug/Kg		7/22/2019 21:29
1,2,3-Trichlorobenzene	< 10.6	ug/Kg		7/22/2019 21:29
1,2,4-Trichlorobenzene	< 10.6	ug/Kg		7/22/2019 21:29
1,2,4-Trimethylbenzene	< 4.22	ug/Kg		7/22/2019 21:29
1,2-Dibromo-3-Chloropropane	< 21.1	ug/Kg		7/22/2019 21:29
1,2-Dibromoethane	< 4.22	ug/Kg		7/22/2019 21:29
1,2-Dichlorobenzene	< 4.22	ug/Kg		7/22/2019 21:29
1,2-Dichloroethane	< 4.22	ug/Kg		7/22/2019 21:29
1,2-Dichloropropane	< 4.22	ug/Kg		7/22/2019 21:29
1,3,5-Trimethylbenzene	< 4.22	ug/Kg		7/22/2019 21:29
1,3-Dichlorobenzene	< 4.22	ug/Kg		7/22/2019 21:29
1,4-Dichlorobenzene	< 4.22	ug/Kg		7/22/2019 21:29
1,4-Dioxane	< 42.2	ug/Kg		7/22/2019 21:29
2-Butanone	< 21.1	ug/Kg		7/22/2019 21:29
2-Hexanone	< 10.6	ug/Kg		7/22/2019 21:29
4-Methyl-2-pentanone	< 10.6	ug/Kg		7/22/2019 21:29
Acetone	< 21.1	ug/Kg		7/22/2019 21:29
Benzene	< 4.22	ug/Kg		7/22/2019 21:29
Bromochloromethane	< 10.6	ug/Kg		7/22/2019 21:29

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-21				
Lab Sample ID:	193386-10			Date Sampled:	7/18/2019
Matrix:	Soil			Date Received:	7/19/2019
Bromodichloromethane	< 4.22	ug/Kg	M	7/22/2019	21:29
Bromoform	< 10.6	ug/Kg	M	7/22/2019	21:29
Bromomethane	< 4.22	ug/Kg	M	7/22/2019	21:29
Carbon disulfide	< 4.22	ug/Kg		7/22/2019	21:29
Carbon Tetrachloride	< 4.22	ug/Kg	M	7/22/2019	21:29
Chlorobenzene	< 4.22	ug/Kg		7/22/2019	21:29
Chloroethane	< 4.22	ug/Kg	M	7/22/2019	21:29
Chloroform	< 4.22	ug/Kg		7/22/2019	21:29
Chloromethane	< 4.22	ug/Kg		7/22/2019	21:29
cis-1,2-Dichloroethene	< 4.22	ug/Kg		7/22/2019	21:29
cis-1,3-Dichloropropene	< 4.22	ug/Kg	M	7/22/2019	21:29
Cyclohexane	< 21.1	ug/Kg		7/22/2019	21:29
Dibromochloromethane	< 4.22	ug/Kg	M	7/22/2019	21:29
Dichlorodifluoromethane	< 4.22	ug/Kg		7/22/2019	21:29
Ethylbenzene	< 4.22	ug/Kg		7/22/2019	21:29
Freon 113	< 4.22	ug/Kg		7/22/2019	21:29
Isopropylbenzene	< 4.22	ug/Kg		7/22/2019	21:29
m,p-Xylene	< 4.22	ug/Kg		7/22/2019	21:29
Methyl acetate	< 4.22	ug/Kg		7/22/2019	21:29
Methyl tert-butyl Ether	< 4.22	ug/Kg		7/22/2019	21:29
Methylcyclohexane	< 4.22	ug/Kg		7/22/2019	21:29
Methylene chloride	< 10.6	ug/Kg	M	7/22/2019	21:29
Naphthalene	< 10.6	ug/Kg		7/22/2019	21:29
n-Butylbenzene	< 4.22	ug/Kg		7/22/2019	21:29
n-Propylbenzene	< 4.22	ug/Kg		7/22/2019	21:29

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

<b>Sample Identifier:</b> SS-21		<b>Date Sampled:</b> 7/18/2019	
<b>Lab Sample ID:</b> 193386-10		<b>Date Received:</b> 7/19/2019	
<b>Matrix:</b> Soil			
o-Xylene	< 4.22	ug/Kg	7/22/2019 21:29
p-Isopropyltoluene	< 4.22	ug/Kg	7/22/2019 21:29
sec-Butylbenzene	< 4.22	ug/Kg	7/22/2019 21:29
Styrene	< 10.6	ug/Kg	7/22/2019 21:29
tert-Butylbenzene	< 4.22	ug/Kg	7/22/2019 21:29
Tetrachloroethene	< 4.22	ug/Kg	7/22/2019 21:29
Toluene	< 4.22	ug/Kg	7/22/2019 21:29
trans-1,2-Dichloroethene	< 4.22	ug/Kg	7/22/2019 21:29
trans-1,3-Dichloropropene	< 4.22	ug/Kg	M 7/22/2019 21:29
Trichloroethene	< 4.22	ug/Kg	7/22/2019 21:29
Trichlorofluoromethane	< 4.22	ug/Kg	M 7/22/2019 21:29
Vinyl chloride	< 4.22	ug/Kg	M 7/22/2019 21:29
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b> <b>Date Analyzed</b>
1,2-Dichloroethane-d4	117	71 - 141	7/22/2019 21:29
4-Bromofluorobenzene	84.9	60.2 - 128	7/22/2019 21:29
Pentafluorobenzene	96.8	86.6 - 111	7/22/2019 21:29
Toluene-D8	92.1	77.5 - 115	7/22/2019 21:29

**Method Reference(s):** EPA 8260C  
EPA 5035A - L

**Data File:** x62807.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-11

Lab Sample ID: 193386-11

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	0.0135	mg/Kg		7/22/2019 09:59

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-11

Lab Sample ID: 193386-11

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	4900	mg/Kg		7/23/2019 10:48
Antimony	< 3.50	mg/Kg		7/23/2019 10:48
Arsenic	1.87	mg/Kg		7/23/2019 10:48
Barium	34.0	mg/Kg		7/23/2019 10:48
Beryllium	0.304	mg/Kg		7/23/2019 10:48
Cadmium	< 0.292	mg/Kg		7/23/2019 20:40
Calcium	6580	mg/Kg		7/23/2019 10:48
Chromium	6.91	mg/Kg		7/23/2019 10:48
Cobalt	3.81	mg/Kg		7/23/2019 10:48
Copper	8.84	mg/Kg		7/23/2019 10:48
Iron	9570	mg/Kg		7/23/2019 10:48
Lead	6.67	mg/Kg		7/23/2019 10:48
Magnesium	2980	mg/Kg		7/23/2019 10:48
Manganese	484	mg/Kg		7/23/2019 10:48
Nickel	7.32	mg/Kg		7/23/2019 10:48
Potassium	865	mg/Kg		7/23/2019 10:48
Selenium	< 1.17	mg/Kg		7/23/2019 10:48
Silver	< 0.584	mg/Kg		7/23/2019 10:48
Sodium	86.1	mg/Kg	J	7/23/2019 10:48
Thallium	< 1.46	mg/Kg		7/23/2019 20:40
Vanadium	11.6	mg/Kg		7/23/2019 10:48
Zinc	26.4	mg/Kg		7/23/2019 10:48

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-11

**Lab Sample ID:** 193386-11

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Friday, July 26, 2019*





Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-11

Lab Sample ID: 193386-11

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.98	ug/Kg		7/22/2019 18:03
1,1,2,2-Tetrachloroethane	< 4.98	ug/Kg		7/22/2019 18:03
1,1,2-Trichloroethane	< 4.98	ug/Kg		7/22/2019 18:03
1,1-Dichloroethane	< 4.98	ug/Kg		7/22/2019 18:03
1,1-Dichloroethene	< 4.98	ug/Kg		7/22/2019 18:03
1,2,3-Trichlorobenzene	< 12.4	ug/Kg		7/22/2019 18:03
1,2,4-Trichlorobenzene	< 12.4	ug/Kg		7/22/2019 18:03
1,2,4-Trimethylbenzene	< 4.98	ug/Kg		7/22/2019 18:03
1,2-Dibromo-3-Chloropropane	< 24.9	ug/Kg		7/22/2019 18:03
1,2-Dibromoethane	< 4.98	ug/Kg		7/22/2019 18:03
1,2-Dichlorobenzene	< 4.98	ug/Kg		7/22/2019 18:03
1,2-Dichloroethane	< 4.98	ug/Kg		7/22/2019 18:03
1,2-Dichloropropane	< 4.98	ug/Kg		7/22/2019 18:03
1,3,5-Trimethylbenzene	< 4.98	ug/Kg		7/22/2019 18:03
1,3-Dichlorobenzene	< 4.98	ug/Kg		7/22/2019 18:03
1,4-Dichlorobenzene	< 4.98	ug/Kg		7/22/2019 18:03
1,4-Dioxane	< 49.8	ug/Kg		7/22/2019 18:03
2-Butanone	< 24.9	ug/Kg		7/22/2019 18:03
2-Hexanone	< 12.4	ug/Kg		7/22/2019 18:03
4-Methyl-2-pentanone	< 12.4	ug/Kg		7/22/2019 18:03
Acetone	< 24.9	ug/Kg		7/22/2019 18:03
Benzene	< 4.98	ug/Kg		7/22/2019 18:03
Bromochloromethane	< 12.4	ug/Kg		7/22/2019 18:03

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-11			
<b>Lab Sample ID:</b>	193386-11		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Bromodichloromethane	< 4.98	ug/Kg	7/22/2019	18:03
Bromoform	< 12.4	ug/Kg	7/22/2019	18:03
Bromomethane	< 4.98	ug/Kg	7/22/2019	18:03
Carbon disulfide	< 4.98	ug/Kg	7/22/2019	18:03
Carbon Tetrachloride	< 4.98	ug/Kg	7/22/2019	18:03
Chlorobenzene	< 4.98	ug/Kg	7/22/2019	18:03
Chloroethane	< 4.98	ug/Kg	7/22/2019	18:03
Chloroform	< 4.98	ug/Kg	7/22/2019	18:03
Chloromethane	< 4.98	ug/Kg	7/22/2019	18:03
cis-1,2-Dichloroethene	< 4.98	ug/Kg	7/22/2019	18:03
cis-1,3-Dichloropropene	< 4.98	ug/Kg	7/22/2019	18:03
Cyclohexane	< 24.9	ug/Kg	7/22/2019	18:03
Dibromochloromethane	< 4.98	ug/Kg	7/22/2019	18:03
Dichlorodifluoromethane	< 4.98	ug/Kg	7/22/2019	18:03
Ethylbenzene	< 4.98	ug/Kg	7/22/2019	18:03
Freon 113	< 4.98	ug/Kg	7/22/2019	18:03
Isopropylbenzene	< 4.98	ug/Kg	7/22/2019	18:03
m,p-Xylene	< 4.98	ug/Kg	7/22/2019	18:03
Methyl acetate	< 4.98	ug/Kg	7/22/2019	18:03
Methyl tert-butyl Ether	< 4.98	ug/Kg	7/22/2019	18:03
Methylcyclohexane	< 4.98	ug/Kg	7/22/2019	18:03
Methylene chloride	< 12.4	ug/Kg	7/22/2019	18:03
Naphthalene	< 12.4	ug/Kg	7/22/2019	18:03
n-Butylbenzene	< 4.98	ug/Kg	7/22/2019	18:03
n-Propylbenzene	< 4.98	ug/Kg	7/22/2019	18:03

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-11				
Lab Sample ID:	193386-11		Date Sampled:	7/18/2019	
Matrix:	Soil		Date Received:	7/19/2019	
o-Xylene	< 4.98	ug/Kg		7/22/2019	18:03
p-Isopropyltoluene	< 4.98	ug/Kg		7/22/2019	18:03
sec-Butylbenzene	< 4.98	ug/Kg		7/22/2019	18:03
Styrene	< 12.4	ug/Kg		7/22/2019	18:03
tert-Butylbenzene	< 4.98	ug/Kg		7/22/2019	18:03
Tetrachloroethene	< 4.98	ug/Kg		7/22/2019	18:03
Toluene	< 4.98	ug/Kg		7/22/2019	18:03
trans-1,2-Dichloroethene	< 4.98	ug/Kg		7/22/2019	18:03
trans-1,3-Dichloropropene	< 4.98	ug/Kg		7/22/2019	18:03
Trichloroethene	< 4.98	ug/Kg		7/22/2019	18:03
Trichlorofluoromethane	< 4.98	ug/Kg		7/22/2019	18:03
Vinyl chloride	< 4.98	ug/Kg		7/22/2019	18:03
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>114</b>	71 - 141		7/22/2019 18:03
4-Bromofluorobenzene		<b>83.5</b>	60.2 - 128		7/22/2019 18:03
Pentafluorobenzene		<b>98.1</b>	86.6 - 111		7/22/2019 18:03
Toluene-D8		<b>92.9</b>	77.5 - 115		7/22/2019 18:03

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62798.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-12

Lab Sample ID: 193386-12

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	0.0131	mg/Kg		7/22/2019 10:01

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-12

Lab Sample ID: 193386-12

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	6060	mg/Kg		7/23/2019 10:52
Antimony	< 3.26	mg/Kg		7/23/2019 10:52
Arsenic	1.51	mg/Kg		7/23/2019 10:52
Barium	53.1	mg/Kg		7/23/2019 10:52
Beryllium	0.352	mg/Kg		7/23/2019 10:52
Cadmium	< 0.272	mg/Kg		7/23/2019 20:45
Calcium	1660	mg/Kg		7/23/2019 10:52
Chromium	6.96	mg/Kg		7/23/2019 10:52
Cobalt	3.48	mg/Kg		7/23/2019 10:52
Copper	8.83	mg/Kg		7/23/2019 10:52
Iron	9840	mg/Kg		7/23/2019 10:52
Lead	2.46	mg/Kg		7/23/2019 10:52
Magnesium	1400	mg/Kg		7/23/2019 10:52
Manganese	462	mg/Kg		7/23/2019 10:52
Nickel	7.86	mg/Kg		7/23/2019 10:52
Potassium	753	mg/Kg		7/23/2019 10:52
Selenium	< 1.09	mg/Kg		7/23/2019 10:52
Silver	< 0.544	mg/Kg		7/23/2019 10:52
Sodium	< 136	mg/Kg		7/23/2019 10:52
Thallium	< 1.36	mg/Kg		7/23/2019 20:45
Vanadium	12.7	mg/Kg		7/23/2019 10:52
Zinc	20.6	mg/Kg		7/23/2019 10:52

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-12

**Lab Sample ID:** 193386-12

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-12

Lab Sample ID: 193386-12

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.40	ug/Kg		7/22/2019 18:26
1,1,2,2-Tetrachloroethane	< 4.40	ug/Kg		7/22/2019 18:26
1,1,2-Trichloroethane	< 4.40	ug/Kg		7/22/2019 18:26
1,1-Dichloroethane	< 4.40	ug/Kg		7/22/2019 18:26
1,1-Dichloroethene	< 4.40	ug/Kg		7/22/2019 18:26
1,2,3-Trichlorobenzene	< 11.0	ug/Kg		7/22/2019 18:26
1,2,4-Trichlorobenzene	< 11.0	ug/Kg		7/22/2019 18:26
1,2,4-Trimethylbenzene	< 4.40	ug/Kg		7/22/2019 18:26
1,2-Dibromo-3-Chloropropane	< 22.0	ug/Kg		7/22/2019 18:26
1,2-Dibromoethane	< 4.40	ug/Kg		7/22/2019 18:26
1,2-Dichlorobenzene	< 4.40	ug/Kg		7/22/2019 18:26
1,2-Dichloroethane	< 4.40	ug/Kg		7/22/2019 18:26
1,2-Dichloropropane	< 4.40	ug/Kg		7/22/2019 18:26
1,3,5-Trimethylbenzene	< 4.40	ug/Kg		7/22/2019 18:26
1,3-Dichlorobenzene	< 4.40	ug/Kg		7/22/2019 18:26
1,4-Dichlorobenzene	< 4.40	ug/Kg		7/22/2019 18:26
1,4-Dioxane	< 44.0	ug/Kg		7/22/2019 18:26
2-Butanone	< 22.0	ug/Kg		7/22/2019 18:26
2-Hexanone	< 11.0	ug/Kg		7/22/2019 18:26
4-Methyl-2-pentanone	< 11.0	ug/Kg		7/22/2019 18:26
Acetone	< 22.0	ug/Kg		7/22/2019 18:26
Benzene	< 4.40	ug/Kg		7/22/2019 18:26
Bromochloromethane	< 11.0	ug/Kg		7/22/2019 18:26

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-12

Lab Sample ID: 193386-12

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

Bromodichloromethane	< 4.40	ug/Kg	7/22/2019 18:26
Bromoform	< 11.0	ug/Kg	7/22/2019 18:26
Bromomethane	< 4.40	ug/Kg	7/22/2019 18:26
Carbon disulfide	< 4.40	ug/Kg	7/22/2019 18:26
Carbon Tetrachloride	< 4.40	ug/Kg	7/22/2019 18:26
Chlorobenzene	< 4.40	ug/Kg	7/22/2019 18:26
Chloroethane	< 4.40	ug/Kg	7/22/2019 18:26
Chloroform	< 4.40	ug/Kg	7/22/2019 18:26
Chloromethane	< 4.40	ug/Kg	7/22/2019 18:26
cis-1,2-Dichloroethene	< 4.40	ug/Kg	7/22/2019 18:26
cis-1,3-Dichloropropene	< 4.40	ug/Kg	7/22/2019 18:26
Cyclohexane	< 22.0	ug/Kg	7/22/2019 18:26
Dibromochloromethane	< 4.40	ug/Kg	7/22/2019 18:26
Dichlorodifluoromethane	< 4.40	ug/Kg	7/22/2019 18:26
Ethylbenzene	< 4.40	ug/Kg	7/22/2019 18:26
Freon 113	< 4.40	ug/Kg	7/22/2019 18:26
Isopropylbenzene	< 4.40	ug/Kg	7/22/2019 18:26
m,p-Xylene	< 4.40	ug/Kg	7/22/2019 18:26
Methyl acetate	< 4.40	ug/Kg	7/22/2019 18:26
Methyl tert-butyl Ether	< 4.40	ug/Kg	7/22/2019 18:26
Methylcyclohexane	< 4.40	ug/Kg	7/22/2019 18:26
Methylene chloride	< 11.0	ug/Kg	7/22/2019 18:26
Naphthalene	< 11.0	ug/Kg	7/22/2019 18:26
n-Butylbenzene	< 4.40	ug/Kg	7/22/2019 18:26
n-Propylbenzene	< 4.40	ug/Kg	7/22/2019 18:26

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-12				
Lab Sample ID:	193386-12		Date Sampled:	7/18/2019	
Matrix:	Soil		Date Received:	7/19/2019	
o-Xylene	< 4.40	ug/Kg		7/22/2019	18:26
p-Isopropyltoluene	< 4.40	ug/Kg		7/22/2019	18:26
sec-Butylbenzene	< 4.40	ug/Kg		7/22/2019	18:26
Styrene	< 11.0	ug/Kg		7/22/2019	18:26
tert-Butylbenzene	< 4.40	ug/Kg		7/22/2019	18:26
Tetrachloroethene	< 4.40	ug/Kg		7/22/2019	18:26
Toluene	< 4.40	ug/Kg		7/22/2019	18:26
trans-1,2-Dichloroethene	< 4.40	ug/Kg		7/22/2019	18:26
trans-1,3-Dichloropropene	< 4.40	ug/Kg		7/22/2019	18:26
Trichloroethene	< 4.40	ug/Kg		7/22/2019	18:26
Trichlorofluoromethane	< 4.40	ug/Kg		7/22/2019	18:26
Vinyl chloride	< 4.40	ug/Kg		7/22/2019	18:26
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>107</b>	71 - 141		7/22/2019 18:26
4-Bromofluorobenzene		<b>83.7</b>	60.2 - 128		7/22/2019 18:26
Pentafluorobenzene		<b>97.4</b>	86.6 - 111		7/22/2019 18:26
Toluene-D8		<b>91.8</b>	77.5 - 115		7/22/2019 18:26

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62799.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-13

Lab Sample ID: 193386-13

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	<b>0.124</b>	mg/Kg		7/22/2019 10:06

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-13

Lab Sample ID: 193386-13

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	7000	mg/Kg		7/23/2019 11:06
Antimony	< 3.24	mg/Kg		7/23/2019 11:06
Arsenic	5.22	mg/Kg		7/23/2019 11:06
Barium	51.7	mg/Kg		7/23/2019 11:06
Beryllium	0.431	mg/Kg		7/23/2019 11:06
Cadmium	< 0.270	mg/Kg		7/23/2019 20:49
Calcium	1880	mg/Kg		7/23/2019 11:06
Chromium	8.84	mg/Kg		7/23/2019 11:06
Cobalt	4.11	mg/Kg		7/23/2019 11:06
Copper	10.2	mg/Kg		7/23/2019 11:06
Iron	11400	mg/Kg		7/23/2019 11:06
Lead	47.6	mg/Kg		7/23/2019 11:06
Magnesium	1800	mg/Kg		7/23/2019 11:06
Manganese	378	mg/Kg		7/23/2019 11:06
Nickel	7.83	mg/Kg		7/23/2019 11:06
Potassium	695	mg/Kg		7/23/2019 11:06
Selenium	< 1.08	mg/Kg		7/23/2019 11:06
Silver	< 0.540	mg/Kg		7/23/2019 11:06
Sodium	102	mg/Kg	J	7/23/2019 11:06
Thallium	< 1.35	mg/Kg		7/23/2019 20:49
Vanadium	15.1	mg/Kg		7/23/2019 11:06
Zinc	54.9	mg/Kg		7/23/2019 11:06

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID: 193386**

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-13

**Lab Sample ID:** 193386-13

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-13

Lab Sample ID: 193386-13

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.06	ug/Kg		7/22/2019 18:49
1,1,2,2-Tetrachloroethane	< 4.06	ug/Kg		7/22/2019 18:49
1,1,2-Trichloroethane	< 4.06	ug/Kg		7/22/2019 18:49
1,1-Dichloroethane	< 4.06	ug/Kg		7/22/2019 18:49
1,1-Dichloroethene	< 4.06	ug/Kg		7/22/2019 18:49
1,2,3-Trichlorobenzene	< 10.1	ug/Kg		7/22/2019 18:49
1,2,4-Trichlorobenzene	< 10.1	ug/Kg		7/22/2019 18:49
1,2,4-Trimethylbenzene	< 4.06	ug/Kg		7/22/2019 18:49
1,2-Dibromo-3-Chloropropane	< 20.3	ug/Kg		7/22/2019 18:49
1,2-Dibromoethane	< 4.06	ug/Kg		7/22/2019 18:49
1,2-Dichlorobenzene	< 4.06	ug/Kg		7/22/2019 18:49
1,2-Dichloroethane	< 4.06	ug/Kg		7/22/2019 18:49
1,2-Dichloropropane	< 4.06	ug/Kg		7/22/2019 18:49
1,3,5-Trimethylbenzene	< 4.06	ug/Kg		7/22/2019 18:49
1,3-Dichlorobenzene	< 4.06	ug/Kg		7/22/2019 18:49
1,4-Dichlorobenzene	< 4.06	ug/Kg		7/22/2019 18:49
1,4-Dioxane	< 40.6	ug/Kg		7/22/2019 18:49
2-Butanone	< 20.3	ug/Kg		7/22/2019 18:49
2-Hexanone	< 10.1	ug/Kg		7/22/2019 18:49
4-Methyl-2-pentanone	< 10.1	ug/Kg		7/22/2019 18:49
Acetone	< 20.3	ug/Kg		7/22/2019 18:49
Benzene	< 4.06	ug/Kg		7/22/2019 18:49
Bromochloromethane	< 10.1	ug/Kg		7/22/2019 18:49

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-13			
Lab Sample ID:	193386-13		Date Sampled:	7/18/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.06	ug/Kg	7/22/2019	18:49
Bromoform	< 10.1	ug/Kg	7/22/2019	18:49
Bromomethane	< 4.06	ug/Kg	7/22/2019	18:49
Carbon disulfide	< 4.06	ug/Kg	7/22/2019	18:49
Carbon Tetrachloride	< 4.06	ug/Kg	7/22/2019	18:49
Chlorobenzene	< 4.06	ug/Kg	7/22/2019	18:49
Chloroethane	< 4.06	ug/Kg	7/22/2019	18:49
Chloroform	< 4.06	ug/Kg	7/22/2019	18:49
Chloromethane	< 4.06	ug/Kg	7/22/2019	18:49
cis-1,2-Dichloroethene	< 4.06	ug/Kg	7/22/2019	18:49
cis-1,3-Dichloropropene	< 4.06	ug/Kg	7/22/2019	18:49
Cyclohexane	< 20.3	ug/Kg	7/22/2019	18:49
Dibromochloromethane	< 4.06	ug/Kg	7/22/2019	18:49
Dichlorodifluoromethane	< 4.06	ug/Kg	7/22/2019	18:49
Ethylbenzene	< 4.06	ug/Kg	7/22/2019	18:49
Freon 113	< 4.06	ug/Kg	7/22/2019	18:49
Isopropylbenzene	< 4.06	ug/Kg	7/22/2019	18:49
m,p-Xylene	< 4.06	ug/Kg	7/22/2019	18:49
Methyl acetate	< 4.06	ug/Kg	7/22/2019	18:49
Methyl tert-butyl Ether	< 4.06	ug/Kg	7/22/2019	18:49
Methylcyclohexane	< 4.06	ug/Kg	7/22/2019	18:49
Methylene chloride	< 10.1	ug/Kg	7/22/2019	18:49
Naphthalene	< 10.1	ug/Kg	7/22/2019	18:49
n-Butylbenzene	< 4.06	ug/Kg	7/22/2019	18:49
n-Propylbenzene	< 4.06	ug/Kg	7/22/2019	18:49

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-13			
Lab Sample ID:	193386-13		Date Sampled:	7/18/2019
Matrix:	Soil		Date Received:	7/19/2019
o-Xylene	< 4.06	ug/Kg	7/22/2019	18:49
p-Isopropyltoluene	< 4.06	ug/Kg	7/22/2019	18:49
sec-Butylbenzene	< 4.06	ug/Kg	7/22/2019	18:49
Styrene	< 10.1	ug/Kg	7/22/2019	18:49
tert-Butylbenzene	< 4.06	ug/Kg	7/22/2019	18:49
Tetrachloroethene	< 4.06	ug/Kg	7/22/2019	18:49
Toluene	< 4.06	ug/Kg	7/22/2019	18:49
trans-1,2-Dichloroethene	< 4.06	ug/Kg	7/22/2019	18:49
trans-1,3-Dichloropropene	< 4.06	ug/Kg	7/22/2019	18:49
Trichloroethene	< 4.06	ug/Kg	7/22/2019	18:49
Trichlorofluoromethane	< 4.06	ug/Kg	7/22/2019	18:49
Vinyl chloride	< 4.06	ug/Kg	7/22/2019	18:49
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	108	71 - 141		7/22/2019 18:49
4-Bromofluorobenzene	87.7	60.2 - 128		7/22/2019 18:49
Pentafluorobenzene	96.6	86.6 - 111		7/22/2019 18:49
Toluene-D8	89.6	77.5 - 115		7/22/2019 18:49

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62800.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-14

Lab Sample ID: 193386-14

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.26	ug/Kg		7/22/2019 19:12
1,1,2,2-Tetrachloroethane	< 4.26	ug/Kg		7/22/2019 19:12
1,1,2-Trichloroethane	< 4.26	ug/Kg		7/22/2019 19:12
1,1-Dichloroethane	< 4.26	ug/Kg		7/22/2019 19:12
1,1-Dichloroethene	< 4.26	ug/Kg		7/22/2019 19:12
1,2,3-Trichlorobenzene	< 10.6	ug/Kg		7/22/2019 19:12
1,2,4-Trichlorobenzene	< 10.6	ug/Kg		7/22/2019 19:12
1,2,4-Trimethylbenzene	< 4.26	ug/Kg		7/22/2019 19:12
1,2-Dibromo-3-Chloropropane	< 21.3	ug/Kg		7/22/2019 19:12
1,2-Dibromoethane	< 4.26	ug/Kg		7/22/2019 19:12
1,2-Dichlorobenzene	< 4.26	ug/Kg		7/22/2019 19:12
1,2-Dichloroethane	< 4.26	ug/Kg		7/22/2019 19:12
1,2-Dichloropropane	< 4.26	ug/Kg		7/22/2019 19:12
1,3,5-Trimethylbenzene	< 4.26	ug/Kg		7/22/2019 19:12
1,3-Dichlorobenzene	< 4.26	ug/Kg		7/22/2019 19:12
1,4-Dichlorobenzene	< 4.26	ug/Kg		7/22/2019 19:12
1,4-Dioxane	< 42.6	ug/Kg		7/22/2019 19:12
2-Butanone	< 21.3	ug/Kg		7/22/2019 19:12
2-Hexanone	< 10.6	ug/Kg		7/22/2019 19:12
4-Methyl-2-pentanone	< 10.6	ug/Kg		7/22/2019 19:12
Acetone	15.6	ug/Kg	J	7/22/2019 19:12
Benzene	< 4.26	ug/Kg		7/22/2019 19:12
Bromochloromethane	< 10.6	ug/Kg		7/22/2019 19:12

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-14			
<b>Lab Sample ID:</b>	193386-14		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Bromodichloromethane	< 4.26	ug/Kg	7/22/2019	19:12
Bromoform	< 10.6	ug/Kg	7/22/2019	19:12
Bromomethane	< 4.26	ug/Kg	7/22/2019	19:12
Carbon disulfide	< 4.26	ug/Kg	7/22/2019	19:12
Carbon Tetrachloride	< 4.26	ug/Kg	7/22/2019	19:12
Chlorobenzene	< 4.26	ug/Kg	7/22/2019	19:12
Chloroethane	< 4.26	ug/Kg	7/22/2019	19:12
Chloroform	< 4.26	ug/Kg	7/22/2019	19:12
Chloromethane	< 4.26	ug/Kg	7/22/2019	19:12
cis-1,2-Dichloroethene	< 4.26	ug/Kg	7/22/2019	19:12
cis-1,3-Dichloropropene	< 4.26	ug/Kg	7/22/2019	19:12
Cyclohexane	< 21.3	ug/Kg	7/22/2019	19:12
Dibromochloromethane	< 4.26	ug/Kg	7/22/2019	19:12
Dichlorodifluoromethane	< 4.26	ug/Kg	7/22/2019	19:12
Ethylbenzene	< 4.26	ug/Kg	7/22/2019	19:12
Freon 113	< 4.26	ug/Kg	7/22/2019	19:12
Isopropylbenzene	< 4.26	ug/Kg	7/22/2019	19:12
m,p-Xylene	< 4.26	ug/Kg	7/22/2019	19:12
Methyl acetate	< 4.26	ug/Kg	7/22/2019	19:12
Methyl tert-butyl Ether	< 4.26	ug/Kg	7/22/2019	19:12
Methylcyclohexane	< 4.26	ug/Kg	7/22/2019	19:12
Methylene chloride	< 10.6	ug/Kg	7/22/2019	19:12
Naphthalene	< 10.6	ug/Kg	7/22/2019	19:12
n-Butylbenzene	< 4.26	ug/Kg	7/22/2019	19:12
n-Propylbenzene	< 4.26	ug/Kg	7/22/2019	19:12

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-14				
Lab Sample ID:	193386-14			Date Sampled:	7/18/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.26	ug/Kg		7/22/2019	19:12
p-Isopropyltoluene	< 4.26	ug/Kg		7/22/2019	19:12
sec-Butylbenzene	< 4.26	ug/Kg		7/22/2019	19:12
Styrene	< 10.6	ug/Kg		7/22/2019	19:12
tert-Butylbenzene	< 4.26	ug/Kg		7/22/2019	19:12
Tetrachloroethene	< 4.26	ug/Kg		7/22/2019	19:12
Toluene	< 4.26	ug/Kg		7/22/2019	19:12
trans-1,2-Dichloroethene	< 4.26	ug/Kg		7/22/2019	19:12
trans-1,3-Dichloropropene	< 4.26	ug/Kg		7/22/2019	19:12
Trichloroethene	< 4.26	ug/Kg		7/22/2019	19:12
Trichlorofluoromethane	< 4.26	ug/Kg		7/22/2019	19:12
Vinyl chloride	< 4.26	ug/Kg		7/22/2019	19:12
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		109	71 - 141		7/22/2019 19:12
4-Bromofluorobenzene		82.0	60.2 - 128		7/22/2019 19:12
Pentafluorobenzene		95.6	86.6 - 111		7/22/2019 19:12
Toluene-D8		92.2	77.5 - 115		7/22/2019 19:12

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62801.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-15

