



**2022 Periodic Review Report  
Groundwater Monitoring and Sampling Results  
153 Fillmore Avenue Site  
City of Tonawanda**

December 2022

**2022 PERIODIC REVIEW REPORT  
GROUNDWATER MONITORING AND SAMPLING RESULTS**

**153 FILLMORE AVENUE SITE  
CITY OF TONAWANDA**

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## **SECTION 1 - SITE BACKGROUND**

### **1.1 Site Location**

The site is located at the intersection of Fillmore Avenue and Fremont Street in the City of Tonawanda (City) as shown on Figure 1. The 1.7-acre parcel is bounded on the east by an active railroad line, to the north and south by small commercial/industrial operations, and on the west by Fillmore Avenue. The subject property is located in a small industrial area adjacent to a residential neighborhood.

### **1.2 Site History**

City directories for the period between 1946 to 1957, list Tonawanda Roofing and Paint Company at 141 Fillmore Avenue (adjacent property immediately north of site) and National Manufacturing Corporation at 153 Fillmore under Roofing Materials and Supplies. This is consistent with reports from local workers in the area that roofing materials were produced at the National Manufacturing site and installed by Tonawanda Roofing and Paint. This is further supported by the presence of four large aboveground storage tanks (ASTs) and associated piping on the site that contain heavy, viscous, tar like material.

In 1957, National Manufacturing Corporation added paint manufacturing facilities at the subject property. Raw materials for paint production were shipped to the facility in bulk and were stored in ASTs located in the tank rooms or underground storage tanks (USTs). The raw materials were transferred from the tank rooms to the manufacturing room where the paint was produced. The finished paint was then transferred to the warehouse where it was stored prior to shipment. National Manufacturing Corporation closed the facility in 1981.

In 1981, Envirotek Ltd, a solvent recycling company, reopened the facility as a Resource Conservation and Recovery Act (RCRA) treatment, storage, and disposal (TSD) facility. Containers of RCRA hazardous wastes were transported to the facility where they were stored pending reshipment to a RCRA disposal facility. Containers of RCRA characteristic ignitable, corrosive, and toxic hazardous wastes were stored at the facility from 1981 to 1986. A number of containers were left at the facility when Envirotek Ltd abandoned the facility in 1988.

The New York State Department of Environmental Conservation (NYSDEC) contacted the United States Environmental Protection Agency (USEPA) concerning the subject property on June 29, 1987. The USEPA conducted a preliminary assessment (PA) under the Comprehensive Environmental Response, Compensation and Liabilities Act (CERCLA) on November 30, 1988 to determine if the subject property should be included on the National Priority List (NPL). The PA disclosed that an estimated 770 55-gallon drums and 1,000 smaller containers of RCRA flammable, combustible, and corrosive hazardous wastes

were present on the subject property. Several process vessels, four large ASTs, two UST's, and six transformers were also present at the subject property.

On July 18, 1989 the USEPA initiated remedial action activities at the site. These initial remedial action activities were completed on October 15, 1990, and included:

- the identification and categorization of all RCRA hazardous wastes;
- repackaging of 31,165 gallons of liquids and 11,655 pounds of solids and shipping off-site for incineration;
- repackaging 204 cubic yards of solids and shipping off-site for land disposal; and,
- repackaging 61,975 pounds of solids and shipping off-site for recycling.

A summary of remedial action activities are presented in a report entitled, "Federal On-Scene Coordinator's Report - Envirotek 1, Tonawanda, Erie County, New York," prepared by Roy F. Weston, Inc. and dated November 1990.

The NYSDEC conducted a limited site investigation in November 1997. This investigation was intended to determine if the site posed a significant threat to human health or the environment. This investigation consisted of the collection of soil samples from the site and surface water samples from Ellicott Creek.

The results of this investigation indicated no impairment of the Creek sediments or surface waters associated with the site. Analytical results of surface soils detected exceedances of NYSDEC soil cleanup objectives for polynuclear aromatic hydrocarbons (PAHs), PCBs, and numerous metals. The highest concentrations were observed in the northeast corner of the site.

A Site Investigation/Remedial Alternatives Report was completed by URS Corporation in 2002 indicating that the primary contaminants on-site were volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). These contaminants were present in surface and subsurface soils, and groundwater. Some metals and minor concentrations of PCBs were detected in surface soils.

The remedial activities completed at 153 Fillmore Avenue were separated into two phases. Phase I, completed in 2001, consisted of the demolition and removal of various structures, the removal of three (3) underground storage tanks, backfilling with clean material, and the stockpiling of contaminated soil. Phase II, completed in October 2002, consisted of the following:

1. Excavation, removal, and disposal of contaminated soils from Phase I.
2. Decontamination and removal of four (4) above ground storage tanks.
3. Removal and disposal of ACM coatings on tanks.
4. Removal of piping, supports and associated structures.
5. Sampling, analysis, and characterization of site materials.
6. Removal and off-site disposal of 11.6 tons of hazardous materials
7. 200 CY of concrete crushed and placed as fill material.
8. Installation of 1-foot of clean cover material over the entire site of clay and topsoil.
9. Asphalt paving for two (2) parking areas.

A Site Management Plan presented in Section 4, was completed after the Site Investigation/Remedial Alternatives Report, which detailed a Groundwater Monitoring Plan.

## **SECTION 2 - GROUNDWATER MONITORING ACTIVITIES**

The 2022 monitoring program at the 153 Fillmore Avenue Site in the City consisted of one annual sampling event completed on July 19, 2022. Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-5, MW-6 and MW-8, located on the perimeter of the property as presented in Figure 2.

Groundwater samples were collected using low-flow purging and sampling techniques. Prior to sampling, monitoring wells MW-5, MW-6 and MW-8 were purged using a peristaltic pump and dedicated tubing. Monitoring wells, MW-1 and MW-2 were purged using a dedicated bailer. Groundwater from monitoring wells MW-1, MW-2, MW-5, MW-6 and MW-8 were tested for field parameters to include: pH, conductance, dissolved oxygen (DO), temperature, and oxidation-reduction potential (ORP).

Groundwater field parameters provided an indication that water drawn from the well is representative of the groundwater in the surrounding formation. The results of these field parameters are presented on Table 1. The groundwater field sampling logs that were used to record field information at each sampling point are provided in Appendix A. After the field parameters stabilized, groundwater samples were collected with a dedicated disposable bailer or dedicated tubing into sample containers provided by the laboratory.

Historically, the water level indicator was not able to pass the total depth of monitoring well MW-7 due to an obstruction. A smaller water level indicator probe has been able to pass by the obstruction and obtain the height of water in the monitoring well from 2017 to 2020. However, in 2021, the smaller probe was not able to pass by an obstruction approximately 4.5' from the top of the well. Given this obstruction and the unsafe location of monitoring well, MW-7, along a steep embankment adjacent to an active railway line, the City requested to abandon MW-7 from future sampling activities.

Purge water generated during the groundwater sampling activities was emptied on-site away from the sampled well. In accordance with the Site Management Plan prepared by NYSDEC in 2009, quality control samples including a trip blank and a field duplicate were collected during the sampling event. A matrix spike (MS) and matrix spike duplicate (MSD) were collected and a Data Usability Summary Report (DUSR) was prepared for previous sampling events. In 2016 after further review in of the Site Management Plan and discussions with the NYSDEC it was determined that the MS/MSD samples and a DUSR were not required.

Samples were delivered under a chain of custody to Eurofins TestAmerica for analysis of TCL VOCs by USEPA Method 8260 and Target Analyte List (TAL) Metals by USEPA Method 200.7, with mercury analyzed under USEPA Method 245.2 with results reported using ASP Category A. Historically, the

presence of Target Compound List (TCL) VOCs at monitoring well MW-5 has been not been detected. In 2016 the NYSDEC stated that testing for TCL VOCs at monitoring well MW-5 was no longer required. SVOCs were analyzed for during previous sampling events. In 2016 after further review of the Site Management Plan and discussions with the NYSDEC it was determined that analyzing for SVOCs was not required.

## SECTION 3 - GROUNDWATER MONITORING RESULTS

This section includes the results of the 2022 annual groundwater sampling event. Included are descriptions of site-specific hydrogeology, the identification and distribution of constituents present in groundwater, and a comparison of historical data. Constituents were compared to the applicable NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Groundwater Standards and Guidance Values.

### 3.1 Site Hydrogeology

Groundwater levels were collected at each monitoring well and are presented in Table 2. Figure 3 illustrates the groundwater elevation contours based on the groundwater levels measured on July 19, 2022. The groundwater elevation data indicates that groundwater flows toward the west.

### 3.2 Groundwater Analytical Results

A summary of the compounds detected in groundwater during the 2022 Groundwater Sampling Event is presented on Tables 3, 4 and 5. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998, Class GA was used for the reporting limits. The groundwater samples were analyzed for volatiles, semi-volatiles, and metals on the Target Compound List (TCL). Laboratory analytical data reports are provided in Appendix B. Historical groundwater analytical test data is presented on Tables 3, 4 and 5. Historical groundwater total VOC concentration Figures displaying the lateral extent of the total VOC concentration plume from previous sampling events are provided in Appendix C.

#### 3.2.1 Volatile Organic Analytical Test Results

The volatile organic analytical test results for the sampling event of 2022 varied depending on the monitoring well and specific compounds detected in groundwater in comparison with previous annual sampling events. Results showed increasing and decreasing volatile organic concentrations when comparing test data from all sampling events to 2021 test results. Volatile organic analytical test results are presented in Table 3.

**Exceeding Groundwater Standards:** The volatile organic analytical test results detected a concentration of vinyl chloride at MW-2 that exceeded groundwater quality standards.

#### **Vinyl chloride:**

- The concentration of vinyl chloride increased in groundwater sampled from monitoring well MW-2, which exceeded the groundwater quality standard.

**Benzene:**

- The concentration of benzene decreased in groundwater sampled from monitoring well MW-2, which remained below the groundwater quality standard.

**Cyclohexane:**

- The concentration of cyclohexane decreased in groundwater sampled from monitoring well MW-2.

**2-Butanone:**

- The concentration of 2-butanone increased in groundwater sampled from monitoring well MW-8, which was below the groundwater quality standard.

As presented in Appendix C, historical total VOC concentration groundwater plume figures show the total VOC plume has migrated in a westward direction over time in a similar direction of groundwater flow. The following observations have been made in regard to VOC plume migration and movement as reported in the specific year.

**2001 Reporting** - The October 2001 figure shows a total VOC concentration plume that is centered on the east side of the site with total VOC concentrations of approximately 2,681 ppb detected in groundwater from monitoring well MW-7.

**2007 Reporting** - The total VOC concentration plume from the 2007 sampling event indicates decreasing total VOC concentration centered on monitoring well MW-7.

**2008 Reporting** - The center of the total VOC concentration plume migrated in a westward direction due to higher VOC concentrations detected in groundwater from monitoring wells MW-6 and MW-8.

**2009 Reporting** - The total VOC concentration plume expanded westward with the addition of sampling and test results from monitoring wells MW-1 and MW-2.

**2010 Reporting** - The total VOC concentration plume remained similar to the 2009 total VOC concentration plume, however, shows decreased VOC concentrations from monitoring well MW-6.

**2011 Reporting** - The total VOC plume migrated further west with test results from sampling detecting increased total VOC concentrations at monitoring well MW-1. Total VOC concentrations continued to decrease to non-detectable results from monitoring well MW-6.

**2012 Reporting** - The total VOC plume increased in VOC concentrations groundwater from monitoring well MW-1 for the third year. Plume migration appears to have moved southwest since total VOC concentrations in monitoring well MW-1 have increased every year from 2009 to 2012.

**2013 Reporting** - The total VOC plume decreased in size and VOC concentrations in monitoring wells MW-1 and MW-2. VOC concentrations were not detected in monitoring well MW-8 in 2013. Plume migration should be migrating to the southwest with the direction of groundwater flow. Total VOC concentrations in monitoring well MW-1 have increased every year from 2009 to 2012 with a decrease in concentration in 2013.

**2014 Reporting** - The total VOC plume increased in size and decreased total VOC concentrations. Total VOC concentrations in monitoring well MW-1 have increased every year from 2009 to 2012 with a decrease in VOC concentration in 2013. In 2014, VOC concentrations slightly increased in comparing 2013 results as presented below:

- 2009 - 5.5 µg/l
- 2010 - 16.0 µg/l
- 2011 - 26.0 µg/l
- 2012 - 73.3 µg/l
- 2013 - 14.3 µg/l
- 2014 - 14.8 µg/l

**2015 Reporting** - The total VOC plume increased in size and decreased in total VOC concentrations.

**2016 Reporting** - The total VOC plume decreased in size and increased in total VOC concentrations.

**2017 Reporting** - The total VOC plume decreased in size and decreased in total VOC concentrations.

**2018 Reporting** - The total VOC plume increased in size and in total VOC concentrations. The total VOC concentration in monitoring wells MW-6 and MW-7 increased from non-detectable in 2017 to 1.5 µg/l and 10.1 µg/l in 2018.

**2019 Reporting** - The total VOC plume decreased in size and decreased in total VOC concentrations. The total VOC concentration in monitoring well MW-6 decreased to non-detectable levels. The total VOC concentration in monitoring wells MW-7 and MW-8 decreased from 10.1 µg/l and 21.3 µg/l in 2018 to 4.7 µg/l and 17.7 µg/l in 2019.



**2020 Reporting** - The total VOC plume decreased in size and decreased in total VOC concentrations. The total VOC concentration in monitoring well MW-6 remained at non-detectable levels. The total VOC concentration in monitoring well MW-7 increased from 4.7 µg/l in 2019 to 6.8 µg/l in 2020. The total VOC concentration in monitoring well MW-8 decreased from 17.7 µg/l in 2019 to 6.1 µg/l in 2020.

**2021 Reporting** - The total VOC plume decreased in size and decreased in total VOC concentrations. The total VOC concentration in monitoring well MW-6 remained at non-detectable levels. The total VOC concentration in monitoring well MW-2 increased from 5.9 µg/l in 2020 to 7.6 µg/l in 2021. The total VOC concentration in monitoring wells MW-1 MW-8 decreased to zero in 2021.

**2022 Reporting** - The total VOC plume decreased in size and decreased in total VOC concentrations. The total VOC concentration in monitoring wells MW-1 and MW-6 remained at non-detectable levels. The total VOC concentration in monitoring well MW-2 decreased from 7.6 µg/l in 2021 to 6.26 µg/l in 2022. The total VOC concentration in monitoring well MW-8 increased from non-detectable levels in 2021 to 4.5 µg/l in 2022. From 2009 to 2022, there is a decreasing trend in total VOC concentrations from groundwater sampled from monitoring wells MW-1 and MW-2. Monitoring wells MW-1 and MW-2 VOC concentrations have been totaled as presented below:

- 2009 - 98.2 µg/l
- 2010 - 134.0 µg/l
- 2011 - 82.0 µg/l
- 2012 - 99.9 µg/l
- 2013 - 25.8 µg/l
- 2014 - 26.9 µg/l
- 2015 - 21.9 µg/l
- 2016 - 26.0 µg/l
- 2017 - 12.0 µg/l
- 2018 - 10.7 µg/l
- 2019 - 11.0 µg/l
- 2020 - 7.3 µg/l
- 2021 - 7.6 µg/l
- 2022 - 6.26 µg/l

The following observations have been made regarding total VOC concentrations:

- **2007 and 2008** - There was no VOC test data from monitoring wells MW-1 and MW-2 since the wells were nonfunctional until being re-drilled/installed in 2009.
- **2001 to 2009** - Total VOC concentrations increased consistently in groundwater monitoring well MW-8.
- **2010, 2011, 2012** Total VOC concentrations in monitoring wells MW-2 and MW-8 decreased.
- **2012** - Total VOC concentrations in monitoring wells MW-1 and MW-7 increased.
- **2013** - Total VOC concentrations in monitoring wells MW-1, MW-2 and MW-8 decreased.
- **2014** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-7 and MW-8 decreased from total VOC concentrations detected in 2013 of 107.2 µg/l to 77.2 µg/l as reported in 2014.
- **2015** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-7 and MW-8 decreased from total VOC concentrations detected in 2014 of 77.2 µg/l to 68.8 µg/l as reported in 2015.
- **2016** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-7 and MW-8 increased from 68.8 µg/l in 2015 to 106.6 µg/l as reported in 2016.
- **2017** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-7 and MW-8 decreased from 106.6 µg/l in 2016 to 40.88 µg/l as reported in 2017.
- **2018** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-6, MW-7 and MW-8 increased from 40.88 µg/l in 2017 to 43.60 µg/l as reported in 2018.
- **2019** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-6, MW-7 and MW-8 decreased from 43.60 µg/l in 2018 to 33.40 µg/l as reported in 2019.
- **2020** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-6, MW-7 and MW-8 decreased from 33.40 µg/l in 2019 to 20.24 µg/l as reported in 2020.
- **2021** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-6 and MW-8 decreased from 20.24 µg/l in 2020 to 7.60 µg/l as reported in 2021.
- **2022** - Total VOC concentrations in monitoring wells MW-1, MW-2, MW-6 and MW-8 increased from 7.60 µg/l in 2020 to 10.76 µg/l as reported in 2022.

### **3.2.2 Semi-Volatile Organic Analytical Test Results**

Semi-volatile organic compounds were not analyzed for in 2022, per the SMP and correspondence with NYSDEC. Historical SVOC test results are presented in Appendix D.

### **3.2.3 Inorganic Metals Analytical Test Results**

Detected concentrations of inorganic metals in groundwater sampled in 2022 that exceeded groundwater quality standards and increased in concentrations when compared with 2021 analytical test results include the following: aluminum (MW-1 and MW-2), arsenic (MW-1 and MW-2), iron (MW-1, MW-2, MW-5 and MW-

8); magnesium (MW-2) and manganese (MW-1 and MW-2) exceeding groundwater quality standards as presented in Table 4.

**Aluminum:**

- The concentration of aluminum increased in groundwater sampled from monitoring wells MW-1 and MW-2, which exceeded the groundwater quality standard.
- The concentration of aluminum decreased in groundwater sampled from monitoring well MW-5, which was below the groundwater quality standard.
- The concentration of aluminum in groundwater sampled from monitoring wells MW-6 and MW-8 decreased to non-detectable.

**Antimony:**

- The concentration of antimony in groundwater sampled from all wells remained non-detectable.

**Arsenic:**

- The concentration of arsenic increased in groundwater sampled from monitoring wells MW-1 and MW-2, which exceeded the groundwater quality standard.
- The concentration of arsenic increased in groundwater sampled from monitoring well MW-8, which was below the groundwater quality standard.
- The concentration of arsenic in groundwater sampled from monitoring wells MW-5 and MW-6 remained non-detectable.

**Barium:**

- The concentration of barium increased in groundwater sampled from monitoring wells MW-1 and MW-2, which was below the groundwater quality standard.
- The concentration of barium decreased in groundwater sampled from monitoring well MW-8, which was below the groundwater quality standard.

**Beryllium:**

- The concentration of beryllium increased in groundwater sampled from monitoring wells MW-1 and MW-2, which was below the groundwater quality standard.
- The concentration of beryllium in groundwater sampled from all other wells remained non-detectable.

**Cadmium:**

- The concentration of cadmium increased in groundwater sampled from monitoring wells MW-1 and MW-2, which was below the groundwater quality standard.
- The concentration of cadmium decreased in groundwater sampled from monitoring wells MW-5 and MW-8, which was below the groundwater quality standard.

- The concentration of cadmium in groundwater sampled from monitoring well MW-6 remained non-detectable.

**Chromium:**

- The concentration of chromium increased in groundwater sampled from monitoring wells MW-1 and MW-2, which was below the groundwater quality standard.
- The concentration of chromium in groundwater sampled from monitoring wells MW-5 and MW-8 decreased to non-detectable.
- The concentration of chromium in groundwater sampled from monitoring well MW-6 remained non-detectable.

**Copper:**

- The concentration of copper increased in groundwater sampled from monitoring wells MW-1, MW-2 and MW-6, which was below the groundwater quality standard.
- The concentration of copper decreased in groundwater sampled from monitoring wells MW-5 and MW-8, which was below the groundwater quality standard.

**Iron:**

- The concentration of iron increased in groundwater sampled from monitoring wells MW-1, MW-2, MW-5 and MW-8, which exceeded the groundwater quality standard.
- The concentration of iron decreased in groundwater sampled from monitoring well MW-6, but exceeded the groundwater quality standard.

**Lead:**

- The concentration of lead increased in groundwater sampled from monitoring wells MW-1, MW-2 and MW-8, which was below the groundwater quality standard.
- The concentration of lead decreased in groundwater sampled from monitoring wells MW-5 and MW-8, which was below the groundwater quality standard.
  - The concentration of lead in groundwater sampled from monitoring well MW-6 decreased to non-detectable.

**Magnesium:**

- The concentration of magnesium increased in groundwater sampled from monitoring well MW-2, which exceeded the groundwater quality standard.
- The concentration of magnesium increased in groundwater sampled from monitoring wells MW-1, MW-5, MW-6 and MW-8, which was below the groundwater quality standard.

**Manganese:**

- The concentration of manganese increased in groundwater sampled from monitoring wells MW-1 and MW-2, which exceeded the groundwater quality standard.
- The concentration of manganese increased in groundwater sampled from monitoring well MW-5, which was below the groundwater quality standard.
- The concentration of manganese decreased in groundwater sampled from monitoring well MW-6, but exceeded the groundwater quality standard.
- The concentration of manganese decreased in groundwater sampled from monitoring well MW-8, which was below the groundwater quality standard.

**Mercury:**

- The concentration of mercury increased in groundwater sampled from monitoring well MW-2, which was below the groundwater quality standard.
- The concentration of mercury in groundwater sampled from all other wells remained non-detectable.

**Nickel:**

- The concentration of nickel increased in groundwater sampled from monitoring wells MW-1 and MW-2, which was below the groundwater quality standard.
- The concentration of nickel decreased in groundwater sampled from monitoring well MW-8, which was below the groundwater quality standard.
- The concentration of nickel in groundwater sampled from monitoring well MW-5 decreased to non-detectable.
- The concentration of nickel in groundwater sampled from monitoring well MW-6 remained non-detectable.

**Selenium:**

- The concentration of selenium in groundwater sampled from all wells remained non-detectable.

**Silver:**

- The concentration of silver in groundwater sampled from all wells remained non-detectable.

**Thallium:**

- The concentration of thallium in groundwater sampled from all wells remained non-detectable.

**Zinc:**

- The concentration of zinc increased in groundwater sampled from monitoring wells MW-1 and MW-2, which was below the groundwater quality standard.

- The concentration of zinc decreased in groundwater sampled from monitoring wells MW-5, MW-6 and MW-8, which was below the groundwater quality standard.

### **3.3 Quality Assurance/Quality Control Analytical Results**

Groundwater samples were analyzed for VOCs by USEPA SW-846 Method 8260, and TAL Metals at Eurofins TestAmerica in Amherst, New York. The quality control samples include a field duplicate, method blank and a laboratory control sample analysis.

## **SECTION 4 - SOILS MANAGEMENT PLAN**

### **4.1 Objective**

The objective of this Soils Management Plan (SMP) is to set guidelines for the maintenance and repair of the cover system at the Site, and for the management of soil and fill disturbed during any future intrusive work that breaches this cover system. This SMP addresses environmental concerns related to soil management and has been reviewed and approved by the NYSDEC.

### **4.2 Nature and Extent of Contamination**

The data obtained during the investigation and remediation of the Site reveal that the contaminants of concern at this Site for surface soil consist primarily of semivolatile organic compounds (SVOCs) and metals. The primary SVOCs of concern includes benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and indeno(1,2,3-cd)pyrene. These contaminants belong to a class of SVOCs known as polycyclic aromatic hydrocarbons (PAHs). PAHs are a group of over 100 different chemicals that are ubiquitous in the environment. Sources of PAHs include incomplete combustion of coal, oil, gasoline, garbage, wood and incinerators. PAHs are also found in coal tar, crude oil, creosote, roofing tar, medicines, dyes, plastics and pesticides. The primary metals of concern in surface soil include barium, cadmium, chromium, lead and mercury.

The contaminants of concern at the Site for subsurface soil consist primarily of VOCs and SVOCs. The primary VOCs of concern includes acetone, benzene, ethylbenzene and xylene, while the primary SVOCs of concern include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and chrysene.

The contaminants of concern at the Site for groundwater consist primarily of VOCs and metals. The primary VOCs of concern includes dichloroethene and vinyl chloride, although historic groundwater samples also contained benzene, ethylbenzene, toluene, trichloroethene and xylene. The primary metals of concern in groundwater include aluminum, cadmium, iron, lead and manganese.

### **4.3 Contemplated Use**

Following the remediation of the Site, the property was purchased by Manth Manufacturing for use as parking and warehousing for the company's existing manufacturing operations at 131 Fillmore Avenue. The Deed Restriction specifically prohibits the use of the Site for any type of residential, agricultural or school/day care purposes.