Lab Sample ID: 193386-15

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.11	ug/Kg		7/22/2019 19:35
1,1,2,2-Tetrachloroethane	< 4.11	ug/Kg		7/22/2019 19:35
1,1,2-Trichloroethane	< 4.11	ug/Kg		7/22/2019 19:35
1,1-Dichloroethane	< 4.11	ug/Kg		7/22/2019 19:35
1,1-Dichloroethene	< 4.11	ug/Kg		7/22/2019 19:35
1,2,3-Trichlorobenzene	< 10.3	ug/Kg		7/22/2019 19:35
1,2,4-Trichlorobenzene	< 10.3	ug/Kg		7/22/2019 19:35
1,2,4-Trimethylbenzene	< 4.11	ug/Kg		7/22/2019 19:35
1,2-Dibromo-3-Chloropropane	< 20.6	ug/Kg		7/22/2019 19:35
1,2-Dibromoethane	< 4.11	ug/Kg		7/22/2019 19:35
1,2-Dichlorobenzene	< 4.11	ug/Kg		7/22/2019 19:35
1,2-Dichloroethane	< 4.11	ug/Kg		7/22/2019 19:35
1,2-Dichloropropane	< 4.11	ug/Kg		7/22/2019 19:35
1,3,5-Trimethylbenzene	< 4.11	ug/Kg		7/22/2019 19:35
1,3-Dichlorobenzene	< 4.11	ug/Kg		7/22/2019 19:35
1,4-Dichlorobenzene	< 4.11	ug/Kg		7/22/2019 19:35
1,4-Dioxane	< 41.1	ug/Kg		7/22/2019 19:35
2-Butanone	< 20.6	ug/Kg		7/22/2019 19:35
2-Hexanone	< 10.3	ug/Kg		7/22/2019 19:35
4-Methyl-2-pentanone	< 10.3	ug/Kg		7/22/2019 19:35
Acetone	< 20.6	ug/Kg		7/22/2019 19:35
Benzene	< 4.11	ug/Kg		7/22/2019 19:35
Bromochloromethane	< 10.3	ug/Kg		7/22/2019 19:35

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-15			
Lab Sample ID:	193386-15		Date Sampled:	7/18/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.11	ug/Kg	7/22/2019	19:35
Bromoform	< 10.3	ug/Kg	7/22/2019	19:35
Bromomethane	< 4.11	ug/Kg	7/22/2019	19:35
Carbon disulfide	< 4.11	ug/Kg	7/22/2019	19:35
Carbon Tetrachloride	< 4.11	ug/Kg	7/22/2019	19:35
Chlorobenzene	< 4.11	ug/Kg	7/22/2019	19:35
Chloroethane	< 4.11	ug/Kg	7/22/2019	19:35
Chloroform	< 4.11	ug/Kg	7/22/2019	19:35
Chloromethane	< 4.11	ug/Kg	7/22/2019	19:35
cis-1,2-Dichloroethene	< 4.11	ug/Kg	7/22/2019	19:35
cis-1,3-Dichloropropene	< 4.11	ug/Kg	7/22/2019	19:35
Cyclohexane	< 20.6	ug/Kg	7/22/2019	19:35
Dibromochloromethane	< 4.11	ug/Kg	7/22/2019	19:35
Dichlorodifluoromethane	< 4.11	ug/Kg	7/22/2019	19:35
Ethylbenzene	< 4.11	ug/Kg	7/22/2019	19:35
Freon 113	< 4.11	ug/Kg	7/22/2019	19:35
Isopropylbenzene	< 4.11	ug/Kg	7/22/2019	19:35
m,p-Xylene	< 4.11	ug/Kg	7/22/2019	19:35
Methyl acetate	< 4.11	ug/Kg	7/22/2019	19:35
Methyl tert-butyl Ether	< 4.11	ug/Kg	7/22/2019	19:35
Methylcyclohexane	< 4.11	ug/Kg	7/22/2019	19:35
Methylene chloride	< 10.3	ug/Kg	7/22/2019	19:35
Naphthalene	< 10.3	ug/Kg	7/22/2019	19:35
n-Butylbenzene	< 4.11	ug/Kg	7/22/2019	19:35
n-Propylbenzene	< 4.11	ug/Kg	7/22/2019	19:35

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-15				
Lab Sample ID:	193386-15			Date Sampled:	7/18/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.11	ug/Kg		7/22/2019	19:35
p-Isopropyltoluene	< 4.11	ug/Kg		7/22/2019	19:35
sec-Butylbenzene	< 4.11	ug/Kg		7/22/2019	19:35
Styrene	< 10.3	ug/Kg		7/22/2019	19:35
tert-Butylbenzene	< 4.11	ug/Kg		7/22/2019	19:35
Tetrachloroethene	< 4.11	ug/Kg		7/22/2019	19:35
Toluene	< 4.11	ug/Kg		7/22/2019	19:35
trans-1,2-Dichloroethene	< 4.11	ug/Kg		7/22/2019	19:35
trans-1,3-Dichloropropene	< 4.11	ug/Kg		7/22/2019	19:35
Trichloroethene	< 4.11	ug/Kg		7/22/2019	19:35
Trichlorofluoromethane	< 4.11	ug/Kg		7/22/2019	19:35
Vinyl chloride	< 4.11	ug/Kg		7/22/2019	19:35
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>112</b>	71 - 141		7/22/2019 19:35
4-Bromofluorobenzene		<b>87.7</b>	60.2 - 128		7/22/2019 19:35
Pentafluorobenzene		<b>94.9</b>	86.6 - 111		7/22/2019 19:35
Toluene-D8		<b>93.2</b>	77.5 - 115		7/22/2019 19:35

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62802.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-16

Lab Sample ID: 193386-16

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.08	ug/Kg		7/22/2019 19:58
1,1,2,2-Tetrachloroethane	< 4.08	ug/Kg		7/22/2019 19:58
1,1,2-Trichloroethane	< 4.08	ug/Kg		7/22/2019 19:58
1,1-Dichloroethane	< 4.08	ug/Kg		7/22/2019 19:58
1,1-Dichloroethene	< 4.08	ug/Kg		7/22/2019 19:58
1,2,3-Trichlorobenzene	< 10.2	ug/Kg		7/22/2019 19:58
1,2,4-Trichlorobenzene	< 10.2	ug/Kg		7/22/2019 19:58
1,2,4-Trimethylbenzene	< 4.08	ug/Kg		7/22/2019 19:58
1,2-Dibromo-3-Chloropropane	< 20.4	ug/Kg		7/22/2019 19:58
1,2-Dibromoethane	< 4.08	ug/Kg		7/22/2019 19:58
1,2-Dichlorobenzene	< 4.08	ug/Kg		7/22/2019 19:58
1,2-Dichloroethane	< 4.08	ug/Kg		7/22/2019 19:58
1,2-Dichloropropane	< 4.08	ug/Kg		7/22/2019 19:58
1,3,5-Trimethylbenzene	< 4.08	ug/Kg		7/22/2019 19:58
1,3-Dichlorobenzene	< 4.08	ug/Kg		7/22/2019 19:58
1,4-Dichlorobenzene	< 4.08	ug/Kg		7/22/2019 19:58
1,4-Dioxane	< 40.8	ug/Kg		7/22/2019 19:58
2-Butanone	< 20.4	ug/Kg		7/22/2019 19:58
2-Hexanone	< 10.2	ug/Kg		7/22/2019 19:58
4-Methyl-2-pentanone	< 10.2	ug/Kg		7/22/2019 19:58
Acetone	< 20.4	ug/Kg		7/22/2019 19:58
Benzene	< 4.08	ug/Kg		7/22/2019 19:58
Bromochloromethane	< 10.2	ug/Kg		7/22/2019 19:58

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-16			
Lab Sample ID:	193386-16		Date Sampled:	7/18/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.08	ug/Kg	7/22/2019	19:58
Bromoform	< 10.2	ug/Kg	7/22/2019	19:58
Bromomethane	< 4.08	ug/Kg	7/22/2019	19:58
Carbon disulfide	< 4.08	ug/Kg	7/22/2019	19:58
Carbon Tetrachloride	< 4.08	ug/Kg	7/22/2019	19:58
Chlorobenzene	< 4.08	ug/Kg	7/22/2019	19:58
Chloroethane	< 4.08	ug/Kg	7/22/2019	19:58
Chloroform	< 4.08	ug/Kg	7/22/2019	19:58
Chloromethane	< 4.08	ug/Kg	7/22/2019	19:58
cis-1,2-Dichloroethene	< 4.08	ug/Kg	7/22/2019	19:58
cis-1,3-Dichloropropene	< 4.08	ug/Kg	7/22/2019	19:58
Cyclohexane	< 20.4	ug/Kg	7/22/2019	19:58
Dibromochloromethane	< 4.08	ug/Kg	7/22/2019	19:58
Dichlorodifluoromethane	< 4.08	ug/Kg	7/22/2019	19:58
Ethylbenzene	< 4.08	ug/Kg	7/22/2019	19:58
Freon 113	< 4.08	ug/Kg	7/22/2019	19:58
Isopropylbenzene	< 4.08	ug/Kg	7/22/2019	19:58
m,p-Xylene	< 4.08	ug/Kg	7/22/2019	19:58
Methyl acetate	< 4.08	ug/Kg	7/22/2019	19:58
Methyl tert-butyl Ether	< 4.08	ug/Kg	7/22/2019	19:58
Methylcyclohexane	< 4.08	ug/Kg	7/22/2019	19:58
Methylene chloride	< 10.2	ug/Kg	7/22/2019	19:58
Naphthalene	< 10.2	ug/Kg	7/22/2019	19:58
n-Butylbenzene	< 4.08	ug/Kg	7/22/2019	19:58
n-Propylbenzene	< 4.08	ug/Kg	7/22/2019	19:58

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-16				
Lab Sample ID:	193386-16		Date Sampled:	7/18/2019	
Matrix:	Soil		Date Received:	7/19/2019	
o-Xylene	< 4.08	ug/Kg		7/22/2019	19:58
p-Isopropyltoluene	< 4.08	ug/Kg		7/22/2019	19:58
sec-Butylbenzene	< 4.08	ug/Kg		7/22/2019	19:58
Styrene	< 10.2	ug/Kg		7/22/2019	19:58
tert-Butylbenzene	< 4.08	ug/Kg		7/22/2019	19:58
Tetrachloroethene	< 4.08	ug/Kg		7/22/2019	19:58
Toluene	< 4.08	ug/Kg		7/22/2019	19:58
trans-1,2-Dichloroethene	< 4.08	ug/Kg		7/22/2019	19:58
trans-1,3-Dichloropropene	< 4.08	ug/Kg		7/22/2019	19:58
Trichloroethene	< 4.08	ug/Kg		7/22/2019	19:58
Trichlorofluoromethane	< 4.08	ug/Kg		7/22/2019	19:58
Vinyl chloride	< 4.08	ug/Kg		7/22/2019	19:58
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	111	71 - 141		7/22/2019	19:58
4-Bromofluorobenzene	83.2	60.2 - 128		7/22/2019	19:58
Pentafluorobenzene	97.6	86.6 - 111		7/22/2019	19:58
Toluene-D8	93.5	77.5 - 115		7/22/2019	19:58

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62803.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-17

Lab Sample ID: 193386-17

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.00897	mg/Kg		7/22/2019 10:08

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-17

Lab Sample ID: 193386-17

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	4140	mg/Kg		7/23/2019 11:10
Antimony	< 3.38	mg/Kg		7/23/2019 11:10
Arsenic	1.80	mg/Kg		7/23/2019 11:10
Barium	32.5	mg/Kg		7/23/2019 11:10
Beryllium	0.240	mg/Kg	J	7/23/2019 11:10
Cadmium	< 0.281	mg/Kg		7/23/2019 20:54
Calcium	47200	mg/Kg		7/23/2019 19:20
Chromium	5.71	mg/Kg		7/23/2019 11:10
Cobalt	3.17	mg/Kg		7/23/2019 11:10
Copper	8.56	mg/Kg		7/23/2019 11:10
Iron	8530	mg/Kg		7/23/2019 11:10
Lead	1.90	mg/Kg		7/23/2019 11:10
Magnesium	10400	mg/Kg		7/23/2019 11:10
Manganese	267	mg/Kg		7/23/2019 11:10
Nickel	5.71	mg/Kg		7/23/2019 11:10
Potassium	1130	mg/Kg		7/23/2019 11:10
Selenium	0.827	mg/Kg	J	7/23/2019 11:10
Silver	< 0.563	mg/Kg		7/23/2019 11:10
Sodium	101	mg/Kg	J	7/23/2019 11:10
Thallium	1.48	mg/Kg		7/23/2019 20:54
Vanadium	9.57	mg/Kg		7/23/2019 11:10
Zinc	18.3	mg/Kg		7/23/2019 11:10

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-17

**Lab Sample ID:** 193386-17

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-17

Lab Sample ID: 193386-17

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.37	ug/Kg		7/22/2019 20:21
1,1,2,2-Tetrachloroethane	< 4.37	ug/Kg		7/22/2019 20:21
1,1,2-Trichloroethane	< 4.37	ug/Kg		7/22/2019 20:21
1,1-Dichloroethane	< 4.37	ug/Kg		7/22/2019 20:21
1,1-Dichloroethene	< 4.37	ug/Kg		7/22/2019 20:21
1,2,3-Trichlorobenzene	< 10.9	ug/Kg		7/22/2019 20:21
1,2,4-Trichlorobenzene	< 10.9	ug/Kg		7/22/2019 20:21
1,2,4-Trimethylbenzene	< 4.37	ug/Kg		7/22/2019 20:21
1,2-Dibromo-3-Chloropropane	< 21.9	ug/Kg		7/22/2019 20:21
1,2-Dibromoethane	< 4.37	ug/Kg		7/22/2019 20:21
1,2-Dichlorobenzene	< 4.37	ug/Kg		7/22/2019 20:21
1,2-Dichloroethane	< 4.37	ug/Kg		7/22/2019 20:21
1,2-Dichloropropane	< 4.37	ug/Kg		7/22/2019 20:21
1,3,5-Trimethylbenzene	< 4.37	ug/Kg		7/22/2019 20:21
1,3-Dichlorobenzene	< 4.37	ug/Kg		7/22/2019 20:21
1,4-Dichlorobenzene	< 4.37	ug/Kg		7/22/2019 20:21
1,4-Dioxane	< 43.7	ug/Kg		7/22/2019 20:21
2-Butanone	< 21.9	ug/Kg		7/22/2019 20:21
2-Hexanone	< 10.9	ug/Kg		7/22/2019 20:21
4-Methyl-2-pentanone	< 10.9	ug/Kg		7/22/2019 20:21
Acetone	< 21.9	ug/Kg		7/22/2019 20:21
Benzene	< 4.37	ug/Kg		7/22/2019 20:21
Bromochloromethane	< 10.9	ug/Kg		7/22/2019 20:21

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-17			
<b>Lab Sample ID:</b>	193386-17		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Bromodichloromethane	< 4.37	ug/Kg	7/22/2019	20:21
Bromoform	< 10.9	ug/Kg	7/22/2019	20:21
Bromomethane	< 4.37	ug/Kg	7/22/2019	20:21
Carbon disulfide	< 4.37	ug/Kg	7/22/2019	20:21
Carbon Tetrachloride	< 4.37	ug/Kg	7/22/2019	20:21
Chlorobenzene	< 4.37	ug/Kg	7/22/2019	20:21
Chloroethane	< 4.37	ug/Kg	7/22/2019	20:21
Chloroform	< 4.37	ug/Kg	7/22/2019	20:21
Chloromethane	< 4.37	ug/Kg	7/22/2019	20:21
cis-1,2-Dichloroethene	< 4.37	ug/Kg	7/22/2019	20:21
cis-1,3-Dichloropropene	< 4.37	ug/Kg	7/22/2019	20:21
Cyclohexane	< 21.9	ug/Kg	7/22/2019	20:21
Dibromochloromethane	< 4.37	ug/Kg	7/22/2019	20:21
Dichlorodifluoromethane	< 4.37	ug/Kg	7/22/2019	20:21
Ethylbenzene	< 4.37	ug/Kg	7/22/2019	20:21
Freon 113	< 4.37	ug/Kg	7/22/2019	20:21
Isopropylbenzene	< 4.37	ug/Kg	7/22/2019	20:21
m,p-Xylene	< 4.37	ug/Kg	7/22/2019	20:21
Methyl acetate	< 4.37	ug/Kg	7/22/2019	20:21
Methyl tert-butyl Ether	< 4.37	ug/Kg	7/22/2019	20:21
Methylcyclohexane	< 4.37	ug/Kg	7/22/2019	20:21
Methylene chloride	< 10.9	ug/Kg	7/22/2019	20:21
Naphthalene	< 10.9	ug/Kg	7/22/2019	20:21
n-Butylbenzene	< 4.37	ug/Kg	7/22/2019	20:21
n-Propylbenzene	< 4.37	ug/Kg	7/22/2019	20:21

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-17			
Lab Sample ID:	193386-17		Date Sampled:	7/18/2019
Matrix:	Soil		Date Received:	7/19/2019
o-Xylene	< 4.37	ug/Kg	7/22/2019	20:21
p-Isopropyltoluene	< 4.37	ug/Kg	7/22/2019	20:21
sec-Butylbenzene	< 4.37	ug/Kg	7/22/2019	20:21
Styrene	< 10.9	ug/Kg	7/22/2019	20:21
tert-Butylbenzene	< 4.37	ug/Kg	7/22/2019	20:21
Tetrachloroethene	< 4.37	ug/Kg	7/22/2019	20:21
Toluene	< 4.37	ug/Kg	7/22/2019	20:21
trans-1,2-Dichloroethene	< 4.37	ug/Kg	7/22/2019	20:21
trans-1,3-Dichloropropene	< 4.37	ug/Kg	7/22/2019	20:21
Trichloroethene	< 4.37	ug/Kg	7/22/2019	20:21
Trichlorofluoromethane	< 4.37	ug/Kg	7/22/2019	20:21
Vinyl chloride	< 4.37	ug/Kg	7/22/2019	20:21
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	110	71 - 141		7/22/2019 20:21
4-Bromofluorobenzene	89.2	60.2 - 128		7/22/2019 20:21
Pentafluorobenzene	94.5	86.6 - 111		7/22/2019 20:21
Toluene-D8	94.9	77.5 - 115		7/22/2019 20:21

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62804.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



**Lab Project ID: 193386**

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-18

**Lab Sample ID:** 193386-18

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.0498</b>	mg/Kg		7/22/2019 10:10

**Method Reference(s):** EPA 7471B

**Preparation Date:** 7/19/2019

**Data File:** Hg190722A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-18

Lab Sample ID: 193386-18

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	9880	mg/Kg		7/23/2019 11:15
Antimony	< 3.11	mg/Kg		7/23/2019 11:15
Arsenic	3.61	mg/Kg		7/23/2019 11:15
Barium	47.7	mg/Kg		7/23/2019 11:15
Beryllium	0.409	mg/Kg		7/23/2019 11:15
Cadmium	< 0.518	mg/Kg		7/24/2019 16:19
Calcium	2480	mg/Kg		7/23/2019 11:15
Chromium	8.35	mg/Kg		7/23/2019 11:15
Cobalt	5.31	mg/Kg		7/23/2019 11:15
Copper	7.10	mg/Kg		7/23/2019 11:15
Iron	16300	mg/Kg		7/23/2019 11:15
Lead	21.4	mg/Kg		7/23/2019 11:15
Magnesium	1780	mg/Kg		7/23/2019 11:15
Manganese	320	mg/Kg		7/23/2019 11:15
Nickel	7.51	mg/Kg		7/23/2019 11:15
Potassium	691	mg/Kg		7/23/2019 11:15
Selenium	< 1.04	mg/Kg		7/23/2019 11:15
Silver	< 0.518	mg/Kg		7/23/2019 11:15
Sodium	< 130	mg/Kg		7/23/2019 11:15
Thallium	< 1.30	mg/Kg		7/23/2019 20:58
Vanadium	15.9	mg/Kg		7/23/2019 11:15
Zinc	36.8	mg/Kg		7/23/2019 11:15

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-18

**Lab Sample ID:** 193386-18

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-18

Lab Sample ID: 193386-18

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**PCBs**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
PCB-1016	< 0.163	mg/Kg		7/23/2019 03:42
PCB-1221	< 0.163	mg/Kg		7/23/2019 03:42
PCB-1232	< 0.163	mg/Kg		7/23/2019 03:42
PCB-1242	< 0.163	mg/Kg		7/23/2019 03:42
PCB-1248	< 0.163	mg/Kg		7/23/2019 03:42
PCB-1254	< 0.163	mg/Kg		7/23/2019 03:42
PCB-1260	< 0.163	mg/Kg		7/23/2019 03:42
PCB-1262	< 0.163	mg/Kg		7/23/2019 03:42
PCB-1268	< 0.163	mg/Kg		7/23/2019 03:42

<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>
Tetrachloro-m-xylene	69.9	21.7 - 82.5		7/23/2019 03:42

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/22/2019

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-18

Lab Sample ID: 193386-18

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 302	ug/Kg		7/24/2019 03:03
1,2,4,5-Tetrachlorobenzene	< 302	ug/Kg		7/24/2019 03:03
1,2,4-Trichlorobenzene	< 302	ug/Kg		7/24/2019 03:03
1,2-Dichlorobenzene	< 302	ug/Kg		7/24/2019 03:03
1,3-Dichlorobenzene	< 302	ug/Kg		7/24/2019 03:03
1,4-Dichlorobenzene	< 302	ug/Kg		7/24/2019 03:03
2,2-Oxybis (1-chloropropane)	< 302	ug/Kg		7/24/2019 03:03
2,3,4,6-Tetrachlorophenol	< 302	ug/Kg		7/24/2019 03:03
2,4,5-Trichlorophenol	< 302	ug/Kg		7/24/2019 03:03
2,4,6-Trichlorophenol	< 302	ug/Kg		7/24/2019 03:03
2,4-Dichlorophenol	< 302	ug/Kg		7/24/2019 03:03
2,4-Dimethylphenol	< 302	ug/Kg		7/24/2019 03:03
2,4-Dinitrophenol	< 1210	ug/Kg		7/24/2019 03:03
2,4-Dinitrotoluene	< 302	ug/Kg		7/24/2019 03:03
2,6-Dinitrotoluene	< 302	ug/Kg		7/24/2019 03:03
2-Chloronaphthalene	< 302	ug/Kg		7/24/2019 03:03
2-Chlorophenol	< 302	ug/Kg		7/24/2019 03:03
2-Methylnaphthalene	< 302	ug/Kg		7/24/2019 03:03
2-Methylphenol	< 302	ug/Kg		7/24/2019 03:03
2-Nitroaniline	< 302	ug/Kg		7/24/2019 03:03
2-Nitrophenol	< 302	ug/Kg		7/24/2019 03:03
3&4-Methylphenol	< 302	ug/Kg		7/24/2019 03:03
3,3'-Dichlorobenzidine	< 302	ug/Kg		7/24/2019 03:03

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-18			
<b>Lab Sample ID:</b>	193386-18		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
3-Nitroaniline	< 302	ug/Kg	7/24/2019	03:03
4,6-Dinitro-2-methylphenol	< 603	ug/Kg	7/24/2019	03:03
4-Bromophenyl phenyl ether	< 302	ug/Kg	7/24/2019	03:03
4-Chloro-3-methylphenol	< 302	ug/Kg	7/24/2019	03:03
4-Chloroaniline	< 302	ug/Kg	7/24/2019	03:03
4-Chlorophenyl phenyl ether	< 302	ug/Kg	7/24/2019	03:03
4-Nitroaniline	< 302	ug/Kg	7/24/2019	03:03
4-Nitrophenol	< 302	ug/Kg	7/24/2019	03:03
Acenaphthene	< 302	ug/Kg	7/24/2019	03:03
Acenaphthylene	< 302	ug/Kg	7/24/2019	03:03
Acetophenone	< 302	ug/Kg	7/24/2019	03:03
Anthracene	< 302	ug/Kg	7/24/2019	03:03
Atrazine	< 302	ug/Kg	7/24/2019	03:03
Benzaldehyde	< 302	ug/Kg	7/24/2019	03:03
Benzo (a) anthracene	< 302	ug/Kg	7/24/2019	03:03
Benzo (a) pyrene	< 302	ug/Kg	7/24/2019	03:03
Benzo (b) fluoranthene	< 302	ug/Kg	7/24/2019	03:03
Benzo (g,h,i) perylene	< 302	ug/Kg	7/24/2019	03:03
Benzo (k) fluoranthene	< 302	ug/Kg	7/24/2019	03:03
Bis (2-chloroethoxy) methane	< 302	ug/Kg	7/24/2019	03:03
Bis (2-chloroethyl) ether	< 302	ug/Kg	7/24/2019	03:03
Bis (2-ethylhexyl) phthalate	< 302	ug/Kg	7/24/2019	03:03
Butylbenzylphthalate	< 302	ug/Kg	7/24/2019	03:03
Caprolactam	< 302	ug/Kg	7/24/2019	03:03
Carbazole	< 302	ug/Kg	7/24/2019	03:03

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-18			
<b>Lab Sample ID:</b>	193386-18		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Chrysene	< 302	ug/Kg	7/24/2019	03:03
Dibenz (a,h) anthracene	< 302	ug/Kg	7/24/2019	03:03
Dibenzofuran	< 302	ug/Kg	7/24/2019	03:03
Diethyl phthalate	< 302	ug/Kg	7/24/2019	03:03
Dimethyl phthalate	< 302	ug/Kg	7/24/2019	03:03
Di-n-butyl phthalate	< 302	ug/Kg	7/24/2019	03:03
Di-n-octylphthalate	< 302	ug/Kg	7/24/2019	03:03
Fluoranthene	< 302	ug/Kg	7/24/2019	03:03
Fluorene	< 302	ug/Kg	7/24/2019	03:03
Hexachlorobenzene	< 302	ug/Kg	7/24/2019	03:03
Hexachlorobutadiene	< 302	ug/Kg	7/24/2019	03:03
Hexachlorocyclopentadiene	< 1210	ug/Kg	7/24/2019	03:03
Hexachloroethane	< 302	ug/Kg	7/24/2019	03:03
Indeno (1,2,3-cd) pyrene	< 302	ug/Kg	7/24/2019	03:03
Isophorone	< 302	ug/Kg	7/24/2019	03:03
Naphthalene	< 302	ug/Kg	7/24/2019	03:03
Nitrobenzene	< 302	ug/Kg	7/24/2019	03:03
N-Nitroso-di-n-propylamine	< 302	ug/Kg	7/24/2019	03:03
N-Nitrosodiphenylamine	< 302	ug/Kg	7/24/2019	03:03
Pentachlorophenol	< 603	ug/Kg	7/24/2019	03:03
Phenanthrene	< 302	ug/Kg	7/24/2019	03:03
Phenol	< 302	ug/Kg	7/24/2019	03:03
Pyrene	< 302	ug/Kg	7/24/2019	03:03

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** SS-18

**Lab Sample ID:** 193386-18

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
2,4,6-Tribromophenol	57.5	34.9 - 92.6		7/24/2019 03:03
2-Fluorobiphenyl	54.8	39 - 77.6		7/24/2019 03:03
2-Fluorophenol	57.4	39.1 - 76.8		7/24/2019 03:03
Nitrobenzene-d5	51.9	35.4 - 75.3		7/24/2019 03:03
Phenol-d5	58.1	40.4 - 77.7		7/24/2019 03:03
Terphenyl-d14	61.2	42 - 93.5		7/24/2019 03:03

**Method Reference(s):** EPA 8270D

EPA 3546

**Preparation Date:** 7/22/2019

**Data File:** B39094.D

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-18

Lab Sample ID: 193386-18

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.71	ug/Kg		7/22/2019 20:43
1,1,2,2-Tetrachloroethane	< 4.71	ug/Kg		7/22/2019 20:43
1,1,2-Trichloroethane	< 4.71	ug/Kg		7/22/2019 20:43
1,1-Dichloroethane	< 4.71	ug/Kg		7/22/2019 20:43
1,1-Dichloroethene	< 4.71	ug/Kg		7/22/2019 20:43
1,2,3-Trichlorobenzene	< 11.8	ug/Kg		7/22/2019 20:43
1,2,4-Trichlorobenzene	< 11.8	ug/Kg		7/22/2019 20:43
1,2,4-Trimethylbenzene	< 4.71	ug/Kg		7/22/2019 20:43
1,2-Dibromo-3-Chloropropane	< 23.6	ug/Kg		7/22/2019 20:43
1,2-Dibromoethane	< 4.71	ug/Kg		7/22/2019 20:43
1,2-Dichlorobenzene	< 4.71	ug/Kg		7/22/2019 20:43
1,2-Dichloroethane	< 4.71	ug/Kg		7/22/2019 20:43
1,2-Dichloropropane	< 4.71	ug/Kg		7/22/2019 20:43
1,3,5-Trimethylbenzene	< 4.71	ug/Kg		7/22/2019 20:43
1,3-Dichlorobenzene	< 4.71	ug/Kg		7/22/2019 20:43
1,4-Dichlorobenzene	< 4.71	ug/Kg		7/22/2019 20:43
1,4-Dioxane	< 47.1	ug/Kg		7/22/2019 20:43
2-Butanone	< 23.6	ug/Kg		7/22/2019 20:43
2-Hexanone	< 11.8	ug/Kg		7/22/2019 20:43
4-Methyl-2-pentanone	< 11.8	ug/Kg		7/22/2019 20:43
Acetone	< 23.6	ug/Kg		7/22/2019 20:43
Benzene	< 4.71	ug/Kg		7/22/2019 20:43
Bromochloromethane	< 11.8	ug/Kg		7/22/2019 20:43

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-18		
Lab Sample ID:	193386-18	Date Sampled:	7/18/2019
Matrix:	Soil	Date Received:	7/19/2019
Bromodichloromethane	< 4.71	ug/Kg	7/22/2019 20:43
Bromoform	< 11.8	ug/Kg	7/22/2019 20:43
Bromomethane	< 4.71	ug/Kg	7/22/2019 20:43
Carbon disulfide	< 4.71	ug/Kg	7/22/2019 20:43
Carbon Tetrachloride	< 4.71	ug/Kg	7/22/2019 20:43
Chlorobenzene	< 4.71	ug/Kg	7/22/2019 20:43
Chloroethane	< 4.71	ug/Kg	7/22/2019 20:43
Chloroform	< 4.71	ug/Kg	7/22/2019 20:43
Chloromethane	< 4.71	ug/Kg	7/22/2019 20:43
cis-1,2-Dichloroethene	< 4.71	ug/Kg	7/22/2019 20:43
cis-1,3-Dichloropropene	< 4.71	ug/Kg	7/22/2019 20:43
Cyclohexane	< 23.6	ug/Kg	7/22/2019 20:43
Dibromochloromethane	< 4.71	ug/Kg	7/22/2019 20:43
Dichlorodifluoromethane	< 4.71	ug/Kg	7/22/2019 20:43
Ethylbenzene	< 4.71	ug/Kg	7/22/2019 20:43
Freon 113	< 4.71	ug/Kg	7/22/2019 20:43
Isopropylbenzene	< 4.71	ug/Kg	7/22/2019 20:43
m,p-Xylene	< 4.71	ug/Kg	7/22/2019 20:43
Methyl acetate	< 4.71	ug/Kg	7/22/2019 20:43
Methyl tert-butyl Ether	< 4.71	ug/Kg	7/22/2019 20:43
Methylcyclohexane	< 4.71	ug/Kg	7/22/2019 20:43
Methylene chloride	< 11.8	ug/Kg	7/22/2019 20:43
Naphthalene	< 11.8	ug/Kg	7/22/2019 20:43
n-Butylbenzene	< 4.71	ug/Kg	7/22/2019 20:43
n-Propylbenzene	< 4.71	ug/Kg	7/22/2019 20:43

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-18				
Lab Sample ID:	193386-18			Date Sampled:	7/18/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.71	ug/Kg		7/22/2019	20:43
p-Isopropyltoluene	< 4.71	ug/Kg		7/22/2019	20:43
sec-Butylbenzene	< 4.71	ug/Kg		7/22/2019	20:43
Styrene	< 11.8	ug/Kg		7/22/2019	20:43
tert-Butylbenzene	< 4.71	ug/Kg		7/22/2019	20:43
Tetrachloroethene	< 4.71	ug/Kg		7/22/2019	20:43
Toluene	< 4.71	ug/Kg		7/22/2019	20:43
trans-1,2-Dichloroethene	< 4.71	ug/Kg		7/22/2019	20:43
trans-1,3-Dichloropropene	< 4.71	ug/Kg		7/22/2019	20:43
Trichloroethene	< 4.71	ug/Kg		7/22/2019	20:43
Trichlorofluoromethane	< 4.71	ug/Kg		7/22/2019	20:43
Vinyl chloride	< 4.71	ug/Kg		7/22/2019	20:43
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>111</b>	71 - 141		7/22/2019 20:43
4-Bromofluorobenzene		<b>78.3</b>	60.2 - 128		7/22/2019 20:43
Pentafluorobenzene		<b>92.7</b>	86.6 - 111		7/22/2019 20:43
Toluene-D8		<b>92.0</b>	77.5 - 115		7/22/2019 20:43

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62805.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-19

Lab Sample ID: 193386-19

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	<b>0.181</b>	mg/Kg		7/22/2019 10:12

Method Reference(s): EPA 7471B

Preparation Date: 7/19/2019

Data File: Hg190722A

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*Report Prepared Friday, July 26, 2019*





Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-19

Lab Sample ID: 193386-19

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	12600	mg/Kg		7/23/2019 11:19
Antimony	2.10	mg/Kg	J	7/23/2019 11:19
Arsenic	1.39	mg/Kg		7/23/2019 11:19
Barium	83.5	mg/Kg		7/23/2019 11:19
Beryllium	1.22	mg/Kg		7/23/2019 11:19
Cadmium	< 0.279	mg/Kg		7/23/2019 21:12
Calcium	11300	mg/Kg		7/23/2019 11:19
Chromium	5.99	mg/Kg		7/23/2019 11:19
Cobalt	12.4	mg/Kg		7/23/2019 11:19
Copper	16.3	mg/Kg		7/23/2019 11:19
Iron	33100	mg/Kg		7/23/2019 19:25
Lead	15.8	mg/Kg		7/23/2019 11:19
Magnesium	4510	mg/Kg		7/23/2019 11:19
Manganese	793	mg/Kg		7/25/2019 19:25
Nickel	12.7	mg/Kg		7/23/2019 11:19
Potassium	1900	mg/Kg		7/23/2019 11:19
Selenium	< 1.12	mg/Kg		7/23/2019 11:19
Silver	< 1.12	mg/Kg		7/23/2019 19:25
Sodium	370	mg/Kg		7/23/2019 11:19
Thallium	< 1.40	mg/Kg		7/23/2019 11:19
Vanadium	< 1.40	mg/Kg		7/23/2019 21:12
Zinc	66.1	mg/Kg		7/23/2019 11:19

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-19

**Lab Sample ID:** 193386-19

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-19

Lab Sample ID: 193386-19

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**PCBs**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
PCB-1016	< 0.138	mg/Kg		7/23/2019 04:05
PCB-1221	< 0.138	mg/Kg		7/23/2019 04:05
PCB-1232	< 0.138	mg/Kg		7/23/2019 04:05
PCB-1242	< 0.138	mg/Kg		7/23/2019 04:05
PCB-1248	< 0.138	mg/Kg		7/23/2019 04:05
PCB-1254	< 0.138	mg/Kg		7/23/2019 04:05
PCB-1260	< 0.138	mg/Kg		7/23/2019 04:05
PCB-1262	< 0.138	mg/Kg		7/23/2019 04:05
PCB-1268	< 0.138	mg/Kg		7/23/2019 04:05

<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>
Tetrachloro-m-xylene	70.0	21.7 - 82.5		7/23/2019 04:05

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/22/2019

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-19

Lab Sample ID: 193386-19

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 307	ug/Kg		7/24/2019 06:51
1,2,4,5-Tetrachlorobenzene	< 307	ug/Kg		7/24/2019 06:51
1,2,4-Trichlorobenzene	< 307	ug/Kg		7/24/2019 06:51
1,2-Dichlorobenzene	< 307	ug/Kg		7/24/2019 06:51
1,3-Dichlorobenzene	< 307	ug/Kg		7/24/2019 06:51
1,4-Dichlorobenzene	< 307	ug/Kg		7/24/2019 06:51
2,2-Oxybis (1-chloropropane)	< 307	ug/Kg		7/24/2019 06:51
2,3,4,6-Tetrachlorophenol	< 307	ug/Kg		7/24/2019 06:51
2,4,5-Trichlorophenol	< 307	ug/Kg		7/24/2019 06:51
2,4,6-Trichlorophenol	< 307	ug/Kg		7/24/2019 06:51
2,4-Dichlorophenol	< 307	ug/Kg		7/24/2019 06:51
2,4-Dimethylphenol	< 307	ug/Kg		7/24/2019 06:51
2,4-Dinitrophenol	< 1230	ug/Kg		7/24/2019 06:51
2,4-Dinitrotoluene	< 307	ug/Kg		7/24/2019 06:51
2,6-Dinitrotoluene	< 307	ug/Kg		7/24/2019 06:51
2-Chloronaphthalene	< 307	ug/Kg		7/24/2019 06:51
2-Chlorophenol	< 307	ug/Kg		7/24/2019 06:51
2-Methylnaphthalene	< 307	ug/Kg		7/24/2019 06:51
2-Methylphenol	< 307	ug/Kg		7/24/2019 06:51
2-Nitroaniline	< 307	ug/Kg		7/24/2019 06:51
2-Nitrophenol	< 307	ug/Kg		7/24/2019 06:51
3&4-Methylphenol	< 307	ug/Kg		7/24/2019 06:51
3,3'-Dichlorobenzidine	< 307	ug/Kg		7/24/2019 06:51

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-19			
<b>Lab Sample ID:</b>	193386-19		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
3-Nitroaniline	< 307	ug/Kg	7/24/2019	06:51
4,6-Dinitro-2-methylphenol	< 614	ug/Kg	7/24/2019	06:51
4-Bromophenyl phenyl ether	< 307	ug/Kg	7/24/2019	06:51
4-Chloro-3-methylphenol	< 307	ug/Kg	7/24/2019	06:51
4-Chloroaniline	< 307	ug/Kg	7/24/2019	06:51
4-Chlorophenyl phenyl ether	< 307	ug/Kg	7/24/2019	06:51
4-Nitroaniline	< 307	ug/Kg	7/24/2019	06:51
4-Nitrophenol	< 307	ug/Kg	7/24/2019	06:51
Acenaphthene	< 307	ug/Kg	7/24/2019	06:51
Acenaphthylene	< 307	ug/Kg	7/24/2019	06:51
Acetophenone	< 307	ug/Kg	7/24/2019	06:51
Anthracene	< 307	ug/Kg	7/24/2019	06:51
Atrazine	< 307	ug/Kg	7/24/2019	06:51
Benzaldehyde	< 307	ug/Kg	7/24/2019	06:51
Benzo (a) anthracene	< 307	ug/Kg	7/24/2019	06:51
Benzo (a) pyrene	< 307	ug/Kg	7/24/2019	06:51
Benzo (b) fluoranthene	< 307	ug/Kg	7/24/2019	06:51
Benzo (g,h,i) perylene	< 307	ug/Kg	7/24/2019	06:51
Benzo (k) fluoranthene	< 307	ug/Kg	7/24/2019	06:51
Bis (2-chloroethoxy) methane	< 307	ug/Kg	7/24/2019	06:51
Bis (2-chloroethyl) ether	< 307	ug/Kg	7/24/2019	06:51
Bis (2-ethylhexyl) phthalate	< 307	ug/Kg	7/24/2019	06:51
Butylbenzylphthalate	< 307	ug/Kg	7/24/2019	06:51
Caprolactam	< 307	ug/Kg	7/24/2019	06:51
Carbazole	< 307	ug/Kg	7/24/2019	06:51

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-19			
<b>Lab Sample ID:</b>	193386-19		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Chrysene	< 307	ug/Kg	7/24/2019	06:51
Dibenz (a,h) anthracene	< 307	ug/Kg	7/24/2019	06:51
Dibenzofuran	< 307	ug/Kg	7/24/2019	06:51
Diethyl phthalate	< 307	ug/Kg	7/24/2019	06:51
Dimethyl phthalate	< 307	ug/Kg	7/24/2019	06:51
Di-n-butyl phthalate	< 307	ug/Kg	7/24/2019	06:51
Di-n-octylphthalate	< 307	ug/Kg	7/24/2019	06:51
Fluoranthene	< 307	ug/Kg	7/24/2019	06:51
Fluorene	< 307	ug/Kg	7/24/2019	06:51
Hexachlorobenzene	< 307	ug/Kg	7/24/2019	06:51
Hexachlorobutadiene	< 307	ug/Kg	7/24/2019	06:51
Hexachlorocyclopentadiene	< 1230	ug/Kg	7/24/2019	06:51
Hexachloroethane	< 307	ug/Kg	7/24/2019	06:51
Indeno (1,2,3-cd) pyrene	< 307	ug/Kg	7/24/2019	06:51
Isophorone	< 307	ug/Kg	7/24/2019	06:51
Naphthalene	< 307	ug/Kg	7/24/2019	06:51
Nitrobenzene	< 307	ug/Kg	7/24/2019	06:51
N-Nitroso-di-n-propylamine	< 307	ug/Kg	7/24/2019	06:51
N-Nitrosodiphenylamine	< 307	ug/Kg	7/24/2019	06:51
Pentachlorophenol	< 614	ug/Kg	7/24/2019	06:51
Phenanthrene	< 307	ug/Kg	7/24/2019	06:51
Phenol	< 307	ug/Kg	7/24/2019	06:51
Pyrene	< 307	ug/Kg	7/24/2019	06:51

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** SS-19

**Lab Sample ID:** 193386-19

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
2,4,6-Tribromophenol	<b>64.2</b>	34.9 - 92.6		7/24/2019 06:51
2-Fluorobiphenyl	<b>60.1</b>	39 - 77.6		7/24/2019 06:51
2-Fluorophenol	<b>62.9</b>	39.1 - 76.8		7/24/2019 06:51
Nitrobenzene-d5	<b>57.5</b>	35.4 - 75.3		7/24/2019 06:51
Phenol-d5	<b>62.8</b>	40.4 - 77.7		7/24/2019 06:51
Terphenyl-d14	<b>68.5</b>	42 - 93.5		7/24/2019 06:51

**Method Reference(s):** EPA 8270D

EPA 3546

**Preparation Date:** 7/22/2019

**Data File:** B39102.D

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-19

Lab Sample ID: 193386-19

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.08	ug/Kg		7/22/2019 21:06
1,1,2,2-Tetrachloroethane	< 4.08	ug/Kg		7/22/2019 21:06
1,1,2-Trichloroethane	< 4.08	ug/Kg		7/22/2019 21:06
1,1-Dichloroethane	< 4.08	ug/Kg		7/22/2019 21:06
1,1-Dichloroethene	< 4.08	ug/Kg		7/22/2019 21:06
1,2,3-Trichlorobenzene	< 10.2	ug/Kg		7/22/2019 21:06
1,2,4-Trichlorobenzene	< 10.2	ug/Kg		7/22/2019 21:06
1,2,4-Trimethylbenzene	< 4.08	ug/Kg		7/22/2019 21:06
1,2-Dibromo-3-Chloropropane	< 20.4	ug/Kg		7/22/2019 21:06
1,2-Dibromoethane	< 4.08	ug/Kg		7/22/2019 21:06
1,2-Dichlorobenzene	< 4.08	ug/Kg		7/22/2019 21:06
1,2-Dichloroethane	< 4.08	ug/Kg		7/22/2019 21:06
1,2-Dichloropropane	< 4.08	ug/Kg		7/22/2019 21:06
1,3,5-Trimethylbenzene	< 4.08	ug/Kg		7/22/2019 21:06
1,3-Dichlorobenzene	< 4.08	ug/Kg		7/22/2019 21:06
1,4-Dichlorobenzene	< 4.08	ug/Kg		7/22/2019 21:06
1,4-Dioxane	< 40.8	ug/Kg		7/22/2019 21:06
2-Butanone	< 20.4	ug/Kg		7/22/2019 21:06
2-Hexanone	< 10.2	ug/Kg		7/22/2019 21:06
4-Methyl-2-pentanone	< 10.2	ug/Kg		7/22/2019 21:06
Acetone	< 20.4	ug/Kg		7/22/2019 21:06
Benzene	< 4.08	ug/Kg		7/22/2019 21:06
Bromochloromethane	< 10.2	ug/Kg		7/22/2019 21:06

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-19			
<b>Lab Sample ID:</b>	193386-19		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Bromodichloromethane	< 4.08	ug/Kg	7/22/2019	21:06
Bromoform	< 10.2	ug/Kg	7/22/2019	21:06
Bromomethane	< 4.08	ug/Kg	7/22/2019	21:06
Carbon disulfide	< 4.08	ug/Kg	7/22/2019	21:06
Carbon Tetrachloride	< 4.08	ug/Kg	7/22/2019	21:06
Chlorobenzene	< 4.08	ug/Kg	7/22/2019	21:06
Chloroethane	< 4.08	ug/Kg	7/22/2019	21:06
Chloroform	< 4.08	ug/Kg	7/22/2019	21:06
Chloromethane	< 4.08	ug/Kg	7/22/2019	21:06
cis-1,2-Dichloroethene	< 4.08	ug/Kg	7/22/2019	21:06
cis-1,3-Dichloropropene	< 4.08	ug/Kg	7/22/2019	21:06
Cyclohexane	< 20.4	ug/Kg	7/22/2019	21:06
Dibromochloromethane	< 4.08	ug/Kg	7/22/2019	21:06
Dichlorodifluoromethane	< 4.08	ug/Kg	7/22/2019	21:06
Ethylbenzene	< 4.08	ug/Kg	7/22/2019	21:06
Freon 113	< 4.08	ug/Kg	7/22/2019	21:06
Isopropylbenzene	< 4.08	ug/Kg	7/22/2019	21:06
m,p-Xylene	< 4.08	ug/Kg	7/22/2019	21:06
Methyl acetate	< 4.08	ug/Kg	7/22/2019	21:06
Methyl tert-butyl Ether	< 4.08	ug/Kg	7/22/2019	21:06
Methylcyclohexane	< 4.08	ug/Kg	7/22/2019	21:06
Methylene chloride	< 10.2	ug/Kg	7/22/2019	21:06
Naphthalene	< 10.2	ug/Kg	7/22/2019	21:06
n-Butylbenzene	< 4.08	ug/Kg	7/22/2019	21:06
n-Propylbenzene	< 4.08	ug/Kg	7/22/2019	21:06

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-19				
Lab Sample ID:	193386-19		Date Sampled:	7/18/2019	
Matrix:	Soil		Date Received:	7/19/2019	
o-Xylene	< 4.08	ug/Kg		7/22/2019	21:06
p-Isopropyltoluene	< 4.08	ug/Kg		7/22/2019	21:06
sec-Butylbenzene	< 4.08	ug/Kg		7/22/2019	21:06
Styrene	< 10.2	ug/Kg		7/22/2019	21:06
tert-Butylbenzene	< 4.08	ug/Kg		7/22/2019	21:06
Tetrachloroethene	< 4.08	ug/Kg		7/22/2019	21:06
Toluene	< 4.08	ug/Kg		7/22/2019	21:06
trans-1,2-Dichloroethene	< 4.08	ug/Kg		7/22/2019	21:06
trans-1,3-Dichloropropene	< 4.08	ug/Kg		7/22/2019	21:06
Trichloroethene	< 4.08	ug/Kg		7/22/2019	21:06
Trichlorofluoromethane	< 4.08	ug/Kg		7/22/2019	21:06
Vinyl chloride	< 4.08	ug/Kg		7/22/2019	21:06
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	110	71 - 141		7/22/2019	21:06
4-Bromofluorobenzene	87.6	60.2 - 128		7/22/2019	21:06
Pentafluorobenzene	90.9	86.6 - 111		7/22/2019	21:06
Toluene-D8	93.1	77.5 - 115		7/22/2019	21:06

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62806.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



**Lab Project ID: 193386**

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-20

**Lab Sample ID:** 193386-20

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.00493</b>	mg/Kg	J	7/22/2019 10:17

**Method Reference(s):** EPA 7471B

**Preparation Date:** 7/19/2019

**Data File:** Hg190722A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-20

Lab Sample ID: 193386-20

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	5490	mg/Kg		7/23/2019 11:24
Antimony	< 3.08	mg/Kg	M	7/23/2019 11:24
Arsenic	1.37	mg/Kg	M	7/23/2019 11:24
Barium	51.4	mg/Kg	DM	7/23/2019 11:24
Beryllium	0.346	mg/Kg	D	7/23/2019 11:24
Cadmium	< 0.256	mg/Kg	M	7/23/2019 21:16
Calcium	35500	mg/Kg		7/23/2019 19:29
Chromium	5.20	mg/Kg	M	7/23/2019 11:24
Cobalt	5.19	mg/Kg	DM	7/23/2019 11:24
Copper	14.3	mg/Kg	DM	7/23/2019 11:24
Iron	12200	mg/Kg	D	7/23/2019 11:24
Lead	1.05	mg/Kg	M	7/23/2019 11:24
Magnesium	5570	mg/Kg		7/23/2019 11:24
Manganese	371	mg/Kg	M	7/23/2019 11:24
Nickel	6.82	mg/Kg	M	7/23/2019 11:24
Potassium	905	mg/Kg		7/23/2019 11:24
Selenium	< 1.03	mg/Kg	M	7/23/2019 11:24
Silver	< 0.513	mg/Kg	M	7/23/2019 11:24
Sodium	579	mg/Kg	DM	7/23/2019 11:24
Thallium	0.928	mg/Kg	JM	7/23/2019 21:16
Vanadium	21.9	mg/Kg	DM	7/23/2019 11:24
Zinc	19.6	mg/Kg	M	7/23/2019 11:24

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Report Prepared Friday, July 26, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193386

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-20

**Lab Sample ID:** 193386-20

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/22/2019

**Data File:** 190723A

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-20

Lab Sample ID: 193386-20

Date Sampled: 7/18/2019

Matrix: Soil

Date Received: 7/19/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 305	ug/Kg		7/24/2019 07:20
1,2,4,5-Tetrachlorobenzene	< 305	ug/Kg		7/24/2019 07:20
1,2,4-Trichlorobenzene	< 305	ug/Kg		7/24/2019 07:20
1,2-Dichlorobenzene	< 305	ug/Kg		7/24/2019 07:20
1,3-Dichlorobenzene	< 305	ug/Kg		7/24/2019 07:20
1,4-Dichlorobenzene	< 305	ug/Kg		7/24/2019 07:20
2,2-Oxybis (1-chloropropane)	< 305	ug/Kg		7/24/2019 07:20
2,3,4,6-Tetrachlorophenol	< 305	ug/Kg		7/24/2019 07:20
2,4,5-Trichlorophenol	< 305	ug/Kg		7/24/2019 07:20
2,4,6-Trichlorophenol	< 305	ug/Kg		7/24/2019 07:20
2,4-Dichlorophenol	< 305	ug/Kg		7/24/2019 07:20
2,4-Dimethylphenol	< 305	ug/Kg		7/24/2019 07:20
2,4-Dinitrophenol	< 1220	ug/Kg		7/24/2019 07:20
2,4-Dinitrotoluene	< 305	ug/Kg		7/24/2019 07:20
2,6-Dinitrotoluene	< 305	ug/Kg		7/24/2019 07:20
2-Chloronaphthalene	< 305	ug/Kg		7/24/2019 07:20
2-Chlorophenol	< 305	ug/Kg		7/24/2019 07:20
2-Methylnaphthalene	< 305	ug/Kg		7/24/2019 07:20
2-Methylphenol	< 305	ug/Kg		7/24/2019 07:20
2-Nitroaniline	< 305	ug/Kg		7/24/2019 07:20
2-Nitrophenol	< 305	ug/Kg		7/24/2019 07:20
3&4-Methylphenol	< 305	ug/Kg		7/24/2019 07:20
3,3'-Dichlorobenzidine	< 305	ug/Kg		7/24/2019 07:20

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-20			
<b>Lab Sample ID:</b>	193386-20		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
3-Nitroaniline	< 305	ug/Kg	7/24/2019	07:20
4,6-Dinitro-2-methylphenol	< 611	ug/Kg	7/24/2019	07:20
4-Bromophenyl phenyl ether	< 305	ug/Kg	7/24/2019	07:20
4-Chloro-3-methylphenol	< 305	ug/Kg	7/24/2019	07:20
4-Chloroaniline	< 305	ug/Kg	7/24/2019	07:20
4-Chlorophenyl phenyl ether	< 305	ug/Kg	7/24/2019	07:20
4-Nitroaniline	< 305	ug/Kg	7/24/2019	07:20
4-Nitrophenol	< 305	ug/Kg	7/24/2019	07:20
Acenaphthene	< 305	ug/Kg	7/24/2019	07:20
Acenaphthylene	< 305	ug/Kg	7/24/2019	07:20
Acetophenone	< 305	ug/Kg	7/24/2019	07:20
Anthracene	< 305	ug/Kg	7/24/2019	07:20
Atrazine	< 305	ug/Kg	7/24/2019	07:20
Benzaldehyde	< 305	ug/Kg	7/24/2019	07:20
Benzo (a) anthracene	< 305	ug/Kg	7/24/2019	07:20
Benzo (a) pyrene	< 305	ug/Kg	7/24/2019	07:20
Benzo (b) fluoranthene	< 305	ug/Kg	7/24/2019	07:20
Benzo (g,h,i) perylene	< 305	ug/Kg	7/24/2019	07:20
Benzo (k) fluoranthene	< 305	ug/Kg	7/24/2019	07:20
Bis (2-chloroethoxy) methane	< 305	ug/Kg	7/24/2019	07:20
Bis (2-chloroethyl) ether	< 305	ug/Kg	7/24/2019	07:20
Bis (2-ethylhexyl) phthalate	< 305	ug/Kg	7/24/2019	07:20
Butylbenzylphthalate	< 305	ug/Kg	7/24/2019	07:20
Caprolactam	< 305	ug/Kg	7/24/2019	07:20
Carbazole	< 305	ug/Kg	7/24/2019	07:20

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-20			
<b>Lab Sample ID:</b>	193386-20		<b>Date Sampled:</b>	7/18/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/19/2019
Chrysene	< 305	ug/Kg	7/24/2019	07:20
Dibenz (a,h) anthracene	< 305	ug/Kg	7/24/2019	07:20
Dibenzofuran	< 305	ug/Kg	7/24/2019	07:20
Diethyl phthalate	< 305	ug/Kg	7/24/2019	07:20
Dimethyl phthalate	< 305	ug/Kg	7/24/2019	07:20
Di-n-butyl phthalate	< 305	ug/Kg	7/24/2019	07:20
Di-n-octylphthalate	< 305	ug/Kg	7/24/2019	07:20
Fluoranthene	< 305	ug/Kg	7/24/2019	07:20
Fluorene	< 305	ug/Kg	7/24/2019	07:20
Hexachlorobenzene	< 305	ug/Kg	7/24/2019	07:20
Hexachlorobutadiene	< 305	ug/Kg	7/24/2019	07:20
Hexachlorocyclopentadiene	< 1220	ug/Kg	7/24/2019	07:20
Hexachloroethane	< 305	ug/Kg	7/24/2019	07:20
Indeno (1,2,3-cd) pyrene	< 305	ug/Kg	7/24/2019	07:20
Isophorone	< 305	ug/Kg	7/24/2019	07:20
Naphthalene	< 305	ug/Kg	7/24/2019	07:20
Nitrobenzene	< 305	ug/Kg	7/24/2019	07:20
N-Nitroso-di-n-propylamine	< 305	ug/Kg	7/24/2019	07:20
N-Nitrosodiphenylamine	< 305	ug/Kg	7/24/2019	07:20
Pentachlorophenol	< 611	ug/Kg	7/24/2019	07:20
Phenanthrene	< 305	ug/Kg	7/24/2019	07:20
Phenol	< 305	ug/Kg	7/24/2019	07:20
Pyrene	< 305	ug/Kg	7/24/2019	07:20

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Report Prepared Friday, July 26, 2019





Lab Project ID: 193386

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** SS-20

**Lab Sample ID:** 193386-20

**Date Sampled:** 7/18/2019

**Matrix:** Soil

**Date Received:** 7/19/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>72.2</b>	34.9 - 92.6		7/24/2019	07:20
2-Fluorobiphenyl	<b>67.9</b>	39 - 77.6		7/24/2019	07:20
2-Fluorophenol	<b>69.4</b>	39.1 - 76.8		7/24/2019	07:20
Nitrobenzene-d5	<b>65.1</b>	35.4 - 75.3		7/24/2019	07:20
Phenol-d5	<b>70.4</b>	40.4 - 77.7		7/24/2019	07:20
Terphenyl-d14	<b>78.5</b>	42 - 93.5		7/24/2019	07:20

**Method Reference(s):** EPA 8270D

EPA 3546

**Preparation Date:** 7/22/2019

**Data File:** B39103.D

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*Report Prepared Friday, July 26, 2019*



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-20

Lab Sample ID: 193386-20

Matrix: Soil

Date Sampled: 7/18/2019

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.47	ug/Kg		7/23/2019 17:02
1,1,2,2-Tetrachloroethane	< 4.47	ug/Kg		7/23/2019 17:02
1,1,2-Trichloroethane	< 4.47	ug/Kg		7/23/2019 17:02
1,1-Dichloroethane	< 4.47	ug/Kg		7/23/2019 17:02
1,1-Dichloroethene	< 4.47	ug/Kg		7/23/2019 17:02
1,2,3-Trichlorobenzene	< 11.2	ug/Kg		7/23/2019 17:02
1,2,4-Trichlorobenzene	< 11.2	ug/Kg		7/23/2019 17:02
1,2,4-Trimethylbenzene	< 4.47	ug/Kg		7/23/2019 17:02
1,2-Dibromo-3-Chloropropane	< 22.4	ug/Kg		7/23/2019 17:02
1,2-Dibromoethane	< 4.47	ug/Kg		7/23/2019 17:02
1,2-Dichlorobenzene	< 4.47	ug/Kg		7/23/2019 17:02
1,2-Dichloroethane	< 4.47	ug/Kg		7/23/2019 17:02
1,2-Dichloropropane	< 4.47	ug/Kg		7/23/2019 17:02
1,3,5-Trimethylbenzene	< 4.47	ug/Kg		7/23/2019 17:02
1,3-Dichlorobenzene	< 4.47	ug/Kg		7/23/2019 17:02
1,4-Dichlorobenzene	< 4.47	ug/Kg		7/23/2019 17:02
1,4-Dioxane	< 44.7	ug/Kg		7/23/2019 17:02
2-Butanone	< 22.4	ug/Kg		7/23/2019 17:02
2-Hexanone	< 11.2	ug/Kg		7/23/2019 17:02
4-Methyl-2-pentanone	< 11.2	ug/Kg		7/23/2019 17:02
Acetone	< 22.4	ug/Kg		7/23/2019 17:02
Benzene	< 4.47	ug/Kg		7/23/2019 17:02
Bromochloromethane	< 11.2	ug/Kg		7/23/2019 17:02

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-20			
Lab Sample ID:	193386-20		Date Sampled:	7/18/2019
Matrix:	Soil		Date Received:	7/19/2019
Bromodichloromethane	< 4.47	ug/Kg	7/23/2019	17:02
Bromoform	< 11.2	ug/Kg	7/23/2019	17:02
Bromomethane	< 4.47	ug/Kg	7/23/2019	17:02
Carbon disulfide	< 4.47	ug/Kg	7/23/2019	17:02
Carbon Tetrachloride	< 4.47	ug/Kg	7/23/2019	17:02
Chlorobenzene	< 4.47	ug/Kg	7/23/2019	17:02
Chloroethane	< 4.47	ug/Kg	7/23/2019	17:02
Chloroform	< 4.47	ug/Kg	7/23/2019	17:02
Chloromethane	< 4.47	ug/Kg	7/23/2019	17:02
cis-1,2-Dichloroethene	< 4.47	ug/Kg	7/23/2019	17:02
cis-1,3-Dichloropropene	< 4.47	ug/Kg	7/23/2019	17:02
Cyclohexane	< 22.4	ug/Kg	7/23/2019	17:02
Dibromochloromethane	< 4.47	ug/Kg	7/23/2019	17:02
Dichlorodifluoromethane	< 4.47	ug/Kg	7/23/2019	17:02
Ethylbenzene	< 4.47	ug/Kg	7/23/2019	17:02
Freon 113	< 4.47	ug/Kg	7/23/2019	17:02
Isopropylbenzene	< 4.47	ug/Kg	7/23/2019	17:02
m,p-Xylene	< 4.47	ug/Kg	7/23/2019	17:02
Methyl acetate	< 4.47	ug/Kg	7/23/2019	17:02
Methyl tert-butyl Ether	< 4.47	ug/Kg	7/23/2019	17:02
Methylcyclohexane	< 4.47	ug/Kg	7/23/2019	17:02
Methylene chloride	< 11.2	ug/Kg	7/23/2019	17:02
Naphthalene	< 11.2	ug/Kg	7/23/2019	17:02
n-Butylbenzene	< 4.47	ug/Kg	7/23/2019	17:02
n-Propylbenzene	< 4.47	ug/Kg	7/23/2019	17:02

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Report Prepared Friday, July 26, 2019



Lab Project ID: 193386

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-20				
Lab Sample ID:	193386-20			Date Sampled:	7/18/2019
Matrix:	Soil			Date Received:	7/19/2019
o-Xylene	< 4.47	ug/Kg		7/23/2019	17:02
p-Isopropyltoluene	< 4.47	ug/Kg		7/23/2019	17:02
sec-Butylbenzene	< 4.47	ug/Kg		7/23/2019	17:02
Styrene	< 11.2	ug/Kg		7/23/2019	17:02
tert-Butylbenzene	< 4.47	ug/Kg		7/23/2019	17:02
Tetrachloroethene	< 4.47	ug/Kg		7/23/2019	17:02
Toluene	< 4.47	ug/Kg		7/23/2019	17:02
trans-1,2-Dichloroethene	< 4.47	ug/Kg		7/23/2019	17:02
trans-1,3-Dichloropropene	< 4.47	ug/Kg		7/23/2019	17:02
Trichloroethene	< 4.47	ug/Kg		7/23/2019	17:02
Trichlorofluoromethane	< 4.47	ug/Kg		7/23/2019	17:02
Vinyl chloride	< 4.47	ug/Kg		7/23/2019	17:02
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>103</b>	71 - 141		7/23/2019 17:02
4-Bromofluorobenzene		<b>88.6</b>	60.2 - 128		7/23/2019 17:02
Pentafluorobenzene		<b>99.7</b>	86.6 - 111		7/23/2019 17:02
Toluene-D8		<b>93.5</b>	77.5 - 115		7/23/2019 17:02

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x62856.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, July 26, 2019



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

# CHAIN OF CUSTODY

1 of 3

**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

REPORT TO:

INVOICE TO:

CLIENT: <u>Env</u>	CLIENT:	LAB PROJECT ID
ADDRESS:	ADDRESS:	<u>193386</u>
CITY:	CITY:	Quotation #:
STATE:	STATE:	
ZIP:	ZIP:	
PHONE:	PHONE:	
ATTN:	ATTN:	

PROJECT REFERENCE  
101-113 Franklin St

Matrix Codes:  
AQ - Aqueous Liquid  
NA - Non-Aqueous Liquid

WA - Water  
WG - Groundwater

DW - Drinking Water  
WW - Wastewater

SO - Soil  
SL - Sludge

SD - Solid  
PT - Paint

WP - Wipe  
CK - Caulk

OL - Oil  
AR - Air

Email: liz@paradigm.com  
phoenix@paradigm.com

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRADES	SAMPLE IDENTIFIER	MCADRES	NUMBERS	REMARKS	PARADIGM LAB SAMPLE NUMBER
7/17/19		X	SS-1		So	2	TCL & CB51 VOL	01
7/17/19		X	SS-2			2	SUOC RAC	02
7/17/19		X	SS-3			2	TAL Metals	03
7/17/19		X	SS-4			1	Re: BS (fom)	04
7/17/19		X	SS-5			1		05
7/17/19		X	SS-6			1		06
7/17/19		X	SS-7			2		07
7/17/19		X	SS-8			1		08
7/18/19		X	SS-9			2		09
7/18/19		X	SS-10			1		10

60101 7/18/19 1750

Turnaround Time

Report Supplements

Availability contingent upon lab approval; additional fees may apply.

Standard 5 day

☒

None Required

☐

None Required

☐

10 day

☐

Batch QC

☐

Basic EDD

☐

Rush 3 day

☐

Category A

☐

NYSDEC EDD

☒

Rush 2 day

☐

Category B

☒

Rush 1 day

☐

Date Needed

Other

☐

Other EDD

☐

Sampled By Lyndee

Date/Time 7/18/19

Total Cost:

Relinquished By John

Date/Time 7/18/19

Received By John

Date/Time 7/19/19

P.L.F.

Received @ Lab By John

Date/Time 7/19/19

08:37

Custody Seal N/A. Samples delivered by client. GP 7/18/19.  
By signing this form, client agrees to Paradigm Terms and Conditions (reverse).



# PARADIGM

### PROJECT REFERENCE

101-113 Franklin St

ATTN:	Peke Morton			
ATTN:	e2lcaas@rui.org; pmorton@rui.org; com			
Matrix Codes:	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid
AQ - Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint
NQ - Non-Aqueous Liquid				WP - Wipe
				CK - Caulk
				AR - Air

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRADES	SAMPLE IDENTIFIER	MACTDS	CONCENTRATIONS	TELA (CPS) VOC	TEL (CPS) VOC	TAL Metals	total PCBs	REMARKS	PARADIGM LAB SAMPLE NUMBER
7/18/19			X	SS-11	28	2	X	X	X	X		11
				SS-12		2	X	X	X	X		12
				SS-13		2	X		X			13
				SS-14		1	X					14
				SS-15		1	X					15
				SS-16		1	X					16
				SS-17		2	X		X			17
				SS-18		2	X		X	X		18
				SS-19		2	X		X	X		19
				SS-20		2	X		X	X		20

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day	<input checked="" type="checkbox"/>	None Required <input type="checkbox"/>
10 day	<input type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B <input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>	
Date Needed _____	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
please indicate date needed: _____		please indicate EDD needed: _____

Sampled By	Youn Zicard	Date/Time	7/18/19	Total Cost:	
Relinquished By	Youn Zicard	Date/Time	7/18/19		
Received By	Michael	Date/Time	7/18/19 1749	P.I.F.	
Received @ Lab By	Youn	Date/Time	7/19/19 08:37		

By signing this form, client agrees to Paradigm Terms and Conditions (reverse)

See additional page for sample conditions.