### **4.4 Purpose and Description of the Cover System**

The purpose of the cover system is to prevent public exposures with contaminated soil, fill and groundwater, and to prevent the migration of contaminants off-site via groundwater or surface water runoff. The cover system at the Site consists of the following:

- A 1-foot thick clean soil cover without a demarcation layer;
- A 1-foot thick asphalt and sub base cover at two areas used for parking and access;
- A concrete and sub base cover consisting of sidewalks and the floors of Site buildings. Vapor barriers are not present under any of the concrete buildings slabs.

#### **4.5 Cover System Maintenance and Repair**

The cover system will be periodically inspected and maintained. Maintenance includes controlling surface erosion and run-off from the Site, and includes proper maintenance of the vegetative cover. In the event that damage to the cover system is observed (e.g., ruts, erosion, cracked or broken asphalt, etc.), repairs will be made to restore the cover system to its pre-damaged condition. These repairs are required to maintain the integrity of the cover system.

Future use of the Site should preclude as described in the Deed Restriction, whenever possible, excavation or disturbance of the cover system. Should any future intrusive work breach the cover system, the requirements of Sections 4.6 thru 4.9 of this SMP must be followed. Once the intrusive activities are complete, the cover system must be restored in a manner that is consistent with the original construction. If the type of cover system changes from that which existed prior to the intrusive activities (i.e., a soil cover is replaced by asphalt, concrete or a building), a figure showing the modified surface should be included in the appropriate annually submitted Periodic Review Report, and in any updates to the Site Management Plan. The Periodic Review Report should also certify that all intrusive and cover system repair activities were conducted in conformance with this SMP.

#### **4.6 Management of Subsurface Soil and Fill**

The purpose of this section is to provide environmental guidelines for the management of soil and fill encountered during any future intrusive work that breaches the cover system. This SMP includes the following conditions:

- Any breach of the cover system, including for the purposes of construction or utilities work, must be replaced or repaired using an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. The repaired area must be covered with clean soil and reseeded, or covered with impervious product such as concrete or asphalt to prevent future erosion;
- During any intrusive activities that breach the cover system, the Contingency Plan of Section 4.7 must be implemented, if conditions so warrant. Dust monitoring and control techniques (e.g., wetting road surfaces, covering soil stockpiles, stopping intrusive activities during windy conditions, etc) must also be implemented;



- Soil and fill excavated at the Site that is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations as referenced in Section 4.8;
- Soil and fill excavated at the Site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and is placed beneath a cover system component as referenced in Section 4.4;
- Any off-site material brought to the Site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. Off-site borrow sources will be subject to the collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, TAL metals and cyanide by a NYSDOH ELAP-certified laboratory. The soil will be acceptable for use as cover material provided that all parameters meet the 6 NYCRR Part 375 residential soil cleanup objectives (Appendix E);
- Prior to any construction activities, workers are to be notified of Site conditions with clear instructions regarding how the work is to proceed. Invasive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety, including all applicable personal protective equipment.

#### **4.7 Contingency Plan**

If underground storage tanks or other previously unidentified contaminant sources are encountered during future intrusive work, excavation activities will be suspended until sufficient equipment is mobilized to address the situation. Such findings will be promptly communicated to the NYSDEC Region 9 Office in Buffalo, New York. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. Representative samples of product, soil and fill will be collected for chemical analysis to determine the nature of the material and proper disposal method. The samples should be analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, TAL metals and cyanide by a NYSDOH ELAP certified laboratory. Disposal of this material should take place as referenced in Section 4.8.

#### **4.8 Disposal of Subsurface Soil and Fill**

Soil and fill that is excavated at the Site but cannot be used as fill below the cover system will be further characterized prior to transportation off-site for disposal at a permitted facility. For excavated soil and fill with visual evidence of contamination (i.e., staining or elevated PID measurements), one composite sample and one duplicate sample will be collected for every 100 cubic yards of material. For excavated soil and fill that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite

sample and one duplicate sample will be collected for every 2,000 cubic yards of material. A minimum of one composite sample and one duplicate sample will be collected for volumes less than 2,000 cubic yards.

The composite sample will be collected from five locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. If elevated PID measurements are documented, one grab sample will be collected from the individual location with the highest PID measurement. If none of the individual samples exhibit PID readings, one grab sample will be selected at random. The composite sample will be analyzed for pH (EPA Method 9045C), TCL SVOCs, TCL pesticides, TCL PCBs, TAL metals and cyanide by a NYSDOH ELAP certified laboratory. The grab sample will be analyzed for TCL VOCs.

Samples will be composited by placing equal portions of soil and fill from each of the five composite sample locations into a pre-cleaned, stainless steel (or Pyrex glass) mixing bowl. The soil and fill will be thoroughly homogenized using a stainless steel trowel or disposable scoop, and transferred to pre-cleaned sample bottles provided by the laboratory. The sample bottles will be labeled and a chain-of-custody form will be prepared.

Additional characterization sampling for off-site disposal may be required by the disposal facility. To potentially reduce off-site disposal requirements/costs, the owner or site developer may also choose to characterize each stockpile individually.

If the analytical results indicate that concentrations exceed the standards for RCRA characteristics, the material will be considered a hazardous waste and must be properly disposed off-site at a permitted disposal facility within 90 days of excavation. If the analytical results indicate that the soil is not a hazardous waste, the material will be properly disposed off-site at a non-hazardous waste facility. Stockpiled soil cannot be transported on or off-site until the analytical results are received from the laboratory.

#### **4.9 Subgrade Material**

Subgrade material used to backfill excavations or placed to increase surface grades must meet the following criteria.

- Excavated on-site soil and fill that appears to be visually impacted shall be sampled and analyzed as described in Section 4.8. If analytical results indicate that contaminants are present at concentrations below the 6 NYCRR Part 375 commercial soil cleanup objectives (Appendix E), the soil and fill can be used as backfill on-site;

- Any off-site material brought to the Site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination, and cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a);

- If the contractor designates a source as “virgin” soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use;

- Virgin soil will be subject to the collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver and cyanide by a NYSDOH ELAP certified laboratory. The soil will be acceptable for use as backfill provided that all parameters meet the 6 NYCRR Part 375 commercial soil cleanup objectives as referenced in Appendix E;

- Non-virgin soil will be tested via collection of one composite sample per 500 cubic yards of material from each source. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin source, and both samples of the first 1,000 cubic yards meet the 6 NYCRR Part 375 commercial soil cleanup objectives as referenced in Appendix E, the sample collection frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met the 6 NYCRR Part 375 commercial soil cleanup objectives.

#### **4.10 2022 Site Usage**

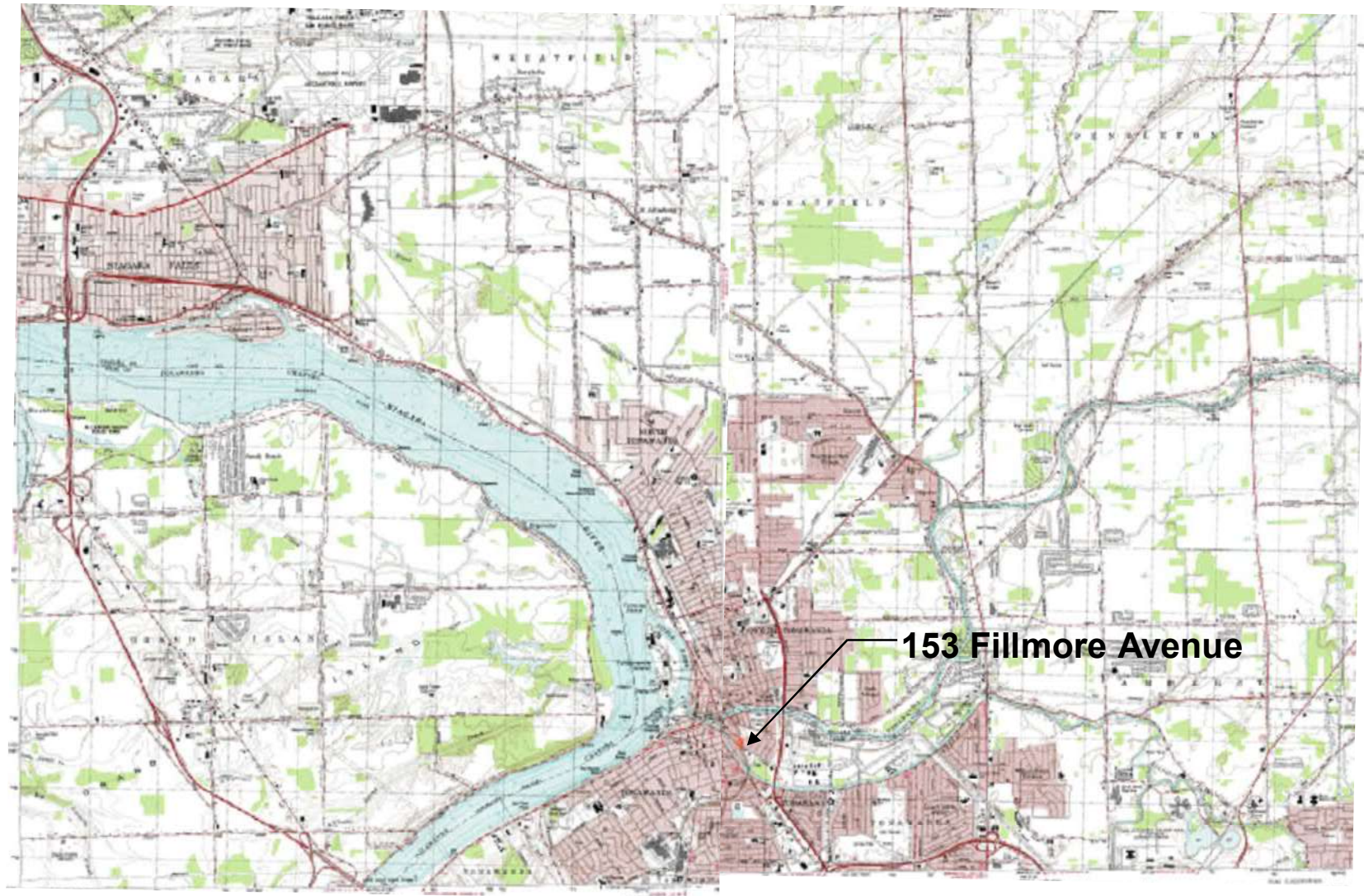
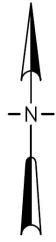
No excavation took place on-site in 2022.

## SECTION 5 - CONCLUSIONS

1. Volatile organic analytical test results detected a concentration of vinyl chloride at monitoring well MW-2 that exceeded groundwater quality standards.
2. Detected concentrations of inorganic metals in groundwater sampled in 2022 that exceeded groundwater quality standards concentrations include the following: aluminum (MW-1 and MW-2); arsenic (MW-1 and MW-2); iron (MW-1, MW-2, MW-5, MW-6 and MW-8); magnesium (MW-2) and manganese (MW-1, MW-2 and MW-6).
3. Based on 2022 analytical test results, the total VOC concentration plume appears to be migrating in a southwestward direction with groundwater flow. Total VOC concentrations slightly decreased in groundwater from monitoring well MW-2.
4. Total VOC concentrations in all monitoring wells sampled and analyzed for increased from 7.60 µg/l in 2021 to 10.76 µg/l as reported in 2022.
5. Trend analysis of total VOC plume increased in size and in total VOC concentrations. Groundwater sampled from monitoring wells MW-1 and MW-2 represent the furthest most westward edge of the VOC plume. From 2009 to 2022, there is a trending decrease in total VOC concentrations from groundwater sampled from monitoring wells MW-1 and MW-2.

## FIGURES

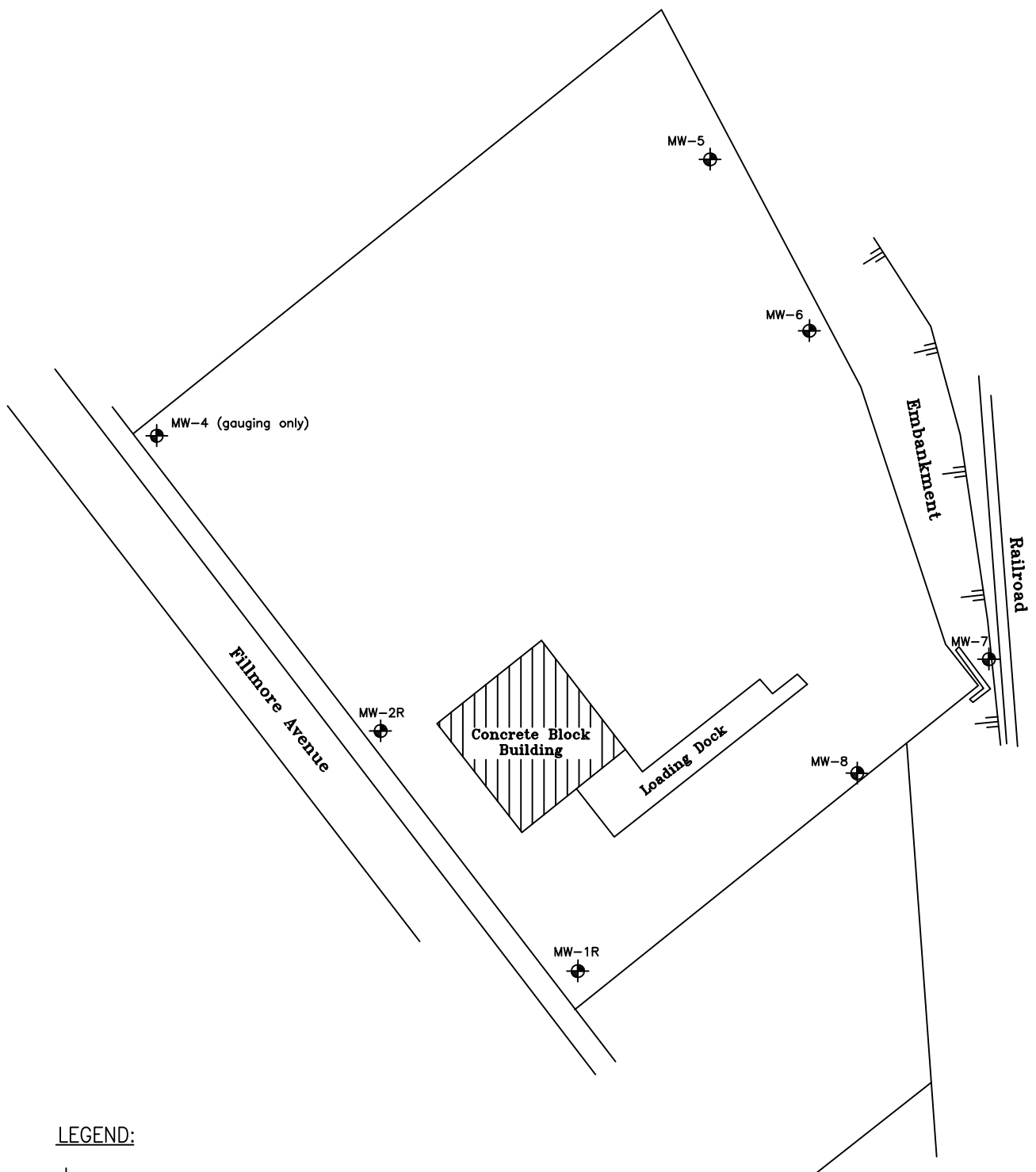
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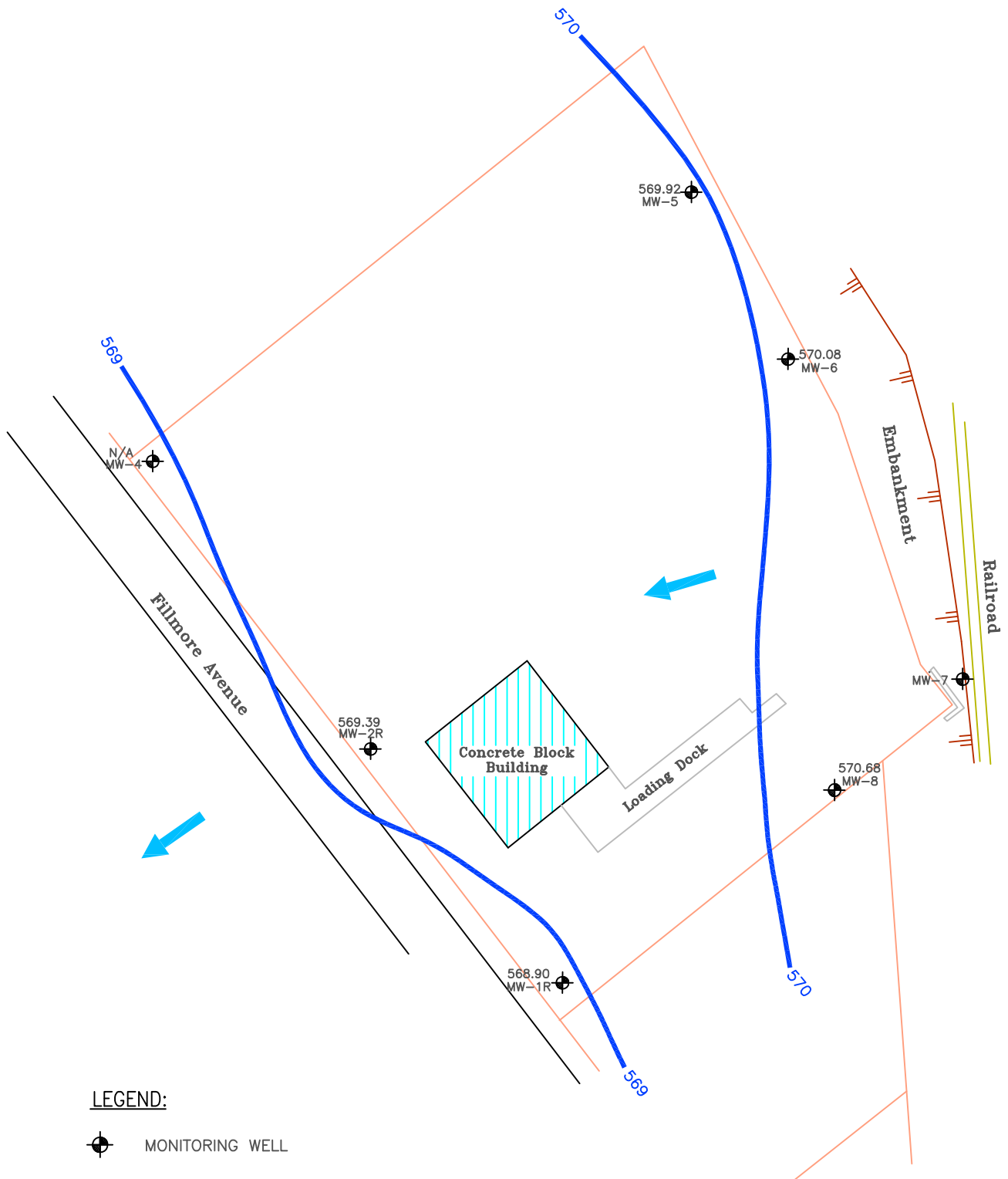
153 FILLMORE AVENUE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

**FIGURE 1**  
**SITE LOCATION MAP**






153 FILLMORE AVENUE SITE  
 TONAWANDA, NEW YORK  
 GROUNDWATER MONITORING REPORT

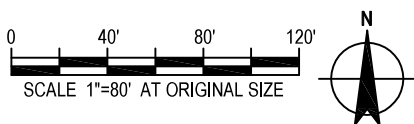
FIGURE 2  
 MONITORING WELL LOCATIONS



**LEGEND:**

-  MONITORING WELL
-  570 GROUNDWATER ELEVATION CONTOUR IN FEET (AMSL)
-  GROUNDWATER FLOW DIRECTION

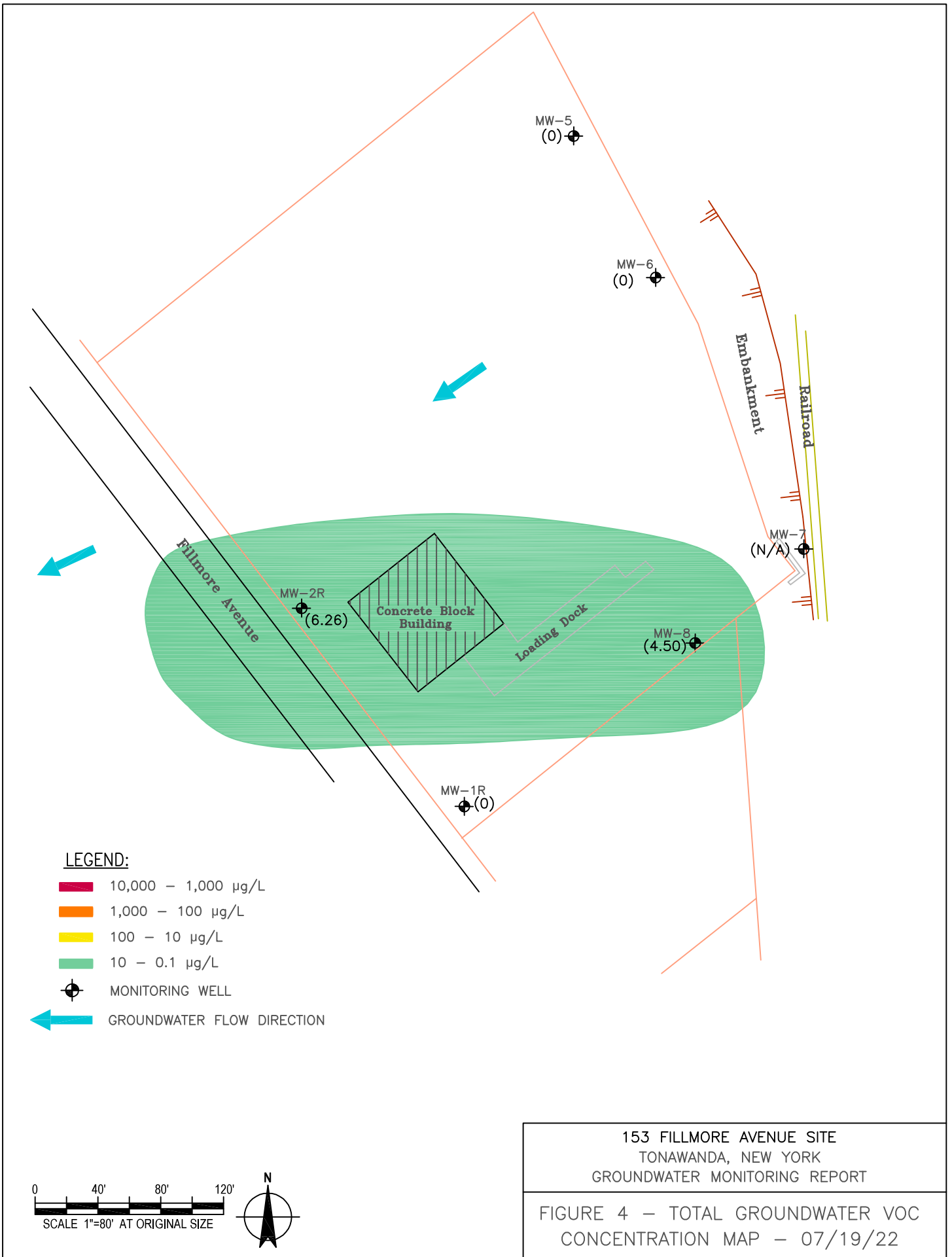
NOTE: GROUNDWATER ELEVATION NOT AVAILABLE AT MONITORING WELL MW-4 DUE TO UNIDENTIFIED OBSTRUCTIONS IN THE WELL.