## Chain of Custody Supplement

3 of 3

Client: Ravi

Completed by: Glenn Perzulo

Lab Project ID: 193386

Date: 7/19/19

### **Sample Condition Requirements**

Per NELAC/ELAP 210/241/242/243/244

Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 5035	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> metals
Comments	<u>6°C iced 7/18/19 17:50</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



Lab Project ID: 193389

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-1 - Microwell-1

Lab Sample ID: 193389-01

Date Sampled: 7/19/2019

Matrix: Groundwater

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/19/2019 16:17
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/19/2019 16:17
1,1,2-Trichloroethane	< 2.00	ug/L		7/19/2019 16:17
1,1-Dichloroethane	< 2.00	ug/L		7/19/2019 16:17
1,1-Dichloroethene	< 2.00	ug/L		7/19/2019 16:17
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/19/2019 16:17
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/19/2019 16:17
1,2,4-Trimethylbenzene	< 2.00	ug/L		7/19/2019 16:17
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/19/2019 16:17
1,2-Dibromoethane	< 2.00	ug/L		7/19/2019 16:17
1,2-Dichlorobenzene	< 2.00	ug/L		7/19/2019 16:17
1,2-Dichloroethane	< 2.00	ug/L		7/19/2019 16:17
1,2-Dichloropropane	< 2.00	ug/L		7/19/2019 16:17
1,3,5-Trimethylbenzene	< 2.00	ug/L		7/19/2019 16:17
1,3-Dichlorobenzene	< 2.00	ug/L		7/19/2019 16:17
1,4-Dichlorobenzene	< 2.00	ug/L		7/19/2019 16:17
1,4-Dioxane	< 20.0	ug/L		7/19/2019 16:17
2-Butanone	< 10.0	ug/L		7/19/2019 16:17
2-Hexanone	< 5.00	ug/L		7/19/2019 16:17
4-Methyl-2-pentanone	< 5.00	ug/L		7/19/2019 16:17
Acetone	<b>7.64</b>	ug/L	J	7/19/2019 16:17
Benzene	< 1.00	ug/L		7/19/2019 16:17
Bromochloromethane	< 5.00	ug/L		7/19/2019 16:17
Bromodichloromethane	< 2.00	ug/L		7/19/2019 16:17
Bromoform	< 5.00	ug/L		7/19/2019 16:17
Bromomethane	< 2.00	ug/L		7/19/2019 16:17
Carbon disulfide	< 2.00	ug/L		7/19/2019 16:17

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Report Prepared Wednesday, July 24, 2019



Lab Project ID: 193389

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-1 - Microwell-1				
<b>Lab Sample ID:</b>	193389-01			<b>Date Sampled:</b>	7/19/2019
<b>Matrix:</b>	Groundwater			<b>Date Received:</b>	7/19/2019
Carbon Tetrachloride	< 2.00	ug/L		7/19/2019	16:17
Chlorobenzene	< 2.00	ug/L		7/19/2019	16:17
Chloroethane	< 2.00	ug/L		7/19/2019	16:17
Chloroform	< 2.00	ug/L		7/19/2019	16:17
Chloromethane	< 2.00	ug/L		7/19/2019	16:17
cis-1,2-Dichloroethene	< 2.00	ug/L		7/19/2019	16:17
cis-1,3-Dichloropropene	< 2.00	ug/L		7/19/2019	16:17
Cyclohexane	< 10.0	ug/L		7/19/2019	16:17
Dibromochloromethane	< 2.00	ug/L		7/19/2019	16:17
Dichlorodifluoromethane	< 2.00	ug/L		7/19/2019	16:17
Ethylbenzene	< 2.00	ug/L		7/19/2019	16:17
Freon 113	< 2.00	ug/L		7/19/2019	16:17
Isopropylbenzene	< 2.00	ug/L		7/19/2019	16:17
m,p-Xylene	< 2.00	ug/L		7/19/2019	16:17
Methyl acetate	< 2.00	ug/L		7/19/2019	16:17
Methyl tert-butyl Ether	< 2.00	ug/L		7/19/2019	16:17
Methylcyclohexane	< 2.00	ug/L		7/19/2019	16:17
Methylene chloride	< 5.00	ug/L		7/19/2019	16:17
Naphthalene	< 5.00	ug/L		7/19/2019	16:17
n-Butylbenzene	< 2.00	ug/L		7/19/2019	16:17
n-Propylbenzene	< 2.00	ug/L		7/19/2019	16:17
o-Xylene	< 2.00	ug/L		7/19/2019	16:17
p-Isopropyltoluene	< 2.00	ug/L		7/19/2019	16:17
sec-Butylbenzene	< 2.00	ug/L		7/19/2019	16:17
Styrene	< 5.00	ug/L		7/19/2019	16:17
tert-Butylbenzene	< 2.00	ug/L		7/19/2019	16:17
Tetrachloroethene	< 2.00	ug/L		7/19/2019	16:17
Toluene	< 2.00	ug/L		7/19/2019	16:17
trans-1,2-Dichloroethene	< 2.00	ug/L		7/19/2019	16:17
trans-1,3-Dichloropropene	< 2.00	ug/L		7/19/2019	16:17

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Report Prepared Wednesday, July 24, 2019



Lab Project ID: 193389

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** MW-1 - Microwell-1

**Lab Sample ID:** 193389-01

**Date Sampled:** 7/19/2019

**Matrix:** Groundwater

**Date Received:** 7/19/2019

Trichloroethene	< 2.00	ug/L	7/19/2019 16:17
Trichlorofluoromethane	< 2.00	ug/L	7/19/2019 16:17
Vinyl chloride	< 2.00	ug/L	7/19/2019 16:17

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	<b>110</b>	73.4 - 131		7/19/2019 16:17
4-Bromofluorobenzene	<b>92.1</b>	57.2 - 129		7/19/2019 16:17
Pentafluorobenzene	<b>94.2</b>	87 - 112		7/19/2019 16:17
Toluene-D8	<b>95.6</b>	78.3 - 115		7/19/2019 16:17

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62756.D

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Report Prepared Wednesday, July 24, 2019



Lab Project ID: 193389

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-4 - Microwell-4

Lab Sample ID: 193389-02

Date Sampled: 7/19/2019

Matrix: Groundwater

Date Received: 7/19/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/19/2019 16:40
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/19/2019 16:40
1,1,2-Trichloroethane	< 2.00	ug/L		7/19/2019 16:40
1,1-Dichloroethane	< 2.00	ug/L		7/19/2019 16:40
1,1-Dichloroethene	< 2.00	ug/L		7/19/2019 16:40
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/19/2019 16:40
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/19/2019 16:40
1,2,4-Trimethylbenzene	< 2.00	ug/L		7/19/2019 16:40
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/19/2019 16:40
1,2-Dibromoethane	< 2.00	ug/L		7/19/2019 16:40
1,2-Dichlorobenzene	< 2.00	ug/L		7/19/2019 16:40
1,2-Dichloroethane	< 2.00	ug/L		7/19/2019 16:40
1,2-Dichloropropane	< 2.00	ug/L		7/19/2019 16:40
1,3,5-Trimethylbenzene	< 2.00	ug/L		7/19/2019 16:40
1,3-Dichlorobenzene	< 2.00	ug/L		7/19/2019 16:40
1,4-Dichlorobenzene	< 2.00	ug/L		7/19/2019 16:40
1,4-Dioxane	< 20.0	ug/L		7/19/2019 16:40
2-Butanone	< 10.0	ug/L		7/19/2019 16:40
2-Hexanone	< 5.00	ug/L		7/19/2019 16:40
4-Methyl-2-pentanone	< 5.00	ug/L		7/19/2019 16:40
Acetone	< 10.0	ug/L		7/19/2019 16:40
Benzene	< 1.00	ug/L		7/19/2019 16:40
Bromochloromethane	< 5.00	ug/L		7/19/2019 16:40
Bromodichloromethane	< 2.00	ug/L		7/19/2019 16:40
Bromoform	< 5.00	ug/L		7/19/2019 16:40
Bromomethane	< 2.00	ug/L		7/19/2019 16:40
Carbon disulfide	< 2.00	ug/L		7/19/2019 16:40

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Report Prepared Wednesday, July 24, 2019



Lab Project ID: 193389

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-4 - Microwell-4				
<b>Lab Sample ID:</b>	193389-02			<b>Date Sampled:</b>	7/19/2019
<b>Matrix:</b>	Groundwater			<b>Date Received:</b>	7/19/2019
Carbon Tetrachloride	< 2.00	ug/L		7/19/2019	16:40
Chlorobenzene	< 2.00	ug/L		7/19/2019	16:40
Chloroethane	< 2.00	ug/L		7/19/2019	16:40
Chloroform	< 2.00	ug/L		7/19/2019	16:40
Chloromethane	< 2.00	ug/L		7/19/2019	16:40
cis-1,2-Dichloroethene	< 2.00	ug/L		7/19/2019	16:40
cis-1,3-Dichloropropene	< 2.00	ug/L		7/19/2019	16:40
Cyclohexane	< 10.0	ug/L		7/19/2019	16:40
Dibromochloromethane	< 2.00	ug/L		7/19/2019	16:40
Dichlorodifluoromethane	< 2.00	ug/L		7/19/2019	16:40
Ethylbenzene	< 2.00	ug/L		7/19/2019	16:40
Freon 113	< 2.00	ug/L		7/19/2019	16:40
Isopropylbenzene	< 2.00	ug/L		7/19/2019	16:40
m,p-Xylene	< 2.00	ug/L		7/19/2019	16:40
Methyl acetate	< 2.00	ug/L		7/19/2019	16:40
Methyl tert-butyl Ether	< 2.00	ug/L		7/19/2019	16:40
Methylcyclohexane	< 2.00	ug/L		7/19/2019	16:40
Methylene chloride	< 5.00	ug/L		7/19/2019	16:40
Naphthalene	< 5.00	ug/L		7/19/2019	16:40
n-Butylbenzene	< 2.00	ug/L		7/19/2019	16:40
n-Propylbenzene	< 2.00	ug/L		7/19/2019	16:40
o-Xylene	< 2.00	ug/L		7/19/2019	16:40
p-Isopropyltoluene	< 2.00	ug/L		7/19/2019	16:40
sec-Butylbenzene	< 2.00	ug/L		7/19/2019	16:40
Styrene	< 5.00	ug/L		7/19/2019	16:40
tert-Butylbenzene	< 2.00	ug/L		7/19/2019	16:40
Tetrachloroethene	< 2.00	ug/L		7/19/2019	16:40
Toluene	< 2.00	ug/L		7/19/2019	16:40
trans-1,2-Dichloroethene	< 2.00	ug/L		7/19/2019	16:40
trans-1,3-Dichloropropene	< 2.00	ug/L		7/19/2019	16:40

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Report Prepared Wednesday, July 24, 2019



Lab Project ID: 193389

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** MW-4 - Microwell-4

**Lab Sample ID:** 193389-02

**Date Sampled:** 7/19/2019

**Matrix:** Groundwater

**Date Received:** 7/19/2019

Trichloroethene	< 2.00	ug/L	7/19/2019 16:40
Trichlorofluoromethane	< 2.00	ug/L	7/19/2019 16:40
Vinyl chloride	< 2.00	ug/L	7/19/2019 16:40

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	<b>104</b>	73.4 - 131		7/19/2019 16:40
4-Bromofluorobenzene	<b>86.4</b>	57.2 - 129		7/19/2019 16:40
Pentafluorobenzene	<b>93.9</b>	87 - 112		7/19/2019 16:40
Toluene-D8	<b>97.4</b>	78.3 - 115		7/19/2019 16:40

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62757.D

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*Report Prepared Wednesday, July 24, 2019*



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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LAB PROJECT ID

ATTN: *Edoardo Mada*

johnw@lucy.org.uk

OL - Oil  
AR - Air

[illegible]

7/9/19	800	X	MW-1	WG 1	X				McConnell-1	01
↓	730	X	MW-4	WG 2	X				McConnell-4	02

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input checked="" type="checkbox"/>	None Required	<input type="checkbox"/>
10 day	<input type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B	<input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>		
Date Needed _____ please indicate date needed: _____	Other _____	None Required <input type="checkbox"/> Basic EDD <input type="checkbox"/> NYSDEC EDD <input checked="" type="checkbox"/>	Other EDD <input type="checkbox"/> please indicate EDD needed : _____

Total Cost:

P.I.F.

5<sup>1</sup>C:iced 7/19/19 09:10. Custody Seal N/A. Samples delivered  
By signing this form, client agrees to Paradigm Terms and Conditions (reverse). 6/19/19 07/19/19

See additional page for sample conditions.



## Chain of Custody Supplement

Client: Ravi Completed by: Glenn Pezzulo  
 Lab Project ID: 193389 Date: 7/19/19

### Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>5°C rec'd 7/19/19 09:10</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

---

Sample Identifier: SS-22, D-1

Lab Sample ID: 193526-01

Date Sampled: 7/24/2019

Matrix: Soil

Date Received: 7/25/2019

---

**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.00836	mg/Kg		7/29/2019 12:08

Method Reference(s): EPA 7471B

Preparation Date: 7/29/2019

Data File: Hg190729A

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-22, D-1

Lab Sample ID: 193526-01

Date Sampled: 7/24/2019

Matrix: Soil

Date Received: 7/25/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	4720	mg/Kg		7/31/2019 12:21
Antimony	< 3.50	mg/Kg		7/30/2019 00:16
Arsenic	1.40	mg/Kg		7/31/2019 23:44
Barium	44.5	mg/Kg		7/30/2019 00:16
Beryllium	0.251	mg/Kg	J	7/30/2019 00:16
Cadmium	0.365	mg/Kg		7/30/2019 00:16
Calcium	52300	mg/Kg		7/31/2019 12:26
Chromium	9.73	mg/Kg		7/30/2019 00:16
Cobalt	3.95	mg/Kg		7/30/2019 00:16
Copper	9.58	mg/Kg		7/30/2019 00:16
Iron	9700	mg/Kg		7/31/2019 12:21
Lead	2.45	mg/Kg		7/30/2019 00:16
Magnesium	12500	mg/Kg		7/30/2019 00:16
Manganese	398	mg/Kg		7/31/2019 23:44
Nickel	7.24	mg/Kg		7/30/2019 00:16
Potassium	1200	mg/Kg		7/31/2019 12:21
Selenium	0.870	mg/Kg	J	7/31/2019 23:44
Silver	< 0.584	mg/Kg		7/30/2019 00:16
Sodium	174	mg/Kg		7/31/2019 12:21
Thallium	1.39	mg/Kg	J	7/30/2019 00:16
Vanadium	11.3	mg/Kg		7/30/2019 00:16
Zinc	24.1	mg/Kg		7/30/2019 00:16

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Report Prepared Friday, August 2, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193526

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-22, D-1

**Lab Sample ID:** 193526-01

**Date Sampled:** 7/24/2019

**Matrix:** Soil

**Date Received:** 7/25/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/26/2019

**Data File:** 190731B

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*Report Prepared Friday, August 2, 2019*



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-22, D-1

Lab Sample ID: 193526-01

Date Sampled: 7/24/2019

Matrix: Soil

Date Received: 7/25/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 333	ug/Kg		7/31/2019 18:09
1,2,4,5-Tetrachlorobenzene	< 333	ug/Kg		7/31/2019 18:09
1,2,4-Trichlorobenzene	< 333	ug/Kg		7/31/2019 18:09
1,2-Dichlorobenzene	< 333	ug/Kg		7/31/2019 18:09
1,3-Dichlorobenzene	< 333	ug/Kg		7/31/2019 18:09
1,4-Dichlorobenzene	< 333	ug/Kg		7/31/2019 18:09
2,2-Oxybis (1-chloropropane)	< 333	ug/Kg		7/31/2019 18:09
2,3,4,6-Tetrachlorophenol	< 333	ug/Kg		7/31/2019 18:09
2,4,5-Trichlorophenol	< 333	ug/Kg		7/31/2019 18:09
2,4,6-Trichlorophenol	< 333	ug/Kg		7/31/2019 18:09
2,4-Dichlorophenol	< 333	ug/Kg		7/31/2019 18:09
2,4-Dimethylphenol	< 333	ug/Kg		7/31/2019 18:09
2,4-Dinitrophenol	< 1330	ug/Kg		7/31/2019 18:09
2,4-Dinitrotoluene	< 333	ug/Kg		7/31/2019 18:09
2,6-Dinitrotoluene	< 333	ug/Kg		7/31/2019 18:09
2-Chloronaphthalene	< 333	ug/Kg		7/31/2019 18:09
2-Chlorophenol	< 333	ug/Kg		7/31/2019 18:09
2-Methylnaphthalene	< 333	ug/Kg		7/31/2019 18:09
2-Methylphenol	< 333	ug/Kg		7/31/2019 18:09
2-Nitroaniline	< 333	ug/Kg		7/31/2019 18:09
2-Nitrophenol	< 333	ug/Kg		7/31/2019 18:09
3&4-Methylphenol	< 333	ug/Kg		7/31/2019 18:09
3,3'-Dichlorobenzidine	< 333	ug/Kg		7/31/2019 18:09

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-22, D-1			
Lab Sample ID:	193526-01		Date Sampled:	7/24/2019
Matrix:	Soil		Date Received:	7/25/2019
3-Nitroaniline	< 333	ug/Kg	7/31/2019	18:09
4,6-Dinitro-2-methylphenol	< 666	ug/Kg	7/31/2019	18:09
4-Bromophenyl phenyl ether	< 333	ug/Kg	7/31/2019	18:09
4-Chloro-3-methylphenol	< 333	ug/Kg	7/31/2019	18:09
4-Chloroaniline	< 333	ug/Kg	7/31/2019	18:09
4-Chlorophenyl phenyl ether	< 333	ug/Kg	7/31/2019	18:09
4-Nitroaniline	< 333	ug/Kg	7/31/2019	18:09
4-Nitrophenol	< 333	ug/Kg	7/31/2019	18:09
Acenaphthene	< 333	ug/Kg	7/31/2019	18:09
Acenaphthylene	< 333	ug/Kg	7/31/2019	18:09
Acetophenone	< 333	ug/Kg	7/31/2019	18:09
Anthracene	< 333	ug/Kg	7/31/2019	18:09
Atrazine	< 333	ug/Kg	7/31/2019	18:09
Benzaldehyde	< 333	ug/Kg	7/31/2019	18:09
Benzo (a) anthracene	< 333	ug/Kg	7/31/2019	18:09
Benzo (a) pyrene	< 333	ug/Kg	7/31/2019	18:09
Benzo (b) fluoranthene	< 333	ug/Kg	7/31/2019	18:09
Benzo (g,h,i) perylene	< 333	ug/Kg	7/31/2019	18:09
Benzo (k) fluoranthene	< 333	ug/Kg	7/31/2019	18:09
Bis (2-chloroethoxy) methane	< 333	ug/Kg	7/31/2019	18:09
Bis (2-chloroethyl) ether	< 333	ug/Kg	7/31/2019	18:09
Bis (2-ethylhexyl) phthalate	< 333	ug/Kg	7/31/2019	18:09
Butylbenzylphthalate	< 333	ug/Kg	7/31/2019	18:09
Caprolactam	< 333	ug/Kg	7/31/2019	18:09
Carbazole	< 333	ug/Kg	7/31/2019	18:09

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Report Prepared Friday, August 2, 2019





Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-22, D-1			
Lab Sample ID:	193526-01		Date Sampled:	7/24/2019
Matrix:	Soil		Date Received:	7/25/2019
Chrysene	< 333	ug/Kg	7/31/2019	18:09
Dibenz (a,h) anthracene	< 333	ug/Kg	7/31/2019	18:09
Dibenzofuran	< 333	ug/Kg	7/31/2019	18:09
Diethyl phthalate	< 333	ug/Kg	7/31/2019	18:09
Dimethyl phthalate	< 333	ug/Kg	7/31/2019	18:09
Di-n-butyl phthalate	< 333	ug/Kg	7/31/2019	18:09
Di-n-octylphthalate	< 333	ug/Kg	7/31/2019	18:09
Fluoranthene	< 333	ug/Kg	7/31/2019	18:09
Fluorene	< 333	ug/Kg	7/31/2019	18:09
Hexachlorobenzene	< 333	ug/Kg	7/31/2019	18:09
Hexachlorobutadiene	< 333	ug/Kg	7/31/2019	18:09
Hexachlorocyclopentadiene	< 1330	ug/Kg	7/31/2019	18:09
Hexachloroethane	< 333	ug/Kg	7/31/2019	18:09
Indeno (1,2,3-cd) pyrene	< 333	ug/Kg	7/31/2019	18:09
Isophorone	< 333	ug/Kg	7/31/2019	18:09
Naphthalene	< 333	ug/Kg	7/31/2019	18:09
Nitrobenzene	< 333	ug/Kg	7/31/2019	18:09
N-Nitroso-di-n-propylamine	< 333	ug/Kg	7/31/2019	18:09
N-Nitrosodiphenylamine	< 333	ug/Kg	7/31/2019	18:09
Pentachlorophenol	< 666	ug/Kg	7/31/2019	18:09
Phenanthrene	< 333	ug/Kg	7/31/2019	18:09
Phenol	< 333	ug/Kg	7/31/2019	18:09
Pyrene	< 333	ug/Kg	7/31/2019	18:09

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** SS-22, D-1

**Lab Sample ID:** 193526-01

**Date Sampled:** 7/24/2019

**Matrix:** Soil

**Date Received:** 7/25/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>69.7</b>	34.9 - 92.6		7/31/2019	18:09
2-Fluorobiphenyl	<b>73.1</b>	39 - 77.6		7/31/2019	18:09
2-Fluorophenol	<b>77.7</b>	39.1 - 76.8	*	7/31/2019	18:09
Nitrobenzene-d5	<b>64.4</b>	35.4 - 75.3		7/31/2019	18:09
Phenol-d5	<b>77.9</b>	40.4 - 77.7	*	7/31/2019	18:09
Terphenyl-d14	<b>83.0</b>	42 - 93.5		7/31/2019	18:09

**Method Reference(s):** EPA 8270D

EPA 3546

**Preparation Date:** 7/29/2019

**Data File:** B39478.D

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*Report Prepared Friday, August 2, 2019*



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-22, D-1

Lab Sample ID: 193526-01

Matrix: Soil

Date Sampled: 7/24/2019

Date Received: 7/25/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.76	ug/Kg		8/2/2019 13:38
1,1,2,2-Tetrachloroethane	< 4.76	ug/Kg		8/2/2019 13:38
1,1,2-Trichloroethane	< 4.76	ug/Kg		8/2/2019 13:38
1,1-Dichloroethane	< 4.76	ug/Kg		8/2/2019 13:38
1,1-Dichloroethene	< 4.76	ug/Kg		8/2/2019 13:38
1,2,3-Trichlorobenzene	< 11.9	ug/Kg		8/2/2019 13:38
1,2,4-Trichlorobenzene	< 11.9	ug/Kg		8/2/2019 13:38
1,2,4-Trimethylbenzene	< 4.76	ug/Kg		8/2/2019 13:38
1,2-Dibromo-3-Chloropropane	< 23.8	ug/Kg		8/2/2019 13:38
1,2-Dibromoethane	< 4.76	ug/Kg		8/2/2019 13:38
1,2-Dichlorobenzene	< 4.76	ug/Kg		8/2/2019 13:38
1,2-Dichloroethane	< 4.76	ug/Kg		8/2/2019 13:38
1,2-Dichloropropane	< 4.76	ug/Kg		8/2/2019 13:38
1,3,5-Trimethylbenzene	< 4.76	ug/Kg		8/2/2019 13:38
1,3-Dichlorobenzene	< 4.76	ug/Kg		8/2/2019 13:38
1,4-Dichlorobenzene	< 4.76	ug/Kg		8/2/2019 13:38
1,4-Dioxane	< 47.6	ug/Kg		8/2/2019 13:38
2-Butanone	< 23.8	ug/Kg		8/2/2019 13:38
2-Hexanone	< 11.9	ug/Kg		8/2/2019 13:38
4-Methyl-2-pentanone	< 11.9	ug/Kg		8/2/2019 13:38
Acetone	< 23.8	ug/Kg		8/2/2019 13:38
Benzene	< 4.76	ug/Kg		8/2/2019 13:38
Bromochloromethane	< 11.9	ug/Kg		8/2/2019 13:38

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-22, D-1

Lab Sample ID: 193526-01

Matrix: Soil

Date Sampled: 7/24/2019

Date Received: 7/25/2019

Bromodichloromethane	< 4.76	ug/Kg		8/2/2019 13:38
Bromoform	< 11.9	ug/Kg	L	8/2/2019 13:38
Bromomethane	< 4.76	ug/Kg		8/2/2019 13:38
Carbon disulfide	< 4.76	ug/Kg		8/2/2019 13:38
Carbon Tetrachloride	< 4.76	ug/Kg		8/2/2019 13:38
Chlorobenzene	< 4.76	ug/Kg		8/2/2019 13:38
Chloroethane	< 4.76	ug/Kg	L	8/2/2019 13:38
Chloroform	< 4.76	ug/Kg		8/2/2019 13:38
Chloromethane	< 4.76	ug/Kg		8/2/2019 13:38
cis-1,2-Dichloroethene	< 4.76	ug/Kg		8/2/2019 13:38
cis-1,3-Dichloropropene	< 4.76	ug/Kg		8/2/2019 13:38
Cyclohexane	< 23.8	ug/Kg		8/2/2019 13:38
Dibromochloromethane	< 4.76	ug/Kg		8/2/2019 13:38
Dichlorodifluoromethane	< 4.76	ug/Kg		8/2/2019 13:38
Ethylbenzene	< 4.76	ug/Kg		8/2/2019 13:38
Freon 113	< 4.76	ug/Kg		8/2/2019 13:38
Isopropylbenzene	< 4.76	ug/Kg		8/2/2019 13:38
m,p-Xylene	< 4.76	ug/Kg		8/2/2019 13:38
Methyl acetate	< 4.76	ug/Kg		8/2/2019 13:38
Methyl tert-butyl Ether	< 4.76	ug/Kg		8/2/2019 13:38
Methylcyclohexane	< 4.76	ug/Kg		8/2/2019 13:38
Methylene chloride	< 11.9	ug/Kg		8/2/2019 13:38
Naphthalene	< 11.9	ug/Kg		8/2/2019 13:38
n-Butylbenzene	< 4.76	ug/Kg		8/2/2019 13:38
n-Propylbenzene	< 4.76	ug/Kg		8/2/2019 13:38

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-22, D-1				
Lab Sample ID:	193526-01		Date Sampled:	7/24/2019	
Matrix:	Soil		Date Received:	7/25/2019	
o-Xylene	< 4.76	ug/Kg		8/2/2019	13:38
p-Isopropyltoluene	< 4.76	ug/Kg		8/2/2019	13:38
sec-Butylbenzene	< 4.76	ug/Kg		8/2/2019	13:38
Styrene	< 11.9	ug/Kg		8/2/2019	13:38
tert-Butylbenzene	< 4.76	ug/Kg		8/2/2019	13:38
Tetrachloroethene	< 4.76	ug/Kg		8/2/2019	13:38
Toluene	< 4.76	ug/Kg		8/2/2019	13:38
trans-1,2-Dichloroethene	< 4.76	ug/Kg		8/2/2019	13:38
trans-1,3-Dichloropropene	< 4.76	ug/Kg		8/2/2019	13:38
Trichloroethene	< 4.76	ug/Kg		8/2/2019	13:38
Trichlorofluoromethane	< 4.76	ug/Kg		8/2/2019	13:38
Vinyl chloride	< 4.76	ug/Kg		8/2/2019	13:38
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	78.4	71 - 141		8/2/2019	13:38
4-Bromofluorobenzene	79.7	60.2 - 128		8/2/2019	13:38
Pentafluorobenzene	103	86.6 - 111		8/2/2019	13:38
Toluene-D8	93.2	77.5 - 115		8/2/2019	13:38

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x63228.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-23, D-2

Lab Sample ID: 193526-02

Date Sampled: 7/24/2019

Matrix: Soil

Date Received: 7/25/2019

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Mercury

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.00895	mg/Kg		7/29/2019 12:10

Method Reference(s): EPA 7471B

Preparation Date: 7/29/2019

Data File: Hg190729A

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-23, D-2

Lab Sample ID: 193526-02

Date Sampled: 7/24/2019

Matrix: Soil

Date Received: 7/25/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	3550	mg/Kg		7/31/2019 12:30
Antimony	< 3.52	mg/Kg		7/30/2019 00:20
Arsenic	0.722	mg/Kg		7/31/2019 23:49
Barium	16.9	mg/Kg		7/30/2019 00:20
Beryllium	0.177	mg/Kg	J	7/30/2019 00:20
Cadmium	0.180	mg/Kg	J	7/30/2019 00:20
Calcium	26100	mg/Kg		7/30/2019 00:20
Chromium	4.99	mg/Kg		7/30/2019 00:20
Cobalt	2.73	mg/Kg	J	7/30/2019 00:20
Copper	5.64	mg/Kg		7/30/2019 00:20
Iron	8310	mg/Kg		7/31/2019 12:30
Lead	< 0.587	mg/Kg		7/30/2019 00:20
Magnesium	11000	mg/Kg		7/30/2019 00:20
Manganese	289	mg/Kg		7/31/2019 23:49
Nickel	5.81	mg/Kg		7/30/2019 00:20
Potassium	517	mg/Kg		7/31/2019 12:30
Selenium	< 1.17	mg/Kg		7/30/2019 00:20
Silver	< 0.587	mg/Kg		7/30/2019 00:20
Sodium	121	mg/Kg	J	7/31/2019 12:30
Thallium	< 1.47	mg/Kg		7/30/2019 00:20
Vanadium	9.47	mg/Kg		7/30/2019 00:20
Zinc	18.2	mg/Kg		7/30/2019 00:20

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Report Prepared Friday, August 2, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193526

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-23, D-2

**Lab Sample ID:** 193526-02

**Date Sampled:** 7/24/2019

**Matrix:** Soil

**Date Received:** 7/25/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/26/2019

**Data File:** 190731B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Friday, August 2, 2019*





Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-23, D-2

Lab Sample ID: 193526-02

Date Sampled: 7/24/2019

Matrix: Soil

Date Received: 7/25/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 341	ug/Kg		8/1/2019 22:11
1,2,4,5-Tetrachlorobenzene	< 341	ug/Kg		8/1/2019 22:11
1,2,4-Trichlorobenzene	< 341	ug/Kg		8/1/2019 22:11
1,2-Dichlorobenzene	< 341	ug/Kg		8/1/2019 22:11
1,3-Dichlorobenzene	< 341	ug/Kg		8/1/2019 22:11
1,4-Dichlorobenzene	< 341	ug/Kg		8/1/2019 22:11
2,2-Oxybis (1-chloropropane)	< 341	ug/Kg		8/1/2019 22:11
2,3,4,6-Tetrachlorophenol	< 341	ug/Kg		8/1/2019 22:11
2,4,5-Trichlorophenol	< 341	ug/Kg		8/1/2019 22:11
2,4,6-Trichlorophenol	< 341	ug/Kg		8/1/2019 22:11
2,4-Dichlorophenol	< 341	ug/Kg		8/1/2019 22:11
2,4-Dimethylphenol	< 341	ug/Kg		8/1/2019 22:11
2,4-Dinitrophenol	< 1360	ug/Kg		8/1/2019 22:11
2,4-Dinitrotoluene	< 341	ug/Kg		8/1/2019 22:11
2,6-Dinitrotoluene	< 341	ug/Kg		8/1/2019 22:11
2-Chloronaphthalene	< 341	ug/Kg		8/1/2019 22:11
2-Chlorophenol	< 341	ug/Kg		8/1/2019 22:11
2-Methylnapthalene	< 341	ug/Kg		8/1/2019 22:11
2-Methylphenol	< 341	ug/Kg		8/1/2019 22:11
2-Nitroaniline	< 341	ug/Kg		8/1/2019 22:11
2-Nitrophenol	< 341	ug/Kg		8/1/2019 22:11
3&4-Methylphenol	< 341	ug/Kg		8/1/2019 22:11
3,3'-Dichlorobenzidine	< 341	ug/Kg		8/1/2019 22:11

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-23, D-2			
<b>Lab Sample ID:</b>	193526-02		<b>Date Sampled:</b>	7/24/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/25/2019
3-Nitroaniline	< 341	ug/Kg	8/1/2019	22:11
4,6-Dinitro-2-methylphenol	< 681	ug/Kg	8/1/2019	22:11
4-Bromophenyl phenyl ether	< 341	ug/Kg	8/1/2019	22:11
4-Chloro-3-methylphenol	< 341	ug/Kg	8/1/2019	22:11
4-Chloroaniline	< 341	ug/Kg	8/1/2019	22:11
4-Chlorophenyl phenyl ether	< 341	ug/Kg	8/1/2019	22:11
4-Nitroaniline	< 341	ug/Kg	8/1/2019	22:11
4-Nitrophenol	< 341	ug/Kg	8/1/2019	22:11
Acenaphthene	< 341	ug/Kg	8/1/2019	22:11
Acenaphthylene	< 341	ug/Kg	8/1/2019	22:11
Acetophenone	< 341	ug/Kg	8/1/2019	22:11
Anthracene	< 341	ug/Kg	8/1/2019	22:11
Atrazine	< 341	ug/Kg	8/1/2019	22:11
Benzaldehyde	< 341	ug/Kg	8/1/2019	22:11
Benzo (a) anthracene	< 341	ug/Kg	8/1/2019	22:11
Benzo (a) pyrene	< 341	ug/Kg	8/1/2019	22:11
Benzo (b) fluoranthene	< 341	ug/Kg	8/1/2019	22:11
Benzo (g,h,i) perylene	< 341	ug/Kg	8/1/2019	22:11
Benzo (k) fluoranthene	< 341	ug/Kg	8/1/2019	22:11
Bis (2-chloroethoxy) methane	< 341	ug/Kg	8/1/2019	22:11
Bis (2-chloroethyl) ether	< 341	ug/Kg	8/1/2019	22:11
Bis (2-ethylhexyl) phthalate	< 341	ug/Kg	8/1/2019	22:11
Butylbenzylphthalate	< 341	ug/Kg	8/1/2019	22:11
Caprolactam	< 341	ug/Kg	8/1/2019	22:11
Carbazole	< 341	ug/Kg	8/1/2019	22:11