153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

FIGURE 3  
GROUNDWATER CONTOUR ELEVATIONS MAP





## **TABLES**

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**TABLE 1**  
**2021 Field Groundwater Parameters**  
**153 Fillmore Avenue Site**

Parameter	Monitoring Well Location					
	MW-1	MW-2	MW-5	MW-6	MW-7	MW-8
Temperature (°C)	22.07	19.91	18.00	20.35	NA	22.60
pH	7.40	7.50	9.00	7.87	NA	7.19
Conductivity (mS/cm)	0.669	0.655	0.597	0.619	NA	0.422
Dissolved Oxygen (mg/L)	5.04	5.78	7.74	6.80	NA	4.51
Turbidity (NTUs)	268.0	435.0	65.0	12.9	NA	2.0
ORP (mV)	-74	-56	25	-75	NA	79

**TABLE 2A**  
**Monitoring Well MW-1**  
**Groundwater Monitoring Well Data**  
**153 Fillmore Avenue Site**

Sampling Date	Well Depth Top PVC (ft.)	Well Depth Elevation (ft.)	Depth to Static Water (ft.)	Height of Water (ft.)	Top PVC Elevation (ft.)	Static Water Level Elevation (ft.)	Well Casing Diameter (in.)	Water Volume (gal)	Water Purged (gal)	Purging Method
07/22/09	13.8	561.00	6.30	7.50	574.80	568.50	2.0	1.21	3.64	Bailer
07/15/10	13.8	561.00	7.00	6.80	574.80	567.80	2.0	1.09	3.26	Bailer
07/22/11	13.8	561.00	7.60	6.20	574.80	567.20	2.0	1.00	2.99	Bailer
07/24/12	13.8	561.00	8.70	5.10	574.80	566.10	2.0	0.82	2.46	Bailer
07/24/13	13.8	561.00	5.60	8.20	574.80	569.20	2.0	0.82	2.46	Bailer
07/15/14	13.8	561.00	6.50	7.30	574.80	568.30	2.0	1.17	3.52	Bailer
07/23/15	13.8	561.00	5.60	8.20	574.80	569.20	2.0	1.32	3.95	Bailer
07/28/16	13.8	561.00	7.20	6.60	574.80	567.60	2.0	1.06	3.18	Bailer
07/27/17	13.8	561.00	6.30	7.50	574.80	568.50	2.0	1.21	3.63	Bailer
07/26/18	13.8	561.00	6.15	7.65	574.80	568.65	2.0	1.23	3.69	Bailer
07/18/19	13.8	561.00	5.85	7.95	574.80	568.95	2.0	1.28	3.84	Bailer
07/29/20	13.8	561.00	6.5	7.30	574.80	568.30	2.0	1.17	3.50	Bailer
07/29/21	13.8	561.00	5.2	8.60	574.80	569.60	2.0	1.38	4.13	Bailer
07/19/22	13.8	561.00	5.9	7.90	574.80	568.90	2.0	1.26	3.79	Bailer

**TABLE 2B**  
**Monitoring Well MW-2**  
**Groundwater Monitoring Well Data**  
**153 Fillmore Avenue Site**

Sampling Date	Well Depth Top PVC (ft.)	Well Depth Elevation (ft.)	Depth to Static Water (ft.)	Height of Water (ft.)	Top PVC Elevation (ft.)	Static Water Level Elevation (ft.)	Well Casing Diameter (in.)	Water Volume (gal)	Water Purged (gal)	Purging Method
07/22/09	13.5	561.69	5.90	7.60	575.19	569.29	2.0	1.22	3.67	Bailer
07/15/10	13.5	561.69	6.30	7.20	575.19	568.89	2.0	1.15	3.46	Bailer
07/22/11	13.5	561.69	6.40	7.10	575.19	568.79	2.0	1.14	3.41	Bailer
07/24/12	13.5	561.69	7.70	5.80	575.19	567.49	2.0	0.93	2.78	Bailer
07/24/13	13.5	561.69	4.10	9.40	575.19	571.09	2.0	0.93	2.78	Bailer
07/15/14	13.5	561.69	5.90	7.60	575.19	569.29	2.0	1.22	3.65	Bailer
07/23/15	13.5	561.69	5.55	7.95	575.19	569.64	2.0	1.27	3.82	Bailer
07/28/16	13.5	561.69	7.55	5.95	575.19	567.64	2.0	0.95	2.85	Bailer
07/27/17	13.5	561.69	6.10	7.40	575.19	569.09	2.0	1.18	3.54	Bailer
07/26/18	13.5	561.69	6.30	7.20	575.19	568.89	2.0	1.15	3.45	Bailer
07/18/19	13.5	561.69	6.15	7.35	575.19	569.04	2.0	1.18	3.54	Bailer
07/29/20	13.5	561.69	6.45	7.05	575.19	568.74	2.0	1.13	3.38	Bailer
07/29/21	13.5	561.69	5.00	8.50	575.19	570.19	2.0	1.36	4.08	Bailer
07/19/22	13.5	561.69	5.80	7.70	575.19	569.39	2.0	1.23	3.70	Bailer

**TABLE 2C**  
**Monitoring Well MW-5**  
**Groundwater Monitoring Well Data**  
**153 Fillmore Avenue Site**

Sampling Date	Well Depth Top PVC (ft.)	Well Depth Elevation (ft.)	Depth to Static Water (ft.)	Height of Water (ft.)	Top PVC Elevation (ft.)	Static Water Level Elevation (ft.)	Well Casing Diameter (in.)	Water Volume (gal)	Water Purged (gal)	Purging Method
10/17/01	15.5	562.82	8.41	7.09	578.32	569.91	1.0	0.64	1.91	-
07/26/07	15.5	562.82	9.40	6.10	578.32	568.92	1.0	0.55	1.65	Peristaltic Pump
08/27/08	15.5	562.82	6.90	8.60	578.32	571.42	1.0	0.77	1.00	Peristaltic Pump
07/22/09	15.5	562.82	8.50	7.00	578.32	569.82	1.0	1.90	1.50	Peristaltic Pump
07/15/10	15.5	562.82	8.30	7.20	578.32	570.02	1.0	0.65	1.50	Peristaltic Pump
07/22/11	15.5	562.82	8.80	6.70	578.32	569.52	1.0	0.60	1.81	Peristaltic Pump
07/24/12	15.5	562.82	10.80	4.70	578.32	567.52	1.0	0.42	1.27	Peristaltic Pump
07/24/13	15.5	562.82	4.70	10.80	578.32	573.62	1.0	0.42	1.27	Peristaltic Pump
07/15/14	15.5	562.82	7.90	7.60	578.32	570.42	1.0	0.68	2.00	Peristaltic Pump
07/23/15	15.5	562.82	6.50	9.00	578.32	571.82	1.0	0.81	1.00	Peristaltic Pump
07/28/16	15.5	562.82	10.10	5.40	578.32	568.22	1.0	0.49	0.50	Peristaltic Pump
07/27/17	15.5	562.82	7.30	8.20	578.32	571.02	1.0	0.74	0.75	Peristaltic Pump
07/26/18	15.5	562.82	8.80	6.70	578.32	569.52	1.0	0.60	0.75	Peristaltic Pump
07/18/19	15.5	562.82	7.60	7.90	578.32	570.72	1.0	0.71	0.30	Peristaltic Pump
07/29/20	15.5	562.82	8.70	6.80	578.32	569.62	1.0	0.61	0.50	Peristaltic Pump
07/29/21	15.5	562.82	6.50	9.00	578.32	571.82	1.0	0.81	2.43	Peristaltic Pump
07/19/22	15.5	562.82	8.40	7.10	578.32	569.92	1.0	0.64	1.92	Peristaltic Pump

**TABLE 2D**  
**Monitoring Well MW-6**  
**Groundwater Monitoring Well Data**  
**153 Fillmore Avenue Site**

Sampling Date	Well Depth Top PVC (ft.)	Well Depth Elevation (ft.)	Depth to Static Water (ft.)	Height of Water (ft.)	Top PVC Elevation (ft.)	Static Water Level Elevation (ft.)	Well Casing Diameter (in.)	Water Volume (gal)	Water Purged (gal)	Purging Method
10/17/01	17.3	560.83	7.93	9.37	578.13	570.2	1.0	0.84	2.53	-
07/26/07	17.3	560.83	8.50	8.80	578.13	569.63	1.0	0.79	2.38	Peristaltic Pump
08/27/08	17.3	560.83	6.70	10.60	578.13	571.43	1.0	0.95	2.86	Peristaltic Pump
07/22/09	17.3	560.83	8.70	8.60	578.13	569.43	1.0	0.78	2.34	Peristaltic Pump
07/15/10	17.3	560.83	8.10	9.20	578.13	570.03	1.0	0.83	2.48	Peristaltic Pump
07/22/11	17.3	560.83	8.50	8.80	578.13	569.63	1.0	0.79	2.38	Peristaltic Pump
07/24/12	17.3	560.83	10.20	7.10	578.13	567.93	1.0	0.64	1.92	Peristaltic Pump
07/24/13	17.3	560.83	5.60	11.70	578.13	572.53	1.0	0.64	1.92	Peristaltic Pump
07/15/14	17.3	560.83	7.60	9.70	578.13	570.53	1.0	0.87	2.60	Peristaltic Pump
07/23/15	17.3	560.83	7.10	10.20	578.13	571.03	1.0	0.92	2.75	Peristaltic Pump
07/28/16	17.3	560.83	9.80	7.50	578.13	568.33	1.0	0.68	2.04	Peristaltic Pump
07/27/17	17.3	560.83	7.70	9.60	578.13	570.43	1.0	0.86	2.58	Peristaltic Pump
07/26/18	17.3	560.83	8.50	8.80	578.13	569.63	1.0	0.79	2.37	Peristaltic Pump
07/18/19	17.3	560.83	8.10	9.20	578.13	570.03	1.0	0.83	2.49	Peristaltic Pump
07/29/20	17.3	560.83	8.70	8.60	578.13	569.43	1.0	0.77	2.32	Peristaltic Pump
07/29/21	17.3	560.83	6.10	11.20	578.13	572.03	1.0	1.01	3.02	Peristaltic Pump
07/19/22	17.3	560.83	8.10	9.20	578.13	570.03	1.0	0.83	2.48	Peristaltic Pump

**TABLE 2E**  
**Monitoring Well MW-8**  
**Groundwater Monitoring Well Data**  
**153 Fillmore Avenue Site**

Sampling Date	Well Depth Top PVC (ft.)	Well Depth Elevation (ft.)	Depth to Static Water (ft.)	Height of Water (ft.)	Top PVC Elevation (ft.)	Static Water Level Elevation (ft.)	Well Casing Diameter (in.)	Water Volume (gal)	Water Purged (gal)	Purging Method
10/17/01	17.5	560.93	8.16	9.34	578.43	570.27	1.0	0.84	2.52	-
07/26/07	17.5	560.93	8.50	9.00	578.43	569.93	1.0	0.81	2.43	Peristaltic Pump
08/27/08	17.5	560.93	6.90	10.60	578.43	571.53	1.0	0.95	3.00	Peristaltic Pump
07/22/09	17.5	560.93	7.80	9.70	578.43	570.63	1.0	0.87	2.62	Peristaltic Pump
07/15/10	17.5	560.93	8.40	9.10	578.43	570.03	1.0	0.82	2.46	Peristaltic Pump
07/22/11	17.5	560.93	8.90	8.60	578.43	569.53	1.0	0.77	2.32	Peristaltic Pump
07/24/12	17.5	560.93	10.60	6.90	578.43	567.83	1.0	0.62	1.86	Peristaltic Pump
07/24/13	17.5	560.93	5.10	12.40	578.43	573.33	1.0	0.62	1.86	Peristaltic Pump
07/15/14	17.5	560.93	7.90	9.60	578.43	570.53	1.0	0.86	2.60	Peristaltic Pump
07/23/15	17.5	560.93	7.10	10.40	578.43	571.33	1.0	0.94	2.82	Peristaltic Pump
07/28/16	17.5	560.93	10.00	7.50	578.43	568.43	1.0	0.68	2.04	Peristaltic Pump
07/27/17	17.5	560.93	7.90	9.60	578.43	570.53	1.0	0.86	2.58	Peristaltic Pump
07/26/18	17.5	560.93	8.8	8.70	578.43	569.63	1.0	0.78	2.34	Peristaltic Pump
07/18/19	17.5	560.93	8.4	9.10	578.43	570.03	1.0	0.82	2.46	Peristaltic Pump
07/29/20	17.5	560.93	8.7	8.80	578.43	569.73	1.0	0.79	2.38	Peristaltic Pump
07/29/21	17.5	560.93	5.2	12.30	578.43	573.23	1.0	1.11	3.32	Peristaltic Pump
07/19/22	17.5	560.93	7.8	9.70	578.43	570.63	1.0	0.87	2.62	Peristaltic Pump



**TABLE 3A**  
**Monitoring Well MW-1**  
**Volatiles Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Volatiles Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/07/01	07/22/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15	07/28/16	07/27/17	07/26/18	07/18/19	07/29/20	07/29/21	07/19/22
1,1,1-Trichloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.04	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	NE	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	µg/L	9	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	60.0	µg/L	-	ND	ND	ND	ND	-	ND	ND	ND	<b>0.19 J</b>	ND	ND	<b>0.24 J</b>	ND	ND
Carbon tetrachloride	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	µg/L	<b>47</b>	<b>5.5</b>	<b>13</b>	<b>23</b>	<b>55</b>	<b>13</b>	<b>13</b>	<b>4.1</b>	<b>2.9</b>	<b>1.3</b>	<b>0.88 J</b>	<b>1.0</b>	<b>1.2</b>	ND	ND
cis-1,3-Dichloropropene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NE	µg/L	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	NE	µg/L	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	10.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NE	µg/L	-	-	-	-	-	-	ND	ND	<b>0.26 J</b>	ND	ND	ND	ND	ND	ND
Methylene chloride	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	µg/L	ND	ND	ND	ND	<b>2.3 J</b>	ND	<b>0.46J</b>	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2.0	µg/L	ND	ND	<b>3 J</b>	<b>3 J</b>	<b>16</b>	<b>1.3</b>	<b>1.3</b>	<b>1.1</b>	<b>0.96 J</b>	ND	ND	ND	ND	ND	ND
m,p-Xylene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs		µg/L	47.0	5.5	16.0	26.0	73.3	14.3	14.8	5.2	4.1	1.49	0.88	1.00	1.44	0.00	0.00
Total VOCs		mg/L	0.047	0.006	0.016	0.026	0.073	0.014	0.015	0.005	0.004	0.001	0.001	0.001	0.001	0.000	0.000

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98 Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

\* Dilution factor of 5 used

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

- = The analyte was not sampled for.

**TABLE 3B**  
**Monitoring Well MW-2**  
**Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/07/01	07/22/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15	07/28/16	07/27/17	07/26/18	07/18/19	07/29/20	07/29/21	07/19/22
1,1,1-Trichloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.04	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	NE	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	µg/L	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	50.0	µg/L	ND	ND	ND	<b>11</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1.0	µg/L	ND	<b>6.7</b>	ND	<b>5 J</b>	<b>2.9 J</b>	<b>2.3</b>	<b>1.9</b>	<b>4.2</b>	<b>3.4</b>	<b>1.8</b>	<b>1.8 J</b>	<b>1.9 J</b>	<b>1.2 J</b>	<b>1.8 J</b>	<b>0.86 J</b>
Bromodichloromethane	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	60.0	µg/L	-	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5.0	µg/L	-	ND	ND	ND	ND	ND	<b>0.36 J</b>	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	µg/L	ND	ND	<b>54</b>	<b>12</b>	<b>2.7 J</b>	<b>1.4</b>	<b>1.3</b>	<b>1.5</b>	<b>1.7</b>	<b>1.1</b>	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NE	µg/L	-	-	-	-	-	-	<b>1.4</b>	<b>1.2</b>	<b>2.8</b>	ND	<b>1.2 J</b>	<b>1.9 J</b>	<b>1.4 J</b>	<b>1.6 J</b>	<b>1.4 J</b>
Dichlorodifluoromethane	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	NE	µg/L	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	10.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyleyclohexane	NE	µg/L	-	-	-	-	-	-	<b>0.63 J</b>	ND	ND	<b>0.47 J</b>	ND	ND	ND	ND	ND
Methylene chloride	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>1.3 J</b>	ND	ND	ND	ND
Styrene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	µg/L	ND	<b>4 J</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	µg/L	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2.0	µg/L	ND	<b>82</b>	<b>64</b>	<b>28</b>	<b>21</b>	<b>7.8</b>	<b>6.5</b>	<b>9.8</b>	<b>14.0</b>	<b>7.1</b>	<b>5.5</b>	<b>6.2</b>	<b>3.3</b>	<b>4.2</b>	<b>5.4</b>
m,p-Xylene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs		µg/L	0	92.7	118.0	56.0	26.6	11.5	12.1	16.7	21.9	10.47	9.82	10.00	5.90	7.60	6.26
Total VOCs		mg/L	0.000	0.093	0.118	0.056	0.027	0.012	0.012	0.017	0.022	0.010	0.010	0.010	0.006	0.008	0.006

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98 Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

\* Dilution factor of 5 used

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

- = The analyte was not sampled for.

**TABLE 3C**  
**Monitoring Well MW-6**  
**Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/07/01	07/26/07	08/27/08	07/22/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15	07/28/16	07/27/17	07/26/18	07/18/19	07/29/20	07/29/21	07/19/22
1,1,1-Trichloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.04	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	NE	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	µg/L	9	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	60.0	µg/L	-	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	µg/L	ND	ND	<b>240</b>	<b>51</b>	<b>2 J</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NE	µg/L	-	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	NE	µg/L	-	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	10.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NE	µg/L	-	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>1.5 J</b>	ND	ND	ND	ND
Styrene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	µg/L	ND	ND	ND	<b>3 J</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5.0	µg/L	ND	ND	ND	<b>2 J</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2.0	µg/L	ND	ND	<b>99</b>	<b>42</b>	<b>5</b>	ND	ND	ND	ND	<b>0.3</b>	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	5.0	µg/L	<b>5</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs		µg/L	13.7	0	339.0	98.0	7.1	0	0	0	0	0.3	0.0	0.0	1.5	0.0	0.0	0.0	0.0
Total VOCs		mg/L	0.014	0.000	0.339	0.098	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98 Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

\* Dilution factor of 5 used

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

- = The analyte was not sampled for.

**TABLE 3E**  
**Monitoring Well MW-8**  
**Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/07/01	07/26/07	08/27/08	07/23/09 <sup>a</sup>	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15	07/28/16	07/27/17	07/26/18	07/18/19	07/29/20	07/29/21	07/19/22
1,1,1-Trichloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.04	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	NE	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	µg/L	9	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.5 J
4-Methyl-2-pentanone	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1.0	µg/L	4	ND	ND	ND	ND	3 J	2.4 J	ND	2.1	2.6	2.6	2.1	2.1	1.2 J	1.3 J	ND	ND
Bromodichloromethane	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	60.0	µg/L	-	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	µg/L	31	160	230	370	260	52	22	ND	8.6	5.3	2.8	6.9	6.2	3.5	ND	ND	ND
cis-1,3-Dichloropropene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NE	µg/L	-	-	-	-	-	-	-	-	0.86 J	0.43	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	NE	µg/L	-	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	10.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NE	µg/L	-	-	-	-	-	-	-	-	0.79 J	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0 J	ND	ND	ND
Styrene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5.0	µg/L	ND	2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	µg/L	7	15	20 J	20 J	10 J	11	4.9	ND	1.5	1.0	1.0	0.92 J	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	µg/L	-	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2.0	µg/L	54	190	160	190	240	120	110	ND	30	35	32	19	12	13	4.8	ND	ND
m,p-Xylene	5.0	µg/L	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	5.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs		µg/L	110.7	367.0	410.0	580.0	510.0	186.0	144.2	0.0	43.9	44.3	38.4	28.92	21.30	17.70	6.10	0.00	4.50
Total VOCs		mg/L	0.111	0.367	0.410	0.580	0.510	0.186	0.144	0.000	0.044	0.044	0.038	0.029	0.021	0.018	0.006	0.000	0.005

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98 Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

\* Dilution factor of 5 used

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

- = The analyte was not sampled for.

**TABLE 4A**  
**Monitoring Well MW-1**  
**Inorganic Metals Analytical Test Results**  
**153 Fillmore Avenue Site**

<b>Metals Compounds</b>	<b>NYSDEC TOGS 1.1.1 Water Quality Standards<sup>1</sup></b>	<b>Units</b>	<b>08/08/01</b>	<b>07/22/09</b>	<b>07/15/10</b>	<b>07/22/11</b>	<b>07/24/12</b>	<b>07/24/13</b>	<b>07/15/14</b>	<b>07/23/15</b>	<b>07/28/16</b>	<b>07/27/17</b>	<b>07/26/18</b>	<b>07/18/19</b>	<b>07/29/20</b>	<b>07/29/21</b>	<b>07/19/22</b>
Aluminum	2,000	µg/L	-	4,760	48,000	37,300	215,000	170,000	62,000	22,000	81,500	18,300	10,000	1,500	24,600	12,100	16,700
Antimony	6	µg/L	-	ND	ND	ND	ND	3.1	1.4	3.0	ND	ND	ND	ND	ND	ND	ND
Arsenic	50	µg/L	11	ND	23	36	184	150	22	320	550	140	130	200	160	63	190
Barium	2,000	µg/L	301	265	590	545	1,920	1,400	840	540	850	300	220	320	330^	240	370
Beryllium	3	µg/L	-	ND	ND	ND	7.62	7.50	5.40	ND	4.30	0.86 J	0.39 J	ND	1.2 J	0.55 J	0.81 J
Cadmium	10	µg/L	ND	ND	10.4	ND	151	ND	28	10	16	2.2	1.5 J	ND	3.5	2.1	4.3
Calcium	NE	µg/L	-	188,000	635,000	400,000	1,130,000	830,000	540,000	240,000	293,000	137,000	115,000	139,000	149,000	141,000	156,000
Chromium	50	µg/L	ND	ND	67.7	58.2	287	310	100	35	120	21	12	3.8 J	33	13	21
Cobalt	NE	µg/L	-	ND	49	35.5	160	200	77	28	67	11	4.8	0.7 J	18.0	6.3	11.0
Copper	1,000	µg/L	-	16.6	77.7	89.5	437	570	220	88	200	35	18	6.8 J	50	21	43
Iron	600	µg/L	-	22,200	112,000	81,800	311,000	420,000	210,000	170,000	276,000 ^	95,300	55,700	113,000	78,500	36,800	60,900
Lead	50	µg/L	7	3.78	80	62	518	200	38	54	140	28	10	14	31	12	21
Magnesium	35,000	µg/L	-	35,800	127,000	61,400	226,000	210,000	130,000	44,000	78,200	24,300	16,700	17,600	27,800	21,800	28,200
Manganese	600	µg/L	-	2,250	7,410	5,100	9,570	16,000	9,300	4,200	4,500 B	2,100 B	1,400 B	2,000 B	2,300	2,100	2,200 B
Mercury	0.7	µg/L	9	ND	0.22	ND	0.52	0.54	0.23	0.058 J	0.17 J	ND	ND	ND	ND	ND	ND
Nickel	200	µg/L	-	ND	121	78.2	436	410	150	65	160	26	10	ND	43	15	24
Potassium	NE	µg/L	-	4,650	12,600	12,400	51,100	26,000	16,000	7,400	20,600	8,500 B	6,400	3,800	10,300	7,700	8,700
Selenium	10	µg/L	-	ND	3.9	ND	ND	ND	ND	ND	31	ND	ND	ND	ND	ND	ND
Silver	50	µg/L	-	ND	ND	ND	ND	ND	7.2 J	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NE	µg/L	-	79,500	71,300	81,000	54,000	45,000	77,000	78,000	48,400	40,800 B	63,400	75,700	72,400	56,800	57,600
Thallium	0.5	µg/L	-	ND	ND	ND	ND	2.6	ND	0.78 J	ND	ND	ND	ND	ND	ND	ND
Vanadium	NE	µg/L	-	ND	102	87	343	360	130	55	170	36	20	7.7	54.0	24.0	37.0
Zinc	5,000	µg/L	-	28.1	402	307	1,310	1,500	920	350	800	150	71 B	31 B	230	150 B	180

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98. Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

B - Compound was found in the blank and sample.

^ - Instrument related QC is outside acceptance limits.

- = The analyte was not sampled for.