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-23, D-2			
<b>Lab Sample ID:</b>	193526-02		<b>Date Sampled:</b>	7/24/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/25/2019
Chrysene	< 341	ug/Kg	8/1/2019	22:11
Dibenz (a,h) anthracene	< 341	ug/Kg	8/1/2019	22:11
Dibenzofuran	< 341	ug/Kg	8/1/2019	22:11
Diethyl phthalate	< 341	ug/Kg	8/1/2019	22:11
Dimethyl phthalate	< 341	ug/Kg	8/1/2019	22:11
Di-n-butyl phthalate	< 341	ug/Kg	8/1/2019	22:11
Di-n-octylphthalate	< 341	ug/Kg	8/1/2019	22:11
Fluoranthene	< 341	ug/Kg	8/1/2019	22:11
Fluorene	< 341	ug/Kg	8/1/2019	22:11
Hexachlorobenzene	< 341	ug/Kg	8/1/2019	22:11
Hexachlorobutadiene	< 341	ug/Kg	8/1/2019	22:11
Hexachlorocyclopentadiene	< 1360	ug/Kg	8/1/2019	22:11
Hexachloroethane	< 341	ug/Kg	8/1/2019	22:11
Indeno (1,2,3-cd) pyrene	< 341	ug/Kg	8/1/2019	22:11
Isophorone	< 341	ug/Kg	8/1/2019	22:11
Naphthalene	< 341	ug/Kg	8/1/2019	22:11
Nitrobenzene	< 341	ug/Kg	8/1/2019	22:11
N-Nitroso-di-n-propylamine	< 341	ug/Kg	8/1/2019	22:11
N-Nitrosodiphenylamine	< 341	ug/Kg	8/1/2019	22:11
Pentachlorophenol	< 681	ug/Kg	8/1/2019	22:11
Phenanthrene	< 341	ug/Kg	8/1/2019	22:11
Phenol	< 341	ug/Kg	8/1/2019	22:11
Pyrene	< 341	ug/Kg	8/1/2019	22:11

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-23, D-2

Lab Sample ID: 193526-02

Date Sampled: 7/24/2019

Matrix: Soil

Date Received: 7/25/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	43.4	34.9 - 92.6		8/1/2019 22:11
2-Fluorobiphenyl	58.9	39 - 77.6		8/1/2019 22:11
2-Fluorophenol	63.9	39.1 - 76.8		8/1/2019 22:11
Nitrobenzene-d5	54.7	35.4 - 75.3		8/1/2019 22:11
Phenol-d5	65.1	40.4 - 77.7		8/1/2019 22:11
Terphenyl-d14	68.7	42 - 93.5		8/1/2019 22:11

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/29/2019

Data File: B39531.D

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-23, D-2

Lab Sample ID: 193526-02

Matrix: Soil

Date Sampled: 7/24/2019

Date Received: 7/25/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.17	ug/Kg		8/2/2019 14:01
1,1,2,2-Tetrachloroethane	< 4.17	ug/Kg		8/2/2019 14:01
1,1,2-Trichloroethane	< 4.17	ug/Kg		8/2/2019 14:01
1,1-Dichloroethane	< 4.17	ug/Kg		8/2/2019 14:01
1,1-Dichloroethene	< 4.17	ug/Kg		8/2/2019 14:01
1,2,3-Trichlorobenzene	< 10.4	ug/Kg		8/2/2019 14:01
1,2,4-Trichlorobenzene	< 10.4	ug/Kg		8/2/2019 14:01
1,2,4-Trimethylbenzene	< 4.17	ug/Kg		8/2/2019 14:01
1,2-Dibromo-3-Chloropropane	< 20.8	ug/Kg		8/2/2019 14:01
1,2-Dibromoethane	< 4.17	ug/Kg		8/2/2019 14:01
1,2-Dichlorobenzene	< 4.17	ug/Kg		8/2/2019 14:01
1,2-Dichloroethane	< 4.17	ug/Kg		8/2/2019 14:01
1,2-Dichloropropane	< 4.17	ug/Kg		8/2/2019 14:01
1,3,5-Trimethylbenzene	< 4.17	ug/Kg		8/2/2019 14:01
1,3-Dichlorobenzene	< 4.17	ug/Kg		8/2/2019 14:01
1,4-Dichlorobenzene	< 4.17	ug/Kg		8/2/2019 14:01
1,4-Dioxane	< 41.7	ug/Kg		8/2/2019 14:01
2-Butanone	< 20.8	ug/Kg		8/2/2019 14:01
2-Hexanone	< 10.4	ug/Kg		8/2/2019 14:01
4-Methyl-2-pentanone	< 10.4	ug/Kg		8/2/2019 14:01
Acetone	< 20.8	ug/Kg		8/2/2019 14:01
Benzene	< 4.17	ug/Kg		8/2/2019 14:01
Bromochloromethane	< 10.4	ug/Kg		8/2/2019 14:01

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-23, D-2

Lab Sample ID: 193526-02

Matrix: Soil

Date Sampled: 7/24/2019

Date Received: 7/25/2019

Bromodichloromethane	< 4.17	ug/Kg		8/2/2019 14:01
Bromoform	< 10.4	ug/Kg	L	8/2/2019 14:01
Bromomethane	< 4.17	ug/Kg		8/2/2019 14:01
Carbon disulfide	< 4.17	ug/Kg		8/2/2019 14:01
Carbon Tetrachloride	< 4.17	ug/Kg		8/2/2019 14:01
Chlorobenzene	< 4.17	ug/Kg		8/2/2019 14:01
Chloroethane	< 4.17	ug/Kg	L	8/2/2019 14:01
Chloroform	< 4.17	ug/Kg		8/2/2019 14:01
Chloromethane	< 4.17	ug/Kg		8/2/2019 14:01
cis-1,2-Dichloroethene	< 4.17	ug/Kg		8/2/2019 14:01
cis-1,3-Dichloropropene	< 4.17	ug/Kg		8/2/2019 14:01
Cyclohexane	< 20.8	ug/Kg		8/2/2019 14:01
Dibromochloromethane	< 4.17	ug/Kg		8/2/2019 14:01
Dichlorodifluoromethane	< 4.17	ug/Kg		8/2/2019 14:01
Ethylbenzene	< 4.17	ug/Kg		8/2/2019 14:01
Freon 113	< 4.17	ug/Kg		8/2/2019 14:01
Isopropylbenzene	< 4.17	ug/Kg		8/2/2019 14:01
m,p-Xylene	< 4.17	ug/Kg		8/2/2019 14:01
Methyl acetate	< 4.17	ug/Kg		8/2/2019 14:01
Methyl tert-butyl Ether	< 4.17	ug/Kg		8/2/2019 14:01
Methylcyclohexane	< 4.17	ug/Kg		8/2/2019 14:01
Methylene chloride	< 10.4	ug/Kg		8/2/2019 14:01
Naphthalene	< 10.4	ug/Kg		8/2/2019 14:01
n-Butylbenzene	< 4.17	ug/Kg		8/2/2019 14:01
n-Propylbenzene	< 4.17	ug/Kg		8/2/2019 14:01

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-23, D-2			
Lab Sample ID:	193526-02		Date Sampled:	7/24/2019
Matrix:	Soil		Date Received:	7/25/2019
o-Xylene	< 4.17	ug/Kg	8/2/2019	14:01
p-Isopropyltoluene	< 4.17	ug/Kg	8/2/2019	14:01
sec-Butylbenzene	< 4.17	ug/Kg	8/2/2019	14:01
Styrene	< 10.4	ug/Kg	8/2/2019	14:01
tert-Butylbenzene	< 4.17	ug/Kg	8/2/2019	14:01
Tetrachloroethene	< 4.17	ug/Kg	8/2/2019	14:01
Toluene	< 4.17	ug/Kg	8/2/2019	14:01
trans-1,2-Dichloroethene	< 4.17	ug/Kg	8/2/2019	14:01
trans-1,3-Dichloropropene	< 4.17	ug/Kg	8/2/2019	14:01
Trichloroethene	< 4.17	ug/Kg	8/2/2019	14:01
Trichlorofluoromethane	< 4.17	ug/Kg	8/2/2019	14:01
Vinyl chloride	< 4.17	ug/Kg	8/2/2019	14:01
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	80.5	71 - 141		8/2/2019 14:01
4-Bromofluorobenzene	73.6	60.2 - 128		8/2/2019 14:01
Pentafluorobenzene	102	86.6 - 111		8/2/2019 14:01
Toluene-D8	92.2	77.5 - 115		8/2/2019 14:01

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x63229.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-24, D-3

Lab Sample ID: 193526-03

Matrix: Soil

Date Sampled: 7/25/2019

Date Received: 7/25/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.03	ug/Kg		8/2/2019 14:24
1,1,2,2-Tetrachloroethane	< 4.03	ug/Kg		8/2/2019 14:24
1,1,2-Trichloroethane	< 4.03	ug/Kg		8/2/2019 14:24
1,1-Dichloroethane	< 4.03	ug/Kg		8/2/2019 14:24
1,1-Dichloroethene	< 4.03	ug/Kg		8/2/2019 14:24
1,2,3-Trichlorobenzene	< 10.1	ug/Kg		8/2/2019 14:24
1,2,4-Trichlorobenzene	< 10.1	ug/Kg		8/2/2019 14:24
1,2,4-Trimethylbenzene	< 4.03	ug/Kg		8/2/2019 14:24
1,2-Dibromo-3-Chloropropane	< 20.2	ug/Kg		8/2/2019 14:24
1,2-Dibromoethane	< 4.03	ug/Kg		8/2/2019 14:24
1,2-Dichlorobenzene	< 4.03	ug/Kg		8/2/2019 14:24
1,2-Dichloroethane	< 4.03	ug/Kg		8/2/2019 14:24
1,2-Dichloropropane	< 4.03	ug/Kg		8/2/2019 14:24
1,3,5-Trimethylbenzene	< 4.03	ug/Kg		8/2/2019 14:24
1,3-Dichlorobenzene	< 4.03	ug/Kg		8/2/2019 14:24
1,4-Dichlorobenzene	< 4.03	ug/Kg		8/2/2019 14:24
1,4-Dioxane	< 40.3	ug/Kg		8/2/2019 14:24
2-Butanone	< 20.2	ug/Kg		8/2/2019 14:24
2-Hexanone	< 10.1	ug/Kg		8/2/2019 14:24
4-Methyl-2-pentanone	< 10.1	ug/Kg		8/2/2019 14:24
Acetone	< 20.2	ug/Kg		8/2/2019 14:24
Benzene	< 4.03	ug/Kg		8/2/2019 14:24
Bromochloromethane	< 10.1	ug/Kg		8/2/2019 14:24

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Report Prepared Friday, August 2, 2019





Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-24, D-3			
Lab Sample ID:	193526-03		Date Sampled:	7/25/2019
Matrix:	Soil		Date Received:	7/25/2019
Bromodichloromethane	< 4.03	ug/Kg		8/2/2019 14:24
Bromoform	< 10.1	ug/Kg	L	8/2/2019 14:24
Bromomethane	< 4.03	ug/Kg		8/2/2019 14:24
Carbon disulfide	< 4.03	ug/Kg		8/2/2019 14:24
Carbon Tetrachloride	< 4.03	ug/Kg		8/2/2019 14:24
Chlorobenzene	< 4.03	ug/Kg		8/2/2019 14:24
Chloroethane	< 4.03	ug/Kg	L	8/2/2019 14:24
Chloroform	< 4.03	ug/Kg		8/2/2019 14:24
Chloromethane	< 4.03	ug/Kg		8/2/2019 14:24
cis-1,2-Dichloroethene	< 4.03	ug/Kg		8/2/2019 14:24
cis-1,3-Dichloropropene	< 4.03	ug/Kg		8/2/2019 14:24
Cyclohexane	< 20.2	ug/Kg		8/2/2019 14:24
Dibromochloromethane	< 4.03	ug/Kg		8/2/2019 14:24
Dichlorodifluoromethane	< 4.03	ug/Kg		8/2/2019 14:24
Ethylbenzene	< 4.03	ug/Kg		8/2/2019 14:24
Freon 113	< 4.03	ug/Kg		8/2/2019 14:24
Isopropylbenzene	< 4.03	ug/Kg		8/2/2019 14:24
m,p-Xylene	< 4.03	ug/Kg		8/2/2019 14:24
Methyl acetate	< 4.03	ug/Kg		8/2/2019 14:24
Methyl tert-butyl Ether	< 4.03	ug/Kg		8/2/2019 14:24
Methylcyclohexane	< 4.03	ug/Kg		8/2/2019 14:24
Methylene chloride	< 10.1	ug/Kg		8/2/2019 14:24
Naphthalene	< 10.1	ug/Kg		8/2/2019 14:24
n-Butylbenzene	< 4.03	ug/Kg		8/2/2019 14:24
n-Propylbenzene	< 4.03	ug/Kg		8/2/2019 14:24

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-24, D-3			
Lab Sample ID:	193526-03		Date Sampled:	7/25/2019
Matrix:	Soil		Date Received:	7/25/2019
o-Xylene	< 4.03	ug/Kg	8/2/2019	14:24
p-Isopropyltoluene	< 4.03	ug/Kg	8/2/2019	14:24
sec-Butylbenzene	< 4.03	ug/Kg	8/2/2019	14:24
Styrene	< 10.1	ug/Kg	8/2/2019	14:24
tert-Butylbenzene	< 4.03	ug/Kg	8/2/2019	14:24
Tetrachloroethene	< 4.03	ug/Kg	8/2/2019	14:24
Toluene	< 4.03	ug/Kg	8/2/2019	14:24
trans-1,2-Dichloroethene	< 4.03	ug/Kg	8/2/2019	14:24
trans-1,3-Dichloropropene	< 4.03	ug/Kg	8/2/2019	14:24
Trichloroethene	< 4.03	ug/Kg	8/2/2019	14:24
Trichlorofluoromethane	< 4.03	ug/Kg	8/2/2019	14:24
Vinyl chloride	< 4.03	ug/Kg	8/2/2019	14:24
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	83.2	71 - 141		8/2/2019 14:24
4-Bromofluorobenzene	77.3	60.2 - 128		8/2/2019 14:24
Pentafluorobenzene	104	86.6 - 111		8/2/2019 14:24
Toluene-D8	91.5	77.5 - 115		8/2/2019 14:24

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x63230.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-25, D-4

Lab Sample ID: 193526-04

Date Sampled: 7/25/2019

Matrix: Soil

Date Received: 7/25/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.00833	mg/Kg		7/29/2019 12:12

Method Reference(s): EPA 7471B

Preparation Date: 7/29/2019

Data File: Hg190729A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-25, D-4

Lab Sample ID: 193526-04

Matrix: Soil

Date Sampled: 7/25/2019

Date Received: 7/25/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	3560	mg/Kg		7/31/2019 12:34
Antimony	< 3.12	mg/Kg		7/30/2019 00:25
Arsenic	1.07	mg/Kg		7/31/2019 23:53
Barium	28.9	mg/Kg		7/30/2019 00:25
Beryllium	0.211	mg/Kg	J	7/30/2019 00:25
Cadmium	0.236	mg/Kg	J	7/30/2019 00:25
Calcium	43800	mg/Kg		7/31/2019 12:39
Chromium	5.71	mg/Kg		7/30/2019 00:25
Cobalt	2.86	mg/Kg		7/30/2019 00:25
Copper	4.25	mg/Kg		7/30/2019 00:25
Iron	7640	mg/Kg		7/31/2019 12:34
Lead	1.24	mg/Kg		7/30/2019 00:25
Magnesium	12600	mg/Kg		7/30/2019 00:25
Manganese	249	mg/Kg		7/31/2019 23:53
Nickel	5.25	mg/Kg		7/30/2019 00:25
Potassium	849	mg/Kg		7/31/2019 12:34
Selenium	0.859	mg/Kg	J	7/30/2019 00:25
Silver	< 0.520	mg/Kg		7/30/2019 00:25
Sodium	139	mg/Kg		7/31/2019 12:34
Thallium	1.12	mg/Kg	J	7/30/2019 00:25
Vanadium	10.1	mg/Kg		7/30/2019 00:25
Zinc	16.3	mg/Kg		7/30/2019 00:25

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Report Prepared Friday, August 2, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 193526

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-25, D-4

**Lab Sample ID:** 193526-04

**Date Sampled:** 7/25/2019

**Matrix:** Soil

**Date Received:** 7/25/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/26/2019

**Data File:** 190731B

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*Report Prepared Friday, August 2, 2019*



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-25, D-4

Lab Sample ID: 193526-04

Date Sampled: 7/25/2019

Matrix: Soil

Date Received: 7/25/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 299	ug/Kg		7/31/2019 19:07
1,2,4,5-Tetrachlorobenzene	< 299	ug/Kg		7/31/2019 19:07
1,2,4-Trichlorobenzene	< 299	ug/Kg		7/31/2019 19:07
1,2-Dichlorobenzene	< 299	ug/Kg		7/31/2019 19:07
1,3-Dichlorobenzene	< 299	ug/Kg		7/31/2019 19:07
1,4-Dichlorobenzene	< 299	ug/Kg		7/31/2019 19:07
2,2-Oxybis (1-chloropropane)	< 299	ug/Kg		7/31/2019 19:07
2,3,4,6-Tetrachlorophenol	< 299	ug/Kg		7/31/2019 19:07
2,4,5-Trichlorophenol	< 299	ug/Kg		7/31/2019 19:07
2,4,6-Trichlorophenol	< 299	ug/Kg		7/31/2019 19:07
2,4-Dichlorophenol	< 299	ug/Kg		7/31/2019 19:07
2,4-Dimethylphenol	< 299	ug/Kg		7/31/2019 19:07
2,4-Dinitrophenol	< 1200	ug/Kg		7/31/2019 19:07
2,4-Dinitrotoluene	< 299	ug/Kg		7/31/2019 19:07
2,6-Dinitrotoluene	< 299	ug/Kg		7/31/2019 19:07
2-Chloronaphthalene	< 299	ug/Kg		7/31/2019 19:07
2-Chlorophenol	< 299	ug/Kg		7/31/2019 19:07
2-Methylnapthalene	< 299	ug/Kg		7/31/2019 19:07
2-Methylphenol	< 299	ug/Kg		7/31/2019 19:07
2-Nitroaniline	< 299	ug/Kg		7/31/2019 19:07
2-Nitrophenol	< 299	ug/Kg		7/31/2019 19:07
3&4-Methylphenol	< 299	ug/Kg		7/31/2019 19:07
3,3'-Dichlorobenzidine	< 299	ug/Kg		7/31/2019 19:07

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-25, D-4			
<b>Lab Sample ID:</b>	193526-04		<b>Date Sampled:</b>	7/25/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/25/2019
3-Nitroaniline	< 299	ug/Kg	7/31/2019	19:07
4,6-Dinitro-2-methylphenol	< 598	ug/Kg	7/31/2019	19:07
4-Bromophenyl phenyl ether	< 299	ug/Kg	7/31/2019	19:07
4-Chloro-3-methylphenol	< 299	ug/Kg	7/31/2019	19:07
4-Chloroaniline	< 299	ug/Kg	7/31/2019	19:07
4-Chlorophenyl phenyl ether	< 299	ug/Kg	7/31/2019	19:07
4-Nitroaniline	< 299	ug/Kg	7/31/2019	19:07
4-Nitrophenol	< 299	ug/Kg	7/31/2019	19:07
Acenaphthene	< 299	ug/Kg	7/31/2019	19:07
Acenaphthylene	< 299	ug/Kg	7/31/2019	19:07
Acetophenone	< 299	ug/Kg	7/31/2019	19:07
Anthracene	< 299	ug/Kg	7/31/2019	19:07
Atrazine	< 299	ug/Kg	7/31/2019	19:07
Benzaldehyde	< 299	ug/Kg	7/31/2019	19:07
Benzo (a) anthracene	< 299	ug/Kg	7/31/2019	19:07
Benzo (a) pyrene	< 299	ug/Kg	7/31/2019	19:07
Benzo (b) fluoranthene	< 299	ug/Kg	7/31/2019	19:07
Benzo (g,h,i) perylene	< 299	ug/Kg	7/31/2019	19:07
Benzo (k) fluoranthene	< 299	ug/Kg	7/31/2019	19:07
Bis (2-chloroethoxy) methane	< 299	ug/Kg	7/31/2019	19:07
Bis (2-chloroethyl) ether	< 299	ug/Kg	7/31/2019	19:07
Bis (2-ethylhexyl) phthalate	< 299	ug/Kg	7/31/2019	19:07
Butylbenzylphthalate	< 299	ug/Kg	7/31/2019	19:07
Caprolactam	< 299	ug/Kg	7/31/2019	19:07
Carbazole	< 299	ug/Kg	7/31/2019	19:07

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-25, D-4			
Lab Sample ID:	193526-04		Date Sampled:	7/25/2019
Matrix:	Soil		Date Received:	7/25/2019
Chrysene	< 299	ug/Kg	7/31/2019	19:07
Dibenz (a,h) anthracene	< 299	ug/Kg	7/31/2019	19:07
Dibenzofuran	< 299	ug/Kg	7/31/2019	19:07
Diethyl phthalate	< 299	ug/Kg	7/31/2019	19:07
Dimethyl phthalate	< 299	ug/Kg	7/31/2019	19:07
Di-n-butyl phthalate	< 299	ug/Kg	7/31/2019	19:07
Di-n-octylphthalate	< 299	ug/Kg	7/31/2019	19:07
Fluoranthene	< 299	ug/Kg	7/31/2019	19:07
Fluorene	< 299	ug/Kg	7/31/2019	19:07
Hexachlorobenzene	< 299	ug/Kg	7/31/2019	19:07
Hexachlorobutadiene	< 299	ug/Kg	7/31/2019	19:07
Hexachlorocyclopentadiene	< 1200	ug/Kg	7/31/2019	19:07
Hexachloroethane	< 299	ug/Kg	7/31/2019	19:07
Indeno (1,2,3-cd) pyrene	< 299	ug/Kg	7/31/2019	19:07
Isophorone	< 299	ug/Kg	7/31/2019	19:07
Naphthalene	< 299	ug/Kg	7/31/2019	19:07
Nitrobenzene	< 299	ug/Kg	7/31/2019	19:07
N-Nitroso-di-n-propylamine	< 299	ug/Kg	7/31/2019	19:07
N-Nitrosodiphenylamine	< 299	ug/Kg	7/31/2019	19:07
Pentachlorophenol	< 598	ug/Kg	7/31/2019	19:07
Phenanthrene	< 299	ug/Kg	7/31/2019	19:07
Phenol	< 299	ug/Kg	7/31/2019	19:07
Pyrene	< 299	ug/Kg	7/31/2019	19:07

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, August 2, 2019





Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-25, D-4

Lab Sample ID: 193526-04

Date Sampled: 7/25/2019

Matrix: Soil

Date Received: 7/25/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	73.4	34.9 - 92.6		7/31/2019 19:07
2-Fluorobiphenyl	68.0	39 - 77.6		7/31/2019 19:07
2-Fluorophenol	73.1	39.1 - 76.8		7/31/2019 19:07
Nitrobenzene-d5	63.3	35.4 - 75.3		7/31/2019 19:07
Phenol-d5	73.6	40.4 - 77.7		7/31/2019 19:07
Terphenyl-d14	79.5	42 - 93.5		7/31/2019 19:07

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/29/2019

Data File: B39480.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-25, D-4

Lab Sample ID: 193526-04

Date Sampled: 7/25/2019

Matrix: Soil

Date Received: 7/25/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.45	ug/Kg		8/2/2019 14:48
1,1,2,2-Tetrachloroethane	< 4.45	ug/Kg		8/2/2019 14:48
1,1,2-Trichloroethane	< 4.45	ug/Kg		8/2/2019 14:48
1,1-Dichloroethane	< 4.45	ug/Kg		8/2/2019 14:48
1,1-Dichloroethene	< 4.45	ug/Kg		8/2/2019 14:48
1,2,3-Trichlorobenzene	< 11.1	ug/Kg		8/2/2019 14:48
1,2,4-Trichlorobenzene	< 11.1	ug/Kg		8/2/2019 14:48
1,2,4-Trimethylbenzene	< 4.45	ug/Kg		8/2/2019 14:48
1,2-Dibromo-3-Chloropropane	< 22.3	ug/Kg		8/2/2019 14:48
1,2-Dibromoethane	< 4.45	ug/Kg		8/2/2019 14:48
1,2-Dichlorobenzene	< 4.45	ug/Kg		8/2/2019 14:48
1,2-Dichloroethane	< 4.45	ug/Kg		8/2/2019 14:48
1,2-Dichloropropane	< 4.45	ug/Kg		8/2/2019 14:48
1,3,5-Trimethylbenzene	< 4.45	ug/Kg		8/2/2019 14:48
1,3-Dichlorobenzene	< 4.45	ug/Kg		8/2/2019 14:48
1,4-Dichlorobenzene	< 4.45	ug/Kg		8/2/2019 14:48
1,4-Dioxane	< 44.5	ug/Kg		8/2/2019 14:48
2-Butanone	< 22.3	ug/Kg		8/2/2019 14:48
2-Hexanone	< 11.1	ug/Kg		8/2/2019 14:48
4-Methyl-2-pentanone	< 11.1	ug/Kg		8/2/2019 14:48
Acetone	< 22.3	ug/Kg		8/2/2019 14:48
Benzene	< 4.45	ug/Kg		8/2/2019 14:48
Bromochloromethane	< 11.1	ug/Kg		8/2/2019 14:48

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-25, D-4			
Lab Sample ID:	193526-04		Date Sampled:	7/25/2019
Matrix:	Soil		Date Received:	7/25/2019
Bromodichloromethane	< 4.45	ug/Kg		8/2/2019 14:48
Bromoform	< 11.1	ug/Kg	L	8/2/2019 14:48
Bromomethane	< 4.45	ug/Kg		8/2/2019 14:48
Carbon disulfide	< 4.45	ug/Kg		8/2/2019 14:48
Carbon Tetrachloride	< 4.45	ug/Kg		8/2/2019 14:48
Chlorobenzene	< 4.45	ug/Kg		8/2/2019 14:48
Chloroethane	< 4.45	ug/Kg	L	8/2/2019 14:48
Chloroform	< 4.45	ug/Kg		8/2/2019 14:48
Chloromethane	< 4.45	ug/Kg		8/2/2019 14:48
cis-1,2-Dichloroethene	< 4.45	ug/Kg		8/2/2019 14:48
cis-1,3-Dichloropropene	< 4.45	ug/Kg		8/2/2019 14:48
Cyclohexane	< 22.3	ug/Kg		8/2/2019 14:48
Dibromochloromethane	< 4.45	ug/Kg		8/2/2019 14:48
Dichlorodifluoromethane	< 4.45	ug/Kg		8/2/2019 14:48
Ethylbenzene	< 4.45	ug/Kg		8/2/2019 14:48
Freon 113	< 4.45	ug/Kg		8/2/2019 14:48
Isopropylbenzene	< 4.45	ug/Kg		8/2/2019 14:48
m,p-Xylene	< 4.45	ug/Kg		8/2/2019 14:48
Methyl acetate	< 4.45	ug/Kg		8/2/2019 14:48
Methyl tert-butyl Ether	< 4.45	ug/Kg		8/2/2019 14:48
Methylcyclohexane	< 4.45	ug/Kg		8/2/2019 14:48
Methylene chloride	< 11.1	ug/Kg		8/2/2019 14:48
Naphthalene	< 11.1	ug/Kg		8/2/2019 14:48
n-Butylbenzene	< 4.45	ug/Kg		8/2/2019 14:48
n-Propylbenzene	< 4.45	ug/Kg		8/2/2019 14:48

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Report Prepared Friday, August 2, 2019



Lab Project ID: 193526

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-25, D-4			
Lab Sample ID:	193526-04		Date Sampled:	7/25/2019
Matrix:	Soil		Date Received:	7/25/2019
o-Xylene	< 4.45	ug/Kg	8/2/2019	14:48
p-Isopropyltoluene	< 4.45	ug/Kg	8/2/2019	14:48
sec-Butylbenzene	< 4.45	ug/Kg	8/2/2019	14:48
Styrene	< 11.1	ug/Kg	8/2/2019	14:48
tert-Butylbenzene	< 4.45	ug/Kg	8/2/2019	14:48
Tetrachloroethene	< 4.45	ug/Kg	8/2/2019	14:48
Toluene	< 4.45	ug/Kg	8/2/2019	14:48
trans-1,2-Dichloroethene	< 4.45	ug/Kg	8/2/2019	14:48
trans-1,3-Dichloropropene	< 4.45	ug/Kg	8/2/2019	14:48
Trichloroethene	< 4.45	ug/Kg	8/2/2019	14:48
Trichlorofluoromethane	< 4.45	ug/Kg	8/2/2019	14:48
Vinyl chloride	< 4.45	ug/Kg	8/2/2019	14:48
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	79.6	71 - 141		8/2/2019 14:48
4-Bromofluorobenzene	75.2	60.2 - 128		8/2/2019 14:48
Pentafluorobenzene	102	86.6 - 111		8/2/2019 14:48
Toluene-D8	89.9	77.5 - 115		8/2/2019 14:48

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x63231.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Friday, August 2, 2019



***Method Blank Report***

**Client:** Ravi Engineering & Land Surveying, P.C.  
**Project Reference:** 101-113 Franklin St  
**Lab Project ID:** 193526  
**SDG #:** 3526-01  
**Matrix:** Soil

***Volatile Organics***

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	<2.00	ug/Kg		8/2/2019 13:15
1,1,2,2-Tetrachloroethane	<2.00	ug/Kg		8/2/2019 13:15
1,1,2-Trichloroethane	<2.00	ug/Kg		8/2/2019 13:15
1,1-Dichloroethane	<2.00	ug/Kg		8/2/2019 13:15
1,1-Dichloroethene	<2.00	ug/Kg		8/2/2019 13:15
1,2,3-Trichlorobenzene	<5.00	ug/Kg		8/2/2019 13:15
1,2,4-Trichlorobenzene	<5.00	ug/Kg		8/2/2019 13:15
1,2,4-Trimethylbenzene	<2.00	ug/Kg		8/2/2019 13:15
1,2-Dibromo-3-Chloropropane	<10.0	ug/Kg		8/2/2019 13:15
1,2-Dibromoethane	<2.00	ug/Kg		8/2/2019 13:15
1,2-Dichlorobenzene	<2.00	ug/Kg		8/2/2019 13:15
1,2-Dichloroethane	<2.00	ug/Kg		8/2/2019 13:15
1,2-Dichloropropane	<2.00	ug/Kg		8/2/2019 13:15
1,3,5-Trimethylbenzene	<2.00	ug/Kg		8/2/2019 13:15
1,3-Dichlorobenzene	<2.00	ug/Kg		8/2/2019 13:15
1,4-Dichlorobenzene	<2.00	ug/Kg		8/2/2019 13:15
1,4-Dioxane	<20.0	ug/Kg		8/2/2019 13:15
2-Butanone	<10.0	ug/Kg		8/2/2019 13:15
2-Hexanone	<5.00	ug/Kg		8/2/2019 13:15
4-Methyl-2-pentanone	<5.00	ug/Kg		8/2/2019 13:15
Acetone	<10.0	ug/Kg		8/2/2019 13:15
Benzene	<2.00	ug/Kg		8/2/2019 13:15
Bromochloromethane	<5.00	ug/Kg		8/2/2019 13:15
Bromodichloromethane	<2.00	ug/Kg		8/2/2019 13:15
Bromoform	<5.00	ug/Kg		8/2/2019 13:15
Bromomethane	<2.00	ug/Kg		8/2/2019 13:15
Carbon disulfide	<2.00	ug/Kg		8/2/2019 13:15

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Friday, August 02, 2019*



***Method Blank Report***

**Client:** Ravi Engineering & Land Surveying, P.C.  
**Project Reference:** 101-113 Franklin St  
**Lab Project ID:** 193526  
**SDG #:** 3526-01  
**Matrix:** Soil

***Volatile Organics***

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Carbon Tetrachloride	<2.00	ug/Kg		8/2/2019 13:15
Chlorobenzene	<2.00	ug/Kg		8/2/2019 13:15
Chloroethane	<2.00	ug/Kg		8/2/2019 13:15
Chloroform	<2.00	ug/Kg		8/2/2019 13:15
Chloromethane	<2.00	ug/Kg		8/2/2019 13:15
cis-1,2-Dichloroethene	<2.00	ug/Kg		8/2/2019 13:15
cis-1,3-Dichloropropene	<2.00	ug/Kg		8/2/2019 13:15
Cyclohexane	<10.0	ug/Kg		8/2/2019 13:15
Dibromochloromethane	<2.00	ug/Kg		8/2/2019 13:15
Dichlorodifluoromethane	<2.00	ug/Kg		8/2/2019 13:15
Ethylbenzene	<2.00	ug/Kg		8/2/2019 13:15
Freon 113	<2.00	ug/Kg		8/2/2019 13:15
Isopropylbenzene	<2.00	ug/Kg		8/2/2019 13:15
m,p-Xylene	<2.00	ug/Kg		8/2/2019 13:15
Methyl acetate	<2.00	ug/Kg		8/2/2019 13:15
Methyl tert-butyl Ether	<2.00	ug/Kg		8/2/2019 13:15
Methylcyclohexane	<2.00	ug/Kg		8/2/2019 13:15
Methylene chloride	<5.00	ug/Kg		8/2/2019 13:15
Naphthalene	<5.00	ug/Kg		8/2/2019 13:15
n-Butylbenzene	<2.00	ug/Kg		8/2/2019 13:15
n-Propylbenzene	<2.00	ug/Kg		8/2/2019 13:15
o-Xylene	<2.00	ug/Kg		8/2/2019 13:15
p-Isopropyltoluene	<2.00	ug/Kg		8/2/2019 13:15
sec-Butylbenzene	<2.00	ug/Kg		8/2/2019 13:15
Styrene	<5.00	ug/Kg		8/2/2019 13:15
tert-Butylbenzene	<2.00	ug/Kg		8/2/2019 13:15
Tetrachloroethene	<2.00	ug/Kg		8/2/2019 13:15
Toluene	<2.00	ug/Kg		8/2/2019 13:15

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Report Prepared Friday, August 02, 2019



**Method Blank Report**

**Client:** Ravi Engineering & Land Surveying, P.C.  
**Project Reference:** 101-113 Franklin St  
**Lab Project ID:** 193526  
**SDG #:** 3526-01  
**Matrix:** Soil

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>	
trans-1,2-Dichloroethene	<2.00	ug/Kg		8/2/2019	13:15
trans-1,3-Dichloropropene	<2.00	ug/Kg		8/2/2019	13:15
Trichloroethene	<2.00	ug/Kg		8/2/2019	13:15
Trichlorofluoromethane	<2.00	ug/Kg		8/2/2019	13:15
Vinyl chloride	<2.00	ug/Kg		8/2/2019	13:15

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>	
1,2-Dichloroethane-d4	77.1	71 - 141		8/2/2019	13:15
4-Bromofluorobenzene	76.4	60.2 - 128		8/2/2019	13:15
Pentafluorobenzene	106	86.6 - 111		8/2/2019	13:15
Toluene-D8	96.0	77.5 - 115		8/2/2019	13:15

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x63227.D  
**QC Batch ID:** voas190802  
**QC Number:** 1

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Report Prepared Friday, August 02, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

***QC Report for Laboratory Control Sample***

**Client:**

**Ravi Engineering & Land Surveying, P.C.**

**Project Reference:**

101-113 Franklin St

**Lab Project ID:**

193526

**SDG #:**

3526-01

**Matrix:**

Soil

***Volatile Organics***

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,1,1-Trichloroethane	20.0	ug/Kg	23.9	120	71.3 - 124		8/2/2019
1,1,2,2-Tetrachloroethane	20.0	ug/Kg	16.2	80.9	74.4 - 135		8/2/2019
1,1,2-Trichloroethane	20.0	ug/Kg	16.1	80.7	75.4 - 130		8/2/2019
1,1-Dichloroethane	20.0	ug/Kg	22.3	112	78.2 - 121		8/2/2019
1,1-Dichloroethene	20.0	ug/Kg	22.9	114	68.4 - 117		8/2/2019
1,2-Dichlorobenzene	20.0	ug/Kg	21.2	106	73.3 - 128		8/2/2019
1,2-Dichloroethane	20.0	ug/Kg	17.0	85.1	74.4 - 133		8/2/2019
1,2-Dichloropropane	20.0	ug/Kg	19.1	95.5	75.7 - 118		8/2/2019
1,3-Dichlorobenzene	20.0	ug/Kg	22.2	111	68.7 - 124		8/2/2019
1,4-Dichlorobenzene	20.0	ug/Kg	20.7	103	69.8 - 116		8/2/2019
Benzene	20.0	ug/Kg	22.1	111	79.2 - 126		8/2/2019
Bromodichloromethane	20.0	ug/Kg	17.2	86.1	76.4 - 121		8/2/2019
Bromoform	20.0	ug/Kg	13.4	67.1	70 - 118	*	8/2/2019
Bromomethane	20.0	ug/Kg	27.2	136	68.5 - 139		8/2/2019
Carbon Tetrachloride	20.0	ug/Kg	24.4	122	68.9 - 125		8/2/2019
Chlorobenzene	20.0	ug/Kg	21.9	110	77.4 - 122		8/2/2019

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**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*QC Report for Laboratory Control Sample*

**Client:** Ravi Engineering & Land Surveying, P.C.  
**Project Reference:** 101-113 Franklin St  
**Lab Project ID:** 193526  
**SDG #:** 3526-01  
**Matrix:** Soil

**Volatile Organics**

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chloroethane	20.0	ug/Kg	29.9	150	72.8 - 127	*	8/2/2019
Chloroform	20.0	ug/Kg	21.5	107	81.1 - 124		8/2/2019
Chloromethane	20.0	ug/Kg	28.5	143	46.8 - 144		8/2/2019
cis-1,3-Dichloropropene	20.0	ug/Kg	17.3	86.7	60.5 - 122		8/2/2019
Dibromochloromethane	20.0	ug/Kg	16.4	82.1	75.5 - 127		8/2/2019
Ethylbenzene	20.0	ug/Kg	24.2	121	70.1 - 124		8/2/2019
Methylene chloride	20.0	ug/Kg	20.9	105	74.5 - 130		8/2/2019
Tetrachloroethene	20.0	ug/Kg	25.4	127	71.5 - 137		8/2/2019
Toluene	20.0	ug/Kg	23.4	117	77.5 - 126		8/2/2019
trans-1,2-Dichloroethene	20.0	ug/Kg	23.2	116	75 - 122		8/2/2019
trans-1,3-Dichloropropene	20.0	ug/Kg	15.1	75.4	62.3 - 122		8/2/2019
Trichloroethene	20.0	ug/Kg	24.2	121	70.1 - 126		8/2/2019
Trichlorofluoromethane	20.0	ug/Kg	27.2	136	62.1 - 136		8/2/2019
Vinyl chloride	20.0	ug/Kg	27.2	136	57.7 - 136		8/2/2019

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*QC Report for Laboratory Control Sample*

Client: Ravi Engineering & Land Surveying, P.C.  
Project Reference: 101-113 Franklin St  
Lab Project ID: 193526  
SDG #: 3526-01  
Matrix: Soil

*Volatile Organics*

Analyte	Method Reference(s):	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
	EPA 8260C							
	EPA 5035A - L							
	Data File: x63226.D							
	QC Number: 1							
	QC Batch ID: voas190802							

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

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liu@huang.com  
liu@huang.com

Circular	7/8/19	1714	
No certainty as to client delivered			

Sampled By	<i>Ann Seave</i>	Date/Time	<i>7/25/19</i>	Total Cost:	
Relinquished By	<i>Ann Seave</i>	Date/Time	<i>7/25/19 17:05</i>		
Received By	<i>Michelle</i>	Date/Time	<i>7/25/19 17:17</i>	P.I.F.	
Received @ Lab By		Date/Time			

See additional page for sample conditions.



# Chain of Custody Supplement

Client: Ravi Completed by: Molytail  
 Lab Project ID: 193526 Date: 7/25/19

## Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 5039	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> met
Comments	6°C		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



Lab Project ID: 193573

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: SS-26 (D5)

Lab Sample ID: 193573-01

Date Sampled: 7/26/2019

Matrix: Soil

Date Received: 7/29/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.00766	mg/Kg		8/2/2019 09:59

Method Reference(s): EPA 7471B

Preparation Date: 8/2/2019

Data File: Hg190802A

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-26 (D5)

Lab Sample ID: 193573-01

Matrix: Soil

Date Sampled: 7/26/2019

Date Received: 7/29/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	4240	mg/Kg		7/31/2019 20:22
Antimony	< 3.22	mg/Kg		7/31/2019 20:22
Arsenic	1.41	mg/Kg		8/1/2019 21:18
Barium	38.9	mg/Kg		7/31/2019 20:22
Beryllium	0.212	mg/Kg	J	7/31/2019 20:22
Cadmium	< 0.269	mg/Kg		7/31/2019 20:22
Calcium	50800	mg/Kg		8/1/2019 21:22
Chromium	6.58	mg/Kg		7/31/2019 20:22
Cobalt	3.07	mg/Kg		7/31/2019 20:22
Copper	6.63	mg/Kg		7/31/2019 20:22
Iron	8770	mg/Kg		7/31/2019 20:22
Lead	2.47	mg/Kg		7/31/2019 20:22
Magnesium	11300	mg/Kg		7/31/2019 20:22
Manganese	311	mg/Kg		7/31/2019 20:22
Nickel	5.92	mg/Kg		7/31/2019 20:22
Potassium	1020	mg/Kg		7/31/2019 20:22
Selenium	1.31	mg/Kg		7/31/2019 20:22
Silver	< 0.537	mg/Kg		7/31/2019 20:22
Sodium	132	mg/Kg	J	8/1/2019 21:18
Thallium	2.37	mg/Kg		7/31/2019 20:22
Vanadium	10.9	mg/Kg		7/31/2019 20:22
Zinc	16.7	mg/Kg		7/31/2019 20:22

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Report Prepared Monday, August 5, 2019





**Lab Project ID:** 193573

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** SS-26 (D5)

**Lab Sample ID:** 193573-01

**Date Sampled:** 7/26/2019

**Matrix:** Soil

**Date Received:** 7/29/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/31/2019

**Data File:** 190731C

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*Report Prepared Monday, August 5, 2019*



Lab Project ID: 193573

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-26 (D5)

Lab Sample ID: 193573-01

Date Sampled: 7/26/2019

Matrix: Soil

Date Received: 7/29/2019

**PCBs**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
PCB-1016	< 0.148	mg/Kg		8/1/2019 00:06
PCB-1221	< 0.148	mg/Kg		8/1/2019 00:06
PCB-1232	< 0.148	mg/Kg		8/1/2019 00:06
PCB-1242	< 0.148	mg/Kg		8/1/2019 00:06
PCB-1248	< 0.148	mg/Kg		8/1/2019 00:06
PCB-1254	< 0.148	mg/Kg		8/1/2019 00:06
PCB-1260	< 0.148	mg/Kg		8/1/2019 00:06
PCB-1262	< 0.148	mg/Kg		8/1/2019 00:06
PCB-1268	< 0.148	mg/Kg		8/1/2019 00:06

<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>
Tetrachloro-m-xylene	82.3	21.7 - 82.5		8/1/2019 00:06

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/31/2019

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-26 (D5)

Lab Sample ID: 193573-01

Matrix: Soil

Date Sampled: 7/26/2019

Date Received: 7/29/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 314	ug/Kg		8/2/2019 01:32
1,2,4,5-Tetrachlorobenzene	< 314	ug/Kg		8/2/2019 01:32
1,2,4-Trichlorobenzene	< 314	ug/Kg		8/2/2019 01:32
1,2-Dichlorobenzene	< 314	ug/Kg		8/2/2019 01:32
1,3-Dichlorobenzene	< 314	ug/Kg		8/2/2019 01:32
1,4-Dichlorobenzene	< 314	ug/Kg		8/2/2019 01:32
2,2-Oxybis (1-chloropropane)	< 314	ug/Kg		8/2/2019 01:32
2,3,4,6-Tetrachlorophenol	< 314	ug/Kg		8/2/2019 01:32
2,4,5-Trichlorophenol	< 314	ug/Kg		8/2/2019 01:32
2,4,6-Trichlorophenol	< 314	ug/Kg		8/2/2019 01:32
2,4-Dichlorophenol	< 314	ug/Kg		8/2/2019 01:32
2,4-Dimethylphenol	< 314	ug/Kg		8/2/2019 01:32
2,4-Dinitrophenol	< 1260	ug/Kg		8/2/2019 01:32
2,4-Dinitrotoluene	< 314	ug/Kg		8/2/2019 01:32
2,6-Dinitrotoluene	< 314	ug/Kg		8/2/2019 01:32
2-Chloronaphthalene	< 314	ug/Kg		8/2/2019 01:32
2-Chlorophenol	< 314	ug/Kg		8/2/2019 01:32
2-Methylnaphthalene	< 314	ug/Kg		8/2/2019 01:32
2-Methylphenol	< 314	ug/Kg		8/2/2019 01:32
2-Nitroaniline	< 314	ug/Kg		8/2/2019 01:32
2-Nitrophenol	< 314	ug/Kg		8/2/2019 01:32
3&4-Methylphenol	< 314	ug/Kg		8/2/2019 01:32
3,3'-Dichlorobenzidine	< 314	ug/Kg		8/2/2019 01:32

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-26 (D5)			
Lab Sample ID:	193573-01		Date Sampled:	7/26/2019
Matrix:	Soil		Date Received:	7/29/2019
3-Nitroaniline	< 314	ug/Kg	8/2/2019	01:32
4,6-Dinitro-2-methylphenol	< 629	ug/Kg	8/2/2019	01:32
4-Bromophenyl phenyl ether	< 314	ug/Kg	8/2/2019	01:32
4-Chloro-3-methylphenol	< 314	ug/Kg	8/2/2019	01:32
4-Chloroaniline	< 314	ug/Kg	8/2/2019	01:32
4-Chlorophenyl phenyl ether	< 314	ug/Kg	8/2/2019	01:32
4-Nitroaniline	< 314	ug/Kg	8/2/2019	01:32
4-Nitrophenol	< 314	ug/Kg	8/2/2019	01:32
Acenaphthene	< 314	ug/Kg	8/2/2019	01:32
Acenaphthylene	< 314	ug/Kg	8/2/2019	01:32
Acetophenone	< 314	ug/Kg	8/2/2019	01:32
Anthracene	< 314	ug/Kg	8/2/2019	01:32
Atrazine	< 314	ug/Kg	8/2/2019	01:32
Benzaldehyde	< 314	ug/Kg	8/2/2019	01:32
Benzo (a) anthracene	< 314	ug/Kg	8/2/2019	01:32
Benzo (a) pyrene	< 314	ug/Kg	8/2/2019	01:32
Benzo (b) fluoranthene	< 314	ug/Kg	8/2/2019	01:32
Benzo (g,h,i) perylene	< 314	ug/Kg	8/2/2019	01:32
Benzo (k) fluoranthene	< 314	ug/Kg	8/2/2019	01:32
Bis (2-chloroethoxy) methane	< 314	ug/Kg	8/2/2019	01:32
Bis (2-chloroethyl) ether	< 314	ug/Kg	8/2/2019	01:32
Bis (2-ethylhexyl) phthalate	< 314	ug/Kg	8/2/2019	01:32
Butylbenzylphthalate	< 314	ug/Kg	8/2/2019	01:32
Caprolactam	< 314	ug/Kg	8/2/2019	01:32
Carbazole	< 314	ug/Kg	8/2/2019	01:32

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	SS-26 (D5)			
<b>Lab Sample ID:</b>	193573-01		<b>Date Sampled:</b>	7/26/2019
<b>Matrix:</b>	Soil		<b>Date Received:</b>	7/29/2019
Chrysene	< 314	ug/Kg	8/2/2019	01:32
Dibenz (a,h) anthracene	< 314	ug/Kg	8/2/2019	01:32
Dibenzofuran	< 314	ug/Kg	8/2/2019	01:32
Diethyl phthalate	< 314	ug/Kg	8/2/2019	01:32
Dimethyl phthalate	< 314	ug/Kg	8/2/2019	01:32
Di-n-butyl phthalate	< 314	ug/Kg	8/2/2019	01:32
Di-n-octylphthalate	< 314	ug/Kg	8/2/2019	01:32
Fluoranthene	< 314	ug/Kg	8/2/2019	01:32
Fluorene	< 314	ug/Kg	8/2/2019	01:32
Hexachlorobenzene	< 314	ug/Kg	8/2/2019	01:32
Hexachlorobutadiene	< 314	ug/Kg	8/2/2019	01:32
Hexachlorocyclopentadiene	< 1260	ug/Kg	8/2/2019	01:32
Hexachloroethane	< 314	ug/Kg	8/2/2019	01:32
Indeno (1,2,3-cd) pyrene	< 314	ug/Kg	8/2/2019	01:32
Isophorone	< 314	ug/Kg	8/2/2019	01:32
Naphthalene	< 314	ug/Kg	8/2/2019	01:32
Nitrobenzene	< 314	ug/Kg	8/2/2019	01:32
N-Nitroso-di-n-propylamine	< 314	ug/Kg	8/2/2019	01:32
N-Nitrosodiphenylamine	< 314	ug/Kg	8/2/2019	01:32
Pentachlorophenol	< 629	ug/Kg	8/2/2019	01:32
Phenanthrene	< 314	ug/Kg	8/2/2019	01:32
Phenol	< 314	ug/Kg	8/2/2019	01:32
Pyrene	< 314	ug/Kg	8/2/2019	01:32

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** SS-26 (D5)

**Lab Sample ID:** 193573-01

**Date Sampled:** 7/26/2019

**Matrix:** Soil

**Date Received:** 7/29/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>63.8</b>	34.9 - 92.6		8/2/2019	01:32
2-Fluorobiphenyl	<b>54.4</b>	39 - 77.6		8/2/2019	01:32
2-Fluorophenol	<b>59.8</b>	39.1 - 76.8		8/2/2019	01:32
Nitrobenzene-d5	<b>52.5</b>	35.4 - 75.3		8/2/2019	01:32
Phenol-d5	<b>61.1</b>	40.4 - 77.7		8/2/2019	01:32
Terphenyl-d14	<b>66.0</b>	42 - 93.5		8/2/2019	01:32

**Method Reference(s):** EPA 8270D

EPA 3546

**Preparation Date:** 7/31/2019

**Data File:** B39538.D

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*Report Prepared Monday, August 5, 2019*



Lab Project ID: 193573

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: SS-26 (D5)

Lab Sample ID: 193573-01

Date Sampled: 7/26/2019

Matrix: Soil

Date Received: 7/29/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.39	ug/Kg		8/2/2019 21:36
1,1,2,2-Tetrachloroethane	< 4.39	ug/Kg		8/2/2019 21:36
1,1,2-Trichloroethane	< 4.39	ug/Kg		8/2/2019 21:36
1,1-Dichloroethane	< 4.39	ug/Kg		8/2/2019 21:36
1,1-Dichloroethene	< 4.39	ug/Kg		8/2/2019 21:36
1,2,3-Trichlorobenzene	< 11.0	ug/Kg		8/2/2019 21:36
1,2,4-Trichlorobenzene	< 11.0	ug/Kg		8/2/2019 21:36
1,2,4-Trimethylbenzene	< 4.39	ug/Kg		8/2/2019 21:36
1,2-Dibromo-3-Chloropropane	< 22.0	ug/Kg		8/2/2019 21:36
1,2-Dibromoethane	< 4.39	ug/Kg		8/2/2019 21:36
1,2-Dichlorobenzene	< 4.39	ug/Kg		8/2/2019 21:36
1,2-Dichloroethane	< 4.39	ug/Kg		8/2/2019 21:36
1,2-Dichloropropane	< 4.39	ug/Kg		8/2/2019 21:36
1,3,5-Trimethylbenzene	< 4.39	ug/Kg		8/2/2019 21:36
1,3-Dichlorobenzene	< 4.39	ug/Kg		8/2/2019 21:36
1,4-Dichlorobenzene	< 4.39	ug/Kg		8/2/2019 21:36
1,4-Dioxane	< 43.9	ug/Kg		8/2/2019 21:36
2-Butanone	< 22.0	ug/Kg		8/2/2019 21:36
2-Hexanone	< 11.0	ug/Kg		8/2/2019 21:36
4-Methyl-2-pentanone	< 11.0	ug/Kg		8/2/2019 21:36
Acetone	<b>29.8</b>	ug/Kg		8/2/2019 21:36
Benzene	< 4.39	ug/Kg		8/2/2019 21:36
Bromochloromethane	< 11.0	ug/Kg		8/2/2019 21:36

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: SS-26 (D5)

Lab Sample ID: 193573-01

Date Sampled: 7/26/2019

Matrix: Soil

Date Received: 7/29/2019

Bromodichloromethane	< 4.39	ug/Kg	8/2/2019 21:36
Bromoform	< 11.0	ug/Kg	8/2/2019 21:36
Bromomethane	< 4.39	ug/Kg	8/2/2019 21:36
Carbon disulfide	< 4.39	ug/Kg	8/2/2019 21:36
Carbon Tetrachloride	< 4.39	ug/Kg	8/2/2019 21:36
Chlorobenzene	< 4.39	ug/Kg	8/2/2019 21:36
Chloroethane	< 4.39	ug/Kg	8/2/2019 21:36
Chloroform	< 4.39	ug/Kg	8/2/2019 21:36
Chloromethane	< 4.39	ug/Kg	8/2/2019 21:36
cis-1,2-Dichloroethene	< 4.39	ug/Kg	8/2/2019 21:36
cis-1,3-Dichloropropene	< 4.39	ug/Kg	8/2/2019 21:36
Cyclohexane	< 22.0	ug/Kg	8/2/2019 21:36
Dibromochloromethane	< 4.39	ug/Kg	8/2/2019 21:36
Dichlorodifluoromethane	< 4.39	ug/Kg	8/2/2019 21:36
Ethylbenzene	< 4.39	ug/Kg	8/2/2019 21:36
Freon 113	< 4.39	ug/Kg	8/2/2019 21:36
Isopropylbenzene	< 4.39	ug/Kg	8/2/2019 21:36
m,p-Xylene	< 4.39	ug/Kg	8/2/2019 21:36
Methyl acetate	< 4.39	ug/Kg	8/2/2019 21:36
Methyl tert-butyl Ether	< 4.39	ug/Kg	8/2/2019 21:36
Methylcyclohexane	< 4.39	ug/Kg	8/2/2019 21:36
Methylene chloride	< 11.0	ug/Kg	8/2/2019 21:36
Naphthalene	< 11.0	ug/Kg	8/2/2019 21:36
n-Butylbenzene	< 4.39	ug/Kg	8/2/2019 21:36
n-Propylbenzene	< 4.39	ug/Kg	8/2/2019 21:36

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, August 5, 2019





Lab Project ID: 193573

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	SS-26 (D5)				
Lab Sample ID:	193573-01			Date Sampled:	7/26/2019
Matrix:	Soil			Date Received:	7/29/2019
o-Xylene	< 4.39	ug/Kg		8/2/2019	21:36
p-Isopropyltoluene	< 4.39	ug/Kg		8/2/2019	21:36
sec-Butylbenzene	< 4.39	ug/Kg		8/2/2019	21:36
Styrene	< 11.0	ug/Kg		8/2/2019	21:36
tert-Butylbenzene	< 4.39	ug/Kg		8/2/2019	21:36
Tetrachloroethene	< 4.39	ug/Kg		8/2/2019	21:36
Toluene	< 4.39	ug/Kg		8/2/2019	21:36
trans-1,2-Dichloroethene	< 4.39	ug/Kg		8/2/2019	21:36
trans-1,3-Dichloropropene	< 4.39	ug/Kg		8/2/2019	21:36
Trichloroethene	< 4.39	ug/Kg		8/2/2019	21:36
Trichlorofluoromethane	< 4.39	ug/Kg		8/2/2019	21:36
Vinyl chloride	< 4.39	ug/Kg		8/2/2019	21:36
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		83.9	71 - 141		8/2/2019 21:36
4-Bromofluorobenzene		73.5	60.2 - 128		8/2/2019 21:36
Pentafluorobenzene		106	86.6 - 111		8/2/2019 21:36
Toluene-D8		93.9	77.5 - 115		8/2/2019 21:36

Method Reference(s): EPA 8260C  
EPA 5035A - L

Data File: x63248.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-4

Lab Sample ID: 193573-02

Date Sampled: 7/26/2019

Matrix: Groundwater

Date Received: 7/29/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 100	ug/L		8/5/2019 11:19
1,2,4,5-Tetrachlorobenzene	< 100	ug/L		8/5/2019 11:19
1,2,4-Trichlorobenzene	< 100	ug/L		8/5/2019 11:19
1,2-Dichlorobenzene	< 100	ug/L		8/5/2019 11:19
1,3-Dichlorobenzene	< 100	ug/L		8/5/2019 11:19
1,4-Dichlorobenzene	< 100	ug/L		8/5/2019 11:19
2,2-Oxybis (1-chloropropane)	< 100	ug/L		8/5/2019 11:19
2,3,4,6-Tetrachlorophenol	< 100	ug/L		8/5/2019 11:19
2,4,5-Trichlorophenol	< 200	ug/L		8/5/2019 11:19
2,4,6-Trichlorophenol	< 100	ug/L		8/5/2019 11:19
2,4-Dichlorophenol	< 100	ug/L		8/5/2019 11:19
2,4-Dimethylphenol	< 200	ug/L		8/5/2019 11:19
2,4-Dinitrophenol	< 200	ug/L		8/5/2019 11:19
2,4-Dinitrotoluene	< 100	ug/L		8/5/2019 11:19
2,6-Dinitrotoluene	< 100	ug/L		8/5/2019 11:19
2-Chloronaphthalene	< 100	ug/L		8/5/2019 11:19
2-Chlorophenol	< 100	ug/L		8/5/2019 11:19
2-Methylnaphthalene	< 100	ug/L		8/5/2019 11:19
2-Methylphenol	< 100	ug/L		8/5/2019 11:19
2-Nitroaniline	< 200	ug/L		8/5/2019 11:19
2-Nitrophenol	< 100	ug/L		8/5/2019 11:19
3&4-Methylphenol	< 100	ug/L		8/5/2019 11:19
3,3'-Dichlorobenzidine	< 100	ug/L		8/5/2019 11:19

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-4		
Lab Sample ID:	193573-02	Date Sampled:	7/26/2019
Matrix:	Groundwater	Date Received:	7/29/2019
3-Nitroaniline	< 200	ug/L	8/5/2019 11:19
4,6-Dinitro-2-methylphenol	< 200	ug/L	8/5/2019 11:19
4-Bromophenyl phenyl ether	< 100	ug/L	8/5/2019 11:19
4-Chloro-3-methylphenol	< 100	ug/L	8/5/2019 11:19
4-Chloroaniline	< 100	ug/L	8/5/2019 11:19
4-Chlorophenyl phenyl ether	< 100	ug/L	8/5/2019 11:19
4-Nitroaniline	< 200	ug/L	8/5/2019 11:19
4-Nitrophenol	< 200	ug/L	8/5/2019 11:19
Acenaphthene	< 100	ug/L	8/5/2019 11:19
Acenaphthylene	< 100	ug/L	8/5/2019 11:19
Acetophenone	< 100	ug/L	8/5/2019 11:19
Anthracene	< 100	ug/L	8/5/2019 11:19
Atrazine	< 100	ug/L	8/5/2019 11:19
Benzaldehyde	< 100	ug/L	8/5/2019 11:19
Benzo (a) anthracene	< 100	ug/L	8/5/2019 11:19
Benzo (a) pyrene	< 100	ug/L	8/5/2019 11:19
Benzo (b) fluoranthene	< 100	ug/L	8/5/2019 11:19
Benzo (g,h,i) perylene	< 100	ug/L	8/5/2019 11:19
Benzo (k) fluoranthene	< 100	ug/L	8/5/2019 11:19
Bis (2-chloroethoxy) methane	< 100	ug/L	8/5/2019 11:19
Bis (2-chloroethyl) ether	< 100	ug/L	8/5/2019 11:19
Bis (2-ethylhexyl) phthalate	< 100	ug/L	8/5/2019 11:19
Butylbenzylphthalate	< 100	ug/L	8/5/2019 11:19
Caprolactam	850	ug/L	8/5/2019 11:19
Carbazole	< 100	ug/L	8/5/2019 11:19

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-4		
Lab Sample ID:	193573-02	Date Sampled:	7/26/2019
Matrix:	Groundwater	Date Received:	7/29/2019
Chrysene	< 100	ug/L	8/5/2019 11:19
Dibenz (a,h) anthracene	< 100	ug/L	8/5/2019 11:19
Dibenzofuran	< 100	ug/L	8/5/2019 11:19
Diethyl phthalate	< 100	ug/L	8/5/2019 11:19
Dimethyl phthalate	< 200	ug/L	8/5/2019 11:19
Di-n-butyl phthalate	< 100	ug/L	8/5/2019 11:19
Di-n-octylphthalate	< 100	ug/L	8/5/2019 11:19
Fluoranthene	< 100	ug/L	8/5/2019 11:19
Fluorene	< 100	ug/L	8/5/2019 11:19
Hexachlorobenzene	< 100	ug/L	8/5/2019 11:19
Hexachlorobutadiene	< 100	ug/L	8/5/2019 11:19
Hexachlorocyclopentadiene	< 100	ug/L	8/5/2019 11:19
Hexachloroethane	< 100	ug/L	8/5/2019 11:19
Indeno (1,2,3-cd) pyrene	< 100	ug/L	8/5/2019 11:19
Isophorone	< 100	ug/L	8/5/2019 11:19
Naphthalene	< 100	ug/L	8/5/2019 11:19
Nitrobenzene	< 100	ug/L	8/5/2019 11:19
N-Nitroso-di-n-propylamine	< 100	ug/L	8/5/2019 11:19
N-Nitrosodiphenylamine	< 100	ug/L	8/5/2019 11:19
Pentachlorophenol	< 200	ug/L	8/5/2019 11:19
Phenanthrene	< 100	ug/L	8/5/2019 11:19
Phenol	< 100	ug/L	8/5/2019 11:19
Pyrene	< 100	ug/L	8/5/2019 11:19

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Report Prepared Monday, August 5, 2019



**Lab Project ID:** 193573

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** MW-4

**Lab Sample ID:** 193573-02

**Date Sampled:** 7/26/2019

**Matrix:** Groundwater

**Date Received:** 7/29/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	NC	54.2 - 126		8/5/2019	11:19
2-Fluorobiphenyl	NC	37.6 - 102		8/5/2019	11:19
2-Fluorophenol	NC	15.1 - 106		8/5/2019	11:19
Nitrobenzene-d5	NC	53.3 - 103		8/5/2019	11:19
Phenol-d5	NC	10 - 108		8/5/2019	11:19
Terphenyl-d14	NC	61.8 - 114		8/5/2019	11:19

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 7/31/2019

**Data File:** B39624.D

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*Report Prepared Monday, August 5, 2019*



Lab Project ID: 193573

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

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Sample Identifier: S-1 (D5)

Lab Sample ID: 193573-03

Date Sampled: 7/26/2019

Matrix: Soil

Date Received: 7/29/2019

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	0.110	mg/Kg		8/2/2019 10:01

Method Reference(s): EPA 7471B

Preparation Date: 8/2/2019

Data File: Hg190802A

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Report Prepared Monday, August 5, 2019



Lab Project ID: 193573

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: S-1 (D5)

Lab Sample ID: 193573-03

Date Sampled: 7/26/2019

Matrix: Soil

Date Received: 7/29/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	5900	mg/Kg		7/31/2019 20:26
Antimony	< 3.14	mg/Kg		7/31/2019 20:26
Arsenic	4.06	mg/Kg		7/31/2019 20:26
Barium	42.3	mg/Kg		7/31/2019 20:26
Beryllium	0.269	mg/Kg		7/31/2019 20:26
Cadmium	< 0.262	mg/Kg		7/31/2019 20:26
Calcium	39000	mg/Kg		8/1/2019 21:41
Chromium	9.97	mg/Kg		7/31/2019 20:26
Cobalt	3.72	mg/Kg		7/31/2019 20:26
Copper	17.0	mg/Kg		7/31/2019 20:26
Iron	9750	mg/Kg		7/31/2019 20:26
Lead	60.7	mg/Kg		7/31/2019 20:26
Magnesium	9270	mg/Kg		7/31/2019 20:26
Manganese	375	mg/Kg		7/31/2019 20:26
Nickel	7.36	mg/Kg		7/31/2019 20:26
Potassium	963	mg/Kg		7/31/2019 20:26
Selenium	1.36	mg/Kg		8/2/2019 12:04
Silver	< 0.523	mg/Kg		7/31/2019 20:26
Sodium	101	mg/Kg	J	7/31/2019 20:26
Thallium	1.19	mg/Kg	J	7/31/2019 20:26
Vanadium	11.7	mg/Kg		7/31/2019 20:26
Zinc	60.6	mg/Kg		7/31/2019 20:26

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Report Prepared Monday, August 5, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID: 193573**

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** S-1 (D5)

**Lab Sample ID:** 193573-03

**Date Sampled:** 7/26/2019

**Matrix:** Soil

**Date Received:** 7/29/2019

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**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 7/31/2019

**Data File:** 190731C

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*Report Prepared Monday, August 5, 2019*





## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.