**TABLE 4B**  
**Monitoring Well MW-2**  
**Inorganic Metals Analytical Test Results**  
**153 Fillmore Avenue Site**

<b>Metals Compounds</b>	<b>NYSDEC TOGS 1.1.1 Water Quality Standards<sup>1</sup></b>	<b>Units</b>	<b>08/08/01</b>	<b>07/22/09</b>	<b>07/15/10</b>	<b>07/22/11</b>	<b>07/24/12</b>	<b>07/24/13</b>	<b>07/15/14</b>	<b>07/23/15</b>	<b>07/28/16</b>	<b>07/27/17</b>	<b>07/26/18</b>	<b>07/18/19</b>	<b>07/29/20</b>	<b>07/29/21</b>	<b>07/19/22</b>
Aluminum	2,000	µg/L	-	3,250	98,500	35,400	265,000	34,000	34,000	31,000	187,000	7,000	64,100	37,400	38,500	8,500	27,100
Antimony	6	µg/L	-	ND	ND	ND	ND	1.5	0.84 J	2.3 J	ND	ND	ND	ND	ND	ND	ND
Arsenic	50	µg/L	5	ND	17	32	297	44	16	100	160	19	90	110	64	17	57
Barium	2,000	µg/L	73	261	2,330	724	3,890	1,000	880	730	2,100	250	820	580	570^	230	420
Beryllium	3	µg/L	-	ND	5	ND	8.35	ND	1.4 J	ND	7.9	ND	2.8	1.6 J	1.9 J	0.36 J	1.1 J
Cadmium	10	µg/L	ND	ND	20	5.32	233	10	ND	ND	7.4	ND	1.9 J	ND	0.68 J	ND	0.91 J
Calcium	NE	µg/L	-	213,000	1,240,000	417,000	2,550,000	460,000	370,000	51,000	954,000	152,000	306,000	252,000	259,000	151,000	188,000
Chromium	50	µg/L	ND	ND	146	56.2	336	52	62	51	280	8.8	88	50	55	11	38
Cobalt	NE	µg/L	-	ND	90	30.6	190	32	32	31	150	2.7 J	33	19	21	2.9 J	12
Copper	1,000	µg/L	-	29.1	611	199	1,510	360	220	160	740	13	170	91	100	12	58
Iron	600	µg/L	-	11,300	165,000	71,700	393,000	83,000	110,000	130,000	323,000 ^	16,600	123,000	91,300	87,600	18,800	59,400
Lead	50	µg/L	2	13.1	410	140	1,150	180	40	110	490	13	120	86	82	11	45
Magnesium	35,000	µg/L	-	53,400	315,000	119,000	706,000	200,000	160,000	160,000	592,000	40,600	142,000	103,000	10,900	37,700	67,000
Manganese	600	µg/L	-	490	5,250	2,110	8,930	2,100	1,600	1,400	5,300 B	390 B	1,400 B	970 B	1,100	360	640 B
Mercury	0.7	µg/L	9	ND	2.8	0.542	2.04	0.67	0.21	0.12 J	1.0	ND	0.24	0.13 J	0.13 J	ND	0.10 J
Nickel	200	µg/L	-	ND	222	71.6	534	89	87	84	380	7.7 J	86	50	60	8.1 J	33
Potassium	NE	µg/L	-	3,580	20,900	11,000	554,000	8,500	8,100	7,200	51,100	4,900 B	22,400	13,800	13,300	5,400	11,100
Selenium	10	µg/L	-	ND	5.6	ND	ND	32	11 J	ND	35	ND	ND	ND	ND	ND	ND
Silver	50	µg/L	-	ND	ND	ND	ND	ND	6.1 J	ND	2.2 J	ND	ND	ND	ND	ND	ND
Sodium	NE	µg/L	-	56,900	60,500	58,700	514,000	30,000	44,000	55,000	38,500	36,800 B	35,900	35,300	31,300	32,700	26,300
Thallium	0.5	µg/L	-	ND	ND	ND	ND	1.1	ND	0.86 J	ND	ND	ND	ND	ND	ND	ND
Vanadium	NE	µg/L	-	ND	153	76	356	73	64	72	390	14	130	75	84	17	57
Zinc	5,000	µg/L	-	79.8	2,060	606	4,100	1,200	760	630	2,500	52	560 B	360 B	380	55 B	210

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98. Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

B - Compound was found in the blank and sample.

^ - Instrument related QC is outside acceptance limits.

- = The analyte was not sampled for.

**TABLE 4C**  
**Monitoring Well MW-5**  
**Inorganic Metals Analytical Test Results**  
**153 Fillmore Avenue Site**

Metals Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units																	
			08/08/01	07/26/07	08/27/08	07/22/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15	07/28/16	07/27/17	07/26/18	07/18/19	07/29/20	07/29/21	07/19/22
Aluminum	2,000	µg/L	-	1,440	5,740	6,990	2,640	1,480	161	140	120	920	390	250	930	230	110 J	740	82 J
Antimony	6	µg/L	-	ND	ND	ND	ND	ND	ND	2.3	0.98 J	2.3	ND	ND	ND	ND	ND	ND	ND
Arsenic	50	µg/L	11	ND	ND	ND	ND	ND	ND	1.6	0.86 J	1.3	ND	ND	ND	ND	ND	ND	ND
Barium	2,000	µg/L	2,390	160	666	522	176	239	172	110	110	180	130	140	140	110	130^	140	160
Beryllium	3	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	10	µg/L	22	ND	7	ND	ND	ND	ND	ND	0.72 J	3.7	ND	0.7	2.0	ND	ND	0.96 J	0.54 J
Calcium	NE	µg/L	-	164,000	163,000	193,000	173,000	159,000	140,000	130,000	190,000	190,000	147,000	158,000	162,000	172,000	140,000	120,000	134,000
Chromium	50	µg/L	ND	ND	13.9	22.1	ND	ND	ND	ND	ND	ND	1.6 J	1.1 J	2.6 J	ND	ND	2.8 J	ND
Cobalt	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1 J	0.64 J	ND	ND	2.9 J	ND
Copper	1,000	µg/L	-	20.8	45.9	79.1	12.9	22	ND	ND	6.8 J	18	2.7 J	5.1 J	8.7 J	ND	2.4 J	7.1 J	2.4 J
Iron	600	µg/L	-	2,880	12,400	17,200	7,090	4,970	3,450	860	2,100	3,000	3,800 ^	3,300	4,000	950	2,900	1,900	4,500
Lead	50	µg/L	580	64.5	231	527	170	91	ND	4.8	13	82	25	32	57	18	16	29	12
Magnesium	35,000	µg/L	-	31,700	38,500	59,600	39,800	34,600	31,400	24,000	35,000	35,000	31,200	32,100	34,000	29,900	26,800	20,700	29,400
Manganese	600	µg/L	-	530	509	591	569	437	225	190	480	260	220 B	220 B	260 B	280 B	300	220	260 B
Mercury	0.7	µg/L	9	ND	ND	ND	ND	ND	0.689	ND	ND	0.08	ND	ND	ND	ND	ND	ND	ND
Nickel	200	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	13	9.7 J	15	14	5.5 J	16	30	ND
Potassium	NE	µg/L	-	ND	4,270	2,030	ND	ND	ND	1,200	680 J	1,300	1,700	1,700 B	1,900	710	2,100	2,000	2,200
Selenium	10	µg/L	-	8.1	ND	ND	ND	ND	47.7	ND	22.0	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NE	µg/L	-	24,200	18,400	17,200	20,100	19,000	11,000	19,000	25,000	32,000	15,900	23,600 B	18,900	46,200	24,600	27,300	18,200
Thallium	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9 J	3.3 J	ND	ND	3.3 J	ND
Zinc	5,000	µg/L	-	1,690	2,310	1,670	2,740	984	165	550	340	920	300	510	910 B	170 B	600	1,100 B	970

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98. Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

B - Compound was found in the blank and sample.

^ - Instrument related QC is outside acceptance limits.

- = The analyte was not sampled for.

**TABLE 4D**  
**Monitoring Well MW-6**  
**Inorganic Metals Analytical Test Results**  
**153 Fillmore Avenue Site**

Metals Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/08/01	07/26/07	08/27/08	07/23/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15	07/28/16	07/27/17	07/26/18	07/18/19	07/29/20	07/29/21	07/19/22
Aluminum	2,000	µg/L	-	148	1,630	843	941	202	ND	120	180	980	1,600	140 J	87 J	250	190 J	270	ND
Antimony	6	µg/L	-	ND	ND	ND	ND	ND	ND	ND	0.84 J	0.58	ND	ND	ND	ND	ND	ND	ND
Arsenic	50	µg/L	ND	ND	ND	ND	ND	ND	ND	1.0	1.1	1.7	ND	ND	ND	ND	ND	ND	ND
Barium	2,000	µg/L	1,660	234	242	230	213	191	207	180	180	190	220	220	200	190	190 <sup>^</sup>	170	180
Beryllium	3	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	10	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.97 J	ND	ND	ND	ND	ND	ND
Calcium	NE	µg/L	-	156,000	132,000	146,000	137,000	130,000	149,000	140,000	140,000	170,000	149,000	153,000	147,000	136,000	137,000	131,000	139,000
Chromium	50	µg/L	22	ND	ND	ND	ND	ND	ND	11	ND	ND	4	ND	ND	ND	ND	ND	ND
Cobalt	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.87 J	ND	ND	ND	ND	0.95 J	ND
Copper	1,000	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.5 J	ND	ND	ND	ND	ND	2.0 J
Iron	600	µg/L	-	7,270	10,700	8,050	9,530	7,090	6,220	9,800	8,000	9,600	8,000 <sup>^</sup>	5,900	5,800	8,300	7,200	8,000	6,200
Lead	50	µg/L	84	ND	5.91	3.82	9.5	ND	ND	1.7	3.8	9.7	16.0	ND	ND	ND	3 J	3.9 J	ND
Magnesium	35,000	µg/L	-	27,900	24,300	27,900	24,600	24,800	29,100	27,000	29,000	30,000	30,600	30,700	28,900	27,500	26,800	24,900	30,400
Manganese	600	µg/L	-	1,200	2,720	1,690	1,860	1,480	1,080	2,500	1,700	1,800	1,100 B	1,200 B	1,100 B	1,700 B	1,300	2,400	1,100 B
Mercury	0.7	µg/L	8.7	ND	ND	ND	ND	ND	ND	ND	ND	0.06	0.13 J	ND	ND	ND	ND	ND	ND
Nickel	200	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1 J	ND	ND	ND	ND	ND	ND
Potassium	NE	µg/L	-	2,190	3,190	3,260	ND	ND	ND	3,100	2,900	3,500	4,200	3,600 B	3,300	2,800	2,800	3,300	3,000
Selenium	10	µg/L	-	13.5	ND	ND	ND	ND	ND	ND	23.0	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NE	µg/L	-	21,600	21,600	20,600	16,900	16,000	14,700	14,000	12,000	4,200	29,500	22,900 B	14,600	11,400	13,700	16,800	15,600
Thallium	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7 J	ND	ND	ND	ND	ND	ND
Zinc	5,000	µg/L	-	63.2	47.6	29.4	39.7	51.6	18.7	ND	40 J	120	180	32	22 B	38 B	20.0	47 B	6.8 J

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98. Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

B - Compound was found in the blank and sample.

<sup>^</sup> - Instrument related QC is outside acceptance limits.

- = The analyte was not sampled for.



**TABLE 4E**  
**Monitoring Well MW-8**  
**Inorganic Metals Analytical Test Results**  
**153 Fillmore Avenue Site**

Metals Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/08/01	07/26/07	08/27/08	07/22/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15	07/28/16	07/27/17	07/26/18	07/18/19	07/29/20	07/29/21	07/19/22
Aluminum	2,000	µg/L	-	ND	<b>1,420</b>	<b>722</b>	<b>199</b>	ND	ND	<b>130</b>	<b>46 J</b>	ND	<b>83 J</b>	<b>1,100</b>	<b>140 J</b>	<b>190 J</b>	ND	<b>130 J</b>	ND
Antimony	6	µg/L	-	ND	ND	ND	ND	ND	ND	<b>6.0</b>	<b>0.61 J</b>	<b>0.67</b>	ND	ND	ND	ND	ND	ND	ND
Arsenic	50	µg/L	<b>14.0</b>	ND	ND	ND	ND	ND	ND	<b>22.0</b>	<b>1.7</b>	<b>2.0</b>	ND	<b>7.9 J</b>	ND	ND	ND	ND	<b>7.6 J</b>
Barium	2,000	µg/L	<b>880</b>	<b>172</b>	<b>175</b>	<b>125</b>	<b>133</b>	<b>107</b>	<b>110</b>	<b>180</b>	<b>120</b>	<b>140</b>	<b>110</b>	<b>100</b>	<b>83</b>	<b>120</b>	<b>130^</b>	<b>150</b>	<b>130</b>
Beryllium	3	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	10	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>1.1 J</b>	<b>0.69 J</b>	<b>0.52 J</b>	ND	<b>0.99 J</b>	<b>0.98 J</b>
Calcium	NE	µg/L	-	<b>157,000</b>	<b>149,000</b>	<b>141,000</b>	<b>144,000</b>	<b>141,000</b>	<b>147,000</b>	<b>140,000</b>	<b>160,000</b>	<b>230,000</b>	<b>160,000</b>	<b>136,000</b>	<b>139,000</b>	<b>150,000</b>	<b>128,000</b>	<b>95,500</b>	<b>107,000</b>
Chromium	50	µg/L	<b>15</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>1.3 J</b>	<b>1.1 J</b>	<b>1.6 J</b>	ND	<b>1.3 J</b>	ND
Cobalt	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>1.0 J</b>	ND	ND	ND	<b>0.66 J</b>	ND
Copper	1,000	µg/L	-	<b>10.4</b>	<b>15.0</b>	ND	ND	ND	ND	<b>23.0</b>	ND	ND	ND	<b>23</b>	<b>2.9 J</b>	<b>3.1 J</b>	<b>1.6 J</b>	<b>16</b>	<b>9.6 J</b>
Iron	600	µg/L	-	<b>3,230</b>	<b>4,640</b>	<b>3,120</b>	<b>2,870</b>	<b>3,090</b>	<b>3,650</b>	<b>8,600</b>	<b>4,100</b>	<b>5,300</b>	<b>1,900 ^</b>	<b>4,000</b>	<b>2,400</b>	<b>2,700</b>	<b>1,700</b>	<b>320</b>	<b>1,000</b>
Lead	50	µg/L	<b>270</b>	ND	<b>15.4</b>	<b>5.4</b>	<b>11.0</b>	ND	<b>16.6</b>	<b>98.0</b>	<b>5.4</b>	<b>9.2</b>	<b>6.6 J</b>	<b>89</b>	<b>5.4 J</b>	<b>12</b>	<b>3.4 J</b>	<b>21</b>	<b>16</b>
Magnesium	35,000	µg/L	-	<b>28,700</b>	<b>27,100</b>	<b>28,100</b>	<b>25,300</b>	<b>26,200</b>	<b>28,300</b>	<b>19,000</b>	<b>34,000</b>	<b>43,000</b>	<b>31,800</b>	<b>26,500</b>	<b>27,200</b>	<b>24,500</b>	<b>16,900</b>	<b>10,100</b>	<b>12,700</b>
Manganese	600	µg/L	-	<b>802</b>	<b>891</b>	<b>618</b>	<b>665</b>	<b>817</b>	<b>819</b>	<b>1,500</b>	<b>820</b>	<b>1,400</b>	<b>700 B</b>	<b>650 B</b>	<b>420 B</b>	<b>750 B</b>	<b>600</b>	<b>610</b>	<b>540 B</b>
Mercury	0.7	µg/L	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	200	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>2.4 J</b>	ND	ND	ND	<b>4.1 J</b>	<b>2.7 J</b>
Potassium	NE	µg/L	-	<b>1,780</b>	<b>4,060</b>	<b>3,080</b>	ND	ND	ND	<b>6,800</b>	<b>2,700</b>	<b>4,400</b>	<b>3,800</b>	<b>4,400 B</b>	<b>2,700</b>	<b>5,100</b>	<b>6,100</b>	<b>7,500</b>	<b>5,200</b>
Selenium	10	µg/L	-	<b>9.5</b>	ND	ND	ND	ND	<b>24.1</b>	ND	<b>19 J</b>	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NE	µg/L	-	<b>30,100</b>	<b>24,000</b>	<b>22,600</b>	<b>22,600</b>	<b>22,700</b>	<b>19,800</b>	<b>15,000</b>	<b>19,000</b>	<b>52,000</b>	<b>44,000</b>	<b>34,200 B</b>	<b>23,600</b>	<b>19,200</b>	<b>15,900</b>	<b>24,500</b>	<b>15,000</b>
Thallium	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	<b>1.1</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>2.7 J</b>	ND	ND	<b>1.5 J</b>	<b>2.0 J</b>	ND
Zinc	5,000	µg/L	-	<b>189</b>	<b>630</b>	<b>250</b>	<b>375</b>	<b>33</b>	<b>43.3</b>	<b>240</b>	<b>80</b>	<b>100</b>	<b>36</b>	<b>440</b>	<b>6.6 B</b>	<b>50 B</b>	<b>18</b>	<b>180 B</b>	<b>130</b>

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 06/98. Class GA.

Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

B - Compound was found in the blank and sample.

^ - Instrument related QC is outside acceptance limits.

- = The analyte was not sampled for.

# **APPENDIX A**

---

## **Groundwater Field Sampling Records**

### GROUNDWATER FIELD SAMPLING RECORD

SITE 153 Fillmore Avenue DATE 07/19/22

Samplers: Brian Doyle SAMPLE ID MW-01  
Jason LaMonaco

Depth of well (from top of casing)..... 13.83 ft EL 560.97  
 Initial static water level (from top of casing)... 5.90 ft EL 568.90  
 Top of PVC Casing Elevation 574.80

**Evacuation Method:**

**Well Volume Calculation**

Peristaltic \_\_\_\_\_ Centrifugal \_\_\_\_\_ 1 in. casing: \_\_\_\_\_ ft. of water x .09 = \_\_\_\_\_ gallons  
 Airlift \_\_\_\_\_ Pos. Displ. \_\_\_\_\_ 2 in. casing: 7.9 ft. of water x .16 = 1.27 gallons  
 Bailer X >>> No. of bails \_\_\_\_\_ 3 in. casing: \_\_\_\_\_ ft. of water x .36 = \_\_\_\_\_ gallons

Volume of water removed 3.81 gals.  
 > 3 volumes: 

YES	no
-----	----

  
 dry: 

yes	NO
-----	----

Field Tests: Temp: 21.15 °C  
 pH 7.35  
 Conductivity 0.934 mS/cm  
 DO 3.35 mg/L  
 Turbidity 573.0 NTUs  
 Oxidation Reduction Potential (ORP) -26 mV

Sampling: \_\_\_\_\_ Time: 1:15 PM

Sampling Method: Peristaltic Pump \_\_\_\_\_  
 Disposable Bailer X  
 Disposable Tubing \_\_\_\_\_

**Observations:**

Weather/Temperature: Clear, 80° F

Physical Appearance and Odor of Sample: Rusty with particulate, more clear towards end of purge. No odor.

Comments: \_\_\_\_\_

### GROUNDWATER FIELD SAMPLING RECORD

SITE 153 Fillmore Avenue DATE 07/19/22

Sampler: Brian Doyle SAMPLE ID MW-02  
Jason LaMonaco

Depth of well (from top of casing)..... 13.5 ft EL 561.69  
 Initial static water level (from top of casing)... 5.80 ft EL 569.39  
 Top of PVC Casing Elevation 575.19

Evacuation Method:

Well Volume Calculation

Peristaltic \_\_\_\_\_ Centrifugal \_\_\_\_\_ 1 in. casing: \_\_\_\_\_ ft. of water x .09 = \_\_\_\_\_ gallons  
 Airlift \_\_\_\_\_ Pos. Displ. \_\_\_\_\_ 2 in. casing: 7.7 ft. of water x .16 = 1.23 gallons  
 Bailer X >>> No. of bails \_\_\_\_\_ 3 in. casing: \_\_\_\_\_ ft. of water x .36 = \_\_\_\_\_ gallons

Volume of water removed 3.70 gals.  
 > 3 volumes: 

YES	no
-----	----

  
 dry: 

yes	NO
-----	----

Field Tests: Temp: 18.43 °C  
 pH 7.63  
 Conductivity 0.843 mS/cm  
 DO 4.93 mg/L  
 Turbidity NA NTUs  
 Oxidation Reduction Potential (ORP) -3 mV

Sampling: \_\_\_\_\_ Time: 1:45 PM

Sampling Method: Peristaltic Pump \_\_\_\_\_  
 Disposable Bailer X  
 Disposable Tubing \_\_\_\_\_

Observations:

Weather/Temperature: Clear, 80° F

Physical Appearance and Odor of Sample: Initially light brown, then brown, murky and turbid

Comments: Field equipment unable to record a turbidity reading due to very murky water.

### GROUNDWATER FIELD SAMPLING RECORD

SITE 153 Fillmore Avenue DATE 07/19/22

Sampler: Brian Doyle SAMPLE ID MW-05  
Jason LaMonaco

Depth of well (from top of casing)..... 15.5 ft EL 562.82  
 Initial static water level (from top of casing)... 8.4 ft EL 569.92  
 Top of PVC Casing Elevation 578.32

Evacuation Method:

Well Volume Calculation

Peristaltic   X   Centrifugal \_\_\_\_\_ 1 in. casing:   7.1   ft. of water x .09 =   0.64   gallons  
 Airlift \_\_\_\_\_ Pos. Displ. \_\_\_\_\_ 2 in. casing: \_\_\_\_\_ ft. of water x .16 = \_\_\_\_\_ gallons  
 Bailer \_\_\_\_\_ >>> No. of bails \_\_\_\_\_ 3 in. casing: \_\_\_\_\_ ft. of water x .36 = \_\_\_\_\_ gallons

Volume of water removed   1.92   gals.  
 > 3 volumes: 

YES	no
-----	----

  
 dry: 

yes	NO
-----	----

Field Tests: Temp:   17.59   °C  
 pH   7.81    
 Conductivity   0.907   mS/cm  
 DO   7.31   mg/L  
 Turbidity   23.9   NTUs  
 Oxidation Reduction Potential (ORP)   0   mV

Sampling: Time:   11:15 AM  

Sampling Method: Peristaltic Pump   X    
 Disposable Bailer \_\_\_\_\_  
 Disposable Tubing   X  

Observations:

Weather/Temperature:   Clear, 80° F  

Physical Appearance and Odor of Sample:   Cloudy, then clear; no odor.  

Comments: \_\_\_\_\_

### GROUNDWATER FIELD SAMPLING RECORD

SITE 153 Fillmore Avenue DATE 07/29/22

Sampler: Brian Doyle SAMPLE ID MW-06  
Jason LaMonaco

Depth of well (from top of casing)..... 17.3 ft EL 560.83  
 Initial static water level (from top of casing)... 8.1 ft EL 570.08  
 Top of PVC Casing Elevation 578.13

Evacuation Method:

Well Volume Calculation

Peristaltic   X   Centrifugal \_\_\_\_\_ 1 in. casing:   9.3   ft. of water x .09 =   0.83   gallons  
 Airlift \_\_\_\_\_ Pos. Displ. \_\_\_\_\_ 2 in. casing: \_\_\_\_\_ ft. of water x .16 = \_\_\_\_\_ gallons  
 Bailer \_\_\_\_\_ >>> No. of bails \_\_\_\_\_ 3 in. casing: \_\_\_\_\_ ft. of water x .36 = \_\_\_\_\_ gallons

Volume of water removed   2.50   gals.  
 > 3 volumes: 

YES	no
-----	----

  
 dry: 

yes	NO
-----	----

Field Tests: Temp:   17.95   °C  
 pH   7.72    
 Conductivity   0.837   mS/cm  
 DO   3.04   mg/L  
 Turbidity   12.0   NTUs  
 Oxidation Reduction Potential (ORP)   -51.0   mV

Sampling: \_\_\_\_\_ Time:   12:00 PM  

Sampling Method: Peristaltic Pump   X    
 Disposable Bailer \_\_\_\_\_  
 Disposable Tubing   X  

Observations:

Weather/Temperature:   Clear, 80° F  

Physical Appearance and Odor of Sample:   Clear with slight oil residue. No odor.  

Comments: \_\_\_\_\_

### GROUNDWATER FIELD SAMPLING RECORD

SITE 153 Fillmore Avenue DATE 07/19/22

Sampler: Brian Doyle SAMPLE ID MW-08; FD  
Jason LaMonaco

Depth of well (from top of casing)..... 17.5 ft EL 560.93  
 Initial static water level (from top of casing)... 7.8 ft EL 570.68  
 Top of PVC Casing Elevation 578.43

Evacuation Method:

Well Volume Calculation

Peristaltic   X   Centrifugal \_\_\_\_\_ 1 in. casing:   9.8   ft. of water x .09 =   0.88   gallons  
 Airlift \_\_\_\_\_ Pos. Displ. \_\_\_\_\_ 2 in. casing: \_\_\_\_\_ ft. of water x .16 = \_\_\_\_\_ gallons  
 Bailer \_\_\_\_\_ >>> No. of bails \_\_\_\_\_ 3 in. casing: \_\_\_\_\_ ft. of water x .36 = \_\_\_\_\_ gallons

Volume of water removed   2.63   gals.  
 > 3 volumes: 

YES	no
-----	----

  
 dry: 

yes	NO
-----	----

Field Tests: Temp:   27.6   °C  
 pH   7.80    
 Conductivity   0.567   mS/cm  
 DO   6.87   mg/L  
 Turbidity   56.5   NTUs  
 Oxidation Reduction Potential (ORP)   83   mV

Sampling: \_\_\_\_\_ Time:   2:00 PM  

Sampling Method: Peristaltic Pump   X    
 Disposable Bailer \_\_\_\_\_  
 Disposable Tubing   X  

Observations:

Weather/Temperature:   Clear, 80° F  

Physical Appearance and Odor of Sample:   Clear with some sediment from bottom of well, some odor  

Comments: \_\_\_\_\_

# **APPENDIX B**

---

## **Laboratory Analytical Results**



## ANALYTICAL REPORT

Eurofins Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-199917-1

Client Project/Site: 153 Fillmore Avenue Groundwater Analysis

**For:**

City of Tonawanda  
200 Niagara Street  
Tonawanda, New York 14150

Attn: Brian Doyle



*Authorized for release by:*

7/26/2022 12:45:06 PM

Rebecca Jones, Project Management Assistant I  
(716)504-9884

[Rebecca.Jones@et.eurofinsus.com](mailto:Rebecca.Jones@et.eurofinsus.com)

Designee for

Brian Fischer, Manager of Project Management  
(716)504-9835

[Brian.Fischer@et.eurofinsus.com](mailto:Brian.Fischer@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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# Definitions/Glossary

Client: City of Tonawanda  
Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

# Case Narrative

Client: City of Tonawanda  
Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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## Job ID: 480-199917-1

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### Laboratory: Eurofins Buffalo

#### Narrative

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#### Job Narrative 480-199917-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 7/19/2022 2:23 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.4° C.