2 of 2

## Chain of Custody Supplement

Client: Ravi EngineeringCompleted by: Glenn PezzuloLab Project ID: 193573Date: 7/30/19

### **Sample Condition Requirements**

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 5035 (oi)	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>10°C iced started in field 7/26/19 16:09</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 500A (02)	<input type="checkbox"/>
Comments			



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

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Sample Identifier: MW-D2

Lab Sample ID: 193780-01

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

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Mercury

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.000200	mg/L		8/12/2019 07:44

Method Reference(s): EPA 7470A

Preparation Date: 8/9/2019

Data File: Hg190812A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D2

Lab Sample ID: 193780-01

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	0.217	mg/L		8/14/2019 13:03
Antimony	< 0.0600	mg/L		8/14/2019 13:03
Arsenic	< 0.0100	mg/L		8/14/2019 13:03
Barium	0.133	mg/L		8/14/2019 13:03
Beryllium	< 0.00500	mg/L		8/14/2019 13:03
Cadmium	< 0.00500	mg/L		8/14/2019 13:03
Calcium	88.5	mg/L		8/14/2019 13:03
Chromium	< 0.0100	mg/L		8/14/2019 13:03
Cobalt	< 0.0500	mg/L		8/14/2019 13:03
Copper	< 0.0400	mg/L		8/14/2019 13:03
Iron	0.733	mg/L		8/15/2019 07:30
Lead	< 0.0100	mg/L		8/14/2019 13:03
Magnesium	29.4	mg/L		8/14/2019 13:03
Manganese	0.154	mg/L		8/14/2019 13:03
Nickel	< 0.0400	mg/L		8/14/2019 13:03
Potassium	10.7	mg/L		8/14/2019 13:03
Selenium	< 0.0200	mg/L		8/14/2019 13:03
Silver	< 0.0100	mg/L		8/14/2019 13:03
Sodium	825	mg/L		8/14/2019 13:37
Thallium	< 0.0250	mg/L		8/14/2019 13:03
Vanadium	< 0.0250	mg/L		8/14/2019 13:03
Zinc	< 0.0600	mg/L		8/14/2019 13:03

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Report Prepared Thursday, August 15, 2019



**Lab Project ID:** 193780

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** MW-D2

**Lab Sample ID:** 193780-01

**Date Sampled:** 8/7/2019

**Matrix:** Groundwater

**Date Received:** 8/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 8/8/2019

**Data File:** 190814B

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*Report Prepared Thursday, August 15, 2019*



Lab Project ID: 193780

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D2

Lab Sample ID: 193780-01

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		8/12/2019 17:00
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		8/12/2019 17:00
1,2,4-Trichlorobenzene	< 10.0	ug/L		8/12/2019 17:00
1,2-Dichlorobenzene	< 10.0	ug/L		8/12/2019 17:00
1,3-Dichlorobenzene	< 10.0	ug/L		8/12/2019 17:00
1,4-Dichlorobenzene	< 10.0	ug/L		8/12/2019 17:00
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		8/12/2019 17:00
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		8/12/2019 17:00
2,4,5-Trichlorophenol	< 20.0	ug/L		8/12/2019 17:00
2,4,6-Trichlorophenol	< 10.0	ug/L		8/12/2019 17:00
2,4-Dichlorophenol	< 10.0	ug/L		8/12/2019 17:00
2,4-Dimethylphenol	< 20.0	ug/L		8/12/2019 17:00
2,4-Dinitrophenol	< 20.0	ug/L		8/12/2019 17:00
2,4-Dinitrotoluene	< 10.0	ug/L		8/12/2019 17:00
2,6-Dinitrotoluene	< 10.0	ug/L		8/12/2019 17:00
2-Chloronaphthalene	< 10.0	ug/L		8/12/2019 17:00
2-Chlorophenol	< 10.0	ug/L		8/12/2019 17:00
2-Methylnaphthalene	< 10.0	ug/L		8/12/2019 17:00
2-Methylphenol	< 10.0	ug/L		8/12/2019 17:00
2-Nitroaniline	< 20.0	ug/L		8/12/2019 17:00
2-Nitrophenol	< 10.0	ug/L		8/12/2019 17:00
3&4-Methylphenol	< 10.0	ug/L		8/12/2019 17:00
3,3'-Dichlorobenzidine	< 10.0	ug/L		8/12/2019 17:00

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Report Prepared Thursday, August 15, 2019





Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D2		
Lab Sample ID:	193780-01	Date Sampled:	8/7/2019
Matrix:	Groundwater	Date Received:	8/7/2019
3-Nitroaniline	< 20.0	ug/L	8/12/2019 17:00
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	8/12/2019 17:00
4-Bromophenyl phenyl ether	< 10.0	ug/L	8/12/2019 17:00
4-Chloro-3-methylphenol	< 10.0	ug/L	8/12/2019 17:00
4-Chloroaniline	< 10.0	ug/L	8/12/2019 17:00
4-Chlorophenyl phenyl ether	< 10.0	ug/L	8/12/2019 17:00
4-Nitroaniline	< 20.0	ug/L	8/12/2019 17:00
4-Nitrophenol	< 20.0	ug/L	8/12/2019 17:00
Acenaphthene	< 10.0	ug/L	8/12/2019 17:00
Acenaphthylene	< 10.0	ug/L	8/12/2019 17:00
Acetophenone	< 10.0	ug/L	8/12/2019 17:00
Anthracene	< 10.0	ug/L	8/12/2019 17:00
Atrazine	< 10.0	ug/L	8/12/2019 17:00
Benzaldehyde	< 10.0	ug/L	8/12/2019 17:00
Benzo (a) anthracene	< 10.0	ug/L	8/12/2019 17:00
Benzo (a) pyrene	< 10.0	ug/L	8/12/2019 17:00
Benzo (b) fluoranthene	< 10.0	ug/L	8/12/2019 17:00
Benzo (g,h,i) perylene	< 10.0	ug/L	8/12/2019 17:00
Benzo (k) fluoranthene	< 10.0	ug/L	8/12/2019 17:00
Bis (2-chloroethoxy) methane	< 10.0	ug/L	8/12/2019 17:00
Bis (2-chloroethyl) ether	< 10.0	ug/L	8/12/2019 17:00
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	8/12/2019 17:00
Butylbenzylphthalate	< 10.0	ug/L	8/12/2019 17:00
Caprolactam	< 10.0	ug/L	8/12/2019 17:00
Carbazole	< 10.0	ug/L	8/12/2019 17:00

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D2		
Lab Sample ID:	193780-01	Date Sampled:	8/7/2019
Matrix:	Groundwater	Date Received:	8/7/2019
Chrysene	< 10.0	ug/L	8/12/2019 17:00
Dibenz (a,h) anthracene	< 10.0	ug/L	8/12/2019 17:00
Dibenzofuran	< 10.0	ug/L	8/12/2019 17:00
Diethyl phthalate	59.4	ug/L	8/12/2019 17:00
Dimethyl phthalate	< 20.0	ug/L	8/12/2019 17:00
Di-n-butyl phthalate	< 10.0	ug/L	8/12/2019 17:00
Di-n-octylphthalate	< 10.0	ug/L	8/12/2019 17:00
Fluoranthene	< 10.0	ug/L	8/12/2019 17:00
Fluorene	< 10.0	ug/L	8/12/2019 17:00
Hexachlorobenzene	< 10.0	ug/L	8/12/2019 17:00
Hexachlorobutadiene	< 10.0	ug/L	8/12/2019 17:00
Hexachlorocyclopentadiene	< 10.0	ug/L	8/12/2019 17:00
Hexachloroethane	< 10.0	ug/L	8/12/2019 17:00
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	8/12/2019 17:00
Isophorone	< 10.0	ug/L	8/12/2019 17:00
Naphthalene	< 10.0	ug/L	8/12/2019 17:00
Nitrobenzene	< 10.0	ug/L	8/12/2019 17:00
N-Nitroso-di-n-propylamine	< 10.0	ug/L	8/12/2019 17:00
N-Nitrosodiphenylamine	< 10.0	ug/L	8/12/2019 17:00
Pentachlorophenol	< 20.0	ug/L	8/12/2019 17:00
Phenanthrene	< 10.0	ug/L	8/12/2019 17:00
Phenol	< 10.0	ug/L	8/12/2019 17:00
Pyrene	< 10.0	ug/L	8/12/2019 17:00

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** MW-D2

**Lab Sample ID:** 193780-01

**Date Sampled:** 8/7/2019

**Matrix:** Groundwater

**Date Received:** 8/7/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>73.7</b>	54.2 - 126		8/12/2019	17:00
2-Fluorobiphenyl	<b>42.4</b>	37.6 - 102		8/12/2019	17:00
2-Fluorophenol	<b>38.0</b>	15.1 - 106		8/12/2019	17:00
Nitrobenzene-d5	<b>59.2</b>	53.3 - 103		8/12/2019	17:00
Phenol-d5	<b>26.2</b>	10 - 108		8/12/2019	17:00
Terphenyl-d14	<b>70.3</b>	61.8 - 114		8/12/2019	17:00

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 8/12/2019

**Data File:** B39913.D

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*Report Prepared Thursday, August 15, 2019*



Lab Project ID: 193780

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D2

Lab Sample ID: 193780-01

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/13/2019 23:03
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/13/2019 23:03
1,1,2-Trichloroethane	< 2.00	ug/L		8/13/2019 23:03
1,1-Dichloroethane	< 2.00	ug/L		8/13/2019 23:03
1,1-Dichloroethene	< 2.00	ug/L		8/13/2019 23:03
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/13/2019 23:03
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/13/2019 23:03
1,2,4-Trimethylbenzene	< 2.00	ug/L		8/13/2019 23:03
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/13/2019 23:03
1,2-Dibromoethane	< 2.00	ug/L		8/13/2019 23:03
1,2-Dichlorobenzene	< 2.00	ug/L		8/13/2019 23:03
1,2-Dichloroethane	< 2.00	ug/L		8/13/2019 23:03
1,2-Dichloropropane	< 2.00	ug/L		8/13/2019 23:03
1,3,5-Trimethylbenzene	< 2.00	ug/L		8/13/2019 23:03
1,3-Dichlorobenzene	< 2.00	ug/L		8/13/2019 23:03
1,4-Dichlorobenzene	< 2.00	ug/L		8/13/2019 23:03
1,4-Dioxane	< 20.0	ug/L		8/13/2019 23:03
2-Butanone	< 10.0	ug/L		8/13/2019 23:03
2-Hexanone	< 5.00	ug/L		8/13/2019 23:03
4-Methyl-2-pentanone	< 5.00	ug/L		8/13/2019 23:03
Acetone	< 10.0	ug/L		8/13/2019 23:03
Benzene	< 1.00	ug/L		8/13/2019 23:03
Bromochloromethane	< 5.00	ug/L		8/13/2019 23:03

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D2		
Lab Sample ID:	193780-01	Date Sampled:	8/7/2019
Matrix:	Groundwater	Date Received:	8/7/2019
Bromodichloromethane	< 2.00	ug/L	8/13/2019 23:03
Bromoform	< 5.00	ug/L	8/13/2019 23:03
Bromomethane	< 2.00	ug/L	8/13/2019 23:03
Carbon disulfide	< 2.00	ug/L	8/13/2019 23:03
Carbon Tetrachloride	< 2.00	ug/L	8/13/2019 23:03
Chlorobenzene	< 2.00	ug/L	8/13/2019 23:03
Chloroethane	< 2.00	ug/L	8/13/2019 23:03
Chloroform	< 2.00	ug/L	8/13/2019 23:03
Chloromethane	< 2.00	ug/L	8/13/2019 23:03
cis-1,2-Dichloroethene	12.5	ug/L	8/13/2019 23:03
cis-1,3-Dichloropropene	< 2.00	ug/L	8/13/2019 23:03
Cyclohexane	< 10.0	ug/L	8/13/2019 23:03
Dibromochloromethane	< 2.00	ug/L	8/13/2019 23:03
Dichlorodifluoromethane	< 2.00	ug/L	8/13/2019 23:03
Ethylbenzene	< 2.00	ug/L	8/13/2019 23:03
Freon 113	< 2.00	ug/L	8/13/2019 23:03
Isopropylbenzene	< 2.00	ug/L	8/13/2019 23:03
m,p-Xylene	< 2.00	ug/L	8/13/2019 23:03
Methyl acetate	< 2.00	ug/L	8/13/2019 23:03
Methyl tert-butyl Ether	< 2.00	ug/L	8/13/2019 23:03
Methylcyclohexane	< 2.00	ug/L	8/13/2019 23:03
Methylene chloride	< 5.00	ug/L	8/13/2019 23:03
Naphthalene	< 5.00	ug/L	8/13/2019 23:03
n-Butylbenzene	< 2.00	ug/L	8/13/2019 23:03
n-Propylbenzene	< 2.00	ug/L	8/13/2019 23:03

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D2				
Lab Sample ID:	193780-01		Date Sampled:	8/7/2019	
Matrix:	Groundwater		Date Received:	8/7/2019	
o-Xylene	< 2.00	ug/L		8/13/2019	23:03
p-Isopropyltoluene	< 2.00	ug/L		8/13/2019	23:03
sec-Butylbenzene	< 2.00	ug/L		8/13/2019	23:03
Styrene	< 5.00	ug/L		8/13/2019	23:03
tert-Butylbenzene	< 2.00	ug/L		8/13/2019	23:03
Tetrachloroethene	< 2.00	ug/L		8/13/2019	23:03
Toluene	< 2.00	ug/L		8/13/2019	23:03
trans-1,2-Dichloroethene	< 2.00	ug/L		8/13/2019	23:03
trans-1,3-Dichloropropene	< 2.00	ug/L		8/13/2019	23:03
Trichloroethene	2.27	ug/L		8/13/2019	23:03
Trichlorofluoromethane	< 2.00	ug/L		8/13/2019	23:03
Vinyl chloride	< 2.00	ug/L		8/13/2019	23:03
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	111	73.4 - 131		8/13/2019	23:03
4-Bromofluorobenzene	92.1	57.2 - 129		8/13/2019	23:03
Pentafluorobenzene	93.4	87 - 112		8/13/2019	23:03
Toluene-D8	94.2	78.3 - 115		8/13/2019	23:03

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x63551.D

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

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Sample Identifier: MW-D1

Lab Sample ID: 193780-02

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

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**Mercury**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.000200	mg/L		8/12/2019 07:54

Method Reference(s): EPA 7470A

Preparation Date: 8/9/2019

Data File: Hg190812A

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D1

Lab Sample ID: 193780-02

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	< 0.100	mg/L		8/14/2019 13:08
Antimony	< 0.0600	mg/L		8/14/2019 13:08
Arsenic	< 0.0100	mg/L		8/14/2019 13:08
Barium	<b>0.155</b>	mg/L		8/14/2019 13:08
Beryllium	< 0.00500	mg/L		8/14/2019 13:08
Cadmium	< 0.00500	mg/L		8/14/2019 13:08
Calcium	<b>132</b>	mg/L		8/14/2019 13:08
Chromium	< 0.0100	mg/L		8/14/2019 13:08
Cobalt	< 0.0500	mg/L		8/14/2019 13:08
Copper	< 0.0400	mg/L		8/14/2019 13:08
Iron	< 0.100	mg/L		8/15/2019 07:34
Lead	< 0.0100	mg/L		8/14/2019 13:08
Magnesium	<b>24.8</b>	mg/L	M	8/14/2019 13:08
Manganese	<b>0.138</b>	mg/L		8/14/2019 13:08
Nickel	< 0.0400	mg/L		8/14/2019 13:08
Potassium	<b>7.41</b>	mg/L	M	8/14/2019 13:08
Selenium	< 0.0200	mg/L		8/14/2019 13:08
Silver	< 0.0100	mg/L		8/14/2019 13:08
Sodium	<b>154</b>	mg/L		8/14/2019 13:08
Thallium	< 0.0250	mg/L		8/14/2019 13:08
Vanadium	< 0.0250	mg/L		8/14/2019 13:08
Zinc	< 0.0600	mg/L		8/14/2019 13:08

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Report Prepared Thursday, August 15, 2019





**Lab Project ID:** 193780

**Client:** **Ravi Engineering & Land Surveying, P.C.**

**Project Reference:** 101-113 Franklin St

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**Sample Identifier:** MW-D1

**Lab Sample ID:** 193780-02

**Date Sampled:** 8/7/2019

**Matrix:** Groundwater

**Date Received:** 8/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 8/8/2019

**Data File:** 190814B

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*Report Prepared Thursday, August 15, 2019*



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D1

Lab Sample ID: 193780-02

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

**PCBs**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
PCB-1016	< 1.00	ug/L		8/8/2019 13:45
PCB-1221	< 1.00	ug/L		8/8/2019 13:45
PCB-1232	< 1.00	ug/L		8/8/2019 13:45
PCB-1242	< 1.00	ug/L		8/8/2019 13:45
PCB-1248	< 1.00	ug/L		8/8/2019 13:45
PCB-1254	< 1.00	ug/L		8/8/2019 13:45
PCB-1260	< 1.00	ug/L		8/8/2019 13:45
PCB-1262	< 1.00	ug/L		8/8/2019 13:45
PCB-1268	< 1.00	ug/L		8/8/2019 13:45

<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>
Tetrachloro-m-xylene	42.6	11.7 - 95.6		8/8/2019 13:45

Method Reference(s): EPA 8082A

EPA 3510C

Preparation Date: 8/8/2019

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D1

Lab Sample ID: 193780-02

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		8/12/2019 17:29
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		8/12/2019 17:29
1,2,4-Trichlorobenzene	< 10.0	ug/L		8/12/2019 17:29
1,2-Dichlorobenzene	< 10.0	ug/L		8/12/2019 17:29
1,3-Dichlorobenzene	< 10.0	ug/L		8/12/2019 17:29
1,4-Dichlorobenzene	< 10.0	ug/L		8/12/2019 17:29
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		8/12/2019 17:29
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		8/12/2019 17:29
2,4,5-Trichlorophenol	< 20.0	ug/L		8/12/2019 17:29
2,4,6-Trichlorophenol	< 10.0	ug/L		8/12/2019 17:29
2,4-Dichlorophenol	< 10.0	ug/L		8/12/2019 17:29
2,4-Dimethylphenol	< 20.0	ug/L		8/12/2019 17:29
2,4-Dinitrophenol	< 20.0	ug/L		8/12/2019 17:29
2,4-Dinitrotoluene	< 10.0	ug/L		8/12/2019 17:29
2,6-Dinitrotoluene	< 10.0	ug/L		8/12/2019 17:29
2-Chloronaphthalene	< 10.0	ug/L		8/12/2019 17:29
2-Chlorophenol	< 10.0	ug/L		8/12/2019 17:29
2-Methylnaphthalene	< 10.0	ug/L		8/12/2019 17:29
2-Methylphenol	< 10.0	ug/L		8/12/2019 17:29
2-Nitroaniline	< 20.0	ug/L		8/12/2019 17:29
2-Nitrophenol	< 10.0	ug/L		8/12/2019 17:29
3&4-Methylphenol	< 10.0	ug/L		8/12/2019 17:29
3,3'-Dichlorobenzidine	< 10.0	ug/L		8/12/2019 17:29

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D1		
Lab Sample ID:	193780-02	Date Sampled:	8/7/2019
Matrix:	Groundwater	Date Received:	8/7/2019
3-Nitroaniline	< 20.0	ug/L	8/12/2019 17:29
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	8/12/2019 17:29
4-Bromophenyl phenyl ether	< 10.0	ug/L	8/12/2019 17:29
4-Chloro-3-methylphenol	< 10.0	ug/L	8/12/2019 17:29
4-Chloroaniline	< 10.0	ug/L	8/12/2019 17:29
4-Chlorophenyl phenyl ether	< 10.0	ug/L	8/12/2019 17:29
4-Nitroaniline	< 20.0	ug/L	8/12/2019 17:29
4-Nitrophenol	< 20.0	ug/L	8/12/2019 17:29
Acenaphthene	< 10.0	ug/L	8/12/2019 17:29
Acenaphthylene	< 10.0	ug/L	8/12/2019 17:29
Acetophenone	< 10.0	ug/L	8/12/2019 17:29
Anthracene	< 10.0	ug/L	8/12/2019 17:29
Atrazine	< 10.0	ug/L	8/12/2019 17:29
Benzaldehyde	< 10.0	ug/L	8/12/2019 17:29
Benzo (a) anthracene	< 10.0	ug/L	8/12/2019 17:29
Benzo (a) pyrene	< 10.0	ug/L	8/12/2019 17:29
Benzo (b) fluoranthene	< 10.0	ug/L	8/12/2019 17:29
Benzo (g,h,i) perylene	< 10.0	ug/L	8/12/2019 17:29
Benzo (k) fluoranthene	< 10.0	ug/L	8/12/2019 17:29
Bis (2-chloroethoxy) methane	< 10.0	ug/L	8/12/2019 17:29
Bis (2-chloroethyl) ether	< 10.0	ug/L	8/12/2019 17:29
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	8/12/2019 17:29
Butylbenzylphthalate	< 10.0	ug/L	8/12/2019 17:29
Caprolactam	< 10.0	ug/L	8/12/2019 17:29
Carbazole	< 10.0	ug/L	8/12/2019 17:29

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D1		
Lab Sample ID:	193780-02	Date Sampled:	8/7/2019
Matrix:	Groundwater	Date Received:	8/7/2019
Chrysene	< 10.0	ug/L	8/12/2019 17:29
Dibenz (a,h) anthracene	< 10.0	ug/L	8/12/2019 17:29
Dibenzofuran	< 10.0	ug/L	8/12/2019 17:29
Diethyl phthalate	51.7	ug/L	8/12/2019 17:29
Dimethyl phthalate	< 20.0	ug/L	8/12/2019 17:29
Di-n-butyl phthalate	< 10.0	ug/L	8/12/2019 17:29
Di-n-octylphthalate	< 10.0	ug/L	8/12/2019 17:29
Fluoranthene	< 10.0	ug/L	8/12/2019 17:29
Fluorene	< 10.0	ug/L	8/12/2019 17:29
Hexachlorobenzene	< 10.0	ug/L	8/12/2019 17:29
Hexachlorobutadiene	< 10.0	ug/L	8/12/2019 17:29
Hexachlorocyclopentadiene	< 10.0	ug/L	8/12/2019 17:29
Hexachloroethane	< 10.0	ug/L	8/12/2019 17:29
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	8/12/2019 17:29
Isophorone	< 10.0	ug/L	8/12/2019 17:29
Naphthalene	< 10.0	ug/L	8/12/2019 17:29
Nitrobenzene	< 10.0	ug/L	8/12/2019 17:29
N-Nitroso-di-n-propylamine	< 10.0	ug/L	8/12/2019 17:29
N-Nitrosodiphenylamine	< 10.0	ug/L	8/12/2019 17:29
Pentachlorophenol	< 20.0	ug/L	8/12/2019 17:29
Phenanthrene	< 10.0	ug/L	8/12/2019 17:29
Phenol	< 10.0	ug/L	8/12/2019 17:29
Pyrene	< 10.0	ug/L	8/12/2019 17:29

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** MW-D1

**Lab Sample ID:** 193780-02

**Date Sampled:** 8/7/2019

**Matrix:** Groundwater

**Date Received:** 8/7/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>72.4</b>	54.2 - 126		8/12/2019	17:29
2-Fluorobiphenyl	<b>43.0</b>	37.6 - 102		8/12/2019	17:29
2-Fluorophenol	<b>40.1</b>	15.1 - 106		8/12/2019	17:29
Nitrobenzene-d5	<b>60.5</b>	53.3 - 103		8/12/2019	17:29
Phenol-d5	<b>26.8</b>	10 - 108		8/12/2019	17:29
Terphenyl-d14	<b>65.3</b>	61.8 - 114		8/12/2019	17:29

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 8/12/2019

**Data File:** B39914.D

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*Report Prepared Thursday, August 15, 2019*



Lab Project ID: 193780

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D1

Lab Sample ID: 193780-02

Date Sampled: 8/7/2019

Matrix: Groundwater

Date Received: 8/7/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/13/2019 23:25
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/13/2019 23:25
1,1,2-Trichloroethane	< 2.00	ug/L		8/13/2019 23:25
1,1-Dichloroethane	< 2.00	ug/L		8/13/2019 23:25
1,1-Dichloroethene	< 2.00	ug/L		8/13/2019 23:25
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/13/2019 23:25
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/13/2019 23:25
1,2,4-Trimethylbenzene	< 2.00	ug/L		8/13/2019 23:25
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/13/2019 23:25
1,2-Dibromoethane	< 2.00	ug/L		8/13/2019 23:25
1,2-Dichlorobenzene	< 2.00	ug/L		8/13/2019 23:25
1,2-Dichloroethane	< 2.00	ug/L		8/13/2019 23:25
1,2-Dichloropropane	< 2.00	ug/L		8/13/2019 23:25
1,3,5-Trimethylbenzene	< 2.00	ug/L		8/13/2019 23:25
1,3-Dichlorobenzene	< 2.00	ug/L		8/13/2019 23:25
1,4-Dichlorobenzene	< 2.00	ug/L		8/13/2019 23:25
1,4-Dioxane	< 20.0	ug/L		8/13/2019 23:25
2-Butanone	< 10.0	ug/L		8/13/2019 23:25
2-Hexanone	< 5.00	ug/L		8/13/2019 23:25
4-Methyl-2-pentanone	< 5.00	ug/L		8/13/2019 23:25
Acetone	< 10.0	ug/L		8/13/2019 23:25
Benzene	< 1.00	ug/L		8/13/2019 23:25
Bromochloromethane	< 5.00	ug/L		8/13/2019 23:25

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D1		
Lab Sample ID:	193780-02	Date Sampled:	8/7/2019
Matrix:	Groundwater	Date Received:	8/7/2019
Bromodichloromethane	< 2.00	ug/L	8/13/2019 23:25
Bromoform	< 5.00	ug/L	8/13/2019 23:25
Bromomethane	< 2.00	ug/L	8/13/2019 23:25
Carbon disulfide	< 2.00	ug/L	8/13/2019 23:25
Carbon Tetrachloride	< 2.00	ug/L	8/13/2019 23:25
Chlorobenzene	< 2.00	ug/L	8/13/2019 23:25
Chloroethane	< 2.00	ug/L	8/13/2019 23:25
Chloroform	< 2.00	ug/L	8/13/2019 23:25
Chloromethane	< 2.00	ug/L	8/13/2019 23:25
cis-1,2-Dichloroethene	< 2.00	ug/L	8/13/2019 23:25
cis-1,3-Dichloropropene	< 2.00	ug/L	8/13/2019 23:25
Cyclohexane	< 10.0	ug/L	8/13/2019 23:25
Dibromochloromethane	< 2.00	ug/L	8/13/2019 23:25
Dichlorodifluoromethane	< 2.00	ug/L	8/13/2019 23:25
Ethylbenzene	< 2.00	ug/L	8/13/2019 23:25
Freon 113	< 2.00	ug/L	8/13/2019 23:25
Isopropylbenzene	< 2.00	ug/L	8/13/2019 23:25
m,p-Xylene	< 2.00	ug/L	8/13/2019 23:25
Methyl acetate	< 2.00	ug/L	8/13/2019 23:25
Methyl tert-butyl Ether	< 2.00	ug/L	8/13/2019 23:25
Methylcyclohexane	< 2.00	ug/L	8/13/2019 23:25
Methylene chloride	< 5.00	ug/L	8/13/2019 23:25
Naphthalene	< 5.00	ug/L	8/13/2019 23:25
n-Butylbenzene	< 2.00	ug/L	8/13/2019 23:25
n-Propylbenzene	< 2.00	ug/L	8/13/2019 23:25

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Report Prepared Thursday, August 15, 2019





Lab Project ID: 193780

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D1				
Lab Sample ID:	193780-02			Date Sampled:	8/7/2019
Matrix:	Groundwater			Date Received:	8/7/2019
o-Xylene	< 2.00	ug/L		8/13/2019	23:25
p-Isopropyltoluene	< 2.00	ug/L		8/13/2019	23:25
sec-Butylbenzene	< 2.00	ug/L		8/13/2019	23:25
Styrene	< 5.00	ug/L		8/13/2019	23:25
tert-Butylbenzene	< 2.00	ug/L		8/13/2019	23:25
Tetrachloroethene	< 2.00	ug/L		8/13/2019	23:25
Toluene	< 2.00	ug/L		8/13/2019	23:25
trans-1,2-Dichloroethene	< 2.00	ug/L		8/13/2019	23:25
trans-1,3-Dichloropropene	< 2.00	ug/L		8/13/2019	23:25
Trichloroethene	< 2.00	ug/L		8/13/2019	23:25
Trichlorofluoromethane	< 2.00	ug/L		8/13/2019	23:25
Vinyl chloride	< 2.00	ug/L		8/13/2019	23:25
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	116	73.4 - 131		8/13/2019	23:25
4-Bromofluorobenzene	94.1	57.2 - 129		8/13/2019	23:25
Pentafluorobenzene	89.2	87 - 112		8/13/2019	23:25
Toluene-D8	96.2	78.3 - 115		8/13/2019	23:25

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x63552.D

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Report Prepared Thursday, August 15, 2019



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

Email: [Lucan@reureng.com](mailto:Lucan@reureng.com)  
[photon@reureng.com](mailto:photon@reureng.com)

12<sup>o</sup>ciul otantului nord

Sampled By	<i>John Zaccari</i>	Date/Time	<i>8/7/19</i>	Total Cost:	<i>\$1456</i>
Relinquished By	<i>John Zaccari</i>	Date/Time	<i>8/7/19 1455</i>		
Received By	<i>John Zaccari</i>	Date/Time	<i>8/7/19 1455</i>		
Received @ Lab By	<i>John Zaccari</i>	Date/Time	<i>8/7/19 1500</i>		

See additional page for sample conditions.

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## Chain of Custody Supplement

<b>Client:</b>	Ravi	<b>Completed by:</b>	Molly Paul
<b>Lab Project ID:</b>	193780	<b>Date:</b>	8/7/19

### Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	12°C started in field		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	metals not in certified bottle		



Lab Project ID: 193851

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D3

Lab Sample ID: 193851-01

Date Sampled: 8/8/2019

Matrix: Groundwater

Date Received: 8/9/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		8/14/2019 22:38
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		8/14/2019 22:38
1,2,4-Trichlorobenzene	< 10.0	ug/L		8/14/2019 22:38
1,2-Dichlorobenzene	< 10.0	ug/L		8/14/2019 22:38
1,3-Dichlorobenzene	< 10.0	ug/L		8/14/2019 22:38
1,4-Dichlorobenzene	< 10.0	ug/L		8/14/2019 22:38
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		8/14/2019 22:38
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		8/14/2019 22:38
2,4,5-Trichlorophenol	< 20.0	ug/L		8/14/2019 22:38
2,4,6-Trichlorophenol	< 10.0	ug/L		8/14/2019 22:38
2,4-Dichlorophenol	< 10.0	ug/L		8/14/2019 22:38
2,4-Dimethylphenol	< 20.0	ug/L		8/14/2019 22:38
2,4-Dinitrophenol	< 20.0	ug/L		8/14/2019 22:38
2,4-Dinitrotoluene	< 10.0	ug/L		8/14/2019 22:38
2,6-Dinitrotoluene	< 10.0	ug/L		8/14/2019 22:38
2-Chloronaphthalene	< 10.0	ug/L		8/14/2019 22:38
2-Chlorophenol	< 10.0	ug/L		8/14/2019 22:38
2-Methylnaphthalene	< 10.0	ug/L		8/14/2019 22:38
2-Methylphenol	< 10.0	ug/L		8/14/2019 22:38
2-Nitroaniline	< 20.0	ug/L		8/14/2019 22:38
2-Nitrophenol	< 10.0	ug/L		8/14/2019 22:38
3&4-Methylphenol	< 10.0	ug/L		8/14/2019 22:38
3,3'-Dichlorobenzidine	< 10.0	ug/L		8/14/2019 22:38

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-D3		
<b>Lab Sample ID:</b>	193851-01	<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>	Groundwater	<b>Date Received:</b>	8/9/2019
3-Nitroaniline	< 20.0	ug/L	8/14/2019 22:38
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	8/14/2019 22:38
4-Bromophenyl phenyl ether	< 10.0	ug/L	8/14/2019 22:38
4-Chloro-3-methylphenol	< 10.0	ug/L	8/14/2019 22:38
4-Chloroaniline	< 10.0	ug/L	8/14/2019 22:38
4-Chlorophenyl phenyl ether	< 10.0	ug/L	8/14/2019 22:38
4-Nitroaniline	< 20.0	ug/L	8/14/2019 22:38
4-Nitrophenol	< 20.0	ug/L	8/14/2019 22:38
Acenaphthene	< 10.0	ug/L	8/14/2019 22:38
Acenaphthylene	< 10.0	ug/L	8/14/2019 22:38
Acetophenone	< 10.0	ug/L	8/14/2019 22:38
Anthracene	< 10.0	ug/L	8/14/2019 22:38
Atrazine	< 10.0	ug/L	8/14/2019 22:38
Benzaldehyde	< 10.0	ug/L	8/14/2019 22:38
Benzo (a) anthracene	< 10.0	ug/L	8/14/2019 22:38
Benzo (a) pyrene	< 10.0	ug/L	8/14/2019 22:38
Benzo (b) fluoranthene	< 10.0	ug/L	8/14/2019 22:38
Benzo (g,h,i) perylene	< 10.0	ug/L	8/14/2019 22:38
Benzo (k) fluoranthene	< 10.0	ug/L	8/14/2019 22:38
Bis (2-chloroethoxy) methane	< 10.0	ug/L	8/14/2019 22:38
Bis (2-chloroethyl) ether	< 10.0	ug/L	8/14/2019 22:38
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	8/14/2019 22:38
Butylbenzylphthalate	< 10.0	ug/L	8/14/2019 22:38
Caprolactam	< 10.0	ug/L	8/14/2019 22:38
Carbazole	< 10.0	ug/L	8/14/2019 22:38

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Report Prepared Thursday, August 15, 2019





Lab Project ID: 193851

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D3		
Lab Sample ID:	193851-01	Date Sampled:	8/8/2019
Matrix:	Groundwater	Date Received:	8/9/2019
Chrysene	< 10.0	ug/L	8/14/2019 22:38
Dibenz (a,h) anthracene	< 10.0	ug/L	8/14/2019 22:38
Dibenzofuran	< 10.0	ug/L	8/14/2019 22:38
Diethyl phthalate	31.4	ug/L	8/14/2019 22:38
Dimethyl phthalate	< 20.0	ug/L	8/14/2019 22:38
Di-n-butyl phthalate	< 10.0	ug/L	8/14/2019 22:38
Di-n-octylphthalate	< 10.0	ug/L	8/14/2019 22:38
Fluoranthene	< 10.0	ug/L	8/14/2019 22:38
Fluorene	< 10.0	ug/L	8/14/2019 22:38
Hexachlorobenzene	< 10.0	ug/L	8/14/2019 22:38
Hexachlorobutadiene	< 10.0	ug/L	8/14/2019 22:38
Hexachlorocyclopentadiene	< 10.0	ug/L	8/14/2019 22:38
Hexachloroethane	< 10.0	ug/L	8/14/2019 22:38
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	8/14/2019 22:38
Isophorone	< 10.0	ug/L	8/14/2019 22:38
Naphthalene	< 10.0	ug/L	8/14/2019 22:38
Nitrobenzene	< 10.0	ug/L	8/14/2019 22:38
N-Nitroso-di-n-propylamine	< 10.0	ug/L	8/14/2019 22:38
N-Nitrosodiphenylamine	< 10.0	ug/L	8/14/2019 22:38
Pentachlorophenol	< 20.0	ug/L	8/14/2019 22:38
Phenanthrene	< 10.0	ug/L	8/14/2019 22:38
Phenol	< 10.0	ug/L	8/14/2019 22:38
Pyrene	< 10.0	ug/L	8/14/2019 22:38

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Report Prepared Thursday, August 15, 2019





Lab Project ID: 193851

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D3

Lab Sample ID: 193851-01

Date Sampled: 8/8/2019

Matrix: Groundwater

Date Received: 8/9/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	75.1	54.2 - 126		8/14/2019 22:38
2-Fluorobiphenyl	52.1	37.6 - 102		8/14/2019 22:38
2-Fluorophenol	38.4	15.1 - 106		8/14/2019 22:38
Nitrobenzene-d5	59.4	53.3 - 103		8/14/2019 22:38
Phenol-d5	26.6	10 - 108		8/14/2019 22:38
Terphenyl-d14	68.3	61.8 - 114		8/14/2019 22:38

Method Reference(s): EPA 8270D

EPA 3510C

Preparation Date: 8/13/2019

Data File: B39986.D

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D3

Lab Sample ID: 193851-01

Date Sampled: 8/8/2019

Matrix: Groundwater

Date Received: 8/9/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/14/2019 20:44
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/14/2019 20:44
1,1,2-Trichloroethane	< 2.00	ug/L		8/14/2019 20:44
1,1-Dichloroethane	< 2.00	ug/L		8/14/2019 20:44
1,1-Dichloroethene	< 2.00	ug/L		8/14/2019 20:44
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/14/2019 20:44
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/14/2019 20:44
1,2,4-Trimethylbenzene	< 2.00	ug/L		8/14/2019 20:44
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/14/2019 20:44
1,2-Dibromoethane	< 2.00	ug/L		8/14/2019 20:44
1,2-Dichlorobenzene	< 2.00	ug/L		8/14/2019 20:44
1,2-Dichloroethane	< 2.00	ug/L		8/14/2019 20:44
1,2-Dichloropropane	< 2.00	ug/L		8/14/2019 20:44
1,3,5-Trimethylbenzene	< 2.00	ug/L		8/14/2019 20:44
1,3-Dichlorobenzene	< 2.00	ug/L		8/14/2019 20:44
1,4-Dichlorobenzene	< 2.00	ug/L		8/14/2019 20:44
1,4-Dioxane	< 20.0	ug/L		8/14/2019 20:44
2-Butanone	< 10.0	ug/L		8/14/2019 20:44
2-Hexanone	< 5.00	ug/L		8/14/2019 20:44
4-Methyl-2-pentanone	< 5.00	ug/L		8/14/2019 20:44
Acetone	< 10.0	ug/L		8/14/2019 20:44
Benzene	< 1.00	ug/L		8/14/2019 20:44
Bromochloromethane	< 5.00	ug/L		8/14/2019 20:44

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-D3			
<b>Lab Sample ID:</b>	193851-01		<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>	Groundwater		<b>Date Received:</b>	8/9/2019
Bromodichloromethane	< 2.00	ug/L	8/14/2019	20:44
Bromoform	< 5.00	ug/L	8/14/2019	20:44
Bromomethane	< 2.00	ug/L	8/14/2019	20:44
Carbon disulfide	< 2.00	ug/L	8/14/2019	20:44
Carbon Tetrachloride	< 2.00	ug/L	8/14/2019	20:44
Chlorobenzene	< 2.00	ug/L	8/14/2019	20:44
Chloroethane	< 2.00	ug/L	8/14/2019	20:44
Chloroform	< 2.00	ug/L	8/14/2019	20:44
Chloromethane	< 2.00	ug/L	8/14/2019	20:44
cis-1,2-Dichloroethene	< 2.00	ug/L	8/14/2019	20:44
cis-1,3-Dichloropropene	< 2.00	ug/L	8/14/2019	20:44
Cyclohexane	< 10.0	ug/L	8/14/2019	20:44
Dibromochloromethane	< 2.00	ug/L	8/14/2019	20:44
Dichlorodifluoromethane	< 2.00	ug/L	8/14/2019	20:44
Ethylbenzene	< 2.00	ug/L	8/14/2019	20:44
Freon 113	< 2.00	ug/L	8/14/2019	20:44
Isopropylbenzene	< 2.00	ug/L	8/14/2019	20:44
m,p-Xylene	< 2.00	ug/L	8/14/2019	20:44
Methyl acetate	< 2.00	ug/L	8/14/2019	20:44
Methyl tert-butyl Ether	< 2.00	ug/L	8/14/2019	20:44
Methylcyclohexane	< 2.00	ug/L	8/14/2019	20:44
Methylene chloride	< 5.00	ug/L	8/14/2019	20:44
Naphthalene	< 5.00	ug/L	8/14/2019	20:44
n-Butylbenzene	< 2.00	ug/L	8/14/2019	20:44
n-Propylbenzene	< 2.00	ug/L	8/14/2019	20:44

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*Report Prepared Thursday, August 15, 2019*



Lab Project ID: 193851

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D3			
Lab Sample ID:	193851-01		Date Sampled:	8/8/2019
Matrix:	Groundwater		Date Received:	8/9/2019
o-Xylene	< 2.00	ug/L		8/14/2019 20:44
p-Isopropyltoluene	< 2.00	ug/L		8/14/2019 20:44
sec-Butylbenzene	< 2.00	ug/L		8/14/2019 20:44
Styrene	< 5.00	ug/L		8/14/2019 20:44
tert-Butylbenzene	< 2.00	ug/L		8/14/2019 20:44
Tetrachloroethene	< 2.00	ug/L		8/14/2019 20:44
Toluene	< 2.00	ug/L		8/14/2019 20:44
trans-1,2-Dichloroethene	< 2.00	ug/L		8/14/2019 20:44
trans-1,3-Dichloropropene	< 2.00	ug/L		8/14/2019 20:44
Trichloroethene	< 2.00	ug/L		8/14/2019 20:44
Trichlorofluoromethane	< 2.00	ug/L		8/14/2019 20:44
Vinyl chloride	< 2.00	ug/L		8/14/2019 20:44
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	110	73.4 - 131		8/14/2019 20:44
4-Bromofluorobenzene	106	57.2 - 129		8/14/2019 20:44
Pentafluorobenzene	88.4	87 - 112		8/14/2019 20:44
Toluene-D8	104	78.3 - 115		8/14/2019 20:44

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x63594.D

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D5

Lab Sample ID: 193851-02

Date Sampled: 8/8/2019

Matrix: Groundwater

Date Received: 8/9/2019

**PCBs**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
PCB-1016	< 1.00	ug/L		8/15/2019 00:54
PCB-1221	< 1.00	ug/L		8/15/2019 00:54
PCB-1232	< 1.00	ug/L		8/15/2019 00:54
PCB-1242	< 1.00	ug/L		8/15/2019 00:54
PCB-1248	< 1.00	ug/L		8/15/2019 00:54
PCB-1254	< 1.00	ug/L		8/15/2019 00:54
PCB-1260	< 1.00	ug/L		8/15/2019 00:54
PCB-1262	< 1.00	ug/L		8/15/2019 00:54
PCB-1268	< 1.00	ug/L		8/15/2019 00:54

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
Tetrachloro-m-xylene	50.8	11.7 - 95.6		8/15/2019 00:54

Method Reference(s): EPA 8082A  
EPA 3510C  
Preparation Date: 8/13/2019

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D5

Lab Sample ID: 193851-02

Date Sampled: 8/8/2019

Matrix: Groundwater

Date Received: 8/9/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		8/14/2019 23:06
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		8/14/2019 23:06
1,2,4-Trichlorobenzene	< 10.0	ug/L		8/14/2019 23:06
1,2-Dichlorobenzene	< 10.0	ug/L		8/14/2019 23:06
1,3-Dichlorobenzene	< 10.0	ug/L		8/14/2019 23:06
1,4-Dichlorobenzene	< 10.0	ug/L		8/14/2019 23:06
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		8/14/2019 23:06
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		8/14/2019 23:06
2,4,5-Trichlorophenol	< 20.0	ug/L		8/14/2019 23:06
2,4,6-Trichlorophenol	< 10.0	ug/L		8/14/2019 23:06
2,4-Dichlorophenol	< 10.0	ug/L		8/14/2019 23:06
2,4-Dimethylphenol	< 20.0	ug/L		8/14/2019 23:06
2,4-Dinitrophenol	< 20.0	ug/L		8/14/2019 23:06
2,4-Dinitrotoluene	< 10.0	ug/L		8/14/2019 23:06
2,6-Dinitrotoluene	< 10.0	ug/L		8/14/2019 23:06
2-Chloronaphthalene	< 10.0	ug/L		8/14/2019 23:06
2-Chlorophenol	< 10.0	ug/L		8/14/2019 23:06
2-Methylnaphthalene	< 10.0	ug/L		8/14/2019 23:06
2-Methylphenol	< 10.0	ug/L		8/14/2019 23:06
2-Nitroaniline	< 20.0	ug/L		8/14/2019 23:06
2-Nitrophenol	< 10.0	ug/L		8/14/2019 23:06
3&4-Methylphenol	< 10.0	ug/L		8/14/2019 23:06
3,3'-Dichlorobenzidine	< 10.0	ug/L		8/14/2019 23:06

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-D5			
<b>Lab Sample ID:</b>	193851-02		<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>	Groundwater		<b>Date Received:</b>	8/9/2019
3-Nitroaniline	< 20.0	ug/L	8/14/2019	23:06
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	8/14/2019	23:06
4-Bromophenyl phenyl ether	< 10.0	ug/L	8/14/2019	23:06
4-Chloro-3-methylphenol	< 10.0	ug/L	8/14/2019	23:06
4-Chloroaniline	< 10.0	ug/L	8/14/2019	23:06
4-Chlorophenyl phenyl ether	< 10.0	ug/L	8/14/2019	23:06
4-Nitroaniline	< 20.0	ug/L	8/14/2019	23:06
4-Nitrophenol	< 20.0	ug/L	8/14/2019	23:06
Acenaphthene	< 10.0	ug/L	8/14/2019	23:06
Acenaphthylene	< 10.0	ug/L	8/14/2019	23:06
Acetophenone	< 10.0	ug/L	8/14/2019	23:06
Anthracene	< 10.0	ug/L	8/14/2019	23:06
Atrazine	< 10.0	ug/L	8/14/2019	23:06
Benzaldehyde	< 10.0	ug/L	8/14/2019	23:06
Benzo (a) anthracene	< 10.0	ug/L	8/14/2019	23:06
Benzo (a) pyrene	< 10.0	ug/L	8/14/2019	23:06
Benzo (b) fluoranthene	< 10.0	ug/L	8/14/2019	23:06
Benzo (g,h,i) perylene	< 10.0	ug/L	8/14/2019	23:06
Benzo (k) fluoranthene	< 10.0	ug/L	8/14/2019	23:06
Bis (2-chloroethoxy) methane	< 10.0	ug/L	8/14/2019	23:06
Bis (2-chloroethyl) ether	< 10.0	ug/L	8/14/2019	23:06
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	8/14/2019	23:06
Butylbenzylphthalate	< 10.0	ug/L	8/14/2019	23:06
Caprolactam	< 10.0	ug/L	8/14/2019	23:06
Carbazole	< 10.0	ug/L	8/14/2019	23:06

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*Report Prepared Thursday, August 15, 2019*



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-D5		
<b>Lab Sample ID:</b>	193851-02	<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>	Groundwater	<b>Date Received:</b>	8/9/2019
Chrysene	< 10.0	ug/L	8/14/2019 23:06
Dibenz (a,h) anthracene	< 10.0	ug/L	8/14/2019 23:06
Dibenzofuran	< 10.0	ug/L	8/14/2019 23:06
Diethyl phthalate	23.2	ug/L	8/14/2019 23:06
Dimethyl phthalate	< 20.0	ug/L	8/14/2019 23:06
Di-n-butyl phthalate	< 10.0	ug/L	8/14/2019 23:06
Di-n-octylphthalate	< 10.0	ug/L	8/14/2019 23:06
Fluoranthene	< 10.0	ug/L	8/14/2019 23:06
Fluorene	< 10.0	ug/L	8/14/2019 23:06
Hexachlorobenzene	< 10.0	ug/L	8/14/2019 23:06
Hexachlorobutadiene	< 10.0	ug/L	8/14/2019 23:06
Hexachlorocyclopentadiene	< 10.0	ug/L	8/14/2019 23:06
Hexachloroethane	< 10.0	ug/L	8/14/2019 23:06
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	8/14/2019 23:06
Isophorone	< 10.0	ug/L	8/14/2019 23:06
Naphthalene	< 10.0	ug/L	8/14/2019 23:06
Nitrobenzene	< 10.0	ug/L	8/14/2019 23:06
N-Nitroso-di-n-propylamine	< 10.0	ug/L	8/14/2019 23:06
N-Nitrosodiphenylamine	< 10.0	ug/L	8/14/2019 23:06
Pentachlorophenol	< 20.0	ug/L	8/14/2019 23:06
Phenanthrene	< 10.0	ug/L	8/14/2019 23:06
Phenol	< 10.0	ug/L	8/14/2019 23:06
Pyrene	< 10.0	ug/L	8/14/2019 23:06

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Report Prepared Thursday, August 15, 2019





Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** MW-D5

**Lab Sample ID:** 193851-02

**Date Sampled:** 8/8/2019

**Matrix:** Groundwater

**Date Received:** 8/9/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>76.2</b>	54.2 - 126		8/14/2019	23:06
2-Fluorobiphenyl	<b>51.1</b>	37.6 - 102		8/14/2019	23:06
2-Fluorophenol	<b>37.5</b>	15.1 - 106		8/14/2019	23:06
Nitrobenzene-d5	<b>60.6</b>	53.3 - 103		8/14/2019	23:06
Phenol-d5	<b>26.1</b>	10 - 108		8/14/2019	23:06
Terphenyl-d14	<b>68.6</b>	61.8 - 114		8/14/2019	23:06

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 8/13/2019

**Data File:** B39987.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Thursday, August 15, 2019*



Lab Project ID: 193851

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D5

Lab Sample ID: 193851-02

Date Sampled: 8/8/2019

Matrix: Groundwater

Date Received: 8/9/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/14/2019 21:06
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/14/2019 21:06
1,1,2-Trichloroethane	< 2.00	ug/L		8/14/2019 21:06
1,1-Dichloroethane	< 2.00	ug/L		8/14/2019 21:06
1,1-Dichloroethene	< 2.00	ug/L		8/14/2019 21:06
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/14/2019 21:06
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/14/2019 21:06
1,2,4-Trimethylbenzene	< 2.00	ug/L		8/14/2019 21:06
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/14/2019 21:06
1,2-Dibromoethane	< 2.00	ug/L		8/14/2019 21:06
1,2-Dichlorobenzene	< 2.00	ug/L		8/14/2019 21:06
1,2-Dichloroethane	< 2.00	ug/L		8/14/2019 21:06
1,2-Dichloropropane	< 2.00	ug/L		8/14/2019 21:06
1,3,5-Trimethylbenzene	< 2.00	ug/L		8/14/2019 21:06
1,3-Dichlorobenzene	< 2.00	ug/L		8/14/2019 21:06
1,4-Dichlorobenzene	< 2.00	ug/L		8/14/2019 21:06
1,4-Dioxane	< 20.0	ug/L		8/14/2019 21:06
2-Butanone	< 10.0	ug/L		8/14/2019 21:06
2-Hexanone	< 5.00	ug/L		8/14/2019 21:06
4-Methyl-2-pentanone	< 5.00	ug/L		8/14/2019 21:06
Acetone	< 10.0	ug/L		8/14/2019 21:06
Benzene	< 1.00	ug/L		8/14/2019 21:06
Bromochloromethane	< 5.00	ug/L		8/14/2019 21:06

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-D5			
<b>Lab Sample ID:</b>	193851-02		<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>	Groundwater		<b>Date Received:</b>	8/9/2019
Bromodichloromethane	< 2.00	ug/L	8/14/2019	21:06
Bromoform	< 5.00	ug/L	8/14/2019	21:06
Bromomethane	< 2.00	ug/L	8/14/2019	21:06
Carbon disulfide	< 2.00	ug/L	8/14/2019	21:06
Carbon Tetrachloride	< 2.00	ug/L	8/14/2019	21:06
Chlorobenzene	< 2.00	ug/L	8/14/2019	21:06
Chloroethane	< 2.00	ug/L	8/14/2019	21:06
Chloroform	< 2.00	ug/L	8/14/2019	21:06
Chloromethane	< 2.00	ug/L	8/14/2019	21:06
cis-1,2-Dichloroethene	< 2.00	ug/L	8/14/2019	21:06
cis-1,3-Dichloropropene	< 2.00	ug/L	8/14/2019	21:06
Cyclohexane	< 10.0	ug/L	8/14/2019	21:06
Dibromochloromethane	< 2.00	ug/L	8/14/2019	21:06
Dichlorodifluoromethane	< 2.00	ug/L	8/14/2019	21:06
Ethylbenzene	< 2.00	ug/L	8/14/2019	21:06
Freon 113	< 2.00	ug/L	8/14/2019	21:06
Isopropylbenzene	< 2.00	ug/L	8/14/2019	21:06
m,p-Xylene	< 2.00	ug/L	8/14/2019	21:06
Methyl acetate	< 2.00	ug/L	8/14/2019	21:06
Methyl tert-butyl Ether	< 2.00	ug/L	8/14/2019	21:06
Methylcyclohexane	< 2.00	ug/L	8/14/2019	21:06
Methylene chloride	< 5.00	ug/L	8/14/2019	21:06
Naphthalene	< 5.00	ug/L	8/14/2019	21:06
n-Butylbenzene	< 2.00	ug/L	8/14/2019	21:06
n-Propylbenzene	< 2.00	ug/L	8/14/2019	21:06

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

Sample Identifier:	MW-D5				
Lab Sample ID:	193851-02		Date Sampled:	8/8/2019	
Matrix:	Groundwater		Date Received:	8/9/2019	
o-Xylene	< 2.00	ug/L		8/14/2019	21:06
p-Isopropyltoluene	< 2.00	ug/L		8/14/2019	21:06
sec-Butylbenzene	< 2.00	ug/L		8/14/2019	21:06
Styrene	< 5.00	ug/L		8/14/2019	21:06
tert-Butylbenzene	< 2.00	ug/L		8/14/2019	21:06
Tetrachloroethene	< 2.00	ug/L		8/14/2019	21:06
Toluene	< 2.00	ug/L		8/14/2019	21:06
trans-1,2-Dichloroethene	< 2.00	ug/L		8/14/2019	21:06
trans-1,3-Dichloropropene	< 2.00	ug/L		8/14/2019	21:06
Trichloroethene	< 2.00	ug/L		8/14/2019	21:06
Trichlorofluoromethane	< 2.00	ug/L		8/14/2019	21:06
Vinyl chloride	< 2.00	ug/L		8/14/2019	21:06
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	112	73.4 - 131		8/14/2019	21:06
4-Bromofluorobenzene	104	57.2 - 129		8/14/2019	21:06
Pentafluorobenzene	90.0	87 - 112		8/14/2019	21:06
Toluene-D8	102	78.3 - 115		8/14/2019	21:06

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x63595.D

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D4

Lab Sample ID: 193851-03

Date Sampled: 8/8/2019

Matrix: Groundwater

Date Received: 8/9/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		8/14/2019 23:35
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		8/14/2019 23:35
1,2,4-Trichlorobenzene	< 10.0	ug/L		8/14/2019 23:35
1,2-Dichlorobenzene	< 10.0	ug/L		8/14/2019 23:35
1,3-Dichlorobenzene	< 10.0	ug/L		8/14/2019 23:35
1,4-Dichlorobenzene	< 10.0	ug/L		8/14/2019 23:35
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		8/14/2019 23:35
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		8/14/2019 23:35
2,4,5-Trichlorophenol	< 20.0	ug/L		8/14/2019 23:35
2,4,6-Trichlorophenol	< 10.0	ug/L		8/14/2019 23:35
2,4-Dichlorophenol	< 10.0	ug/L		8/14/2019 23:35
2,4-Dimethylphenol	< 20.0	ug/L		8/14/2019 23:35
2,4-Dinitrophenol	< 20.0	ug/L		8/14/2019 23:35
2,4-Dinitrotoluene	< 10.0	ug/L		8/14/2019 23:35
2,6-Dinitrotoluene	< 10.0	ug/L		8/14/2019 23:35
2-Chloronaphthalene	< 10.0	ug/L		8/14/2019 23:35
2-Chlorophenol	< 10.0	ug/L		8/14/2019 23:35
2-Methylnaphthalene	< 10.0	ug/L		8/14/2019 23:35
2-Methylphenol	< 10.0	ug/L		8/14/2019 23:35
2-Nitroaniline	< 20.0	ug/L		8/14/2019 23:35
2-Nitrophenol	< 10.0	ug/L		8/14/2019 23:35
3&4-Methylphenol	< 10.0	ug/L		8/14/2019 23:35
3,3'-Dichlorobenzidine	< 10.0	ug/L		8/14/2019 23:35

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-D4		
<b>Lab Sample ID:</b>	193851-03	<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>	Groundwater	<b>Date Received:</b>	8/9/2019
3-Nitroaniline	< 20.0	ug/L	8/14/2019 23:35
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	8/14/2019 23:35
4-Bromophenyl phenyl ether	< 10.0	ug/L	8/14/2019 23:35
4-Chloro-3-methylphenol	< 10.0	ug/L	8/14/2019 23:35
4-Chloroaniline	< 10.0	ug/L	8/14/2019 23:35
4-Chlorophenyl phenyl ether	< 10.0	ug/L	8/14/2019 23:35
4-Nitroaniline	< 20.0	ug/L	8/14/2019 23:35
4-Nitrophenol	< 20.0	ug/L	8/14/2019 23:35
Acenaphthene	< 10.0	ug/L	8/14/2019 23:35
Acenaphthylene	< 10.0	ug/L	8/14/2019 23:35
Acetophenone	< 10.0	ug/L	8/14/2019 23:35
Anthracene	< 10.0	ug/L	8/14/2019 23:35
Atrazine	< 10.0	ug/L	8/14/2019 23:35
Benzaldehyde	< 10.0	ug/L	8/14/2019 23:35
Benzo (a) anthracene	< 10.0	ug/L	8/14/2019 23:35
Benzo (a) pyrene	< 10.0	ug/L	8/14/2019 23:35
Benzo (b) fluoranthene	< 10.0	ug/L	8/14/2019 23:35
Benzo (g,h,i) perylene	< 10.0	ug/L	8/14/2019 23:35
Benzo (k) fluoranthene	< 10.0	ug/L	8/14/2019 23:35
Bis (2-chloroethoxy) methane	< 10.0	ug/L	8/14/2019 23:35
Bis (2-chloroethyl) ether	< 10.0	ug/L	8/14/2019 23:35
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	8/14/2019 23:35
Butylbenzylphthalate	< 10.0	ug/L	8/14/2019 23:35
Caprolactam	< 10.0	ug/L	8/14/2019 23:35
Carbazole	< 10.0	ug/L	8/14/2019 23:35

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*Report Prepared Thursday, August 15, 2019*



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-D4		
<b>Lab Sample ID:</b>	193851-03	<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>	Groundwater	<b>Date Received:</b>	8/9/2019
Chrysene	< 10.0	ug/L	8/14/2019 23:35
Dibenz (a,h) anthracene	< 10.0	ug/L	8/14/2019 23:35
Dibenzofuran	< 10.0	ug/L	8/14/2019 23:35
Diethyl phthalate	22.9	ug/L	8/14/2019 23:35
Dimethyl phthalate	< 20.0	ug/L	8/14/2019 23:35
Di-n-butyl phthalate	< 10.0	ug/L	8/14/2019 23:35
Di-n-octylphthalate	< 10.0	ug/L	8/14/2019 23:35
Fluoranthene	< 10.0	ug/L	8/14/2019 23:35
Fluorene	< 10.0	ug/L	8/14/2019 23:35
Hexachlorobenzene	< 10.0	ug/L	8/14/2019 23:35
Hexachlorobutadiene	< 10.0	ug/L	8/14/2019 23:35
Hexachlorocyclopentadiene	< 10.0	ug/L	8/14/2019 23:35
Hexachloroethane	< 10.0	ug/L	8/14/2019 23:35
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	8/14/2019 23:35
Isophorone	< 10.0	ug/L	8/14/2019 23:35
Naphthalene	< 10.0	ug/L	8/14/2019 23:35
Nitrobenzene	< 10.0	ug/L	8/14/2019 23:35
N-Nitroso-di-n-propylamine	< 10.0	ug/L	8/14/2019 23:35
N-Nitrosodiphenylamine	< 10.0	ug/L	8/14/2019 23:35
Pentachlorophenol	< 20.0	ug/L	8/14/2019 23:35
Phenanthrene	< 10.0	ug/L	8/14/2019 23:35
Phenol	< 10.0	ug/L	8/14/2019 23:35
Pyrene	< 10.0	ug/L	8/14/2019 23:35

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

**Sample Identifier:** MW-D4

**Lab Sample ID:** 193851-03

**Date Sampled:** 8/8/2019

**Matrix:** Groundwater

**Date Received:** 8/9/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>75.4</b>	54.2 - 126		8/14/2019	23:35
2-Fluorobiphenyl	<b>50.8</b>	37.6 - 102		8/14/2019	23:35
2-Fluorophenol	<b>39.2</b>	15.1 - 106		8/14/2019	23:35
Nitrobenzene-d5	<b>61.9</b>	53.3 - 103		8/14/2019	23:35
Phenol-d5	<b>27.3</b>	10 - 108		8/14/2019	23:35
Terphenyl-d14	<b>67.0</b>	61.8 - 114		8/14/2019	23:35

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 8/13/2019

**Data File:** B39988.D

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*Report Prepared Thursday, August 15, 2019*





Lab Project ID: 193851

Client: **Ravi Engineering & Land Surveying, P.C.**

Project Reference: 101-113 Franklin St

Sample Identifier: MW-D4

Lab Sample ID: 193851-03

Date Sampled: 8/8/2019

Matrix: Groundwater

Date Received: 8/9/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/14/2019 21:28
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/14/2019 21:28
1,1,2-Trichloroethane	< 2.00	ug/L		8/14/2019 21:28
1,1-Dichloroethane	< 2.00	ug/L		8/14/2019 21:28
1,1-Dichloroethene	< 2.00	ug/L		8/14/2019 21:28
1,2,3-Trichlorobenzene	< 5.00	ug/L		8/14/2019 21:28
1,2,4-Trichlorobenzene	< 5.00	ug/L		8/14/2019 21:28
1,2,4-Trimethylbenzene	< 2.00	ug/L		8/14/2019 21:28
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		8/14/2019 21:28
1,2-Dibromoethane	< 2.00	ug/L		8/14/2019 21:28
1,2-Dichlorobenzene	< 2.00	ug/L		8/14/2019 21:28
1,2-Dichloroethane	< 2.00	ug/L		8/14/2019 21:28
1,2-Dichloropropane	< 2.00	ug/L		8/14/2019 21:28
1,3,5-Trimethylbenzene	< 2.00	ug/L		8/14/2019 21:28
1,3-Dichlorobenzene	< 2.00	ug/L		8/14/2019 21:28
1,4-Dichlorobenzene	< 2.00	ug/L		8/14/2019 21:28
1,4-Dioxane	< 20.0	ug/L		8/14/2019 21:28
2-Butanone	< 10.0	ug/L		8/14/2019 21:28
2-Hexanone	< 5.00	ug/L		8/14/2019 21:28
4-Methyl-2-pentanone	< 5.00	ug/L		8/14/2019 21:28
Acetone	< 10.0	ug/L		8/14/2019 21:28
Benzene	< 1.00	ug/L		8/14/2019 21:28
Bromochloromethane	< 5.00	ug/L		8/14/2019 21:28

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

**Client:** Ravi Engineering & Land Surveying, P.C.

**Project Reference:** 101-113 Franklin St

<b>Sample Identifier:</b>	MW-D4			
<b>Lab Sample ID:</b>	193851-03		<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>	Groundwater		<b>Date Received:</b>	8/9/2019
Bromodichloromethane	< 2.00	ug/L	8/14/2019	21:28
Bromoform	< 5.00	ug/L	8/14/2019	21:28
Bromomethane	< 2.00	ug/L	8/14/2019	21:28
Carbon disulfide	< 2.00	ug/L	8/14/2019	21:28
Carbon Tetrachloride	< 2.00	ug/L	8/14/2019	21:28
Chlorobenzene	< 2.00	ug/L	8/14/2019	21:28
Chloroethane	< 2.00	ug/L	8/14/2019	21:28
Chloroform	< 2.00	ug/L	8/14/2019	21:28
Chloromethane	< 2.00	ug/L	8/14/2019	21:28
cis-1,2-Dichloroethene	< 2.00	ug/L	8/14/2019	21:28
cis-1,3-Dichloropropene	< 2.00	ug/L	8/14/2019	21:28
Cyclohexane	< 10.0	ug/L	8/14/2019	21:28
Dibromochloromethane	< 2.00	ug/L	8/14/2019	21:28
Dichlorodifluoromethane	< 2.00	ug/L	8/14/2019	21:28
Ethylbenzene	< 2.00	ug/L	8/14/2019	21:28
Freon 113	< 2.00	ug/L	8/14/2019	21:28
Isopropylbenzene	< 2.00	ug/L	8/14/2019	21:28
m,p-Xylene	< 2.00	ug/L	8/14/2019	21:28
Methyl acetate	< 2.00	ug/L	8/14/2019	21:28
Methyl tert-butyl Ether	< 2.00	ug/L	8/14/2019	21:28
Methylcyclohexane	< 2.00	ug/L	8/14/2019	21:28
Methylene chloride	< 5.00	ug/L	8/14/2019	21:28
Naphthalene	< 5.00	ug/L	8/14/2019	21:28
n-Butylbenzene	< 2.00	ug/L	8/14/2019	21:28
n-Propylbenzene	< 2.00	ug/L	8/14/2019	21:28

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Report Prepared Thursday, August 15, 2019



Lab Project ID: 193851

Client: Ravi Engineering & Land Surveying, P.C.

Project Reference: 101-113 Franklin St

<b>Sample Identifier:</b>		MW-D4			
<b>Lab Sample ID:</b>		193851-03		<b>Date Sampled:</b>	8/8/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	8/9/2019
<hr/>					
o-Xylene	< 2.00	ug/L		8/14/2019	21:28
p-Isopropyltoluene	< 2.00	ug/L		8/14/2019	21:28
sec-Butylbenzene	< 2.00	ug/L		8/14/2019	21:28
Styrene	< 5.00	ug/L		8/14/2019	21:28
tert-Butylbenzene	< 2.00	ug/L		8/14/2019	21:28
Tetrachloroethene	< 2.00	ug/L		8/14/2019	21:28
Toluene	< 2.00	ug/L		8/14/2019	21:28
trans-1,2-Dichloroethene	< 2.00	ug/L		8/14/2019	21:28
trans-1,3-Dichloropropene	< 2.00	ug/L		8/14/2019	21:28
Trichloroethene	< 2.00	ug/L		8/14/2019	21:28
Trichlorofluoromethane	< 2.00	ug/L		8/14/2019	21:28
Vinyl chloride	< 2.00	ug/L		8/14/2019	21:28
<b>Surrogate</b>	<b>Percent Recovery</b>		<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>109</b>		73.4 - 131		8/14/2019 21:28
4-Bromofluorobenzene	<b>103</b>		57.2 - 129		8/14/2019 21:28
Pentafluorobenzene	<b>89.4</b>		87 - 112		8/14/2019 21:28
Toluene-D8	<b>100</b>		78.3 - 115		8/14/2019 21:28

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x63596.D

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Report Prepared Thursday, August 15, 2019



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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15.5<sup>c</sup> started in field  
8/8/19 CS no activity seals  
mcs 9/19

Sampled By <i>Lyndi Zaccari</i>	Date/Time <i>8/8/19</i>	Total Cost: <div></div>
Relinquished By <i>Lyndi Zaccari</i>	Date/Time <i>8/8/19 17:49</i>	<div></div>
Received By <i>Adrian</i>	Date/Time <i>8/8/19 @ 17:49</i>	P.I.F. <div></div>
Received @ Lab By	Date/Time	

See additional page for sample conditions.

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## Chain of Custody Supplement

Client: Ravi Completed by: Moly Nail  
 Lab Project ID: 193851 Date: 8/9/19

### Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>15.5°C, ice started in field</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>01, 02, 03 PCB SVQA CO VQA</u>		