#### GC/MS VOA

Method 8260C: Due to the co-elution of Ethyl Acetate with 2-Butanone in the full spike solution, 2-Butanone exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 480-634219 . The following samples are impacted: MW-1 (480-199917-1), MW-2 (480-199917-2), MW-6 (480-199917-4), MW-8 (480-199917-5) and FD- MW-8 (480-199917-6).

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-2 (480-199917-2), MW-6 (480-199917-4), MW-8 (480-199917-5) and FD- MW-8 (480-199917-6). Elevated reporting limits (RLs) are provided.

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

#### Metals

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

# Detection Summary

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Client Sample ID: MW-1

## Lab Sample ID: 480-199917-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	16.7		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.19		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.37		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.00081	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.0043		0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	156		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.021		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.011		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.043		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	60.9		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.021		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	28.2		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	2.2	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.024		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	8.7		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	57.6		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.037		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.18		0.010	0.0015	mg/L	1		6010C	Total/NA

## Client Sample ID: MW-2

## Lab Sample ID: 480-199917-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.86	J	2.0	0.82	ug/L	2		8260C	Total/NA
Cyclohexane	1.4	J	2.0	0.36	ug/L	2		8260C	Total/NA
Vinyl chloride	5.4		2.0	1.8	ug/L	2		8260C	Total/NA
Aluminum	27.1		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.057		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.42		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.0011	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.00091	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	188		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.038		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.012		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.058		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	59.4		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.045		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	67.0		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.64	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.033		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	11.1		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	26.3		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.057		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.21		0.010	0.0015	mg/L	1		6010C	Total/NA
Mercury	0.00010	J	0.00020	0.000043	mg/L	1		7470A	Total/NA

## Client Sample ID: MW-5

## Lab Sample ID: 480-199917-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.082	J	0.20	0.060	mg/L	1		6010C	Total/NA
Barium	0.16		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.00054	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	134		0.50	0.10	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

# Detection Summary

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Client Sample ID: MW-5 (Continued)

Lab Sample ID: 480-199917-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0024	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	4.5		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.012		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	29.4		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.26	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.017		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	2.2		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	18.2		1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.97		0.010	0.0015	mg/L	1		6010C	Total/NA

## Client Sample ID: MW-6

Lab Sample ID: 480-199917-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.18		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	139		0.50	0.10	mg/L	1		6010C	Total/NA
Copper	0.0020	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	6.2		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	30.4		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.1	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	3.0		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	15.6		1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0068	J	0.010	0.0015	mg/L	1		6010C	Total/NA

## Client Sample ID: MW-8

Lab Sample ID: 480-199917-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.5	J*+	20	2.6	ug/L	2		8260C	Total/NA
Arsenic	0.0076	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.13		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.00098	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	107		0.50	0.10	mg/L	1		6010C	Total/NA
Copper	0.0096	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	1.0		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.016		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	12.7		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.54	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0027	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	5.2		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	15.0		1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.13		0.010	0.0015	mg/L	1		6010C	Total/NA

## Client Sample ID: FD- MW-8

Lab Sample ID: 480-199917-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.4	J*+	20	2.6	ug/L	2		8260C	Total/NA
Aluminum	0.11	J	0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.0059	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.13		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.0015	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	104		0.50	0.10	mg/L	1		6010C	Total/NA
Copper	0.013		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	0.80		0.050	0.019	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

# Detection Summary

Client: City of Tonawanda  
Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Client Sample ID: FD- MW-8 (Continued)

Lab Sample ID: 480-199917-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.017		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	12.2		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.49	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0035	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	5.2		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	14.3		1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.16		0.010	0.0015	mg/L	1		6010C	Total/NA

## Client Sample ID: TB

Lab Sample ID: 480-199917-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: MW-1**

**Lab Sample ID: 480-199917-1**

Date Collected: 07/19/22 13:15

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/20/22 16:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/20/22 16:49	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/20/22 16:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/20/22 16:49	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/20/22 16:49	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/20/22 16:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/20/22 16:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/20/22 16:49	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/20/22 16:49	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/20/22 16:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/20/22 16:49	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/20/22 16:49	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/20/22 16:49	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/20/22 16:49	1
2-Hexanone	ND		5.0	1.2	ug/L			07/20/22 16:49	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			07/20/22 16:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/20/22 16:49	1
Acetone	ND		10	3.0	ug/L			07/20/22 16:49	1
Benzene	ND		1.0	0.41	ug/L			07/20/22 16:49	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/20/22 16:49	1
Bromoform	ND		1.0	0.26	ug/L			07/20/22 16:49	1
Bromomethane	ND		1.0	0.69	ug/L			07/20/22 16:49	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/20/22 16:49	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/20/22 16:49	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/20/22 16:49	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/20/22 16:49	1
Chloroethane	ND		1.0	0.32	ug/L			07/20/22 16:49	1
Chloroform	ND		1.0	0.34	ug/L			07/20/22 16:49	1
Chloromethane	ND		1.0	0.35	ug/L			07/20/22 16:49	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/20/22 16:49	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/20/22 16:49	1
Cyclohexane	ND		1.0	0.18	ug/L			07/20/22 16:49	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/22 16:49	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/20/22 16:49	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/20/22 16:49	1
Methyl acetate	ND		2.5	1.3	ug/L			07/20/22 16:49	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/20/22 16:49	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/20/22 16:49	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/20/22 16:49	1
Styrene	ND		1.0	0.73	ug/L			07/20/22 16:49	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/20/22 16:49	1
Toluene	ND		1.0	0.51	ug/L			07/20/22 16:49	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/20/22 16:49	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/20/22 16:49	1
Trichloroethene	ND		1.0	0.46	ug/L			07/20/22 16:49	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/20/22 16:49	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/20/22 16:49	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/20/22 16:49	1



# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: MW-1**

**Lab Sample ID: 480-199917-1**

Date Collected: 07/19/22 13:15

Matrix: Water

Date Received: 07/19/22 14:23

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		07/20/22 16:49	1
Toluene-d8 (Surr)	101		80 - 120		07/20/22 16:49	1
4-Bromofluorobenzene (Surr)	98		73 - 120		07/20/22 16:49	1
Dibromofluoromethane (Surr)	96		75 - 123		07/20/22 16:49	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16.7		0.20	0.060	mg/L		07/21/22 09:24	07/21/22 17:08	1
Antimony	ND		0.020	0.0068	mg/L		07/21/22 09:24	07/21/22 17:08	1
Arsenic	0.19		0.015	0.0056	mg/L		07/21/22 09:24	07/21/22 17:08	1
Barium	0.37		0.0020	0.00070	mg/L		07/21/22 09:24	07/21/22 17:08	1
Beryllium	0.00081	J	0.0020	0.00030	mg/L		07/21/22 09:24	07/21/22 17:08	1
Cadmium	0.0043		0.0020	0.00050	mg/L		07/21/22 09:24	07/21/22 17:08	1
Calcium	156		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:08	1
Chromium	0.021		0.0040	0.0010	mg/L		07/21/22 09:24	07/21/22 17:08	1
Cobalt	0.011		0.0040	0.00063	mg/L		07/21/22 09:24	07/21/22 17:08	1
Copper	0.043		0.010	0.0016	mg/L		07/21/22 09:24	07/21/22 17:08	1
Iron	60.9		0.050	0.019	mg/L		07/21/22 09:24	07/21/22 17:08	1
Lead	0.021		0.010	0.0030	mg/L		07/21/22 09:24	07/21/22 17:08	1
Magnesium	28.2		0.20	0.043	mg/L		07/21/22 09:24	07/21/22 17:08	1
Manganese	2.2	B	0.0030	0.00040	mg/L		07/21/22 09:24	07/21/22 17:08	1
Nickel	0.024		0.010	0.0013	mg/L		07/21/22 09:24	07/21/22 17:08	1
Potassium	8.7		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:08	1
Selenium	ND		0.025	0.0087	mg/L		07/21/22 09:24	07/21/22 17:08	1
Silver	ND		0.0060	0.0017	mg/L		07/21/22 09:24	07/21/22 17:08	1
Sodium	57.6		1.0	0.32	mg/L		07/21/22 09:24	07/21/22 17:08	1
Thallium	ND		0.020	0.010	mg/L		07/21/22 09:24	07/21/22 17:08	1
Vanadium	0.037		0.0050	0.0015	mg/L		07/21/22 09:24	07/21/22 17:08	1
Zinc	0.18		0.010	0.0015	mg/L		07/21/22 09:24	07/21/22 17:08	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		07/22/22 10:34	07/22/22 13:30	1

**Client Sample ID: MW-2**

**Lab Sample ID: 480-199917-2**

Date Collected: 07/19/22 13:45

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			07/20/22 17:12	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			07/20/22 17:12	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			07/20/22 17:12	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			07/20/22 17:12	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			07/20/22 17:12	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			07/20/22 17:12	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			07/20/22 17:12	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			07/20/22 17:12	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			07/20/22 17:12	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			07/20/22 17:12	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			07/20/22 17:12	2

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# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: MW-2**

**Lab Sample ID: 480-199917-2**

Date Collected: 07/19/22 13:45

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		2.0	1.4	ug/L			07/20/22 17:12	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			07/20/22 17:12	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			07/20/22 17:12	2
2-Hexanone	ND		10	2.5	ug/L			07/20/22 17:12	2
2-Butanone (MEK)	ND	*+	20	2.6	ug/L			07/20/22 17:12	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			07/20/22 17:12	2
Acetone	ND		20	6.0	ug/L			07/20/22 17:12	2
<b>Benzene</b>	<b>0.86</b>	<b>J</b>	2.0	0.82	ug/L			07/20/22 17:12	2
Bromodichloromethane	ND		2.0	0.78	ug/L			07/20/22 17:12	2
Bromoform	ND		2.0	0.52	ug/L			07/20/22 17:12	2
Bromomethane	ND		2.0	1.4	ug/L			07/20/22 17:12	2
Carbon disulfide	ND		2.0	0.38	ug/L			07/20/22 17:12	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			07/20/22 17:12	2
Chlorobenzene	ND		2.0	1.5	ug/L			07/20/22 17:12	2
Dibromochloromethane	ND		2.0	0.64	ug/L			07/20/22 17:12	2
Chloroethane	ND		2.0	0.64	ug/L			07/20/22 17:12	2
Chloroform	ND		2.0	0.68	ug/L			07/20/22 17:12	2
Chloromethane	ND		2.0	0.70	ug/L			07/20/22 17:12	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			07/20/22 17:12	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			07/20/22 17:12	2
<b>Cyclohexane</b>	<b>1.4</b>	<b>J</b>	2.0	0.36	ug/L			07/20/22 17:12	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			07/20/22 17:12	2
Ethylbenzene	ND		2.0	1.5	ug/L			07/20/22 17:12	2
Isopropylbenzene	ND		2.0	1.6	ug/L			07/20/22 17:12	2
Methyl acetate	ND		5.0	2.6	ug/L			07/20/22 17:12	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			07/20/22 17:12	2
Methylcyclohexane	ND		2.0	0.32	ug/L			07/20/22 17:12	2
Methylene Chloride	ND		2.0	0.88	ug/L			07/20/22 17:12	2
Styrene	ND		2.0	1.5	ug/L			07/20/22 17:12	2
Tetrachloroethene	ND		2.0	0.72	ug/L			07/20/22 17:12	2
Toluene	ND		2.0	1.0	ug/L			07/20/22 17:12	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			07/20/22 17:12	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			07/20/22 17:12	2
Trichloroethene	ND		2.0	0.92	ug/L			07/20/22 17:12	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			07/20/22 17:12	2
<b>Vinyl chloride</b>	<b>5.4</b>		2.0	1.8	ug/L			07/20/22 17:12	2
Xylenes, Total	ND		4.0	1.3	ug/L			07/20/22 17:12	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		07/20/22 17:12	2
Toluene-d8 (Surr)	99		80 - 120		07/20/22 17:12	2
4-Bromofluorobenzene (Surr)	95		73 - 120		07/20/22 17:12	2
Dibromofluoromethane (Surr)	98		75 - 123		07/20/22 17:12	2

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Aluminum</b>	<b>27.1</b>		0.20	0.060	mg/L		07/21/22 09:24	07/21/22 17:12	1
Antimony	ND		0.020	0.0068	mg/L		07/21/22 09:24	07/21/22 17:12	1
<b>Arsenic</b>	<b>0.057</b>		0.015	0.0056	mg/L		07/21/22 09:24	07/21/22 17:12	1
<b>Barium</b>	<b>0.42</b>		0.0020	0.00070	mg/L		07/21/22 09:24	07/21/22 17:12	1

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# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: MW-2**

**Lab Sample ID: 480-199917-2**

Date Collected: 07/19/22 13:45

Matrix: Water

Date Received: 07/19/22 14:23

**Method: 6010C - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0011	J	0.0020	0.00030	mg/L		07/21/22 09:24	07/21/22 17:12	1
Cadmium	0.00091	J	0.0020	0.00050	mg/L		07/21/22 09:24	07/21/22 17:12	1
Calcium	188		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:12	1
Chromium	0.038		0.0040	0.0010	mg/L		07/21/22 09:24	07/21/22 17:12	1
Cobalt	0.012		0.0040	0.00063	mg/L		07/21/22 09:24	07/21/22 17:12	1
Copper	0.058		0.010	0.0016	mg/L		07/21/22 09:24	07/21/22 17:12	1
Iron	59.4		0.050	0.019	mg/L		07/21/22 09:24	07/21/22 17:12	1
Lead	0.045		0.010	0.0030	mg/L		07/21/22 09:24	07/21/22 17:12	1
Magnesium	67.0		0.20	0.043	mg/L		07/21/22 09:24	07/21/22 17:12	1
Manganese	0.64	B	0.0030	0.00040	mg/L		07/21/22 09:24	07/21/22 17:12	1
Nickel	0.033		0.010	0.0013	mg/L		07/21/22 09:24	07/21/22 17:12	1
Potassium	11.1		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:12	1
Selenium	ND		0.025	0.0087	mg/L		07/21/22 09:24	07/21/22 17:12	1
Silver	ND		0.0060	0.0017	mg/L		07/21/22 09:24	07/21/22 17:12	1
Sodium	26.3		1.0	0.32	mg/L		07/21/22 09:24	07/21/22 17:12	1
Thallium	ND		0.020	0.010	mg/L		07/21/22 09:24	07/21/22 17:12	1
Vanadium	0.057		0.0050	0.0015	mg/L		07/21/22 09:24	07/21/22 17:12	1
Zinc	0.21		0.010	0.0015	mg/L		07/21/22 09:24	07/21/22 17:12	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	J	0.00020	0.000043	mg/L		07/22/22 10:34	07/22/22 13:31	1

**Client Sample ID: MW-5**

**Lab Sample ID: 480-199917-3**

Date Collected: 07/19/22 11:15

Matrix: Water

Date Received: 07/19/22 14:23

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.082	J	0.20	0.060	mg/L		07/21/22 09:24	07/21/22 17:27	1
Antimony	ND		0.020	0.0068	mg/L		07/21/22 09:24	07/21/22 17:27	1
Arsenic	ND		0.015	0.0056	mg/L		07/21/22 09:24	07/21/22 17:27	1
Barium	0.16		0.0020	0.00070	mg/L		07/21/22 09:24	07/21/22 17:27	1
Beryllium	ND		0.0020	0.00030	mg/L		07/21/22 09:24	07/21/22 17:27	1
Cadmium	0.00054	J	0.0020	0.00050	mg/L		07/21/22 09:24	07/21/22 17:27	1
Calcium	134		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:27	1
Chromium	ND		0.0040	0.0010	mg/L		07/21/22 09:24	07/21/22 17:27	1
Cobalt	ND		0.0040	0.00063	mg/L		07/21/22 09:24	07/21/22 17:27	1
Copper	0.0024	J	0.010	0.0016	mg/L		07/21/22 09:24	07/21/22 17:27	1
Iron	4.5		0.050	0.019	mg/L		07/21/22 09:24	07/21/22 17:27	1
Lead	0.012		0.010	0.0030	mg/L		07/21/22 09:24	07/21/22 17:27	1
Magnesium	29.4		0.20	0.043	mg/L		07/21/22 09:24	07/21/22 17:27	1
Manganese	0.26	B	0.0030	0.00040	mg/L		07/21/22 09:24	07/21/22 17:27	1
Nickel	0.017		0.010	0.0013	mg/L		07/21/22 09:24	07/21/22 17:27	1
Potassium	2.2		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:27	1
Selenium	ND		0.025	0.0087	mg/L		07/21/22 09:24	07/21/22 17:27	1
Silver	ND		0.0060	0.0017	mg/L		07/21/22 09:24	07/21/22 17:27	1
Sodium	18.2		1.0	0.32	mg/L		07/21/22 09:24	07/21/22 17:27	1
Thallium	ND		0.020	0.010	mg/L		07/21/22 09:24	07/21/22 17:27	1
Vanadium	ND		0.0050	0.0015	mg/L		07/21/22 09:24	07/21/22 17:27	1

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# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Client Sample ID: MW-5

Lab Sample ID: 480-199917-3

Date Collected: 07/19/22 11:15

Matrix: Water

Date Received: 07/19/22 14:23

### Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	0.97		0.010	0.0015	mg/L		07/21/22 09:24	07/21/22 17:27	1

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		07/22/22 10:34	07/22/22 13:32	1

## Client Sample ID: MW-6

Lab Sample ID: 480-199917-4

Date Collected: 07/19/22 12:00

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			07/20/22 17:36	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			07/20/22 17:36	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			07/20/22 17:36	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			07/20/22 17:36	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			07/20/22 17:36	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			07/20/22 17:36	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			07/20/22 17:36	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			07/20/22 17:36	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			07/20/22 17:36	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			07/20/22 17:36	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			07/20/22 17:36	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			07/20/22 17:36	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			07/20/22 17:36	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			07/20/22 17:36	2
2-Hexanone	ND		10	2.5	ug/L			07/20/22 17:36	2
2-Butanone (MEK)	ND	*+	20	2.6	ug/L			07/20/22 17:36	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			07/20/22 17:36	2
Acetone	ND		20	6.0	ug/L			07/20/22 17:36	2
Benzene	ND		2.0	0.82	ug/L			07/20/22 17:36	2
Bromodichloromethane	ND		2.0	0.78	ug/L			07/20/22 17:36	2
Bromoform	ND		2.0	0.52	ug/L			07/20/22 17:36	2
Bromomethane	ND		2.0	1.4	ug/L			07/20/22 17:36	2
Carbon disulfide	ND		2.0	0.38	ug/L			07/20/22 17:36	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			07/20/22 17:36	2
Chlorobenzene	ND		2.0	1.5	ug/L			07/20/22 17:36	2
Dibromochloromethane	ND		2.0	0.64	ug/L			07/20/22 17:36	2
Chloroethane	ND		2.0	0.64	ug/L			07/20/22 17:36	2
Chloroform	ND		2.0	0.68	ug/L			07/20/22 17:36	2
Chloromethane	ND		2.0	0.70	ug/L			07/20/22 17:36	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			07/20/22 17:36	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			07/20/22 17:36	2
Cyclohexane	ND		2.0	0.36	ug/L			07/20/22 17:36	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			07/20/22 17:36	2
Ethylbenzene	ND		2.0	1.5	ug/L			07/20/22 17:36	2
Isopropylbenzene	ND		2.0	1.6	ug/L			07/20/22 17:36	2
Methyl acetate	ND		5.0	2.6	ug/L			07/20/22 17:36	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			07/20/22 17:36	2
Methylcyclohexane	ND		2.0	0.32	ug/L			07/20/22 17:36	2

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# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: MW-6**

**Lab Sample ID: 480-199917-4**

Date Collected: 07/19/22 12:00

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.88	ug/L			07/20/22 17:36	2
Styrene	ND		2.0	1.5	ug/L			07/20/22 17:36	2
Tetrachloroethene	ND		2.0	0.72	ug/L			07/20/22 17:36	2
Toluene	ND		2.0	1.0	ug/L			07/20/22 17:36	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			07/20/22 17:36	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			07/20/22 17:36	2
Trichloroethene	ND		2.0	0.92	ug/L			07/20/22 17:36	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			07/20/22 17:36	2
Vinyl chloride	ND		2.0	1.8	ug/L			07/20/22 17:36	2
Xylenes, Total	ND		4.0	1.3	ug/L			07/20/22 17:36	2
<b>Surrogate</b>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120					07/20/22 17:36	2
Toluene-d8 (Surr)	99		80 - 120					07/20/22 17:36	2
4-Bromofluorobenzene (Surr)	96		73 - 120					07/20/22 17:36	2
Dibromofluoromethane (Surr)	96		75 - 123					07/20/22 17:36	2

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/21/22 09:24	07/21/22 17:46	1
Antimony	ND		0.020	0.0068	mg/L		07/21/22 09:24	07/21/22 17:46	1
Arsenic	ND		0.015	0.0056	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Barium</b>	<b>0.18</b>		0.0020	0.00070	mg/L		07/21/22 09:24	07/21/22 17:46	1
Beryllium	ND		0.0020	0.00030	mg/L		07/21/22 09:24	07/21/22 17:46	1
Cadmium	ND		0.0020	0.00050	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Calcium</b>	<b>139</b>		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:46	1
Chromium	ND		0.0040	0.0010	mg/L		07/21/22 09:24	07/21/22 17:46	1
Cobalt	ND		0.0040	0.00063	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Copper</b>	<b>0.0020</b>	<b>J</b>	0.010	0.0016	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Iron</b>	<b>6.2</b>		0.050	0.019	mg/L		07/21/22 09:24	07/21/22 17:46	1
Lead	ND		0.010	0.0030	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Magnesium</b>	<b>30.4</b>		0.20	0.043	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Manganese</b>	<b>1.1</b>	<b>B</b>	0.0030	0.00040	mg/L		07/21/22 09:24	07/21/22 17:46	1
Nickel	ND		0.010	0.0013	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Potassium</b>	<b>3.0</b>		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:46	1
Selenium	ND		0.025	0.0087	mg/L		07/21/22 09:24	07/21/22 17:46	1
Silver	ND		0.0060	0.0017	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Sodium</b>	<b>15.6</b>		1.0	0.32	mg/L		07/21/22 09:24	07/21/22 17:46	1
Thallium	ND		0.020	0.010	mg/L		07/21/22 09:24	07/21/22 17:46	1
Vanadium	ND		0.0050	0.0015	mg/L		07/21/22 09:24	07/21/22 17:46	1
<b>Zinc</b>	<b>0.0068</b>	<b>J</b>	0.010	0.0015	mg/L		07/21/22 09:24	07/21/22 17:46	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		07/22/22 10:34	07/22/22 13:34	1

# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: MW-8**

**Lab Sample ID: 480-199917-5**

Date Collected: 07/19/22 14:00

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			07/20/22 18:00	2
1,1,1,2-Tetrachloroethane	ND		2.0	0.42	ug/L			07/20/22 18:00	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			07/20/22 18:00	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			07/20/22 18:00	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			07/20/22 18:00	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			07/20/22 18:00	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			07/20/22 18:00	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			07/20/22 18:00	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			07/20/22 18:00	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			07/20/22 18:00	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			07/20/22 18:00	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			07/20/22 18:00	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			07/20/22 18:00	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			07/20/22 18:00	2
2-Hexanone	ND		10	2.5	ug/L			07/20/22 18:00	2
<b>2-Butanone (MEK)</b>	<b>4.5</b>	<b>J**</b>	20	2.6	ug/L			07/20/22 18:00	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			07/20/22 18:00	2
Acetone	ND		20	6.0	ug/L			07/20/22 18:00	2
Benzene	ND		2.0	0.82	ug/L			07/20/22 18:00	2
Bromodichloromethane	ND		2.0	0.78	ug/L			07/20/22 18:00	2
Bromoform	ND		2.0	0.52	ug/L			07/20/22 18:00	2
Bromomethane	ND		2.0	1.4	ug/L			07/20/22 18:00	2
Carbon disulfide	ND		2.0	0.38	ug/L			07/20/22 18:00	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			07/20/22 18:00	2
Chlorobenzene	ND		2.0	1.5	ug/L			07/20/22 18:00	2
Dibromochloromethane	ND		2.0	0.64	ug/L			07/20/22 18:00	2
Chloroethane	ND		2.0	0.64	ug/L			07/20/22 18:00	2
Chloroform	ND		2.0	0.68	ug/L			07/20/22 18:00	2
Chloromethane	ND		2.0	0.70	ug/L			07/20/22 18:00	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			07/20/22 18:00	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			07/20/22 18:00	2
Cyclohexane	ND		2.0	0.36	ug/L			07/20/22 18:00	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			07/20/22 18:00	2
Ethylbenzene	ND		2.0	1.5	ug/L			07/20/22 18:00	2
Isopropylbenzene	ND		2.0	1.6	ug/L			07/20/22 18:00	2
Methyl acetate	ND		5.0	2.6	ug/L			07/20/22 18:00	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			07/20/22 18:00	2
Methylcyclohexane	ND		2.0	0.32	ug/L			07/20/22 18:00	2
Methylene Chloride	ND		2.0	0.88	ug/L			07/20/22 18:00	2
Styrene	ND		2.0	1.5	ug/L			07/20/22 18:00	2
Tetrachloroethene	ND		2.0	0.72	ug/L			07/20/22 18:00	2
Toluene	ND		2.0	1.0	ug/L			07/20/22 18:00	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			07/20/22 18:00	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			07/20/22 18:00	2
Trichloroethene	ND		2.0	0.92	ug/L			07/20/22 18:00	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			07/20/22 18:00	2
Vinyl chloride	ND		2.0	1.8	ug/L			07/20/22 18:00	2
Xylenes, Total	ND		4.0	1.3	ug/L			07/20/22 18:00	2

# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: MW-8**

**Lab Sample ID: 480-199917-5**

Date Collected: 07/19/22 14:00

Matrix: Water

Date Received: 07/19/22 14:23

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		07/20/22 18:00	2
Toluene-d8 (Surr)	100		80 - 120		07/20/22 18:00	2
4-Bromofluorobenzene (Surr)	98		73 - 120		07/20/22 18:00	2
Dibromofluoromethane (Surr)	94		75 - 123		07/20/22 18:00	2

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/21/22 09:24	07/21/22 17:50	1
Antimony	ND		0.020	0.0068	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Arsenic</b>	<b>0.0076</b>	<b>J</b>	0.015	0.0056	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Barium</b>	<b>0.13</b>		0.0020	0.00070	mg/L		07/21/22 09:24	07/21/22 17:50	1
Beryllium	ND		0.0020	0.00030	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Cadmium</b>	<b>0.00098</b>	<b>J</b>	0.0020	0.00050	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Calcium</b>	<b>107</b>		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:50	1
Chromium	ND		0.0040	0.0010	mg/L		07/21/22 09:24	07/21/22 17:50	1
Cobalt	ND		0.0040	0.00063	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Copper</b>	<b>0.0096</b>	<b>J</b>	0.010	0.0016	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Iron</b>	<b>1.0</b>		0.050	0.019	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Lead</b>	<b>0.016</b>		0.010	0.0030	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Magnesium</b>	<b>12.7</b>		0.20	0.043	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Manganese</b>	<b>0.54</b>	<b>B</b>	0.0030	0.00040	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Nickel</b>	<b>0.0027</b>	<b>J</b>	0.010	0.0013	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Potassium</b>	<b>5.2</b>		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:50	1
Selenium	ND		0.025	0.0087	mg/L		07/21/22 09:24	07/21/22 17:50	1
Silver	ND		0.0060	0.0017	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Sodium</b>	<b>15.0</b>		1.0	0.32	mg/L		07/21/22 09:24	07/21/22 17:50	1
Thallium	ND		0.020	0.010	mg/L		07/21/22 09:24	07/21/22 17:50	1
Vanadium	ND		0.0050	0.0015	mg/L		07/21/22 09:24	07/21/22 17:50	1
<b>Zinc</b>	<b>0.13</b>		0.010	0.0015	mg/L		07/21/22 09:24	07/21/22 17:50	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		07/22/22 10:34	07/22/22 13:38	1

**Client Sample ID: FD- MW-8**

**Lab Sample ID: 480-199917-6**

Date Collected: 07/19/22 14:00

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			07/20/22 18:24	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			07/20/22 18:24	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			07/20/22 18:24	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			07/20/22 18:24	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			07/20/22 18:24	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			07/20/22 18:24	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			07/20/22 18:24	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			07/20/22 18:24	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			07/20/22 18:24	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			07/20/22 18:24	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			07/20/22 18:24	2

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# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: FD- MW-8**

**Lab Sample ID: 480-199917-6**

Date Collected: 07/19/22 14:00

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		2.0	1.4	ug/L			07/20/22 18:24	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			07/20/22 18:24	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			07/20/22 18:24	2
2-Hexanone	ND		10	2.5	ug/L			07/20/22 18:24	2
<b>2-Butanone (MEK)</b>	<b>3.4</b>	<b>J**</b>	20	2.6	ug/L			07/20/22 18:24	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			07/20/22 18:24	2
Acetone	ND		20	6.0	ug/L			07/20/22 18:24	2
Benzene	ND		2.0	0.82	ug/L			07/20/22 18:24	2
Bromodichloromethane	ND		2.0	0.78	ug/L			07/20/22 18:24	2
Bromoform	ND		2.0	0.52	ug/L			07/20/22 18:24	2
Bromomethane	ND		2.0	1.4	ug/L			07/20/22 18:24	2
Carbon disulfide	ND		2.0	0.38	ug/L			07/20/22 18:24	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			07/20/22 18:24	2
Chlorobenzene	ND		2.0	1.5	ug/L			07/20/22 18:24	2
Dibromochloromethane	ND		2.0	0.64	ug/L			07/20/22 18:24	2
Chloroethane	ND		2.0	0.64	ug/L			07/20/22 18:24	2
Chloroform	ND		2.0	0.68	ug/L			07/20/22 18:24	2
Chloromethane	ND		2.0	0.70	ug/L			07/20/22 18:24	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			07/20/22 18:24	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			07/20/22 18:24	2
Cyclohexane	ND		2.0	0.36	ug/L			07/20/22 18:24	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			07/20/22 18:24	2
Ethylbenzene	ND		2.0	1.5	ug/L			07/20/22 18:24	2
Isopropylbenzene	ND		2.0	1.6	ug/L			07/20/22 18:24	2
Methyl acetate	ND		5.0	2.6	ug/L			07/20/22 18:24	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			07/20/22 18:24	2
Methylcyclohexane	ND		2.0	0.32	ug/L			07/20/22 18:24	2
Methylene Chloride	ND		2.0	0.88	ug/L			07/20/22 18:24	2
Styrene	ND		2.0	1.5	ug/L			07/20/22 18:24	2
Tetrachloroethene	ND		2.0	0.72	ug/L			07/20/22 18:24	2
Toluene	ND		2.0	1.0	ug/L			07/20/22 18:24	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			07/20/22 18:24	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			07/20/22 18:24	2
Trichloroethene	ND		2.0	0.92	ug/L			07/20/22 18:24	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			07/20/22 18:24	2
Vinyl chloride	ND		2.0	1.8	ug/L			07/20/22 18:24	2
Xylenes, Total	ND		4.0	1.3	ug/L			07/20/22 18:24	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		07/20/22 18:24	2
Toluene-d8 (Surr)	105		80 - 120		07/20/22 18:24	2
4-Bromofluorobenzene (Surr)	99		73 - 120		07/20/22 18:24	2
Dibromofluoromethane (Surr)	97		75 - 123		07/20/22 18:24	2

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Aluminum</b>	<b>0.11</b>	<b>J</b>	0.20	0.060	mg/L		07/21/22 09:24	07/21/22 17:54	1
Antimony	ND		0.020	0.0068	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Arsenic</b>	<b>0.0059</b>	<b>J</b>	0.015	0.0056	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Barium</b>	<b>0.13</b>		0.0020	0.00070	mg/L		07/21/22 09:24	07/21/22 17:54	1

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# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: FD- MW-8**

**Lab Sample ID: 480-199917-6**

Date Collected: 07/19/22 14:00

Matrix: Water

Date Received: 07/19/22 14:23

**Method: 6010C - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020	0.00030	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Cadmium</b>	<b>0.0015</b>	<b>J</b>	0.0020	0.00050	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Calcium</b>	<b>104</b>		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:54	1
Chromium	ND		0.0040	0.0010	mg/L		07/21/22 09:24	07/21/22 17:54	1
Cobalt	ND		0.0040	0.00063	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Copper</b>	<b>0.013</b>		0.010	0.0016	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Iron</b>	<b>0.80</b>		0.050	0.019	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Lead</b>	<b>0.017</b>		0.010	0.0030	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Magnesium</b>	<b>12.2</b>		0.20	0.043	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Manganese</b>	<b>0.49</b>	<b>B</b>	0.0030	0.00040	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Nickel</b>	<b>0.0035</b>	<b>J</b>	0.010	0.0013	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Potassium</b>	<b>5.2</b>		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 17:54	1
Selenium	ND		0.025	0.0087	mg/L		07/21/22 09:24	07/21/22 17:54	1
Silver	ND		0.0060	0.0017	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Sodium</b>	<b>14.3</b>		1.0	0.32	mg/L		07/21/22 09:24	07/21/22 17:54	1
Thallium	ND		0.020	0.010	mg/L		07/21/22 09:24	07/21/22 17:54	1
Vanadium	ND		0.0050	0.0015	mg/L		07/21/22 09:24	07/21/22 17:54	1
<b>Zinc</b>	<b>0.16</b>		0.010	0.0015	mg/L		07/21/22 09:24	07/21/22 17:54	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		07/22/22 10:34	07/22/22 13:39	1

**Client Sample ID: TB**

**Lab Sample ID: 480-199917-7**

Date Collected: 07/19/22 00:00

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/21/22 17:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/21/22 17:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/21/22 17:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/21/22 17:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/21/22 17:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/21/22 17:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/21/22 17:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/21/22 17:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/21/22 17:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/21/22 17:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/21/22 17:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/21/22 17:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/21/22 17:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/21/22 17:48	1
2-Hexanone	ND		5.0	1.2	ug/L			07/21/22 17:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/21/22 17:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/21/22 17:48	1
Acetone	ND		10	3.0	ug/L			07/21/22 17:48	1
Benzene	ND		1.0	0.41	ug/L			07/21/22 17:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/21/22 17:48	1
Bromoform	ND		1.0	0.26	ug/L			07/21/22 17:48	1

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# Client Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: TB**

**Lab Sample ID: 480-199917-7**

Date Collected: 07/19/22 00:00

Matrix: Water

Date Received: 07/19/22 14:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.0	0.69	ug/L			07/21/22 17:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/21/22 17:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/21/22 17:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/21/22 17:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/21/22 17:48	1
Chloroethane	ND		1.0	0.32	ug/L			07/21/22 17:48	1
Chloroform	ND		1.0	0.34	ug/L			07/21/22 17:48	1
Chloromethane	ND		1.0	0.35	ug/L			07/21/22 17:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/21/22 17:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/21/22 17:48	1
Cyclohexane	ND		1.0	0.18	ug/L			07/21/22 17:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/21/22 17:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/21/22 17:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/21/22 17:48	1
Methyl acetate	ND		2.5	1.3	ug/L			07/21/22 17:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/21/22 17:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/21/22 17:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/21/22 17:48	1
Styrene	ND		1.0	0.73	ug/L			07/21/22 17:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/21/22 17:48	1
Toluene	ND		1.0	0.51	ug/L			07/21/22 17:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/21/22 17:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/21/22 17:48	1
Trichloroethene	ND		1.0	0.46	ug/L			07/21/22 17:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/21/22 17:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/21/22 17:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/21/22 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		07/21/22 17:48	1
Toluene-d8 (Surr)	100		80 - 120		07/21/22 17:48	1
4-Bromofluorobenzene (Surr)	96		73 - 120		07/21/22 17:48	1
Dibromofluoromethane (Surr)	98		75 - 123		07/21/22 17:48	1

# Surrogate Summary

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	TOL (80-120)	BFB (73-120)	DBFM (75-123)
480-199917-1	MW-1	104	101	98	96
480-199917-2	MW-2	104	99	95	98
480-199917-4	MW-6	103	99	96	96
480-199917-5	MW-8	101	100	98	94
480-199917-6	FD- MW-8	104	105	99	97
480-199917-7	TB	106	100	96	98
LCS 480-634219/5	Lab Control Sample	102	97	96	99
LCS 480-634356/5	Lab Control Sample	105	99	93	101
LCSD 480-634219/6	Lab Control Sample Dup	101	98	96	98
LCSD 480-634356/29	Lab Control Sample Dup	107	104	101	102
MB 480-634219/8	Method Blank	104	100	98	96
MB 480-634356/9	Method Blank	103	100	96	95

### Surrogate Legend

- DCA = 1,2-Dichloroethane-d4 (Surr)
- TOL = Toluene-d8 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)

# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

Lab Sample ID: MB 480-634219/8

Matrix: Water

Analysis Batch: 634219

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/20/22 15:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/20/22 15:49	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/20/22 15:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/20/22 15:49	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/20/22 15:49	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/20/22 15:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/20/22 15:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/20/22 15:49	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/20/22 15:49	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/20/22 15:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/20/22 15:49	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/20/22 15:49	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/20/22 15:49	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/20/22 15:49	1
2-Hexanone	ND		5.0	1.2	ug/L			07/20/22 15:49	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/20/22 15:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/20/22 15:49	1
Acetone	ND		10	3.0	ug/L			07/20/22 15:49	1
Benzene	ND		1.0	0.41	ug/L			07/20/22 15:49	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/20/22 15:49	1
Bromoform	ND		1.0	0.26	ug/L			07/20/22 15:49	1
Bromomethane	ND		1.0	0.69	ug/L			07/20/22 15:49	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/20/22 15:49	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/20/22 15:49	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/20/22 15:49	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/20/22 15:49	1
Chloroethane	ND		1.0	0.32	ug/L			07/20/22 15:49	1
Chloroform	ND		1.0	0.34	ug/L			07/20/22 15:49	1
Chloromethane	ND		1.0	0.35	ug/L			07/20/22 15:49	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/20/22 15:49	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/20/22 15:49	1
Cyclohexane	ND		1.0	0.18	ug/L			07/20/22 15:49	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/22 15:49	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/20/22 15:49	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/20/22 15:49	1
Methyl acetate	ND		2.5	1.3	ug/L			07/20/22 15:49	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/20/22 15:49	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/20/22 15:49	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/20/22 15:49	1
Styrene	ND		1.0	0.73	ug/L			07/20/22 15:49	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/20/22 15:49	1
Toluene	ND		1.0	0.51	ug/L			07/20/22 15:49	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/20/22 15:49	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/20/22 15:49	1
Trichloroethene	ND		1.0	0.46	ug/L			07/20/22 15:49	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/20/22 15:49	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/20/22 15:49	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/20/22 15:49	1

# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

**Lab Sample ID: MB 480-634219/8**  
**Matrix: Water**  
**Analysis Batch: 634219**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		07/20/22 15:49	1
Toluene-d8 (Surr)	100		80 - 120		07/20/22 15:49	1
4-Bromofluorobenzene (Surr)	98		73 - 120		07/20/22 15:49	1
Dibromofluoromethane (Surr)	96		75 - 123		07/20/22 15:49	1

**Lab Sample ID: LCS 480-634219/5**  
**Matrix: Water**  
**Analysis Batch: 634219**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	24.8		ug/L		99	76 - 120
1,1,2-Trichloroethane	25.0	24.4		ug/L		97	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.3		ug/L		105	61 - 148
1,1-Dichloroethane	25.0	25.8		ug/L		103	77 - 120
1,1-Dichloroethene	25.0	24.8		ug/L		99	66 - 127
1,2,4-Trichlorobenzene	25.0	22.0		ug/L		88	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.7		ug/L		95	56 - 134
1,2-Dibromoethane	25.0	24.1		ug/L		96	77 - 120
1,2-Dichlorobenzene	25.0	22.7		ug/L		91	80 - 124
1,2-Dichloroethane	25.0	24.2		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	24.5		ug/L		98	76 - 120
1,3-Dichlorobenzene	25.0	23.3		ug/L		93	77 - 120
1,4-Dichlorobenzene	25.0	22.8		ug/L		91	80 - 120
2-Hexanone	125	126		ug/L		100	65 - 127
2-Butanone (MEK)	125	216	*+	ug/L		173	57 - 140
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	71 - 125
Acetone	125	125		ug/L		100	56 - 142
Benzene	25.0	23.7		ug/L		95	71 - 124
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122
Bromoform	25.0	23.9		ug/L		96	61 - 132
Bromomethane	25.0	23.1		ug/L		92	55 - 144
Carbon disulfide	25.0	24.6		ug/L		99	59 - 134
Carbon tetrachloride	25.0	24.1		ug/L		96	72 - 134
Chlorobenzene	25.0	23.7		ug/L		95	80 - 120
Dibromochloromethane	25.0	24.5		ug/L		98	75 - 125
Chloroethane	25.0	22.2		ug/L		89	69 - 136
Chloroform	25.0	23.5		ug/L		94	73 - 127
Chloromethane	25.0	21.1		ug/L		85	68 - 124
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	74 - 124
cis-1,3-Dichloropropene	25.0	25.8		ug/L		103	74 - 124
Cyclohexane	25.0	24.4		ug/L		98	59 - 135
Dichlorodifluoromethane	25.0	21.3		ug/L		85	59 - 135
Ethylbenzene	25.0	23.5		ug/L		94	77 - 123
Isopropylbenzene	25.0	23.6		ug/L		94	77 - 122
Methyl acetate	50.0	49.7		ug/L		99	74 - 133
Methyl tert-butyl ether	25.0	24.9		ug/L		99	77 - 120
Methylcyclohexane	25.0	24.6		ug/L		98	68 - 134

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# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

Lab Sample ID: LCS 480-634219/5

Matrix: Water

Analysis Batch: 634219

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	25.0	24.8		ug/L		99	75 - 124
Styrene	25.0	24.3		ug/L		97	80 - 120
Tetrachloroethene	25.0	23.5		ug/L		94	74 - 122
Toluene	25.0	23.2		ug/L		93	80 - 122
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	73 - 127
Trichloroethene	25.0	23.9		ug/L		95	74 - 123
Trichlorofluoromethane	25.0	23.7		ug/L		95	62 - 150
Vinyl chloride	25.0	22.0		ug/L		88	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 120
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	96		73 - 120
Dibromofluoromethane (Surr)	99		75 - 123

Lab Sample ID: LCSD 480-634219/6

Matrix: Water

Analysis Batch: 634219

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	23.1		ug/L		92	73 - 126	4	15
1,1,1,2-Tetrachloroethane	25.0	24.9		ug/L		100	76 - 120	0	15
1,1,2-Trichloroethane	25.0	24.5		ug/L		98	76 - 122	1	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.3		ug/L		101	61 - 148	4	20
1,1-Dichloroethane	25.0	25.0		ug/L		100	77 - 120	3	20
1,1-Dichloroethene	25.0	24.0		ug/L		96	66 - 127	3	16
1,2,4-Trichlorobenzene	25.0	22.4		ug/L		90	79 - 122	2	20
1,2-Dibromo-3-Chloropropane	25.0	23.7		ug/L		95	56 - 134	0	15
1,2-Dibromoethane	25.0	24.4		ug/L		98	77 - 120	1	15
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	80 - 124	1	20
1,2-Dichloroethane	25.0	23.9		ug/L		96	75 - 120	1	20
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120	2	20
1,3-Dichlorobenzene	25.0	23.4		ug/L		94	77 - 120	0	20
1,4-Dichlorobenzene	25.0	23.0		ug/L		92	80 - 120	1	20
2-Hexanone	125	125		ug/L		100	65 - 127	0	15
2-Butanone (MEK)	125	212	*+	ug/L		170	57 - 140	2	20
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	71 - 125	0	35
Acetone	125	122		ug/L		98	56 - 142	2	15
Benzene	25.0	23.0		ug/L		92	71 - 124	3	13
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122	0	15
Bromoform	25.0	24.4		ug/L		98	61 - 132	2	15
Bromomethane	25.0	22.1		ug/L		88	55 - 144	5	15
Carbon disulfide	25.0	23.6		ug/L		94	59 - 134	4	15
Carbon tetrachloride	25.0	23.1		ug/L		92	72 - 134	4	15
Chlorobenzene	25.0	23.5		ug/L		94	80 - 120	1	25
Dibromochloromethane	25.0	24.8		ug/L		99	75 - 125	1	15
Chloroethane	25.0	21.0		ug/L		84	69 - 136	6	15
Chloroform	25.0	23.1		ug/L		93	73 - 127	2	20

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# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

Lab Sample ID: LCSD 480-634219/6

Matrix: Water

Analysis Batch: 634219

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	25.0	19.8		ug/L		79	68 - 124	7	15
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	74 - 124	2	15
cis-1,3-Dichloropropene	25.0	25.8		ug/L		103	74 - 124	0	15
Cyclohexane	25.0	23.2		ug/L		93	59 - 135	5	20
Dichlorodifluoromethane	25.0	20.4		ug/L		82	59 - 135	4	20
Ethylbenzene	25.0	22.9		ug/L		92	77 - 123	2	15
Isopropylbenzene	25.0	23.6		ug/L		95	77 - 122	0	20
Methyl acetate	50.0	49.7		ug/L		99	74 - 133	0	20
Methyl tert-butyl ether	25.0	24.9		ug/L		100	77 - 120	0	37
Methylcyclohexane	25.0	24.0		ug/L		96	68 - 134	2	20
Methylene Chloride	25.0	24.5		ug/L		98	75 - 124	1	15
Styrene	25.0	24.1		ug/L		96	80 - 120	1	20
Tetrachloroethene	25.0	23.1		ug/L		92	74 - 122	2	20
Toluene	25.0	22.9		ug/L		92	80 - 122	1	15
trans-1,2-Dichloroethene	25.0	24.1		ug/L		97	73 - 127	3	20
Trichloroethene	25.0	23.1		ug/L		92	74 - 123	3	16
Trichlorofluoromethane	25.0	22.4		ug/L		90	62 - 150	5	20
Vinyl chloride	25.0	20.2		ug/L		81	65 - 133	8	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
Toluene-d8 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	96		73 - 120
Dibromofluoromethane (Surr)	98		75 - 123

Lab Sample ID: MB 480-634356/9

Matrix: Water

Analysis Batch: 634356

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/21/22 13:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/21/22 13:45	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/21/22 13:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/21/22 13:45	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/21/22 13:45	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/21/22 13:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/21/22 13:45	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/21/22 13:45	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/21/22 13:45	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/21/22 13:45	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/21/22 13:45	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/21/22 13:45	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/21/22 13:45	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/21/22 13:45	1
2-Hexanone	ND		5.0	1.2	ug/L			07/21/22 13:45	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/21/22 13:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/21/22 13:45	1
Acetone	ND		10	3.0	ug/L			07/21/22 13:45	1

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# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

**Lab Sample ID: MB 480-634356/9**  
**Matrix: Water**  
**Analysis Batch: 634356**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.0	0.41	ug/L			07/21/22 13:45	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/21/22 13:45	1
Bromoform	ND		1.0	0.26	ug/L			07/21/22 13:45	1
Bromomethane	ND		1.0	0.69	ug/L			07/21/22 13:45	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/21/22 13:45	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/21/22 13:45	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/21/22 13:45	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/21/22 13:45	1
Chloroethane	ND		1.0	0.32	ug/L			07/21/22 13:45	1
Chloroform	ND		1.0	0.34	ug/L			07/21/22 13:45	1
Chloromethane	ND		1.0	0.35	ug/L			07/21/22 13:45	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/21/22 13:45	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/21/22 13:45	1
Cyclohexane	ND		1.0	0.18	ug/L			07/21/22 13:45	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/21/22 13:45	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/21/22 13:45	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/21/22 13:45	1
Methyl acetate	ND		2.5	1.3	ug/L			07/21/22 13:45	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/21/22 13:45	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/21/22 13:45	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/21/22 13:45	1
Styrene	ND		1.0	0.73	ug/L			07/21/22 13:45	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/21/22 13:45	1
Toluene	ND		1.0	0.51	ug/L			07/21/22 13:45	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/21/22 13:45	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/21/22 13:45	1
Trichloroethene	ND		1.0	0.46	ug/L			07/21/22 13:45	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/21/22 13:45	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/21/22 13:45	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/21/22 13:45	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		07/21/22 13:45	1
Toluene-d8 (Surr)	100		80 - 120		07/21/22 13:45	1
4-Bromofluorobenzene (Surr)	96		73 - 120		07/21/22 13:45	1
Dibromofluoromethane (Surr)	95		75 - 123		07/21/22 13:45	1

**Lab Sample ID: LCS 480-634356/5**  
**Matrix: Water**  
**Analysis Batch: 634356**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	25.0	25.1		ug/L		100	76 - 120
1,1,2-Trichloroethane	25.0	24.6		ug/L		98	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.6		ug/L		99	61 - 148
1,1-Dichloroethane	25.0	24.0		ug/L		96	77 - 120
1,1-Dichloroethene	25.0	23.2		ug/L		93	66 - 127

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# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

Lab Sample ID: LCS 480-634356/5

Matrix: Water

Analysis Batch: 634356

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
1,2,4-Trichlorobenzene	25.0	21.3		ug/L		85	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.4		ug/L		94	56 - 134
1,2-Dibromoethane	25.0	24.5		ug/L		98	77 - 120
1,2-Dichlorobenzene	25.0	22.9		ug/L		92	80 - 124
1,2-Dichloroethane	25.0	24.2		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	24.1		ug/L		96	76 - 120
1,3-Dichlorobenzene	25.0	23.4		ug/L		94	77 - 120
1,4-Dichlorobenzene	25.0	22.9		ug/L		92	80 - 120
2-Hexanone	125	133		ug/L		106	65 - 127
2-Butanone (MEK)	125	132		ug/L		105	57 - 140
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	71 - 125
Acetone	125	141		ug/L		113	56 - 142
Benzene	25.0	23.1		ug/L		92	71 - 124
Bromodichloromethane	25.0	24.2		ug/L		97	80 - 122
Bromoform	25.0	23.5		ug/L		94	61 - 132
Bromomethane	25.0	26.2		ug/L		105	55 - 144
Carbon disulfide	25.0	23.0		ug/L		92	59 - 134
Carbon tetrachloride	25.0	22.7		ug/L		91	72 - 134
Chlorobenzene	25.0	23.1		ug/L		92	80 - 120
Dibromochloromethane	25.0	24.0		ug/L		96	75 - 125
Chloroethane	25.0	25.9		ug/L		104	69 - 136
Chloroform	25.0	23.5		ug/L		94	73 - 127
Chloromethane	25.0	23.9		ug/L		95	68 - 124
cis-1,2-Dichloroethene	25.0	23.6		ug/L		94	74 - 124
cis-1,3-Dichloropropene	25.0	24.2		ug/L		97	74 - 124
Cyclohexane	25.0	22.9		ug/L		91	59 - 135
Dichlorodifluoromethane	25.0	23.1		ug/L		92	59 - 135
Ethylbenzene	25.0	22.9		ug/L		92	77 - 123
Isopropylbenzene	25.0	23.0		ug/L		92	77 - 122
Methyl acetate	50.0	50.0		ug/L		100	74 - 133
Methyl tert-butyl ether	25.0	24.3		ug/L		97	77 - 120
Methylcyclohexane	25.0	23.1		ug/L		93	68 - 134
Methylene Chloride	25.0	24.2		ug/L		97	75 - 124
Styrene	25.0	23.8		ug/L		95	80 - 120
Tetrachloroethene	25.0	22.1		ug/L		88	74 - 122
Toluene	25.0	22.6		ug/L		90	80 - 122
trans-1,2-Dichloroethene	25.0	23.4		ug/L		94	73 - 127
Trichloroethene	25.0	22.6		ug/L		90	74 - 123
Trichlorofluoromethane	25.0	27.6		ug/L		110	62 - 150
Vinyl chloride	25.0	24.9		ug/L		99	65 - 133

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	105		77 - 120
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	93		73 - 120
Dibromofluoromethane (Surr)	101		75 - 123

# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

Lab Sample ID: LCSD 480-634356/29

Matrix: Water

Analysis Batch: 634356

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
1,1,1-Trichloroethane	25.0	22.8		ug/L		91	73 - 126	2	15
1,1,2,2-Tetrachloroethane	25.0	26.3		ug/L		105	76 - 120	5	15
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	76 - 122	4	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.9		ug/L		96	61 - 148	3	20
1,1-Dichloroethane	25.0	24.5		ug/L		98	77 - 120	2	20
1,1-Dichloroethene	25.0	23.6		ug/L		94	66 - 127	2	16
1,2,4-Trichlorobenzene	25.0	22.1		ug/L		88	79 - 122	3	20
1,2-Dibromo-3-Chloropropane	25.0	23.6		ug/L		94	56 - 134	0	15
1,2-Dibromoethane	25.0	24.9		ug/L		99	77 - 120	1	15
1,2-Dichlorobenzene	25.0	24.2		ug/L		97	80 - 124	5	20
1,2-Dichloroethane	25.0	24.7		ug/L		99	75 - 120	2	20
1,2-Dichloropropane	25.0	24.2		ug/L		97	76 - 120	0	20
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	77 - 120	5	20
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	80 - 120	5	20
2-Hexanone	125	133		ug/L		107	65 - 127	0	15
2-Butanone (MEK)	125	135		ug/L		108	57 - 140	3	20
4-Methyl-2-pentanone (MIBK)	125	128		ug/L		103	71 - 125	0	35
Acetone	125	147		ug/L		118	56 - 142	4	15
Benzene	25.0	23.3		ug/L		93	71 - 124	1	13
Bromodichloromethane	25.0	24.1		ug/L		96	80 - 122	0	15
Bromoform	25.0	23.0		ug/L		92	61 - 132	2	15
Bromomethane	25.0	26.1		ug/L		105	55 - 144	0	15
Carbon disulfide	25.0	21.8		ug/L		87	59 - 134	5	15
Carbon tetrachloride	25.0	22.7		ug/L		91	72 - 134	0	15
Chlorobenzene	25.0	23.5		ug/L		94	80 - 120	2	25
Dibromochloromethane	25.0	24.1		ug/L		97	75 - 125	0	15
Chloroethane	25.0	25.2		ug/L		101	69 - 136	3	15
Chloroform	25.0	23.9		ug/L		96	73 - 127	2	20
Chloromethane	25.0	23.7		ug/L		95	68 - 124	1	15
cis-1,2-Dichloroethene	25.0	23.8		ug/L		95	74 - 124	1	15
cis-1,3-Dichloropropene	25.0	23.5		ug/L		94	74 - 124	3	15
Cyclohexane	25.0	22.9		ug/L		91	59 - 135	0	20
Dichlorodifluoromethane	25.0	22.3		ug/L		89	59 - 135	3	20
Ethylbenzene	25.0	23.5		ug/L		94	77 - 123	3	15
Isopropylbenzene	25.0	24.4		ug/L		97	77 - 122	6	20
Methyl acetate	50.0	50.1		ug/L		100	74 - 133	0	20
Methyl tert-butyl ether	25.0	24.1		ug/L		96	77 - 120	1	37
Methylcyclohexane	25.0	23.4		ug/L		94	68 - 134	1	20
Methylene Chloride	25.0	24.2		ug/L		97	75 - 124	0	15
Styrene	25.0	24.2		ug/L		97	80 - 120	2	20
Tetrachloroethene	25.0	22.5		ug/L		90	74 - 122	2	20
Toluene	25.0	23.3		ug/L		93	80 - 122	3	15
trans-1,2-Dichloroethene	25.0	23.9		ug/L		96	73 - 127	2	20
Trichloroethene	25.0	22.8		ug/L		91	74 - 123	1	16
Trichlorofluoromethane	25.0	27.8		ug/L		111	62 - 150	1	20
Vinyl chloride	25.0	24.4		ug/L		98	65 - 133	2	15

# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

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

**Lab Sample ID:** LCSD 480-634356/29  
**Matrix:** Water  
**Analysis Batch:** 634356

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA

Surrogate	LCS D %Recovery	LCS D Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 120
Toluene-d8 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	101		73 - 120
Dibromofluoromethane (Surr)	102		75 - 123

## Method: 6010C - Metals (ICP)

**Lab Sample ID:** MB 480-634253/1-A  
**Matrix:** Water  
**Analysis Batch:** 634521

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 634253

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/21/22 09:24	07/21/22 16:44	1
Antimony	ND		0.020	0.0068	mg/L		07/21/22 09:24	07/21/22 16:44	1
Arsenic	ND		0.015	0.0056	mg/L		07/21/22 09:24	07/21/22 16:44	1
Barium	ND		0.0020	0.00070	mg/L		07/21/22 09:24	07/21/22 16:44	1
Beryllium	ND		0.0020	0.00030	mg/L		07/21/22 09:24	07/21/22 16:44	1
Cadmium	ND		0.0020	0.00050	mg/L		07/21/22 09:24	07/21/22 16:44	1
Calcium	ND		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 16:44	1
Chromium	ND		0.0040	0.0010	mg/L		07/21/22 09:24	07/21/22 16:44	1
Cobalt	ND		0.0040	0.00063	mg/L		07/21/22 09:24	07/21/22 16:44	1
Copper	ND		0.010	0.0016	mg/L		07/21/22 09:24	07/21/22 16:44	1
Iron	ND		0.050	0.019	mg/L		07/21/22 09:24	07/21/22 16:44	1
Lead	ND		0.010	0.0030	mg/L		07/21/22 09:24	07/21/22 16:44	1
Magnesium	ND		0.20	0.043	mg/L		07/21/22 09:24	07/21/22 16:44	1
Manganese	0.00100	J	0.0030	0.00040	mg/L		07/21/22 09:24	07/21/22 16:44	1
Nickel	ND		0.010	0.0013	mg/L		07/21/22 09:24	07/21/22 16:44	1
Potassium	ND		0.50	0.10	mg/L		07/21/22 09:24	07/21/22 16:44	1
Selenium	ND		0.025	0.0087	mg/L		07/21/22 09:24	07/21/22 16:44	1
Silver	ND		0.0060	0.0017	mg/L		07/21/22 09:24	07/21/22 16:44	1
Sodium	ND		1.0	0.32	mg/L		07/21/22 09:24	07/21/22 16:44	1
Thallium	ND		0.020	0.010	mg/L		07/21/22 09:24	07/21/22 16:44	1
Vanadium	ND		0.0050	0.0015	mg/L		07/21/22 09:24	07/21/22 16:44	1
Zinc	ND		0.010	0.0015	mg/L		07/21/22 09:24	07/21/22 16:44	1

**Lab Sample ID:** LCS 480-634253/2-A  
**Matrix:** Water  
**Analysis Batch:** 634521

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 634253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10.0	9.96		mg/L		99	80 - 120
Antimony	0.200	0.208		mg/L		104	80 - 120
Arsenic	0.200	0.202		mg/L		101	80 - 120
Barium	0.200	0.208		mg/L		104	80 - 120
Beryllium	0.200	0.202		mg/L		101	80 - 120
Cadmium	0.200	0.199		mg/L		100	80 - 120
Calcium	10.0	10.03		mg/L		100	80 - 120
Chromium	0.200	0.202		mg/L		101	80 - 120
Cobalt	0.200	0.197		mg/L		98	80 - 120

# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: LCS 480-634253/2-A**  
**Matrix: Water**  
**Analysis Batch: 634521**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 634253**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Copper	0.200	0.207		mg/L		103	80 - 120
Iron	10.0	10.01		mg/L		100	80 - 120
Lead	0.200	0.198		mg/L		99	80 - 120
Magnesium	10.0	10.56		mg/L		106	80 - 120
Manganese	0.200	0.208		mg/L		104	80 - 120
Nickel	0.200	0.193		mg/L		97	80 - 120
Potassium	10.0	10.07		mg/L		101	80 - 120
Selenium	0.200	0.200		mg/L		100	80 - 120
Silver	0.0500	0.0492		mg/L		98	80 - 120
Sodium	10.0	9.81		mg/L		98	80 - 120
Thallium	0.200	0.200		mg/L		100	80 - 120
Vanadium	0.200	0.200		mg/L		100	80 - 120
Zinc	0.200	0.203		mg/L		102	80 - 120

**Lab Sample ID: 480-199917-3 MS**  
**Matrix: Water**  
**Analysis Batch: 634521**

**Client Sample ID: MW-5**  
**Prep Type: Total/NA**  
**Prep Batch: 634253**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Aluminum	0.082	J	10.0	9.99		mg/L		99	75 - 125
Antimony	ND		0.200	0.211		mg/L		105	75 - 125
Arsenic	ND		0.200	0.209		mg/L		104	75 - 125
Barium	0.16		0.200	0.365		mg/L		101	75 - 125
Beryllium	ND		0.200	0.205		mg/L		102	75 - 125
Cadmium	0.00054	J	0.200	0.202		mg/L		101	75 - 125
Calcium	134		10.0	143.6	4	mg/L		93	75 - 125
Chromium	ND		0.200	0.200		mg/L		100	75 - 125
Cobalt	ND		0.200	0.201		mg/L		101	75 - 125
Copper	0.0024	J	0.200	0.210		mg/L		104	75 - 125
Iron	4.5		10.0	14.35		mg/L		98	75 - 125
Lead	0.012		0.200	0.214		mg/L		101	75 - 125
Magnesium	29.4		10.0	39.60		mg/L		102	75 - 125
Manganese	0.26	B	0.200	0.459		mg/L		100	75 - 125
Nickel	0.017		0.200	0.214		mg/L		98	75 - 125
Potassium	2.2		10.0	12.39		mg/L		102	75 - 125
Selenium	ND		0.200	0.196		mg/L		98	75 - 125
Silver	ND		0.0500	0.0503		mg/L		101	75 - 125
Sodium	18.2		10.0	27.93		mg/L		97	75 - 125
Thallium	ND		0.200	0.206		mg/L		103	75 - 125
Vanadium	ND		0.200	0.203		mg/L		101	75 - 125
Zinc	0.97		0.200	1.16	4	mg/L		94	75 - 125

**Lab Sample ID: 480-199917-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 634521**

**Client Sample ID: MW-5**  
**Prep Type: Total/NA**  
**Prep Batch: 634253**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec Limits	RPD	
				Result	Qualifier					RPD	Limit
Aluminum	0.082	J	10.0	9.87		mg/L		98	75 - 125	1	20
Antimony	ND		0.200	0.213		mg/L		106	75 - 125	1	20

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# QC Sample Results

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: 480-199917-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 634521**

**Client Sample ID: MW-5**  
**Prep Type: Total/NA**  
**Prep Batch: 634253**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Arsenic	ND		0.200	0.211		mg/L		106	75 - 125	1	20
Barium	0.16		0.200	0.363		mg/L		100	75 - 125	1	20
Beryllium	ND		0.200	0.206		mg/L		103	75 - 125	1	20
Cadmium	0.00054	J	0.200	0.203		mg/L		101	75 - 125	1	20
Calcium	134		10.0	144.2	4	mg/L		99	75 - 125	0	20
Chromium	ND		0.200	0.201		mg/L		101	75 - 125	0	20
Cobalt	ND		0.200	0.202		mg/L		101	75 - 125	0	20
Copper	0.0024	J	0.200	0.211		mg/L		104	75 - 125	1	20
Iron	4.5		10.0	14.38		mg/L		99	75 - 125	0	20
Lead	0.012		0.200	0.216		mg/L		102	75 - 125	1	20
Magnesium	29.4		10.0	39.66		mg/L		103	75 - 125	0	20
Manganese	0.26	B	0.200	0.462		mg/L		102	75 - 125	1	20
Nickel	0.017		0.200	0.215		mg/L		99	75 - 125	0	20
Potassium	2.2		10.0	12.29		mg/L		101	75 - 125	1	20
Selenium	ND		0.200	0.200		mg/L		100	75 - 125	2	20
Silver	ND		0.0500	0.0498		mg/L		100	75 - 125	1	20
Sodium	18.2		10.0	27.81		mg/L		96	75 - 125	0	20
Thallium	ND		0.200	0.205		mg/L		102	75 - 125	1	20
Vanadium	ND		0.200	0.205		mg/L		102	75 - 125	1	20
Zinc	0.97		0.200	1.16	4	mg/L		95	75 - 125	0	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 480-634383/1-A**  
**Matrix: Water**  
**Analysis Batch: 634619**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 634383**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.000043	mg/L		07/22/22 10:34	07/22/22 13:22	1

**Lab Sample ID: LCS 480-634383/2-A**  
**Matrix: Water**  
**Analysis Batch: 634619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 634383**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Mercury	0.00667	0.00702		mg/L		105	80 - 120

# QC Association Summary

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## GC/MS VOA

### Analysis Batch: 634219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-199917-1	MW-1	Total/NA	Water	8260C	
480-199917-2	MW-2	Total/NA	Water	8260C	
480-199917-4	MW-6	Total/NA	Water	8260C	
480-199917-5	MW-8	Total/NA	Water	8260C	
480-199917-6	FD- MW-8	Total/NA	Water	8260C	
MB 480-634219/8	Method Blank	Total/NA	Water	8260C	
LCS 480-634219/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-634219/6	Lab Control Sample Dup	Total/NA	Water	8260C	

### Analysis Batch: 634356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-199917-7	TB	Total/NA	Water	8260C	
MB 480-634356/9	Method Blank	Total/NA	Water	8260C	
LCS 480-634356/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-634356/29	Lab Control Sample Dup	Total/NA	Water	8260C	

## Metals

### Prep Batch: 634253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-199917-1	MW-1	Total/NA	Water	3005A	
480-199917-2	MW-2	Total/NA	Water	3005A	
480-199917-3	MW-5	Total/NA	Water	3005A	
480-199917-4	MW-6	Total/NA	Water	3005A	
480-199917-5	MW-8	Total/NA	Water	3005A	
480-199917-6	FD- MW-8	Total/NA	Water	3005A	
MB 480-634253/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-634253/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-199917-3 MS	MW-5	Total/NA	Water	3005A	
480-199917-3 MSD	MW-5	Total/NA	Water	3005A	

### Prep Batch: 634383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-199917-1	MW-1	Total/NA	Water	7470A	
480-199917-2	MW-2	Total/NA	Water	7470A	
480-199917-3	MW-5	Total/NA	Water	7470A	
480-199917-4	MW-6	Total/NA	Water	7470A	
480-199917-5	MW-8	Total/NA	Water	7470A	
480-199917-6	FD- MW-8	Total/NA	Water	7470A	
MB 480-634383/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-634383/2-A	Lab Control Sample	Total/NA	Water	7470A	

### Analysis Batch: 634521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-199917-1	MW-1	Total/NA	Water	6010C	634253
480-199917-2	MW-2	Total/NA	Water	6010C	634253
480-199917-3	MW-5	Total/NA	Water	6010C	634253
480-199917-4	MW-6	Total/NA	Water	6010C	634253
480-199917-5	MW-8	Total/NA	Water	6010C	634253
480-199917-6	FD- MW-8	Total/NA	Water	6010C	634253
MB 480-634253/1-A	Method Blank	Total/NA	Water	6010C	634253

# QC Association Summary

Client: City of Tonawanda  
Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Metals (Continued)

### Analysis Batch: 634521 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-634253/2-A	Lab Control Sample	Total/NA	Water	6010C	634253
480-199917-3 MS	MW-5	Total/NA	Water	6010C	634253
480-199917-3 MSD	MW-5	Total/NA	Water	6010C	634253

### Analysis Batch: 634619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-199917-1	MW-1	Total/NA	Water	7470A	634383
480-199917-2	MW-2	Total/NA	Water	7470A	634383
480-199917-3	MW-5	Total/NA	Water	7470A	634383
480-199917-4	MW-6	Total/NA	Water	7470A	634383
480-199917-5	MW-8	Total/NA	Water	7470A	634383
480-199917-6	FD- MW-8	Total/NA	Water	7470A	634383
MB 480-634383/1-A	Method Blank	Total/NA	Water	7470A	634383
LCS 480-634383/2-A	Lab Control Sample	Total/NA	Water	7470A	634383

# Lab Chronicle

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

**Client Sample ID: MW-1**

**Lab Sample ID: 480-199917-1**

Date Collected: 07/19/22 13:15

Matrix: Water

Date Received: 07/19/22 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	634219	07/20/22 16:49	CR	TAL BUF
Total/NA	Prep	3005A			634253	07/21/22 09:24	NVK	TAL BUF
Total/NA	Analysis	6010C		1	634521	07/21/22 17:08	LMH	TAL BUF
Total/NA	Prep	7470A			634383	07/22/22 10:34	VAK	TAL BUF
Total/NA	Analysis	7470A		1	634619	07/22/22 13:30	NVK	TAL BUF

**Client Sample ID: MW-2**

**Lab Sample ID: 480-199917-2**

Date Collected: 07/19/22 13:45

Matrix: Water

Date Received: 07/19/22 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	634219	07/20/22 17:12	CR	TAL BUF
Total/NA	Prep	3005A			634253	07/21/22 09:24	NVK	TAL BUF
Total/NA	Analysis	6010C		1	634521	07/21/22 17:12	LMH	TAL BUF
Total/NA	Prep	7470A			634383	07/22/22 10:34	VAK	TAL BUF
Total/NA	Analysis	7470A		1	634619	07/22/22 13:31	NVK	TAL BUF

**Client Sample ID: MW-5**

**Lab Sample ID: 480-199917-3**

Date Collected: 07/19/22 11:15

Matrix: Water

Date Received: 07/19/22 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			634253	07/21/22 09:24	NVK	TAL BUF
Total/NA	Analysis	6010C		1	634521	07/21/22 17:27	LMH	TAL BUF
Total/NA	Prep	7470A			634383	07/22/22 10:34	VAK	TAL BUF
Total/NA	Analysis	7470A		1	634619	07/22/22 13:32	NVK	TAL BUF

**Client Sample ID: MW-6**

**Lab Sample ID: 480-199917-4**

Date Collected: 07/19/22 12:00

Matrix: Water

Date Received: 07/19/22 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	634219	07/20/22 17:36	CR	TAL BUF
Total/NA	Prep	3005A			634253	07/21/22 09:24	NVK	TAL BUF
Total/NA	Analysis	6010C		1	634521	07/21/22 17:46	LMH	TAL BUF
Total/NA	Prep	7470A			634383	07/22/22 10:34	VAK	TAL BUF
Total/NA	Analysis	7470A		1	634619	07/22/22 13:34	NVK	TAL BUF

**Client Sample ID: MW-8**

**Lab Sample ID: 480-199917-5**

Date Collected: 07/19/22 14:00

Matrix: Water

Date Received: 07/19/22 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	634219	07/20/22 18:00	CR	TAL BUF



# Lab Chronicle

Client: City of Tonawanda  
 Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Client Sample ID: MW-8

Lab Sample ID: 480-199917-5

Date Collected: 07/19/22 14:00

Matrix: Water

Date Received: 07/19/22 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			634253	07/21/22 09:24	NVK	TAL BUF
Total/NA	Analysis	6010C		1	634521	07/21/22 17:50	LMH	TAL BUF
Total/NA	Prep	7470A			634383	07/22/22 10:34	VAK	TAL BUF
Total/NA	Analysis	7470A		1	634619	07/22/22 13:38	NVK	TAL BUF

## Client Sample ID: FD- MW-8

Lab Sample ID: 480-199917-6

Date Collected: 07/19/22 14:00

Matrix: Water

Date Received: 07/19/22 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	634219	07/20/22 18:24	CR	TAL BUF
Total/NA	Prep	3005A			634253	07/21/22 09:24	NVK	TAL BUF
Total/NA	Analysis	6010C		1	634521	07/21/22 17:54	LMH	TAL BUF
Total/NA	Prep	7470A			634383	07/22/22 10:34	VAK	TAL BUF
Total/NA	Analysis	7470A		1	634619	07/22/22 13:39	NVK	TAL BUF

## Client Sample ID: TB

Lab Sample ID: 480-199917-7

Date Collected: 07/19/22 00:00

Matrix: Water

Date Received: 07/19/22 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	634356	07/21/22 17:48	CRL	TAL BUF

**Laboratory References:**

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Accreditation/Certification Summary

Client: City of Tonawanda  
Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

## Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

1

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# Method Summary

Client: City of Tonawanda  
Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
7470A	Preparation, Mercury	SW846	TAL BUF

**Protocol References:**

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

**Laboratory References:**

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Sample Summary

Client: City of Tonawanda  
Project/Site: 153 Fillmore Avenue Groundwater Analysis

Job ID: 480-199917-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-199917-1	MW-1	Water	07/19/22 13:15	07/19/22 14:23
480-199917-2	MW-2	Water	07/19/22 13:45	07/19/22 14:23
480-199917-3	MW-5	Water	07/19/22 11:15	07/19/22 14:23
480-199917-4	MW-6	Water	07/19/22 12:00	07/19/22 14:23
480-199917-5	MW-8	Water	07/19/22 14:00	07/19/22 14:23
480-199917-6	FD- MW-8	Water	07/19/22 14:00	07/19/22 14:23
480-199917-7	TB	Water	07/19/22 00:00	07/19/22 14:23

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## Login Sample Receipt Checklist

Client: City of Tonawanda

Job Number: 480-199917-1

**Login Number: 199917**

**List Number: 1**

**Creator: Stopa, Erik S**

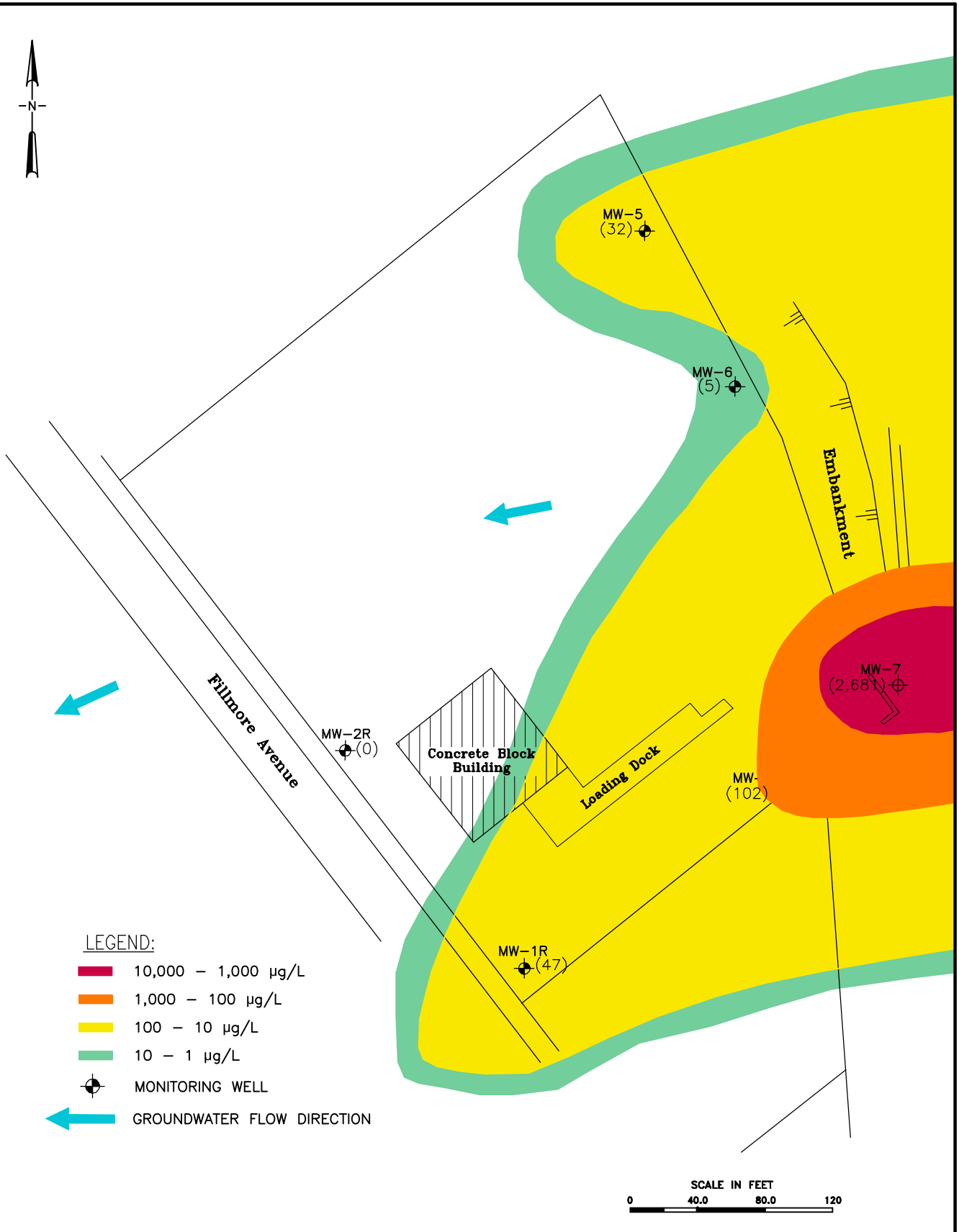
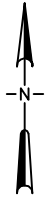
**List Source: Eurofins Buffalo**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	COT
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	





## **APPENDIX C**

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### **Groundwater Total VOC Concentration Figures**



**LEGEND:**

-  10,000 - 1,000 µg/L
-  1,000 - 100 µg/L
-  100 - 10 µg/L
-  10 - 1 µg/L



MONITORING WELL



GROUNDWATER FLOW DIRECTION

SCALE IN FEET  
0 40.0 80.0 120



**STEARNS & WHEELER**<sup>LLC</sup>  
Environmental Engineers & Scientists

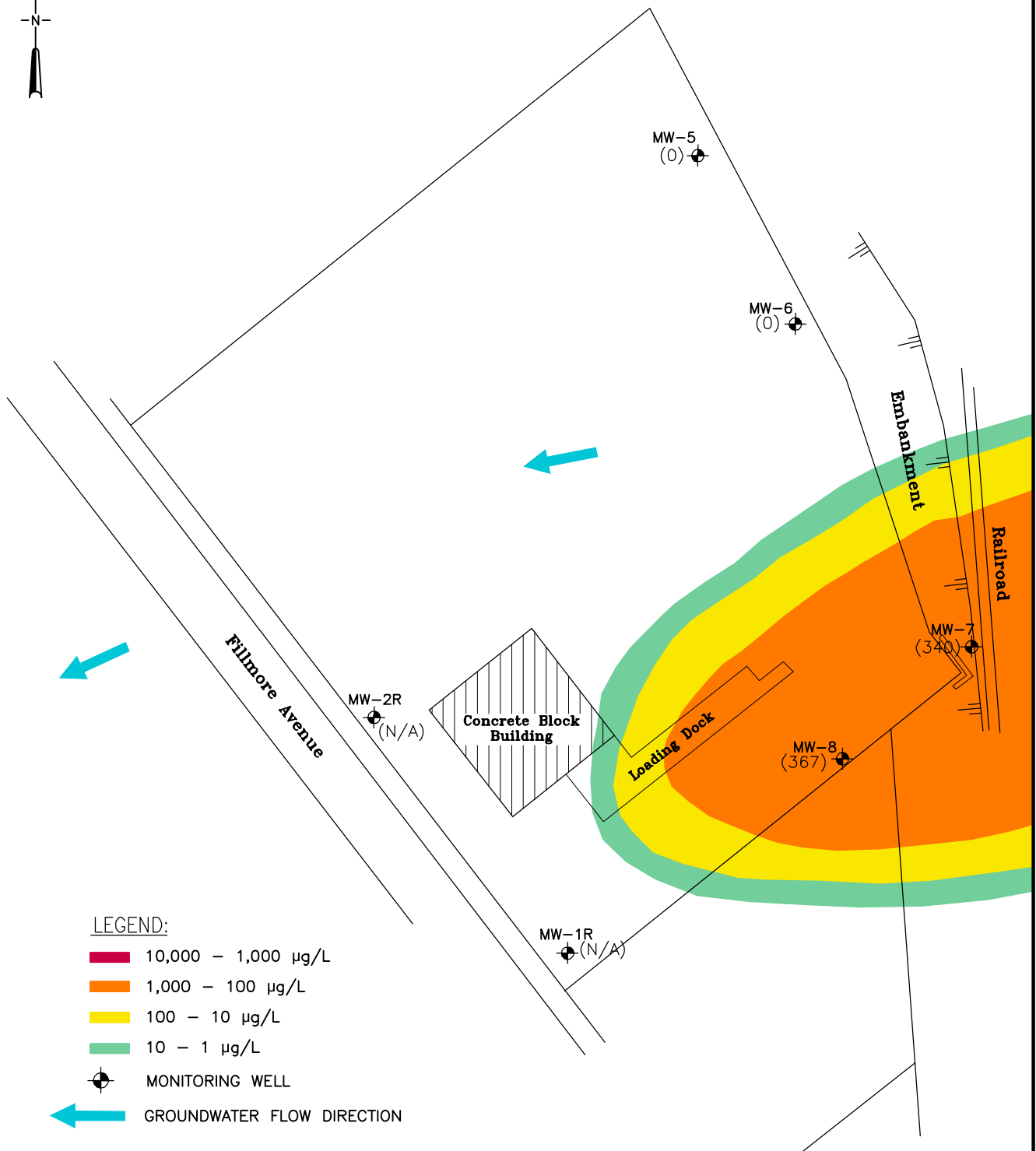
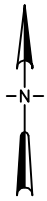
DATE:09/10

JOB No.:71164

153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

APPENDIX C - TOTAL GROUNDWATER VOC  
CONCENTRATION MAP - 10/17/01





**LEGEND:**

- 10,000 - 1,000 µg/L
- 1,000 - 100 µg/L
- 100 - 10 µg/L
- 10 - 1 µg/L

 MONITORING WELL

 GROUNDWATER FLOW DIRECTION

NOTE:  
MONITORING WELLS MW-1 & MW-2 WERE NOT  
FUNCTIONAL UNTIL BEING REDRILLED IN JULY 2009.

SCALE IN FEET  
0 40.0 80.0 120

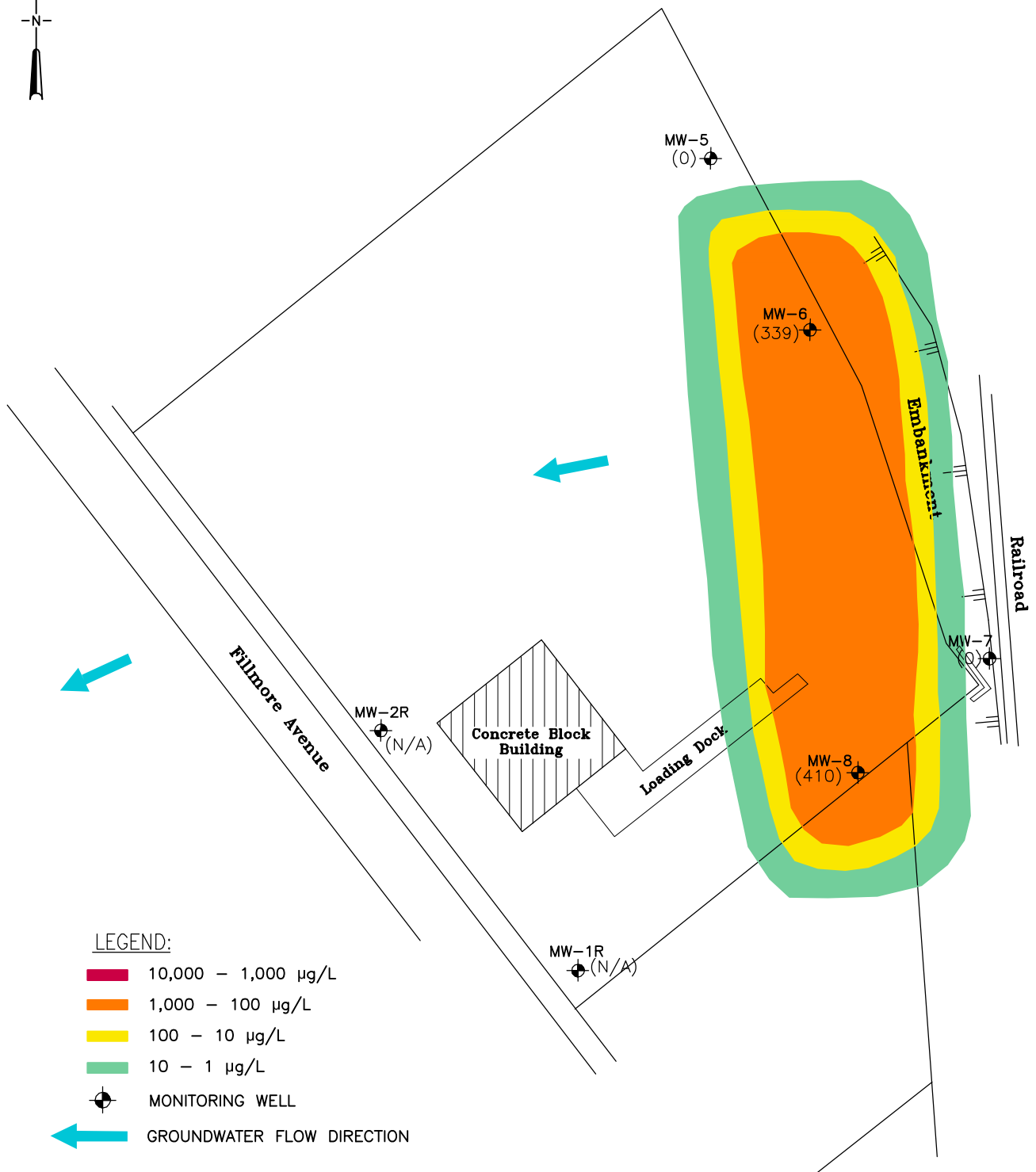
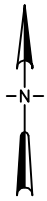


**STEARNS & WHEELER**<sup>LLC</sup>  
Environmental Engineers & Scientists

DATE:09/10      JOB No.:71164

153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

APPENDIX C - TOTAL GROUNDWATER VOC  
CONCENTRATION MAP - 07/26/07



**LEGEND:**

- 10,000 – 1,000 µg/L
- 1,000 – 100 µg/L
- 100 – 10 µg/L
- 10 – 1 µg/L



MONITORING WELL



GROUNDWATER FLOW DIRECTION

NOTE:  
MONITORING WELLS MW-1 & MW-2 WERE NOT  
FUNCTIONAL UNIT BEING REDRILLED IN JULY 2009.



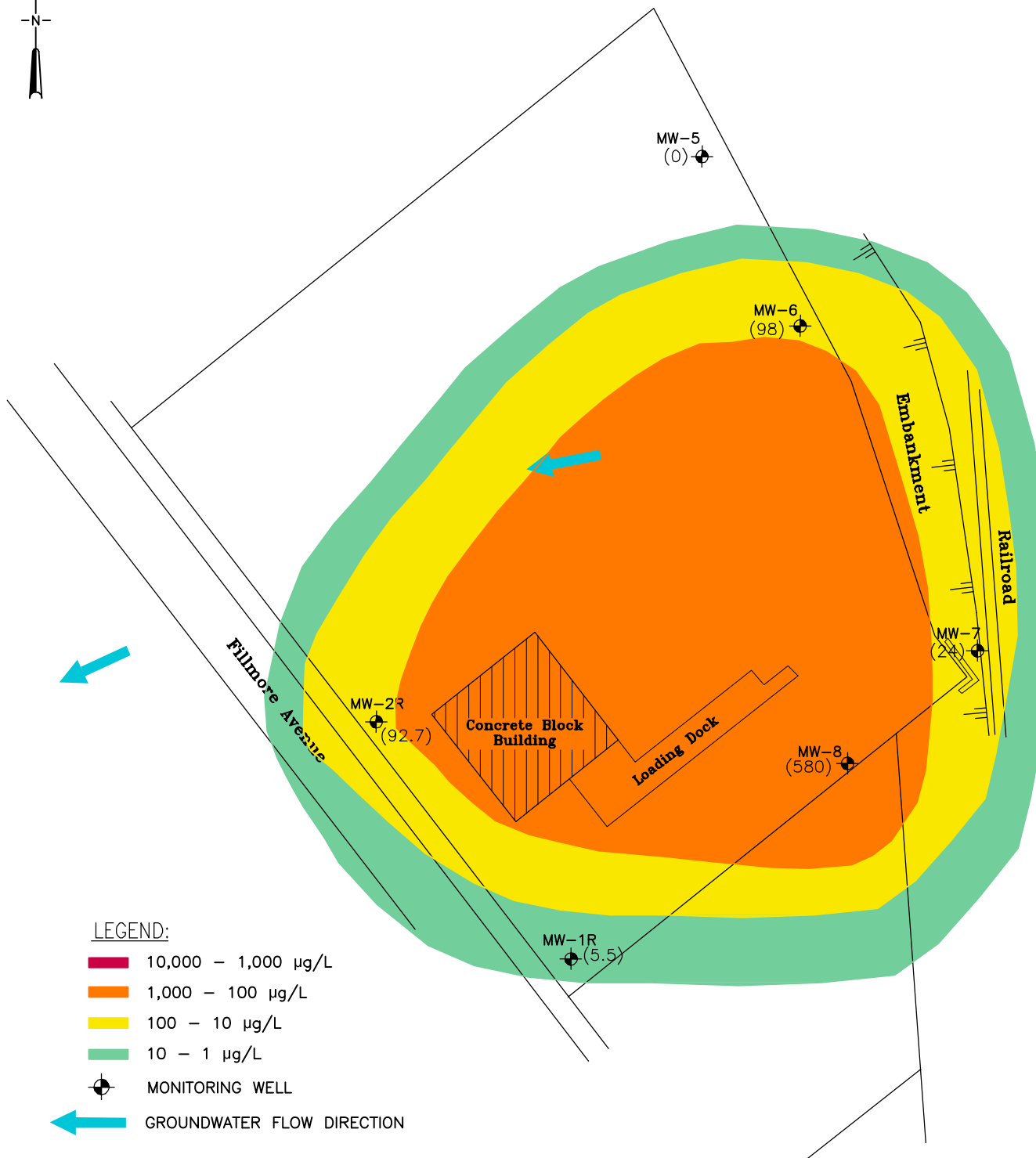
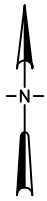
**STEARNS & WHEELER**<sup>LLC</sup>  
Environmental Engineers & Scientists

DATE:09/10

JOB No.:71164

153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

APPENDIX C – TOTAL GROUNDWATER VOC  
CONCENTRATION MAP – 08/27/08



**LEGEND:**

10,000 - 1,000 µg/L

1,000 - 100 µg/L

100 - 10 µg/L

10 - 1 µg/L

MONITORING WELL

GROUNDWATER FLOW DIRECTION

SCALE IN FEET  
0 40.0 80.0 120



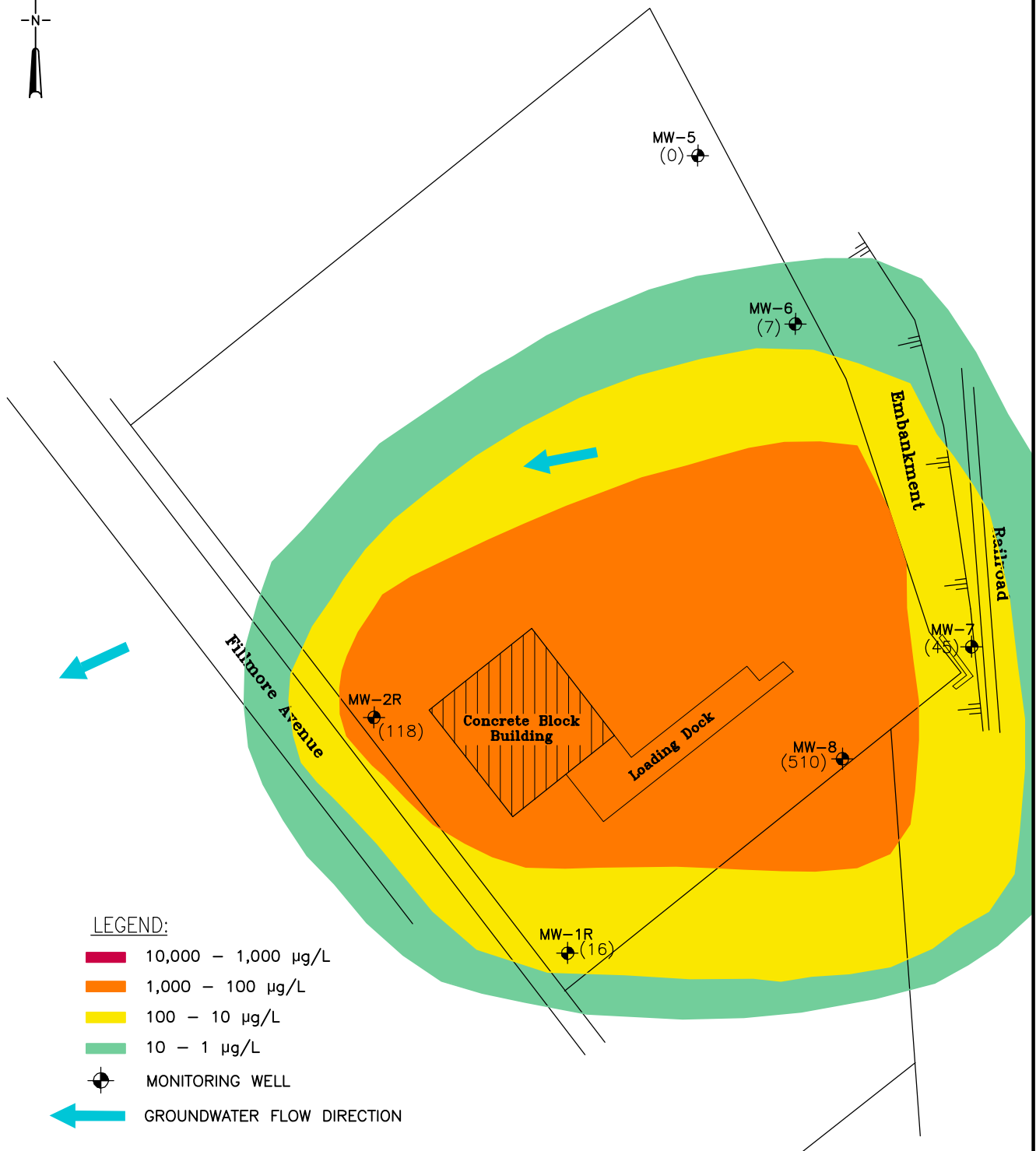
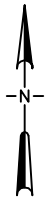
**STEARNS & WHEELER**  
Environmental Engineers & Scientists

DATE:09/10

JOB No.:71164

153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

APPENDIX C - TOTAL GROUNDWATER VOC  
CONCENTRATION MAP - 07/22/09



**LEGEND:**

10,000 - 1,000  $\mu\text{g/L}$

1,000 - 100  $\mu\text{g/L}$

100 - 10  $\mu\text{g/L}$

10 - 1  $\mu\text{g/L}$



MONITORING WELL



GROUNDWATER FLOW DIRECTION

SCALE IN FEET  
0 40.0 80.0 120



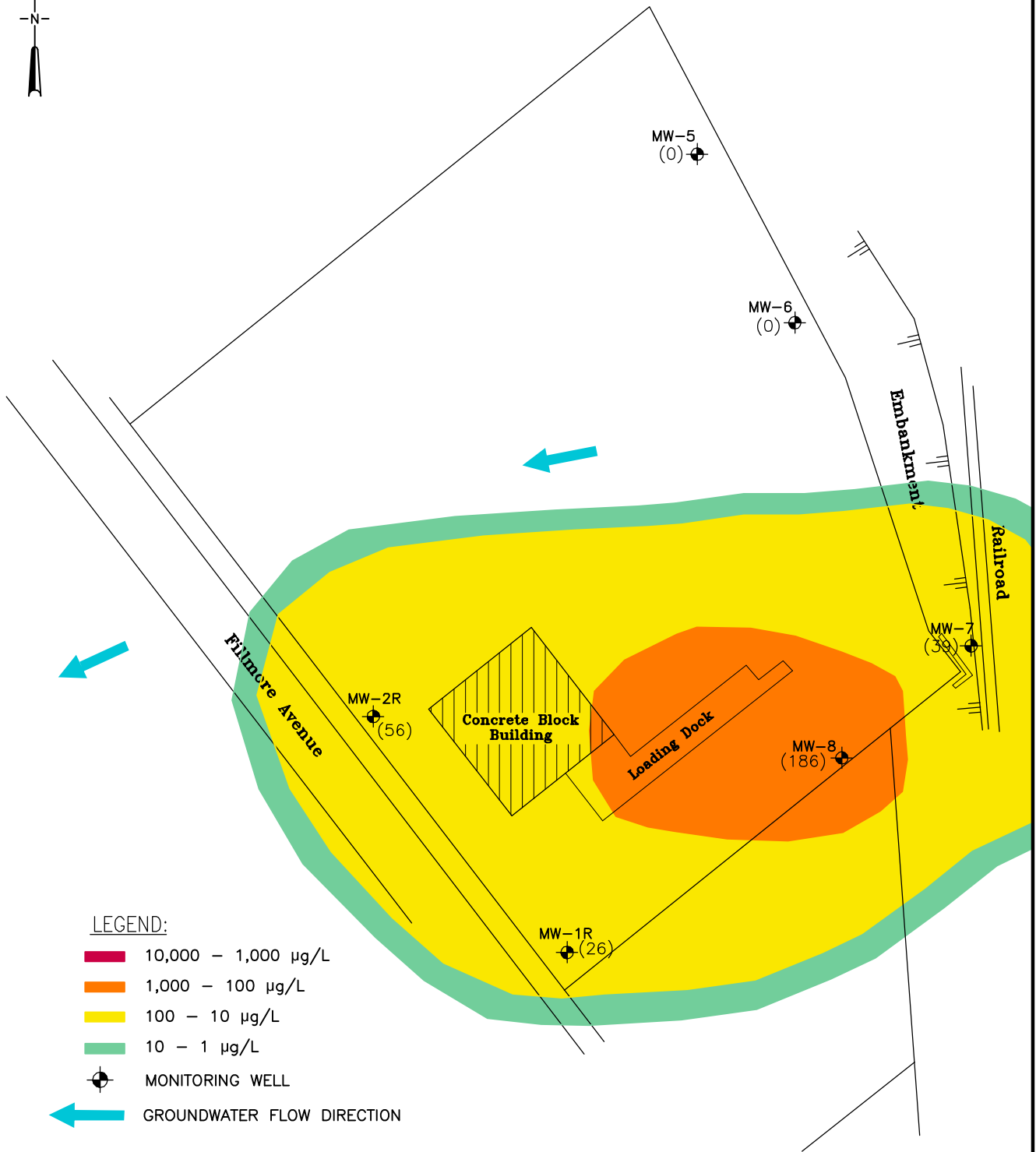
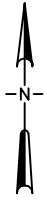
**STEARNS & WHEELER**<sup>LLC</sup>  
Environmental Engineers & Scientists

DATE:09/10





JOB No.:71164

153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

APPENDIX C - TOTAL GROUNDWATER VOC  
CONCENTRATION MAP - 07/14/10



**LEGEND:**

-  10,000 – 1,000 µg/L
-  1,000 – 100 µg/L
-  100 – 10 µg/L
-  10 – 1 µg/L



MONITORING WELL



GROUNDWATER FLOW DIRECTION

SCALE IN FEET

0 40.0 80.0 120



CLIENTS PEOPLE PERFORMANCE

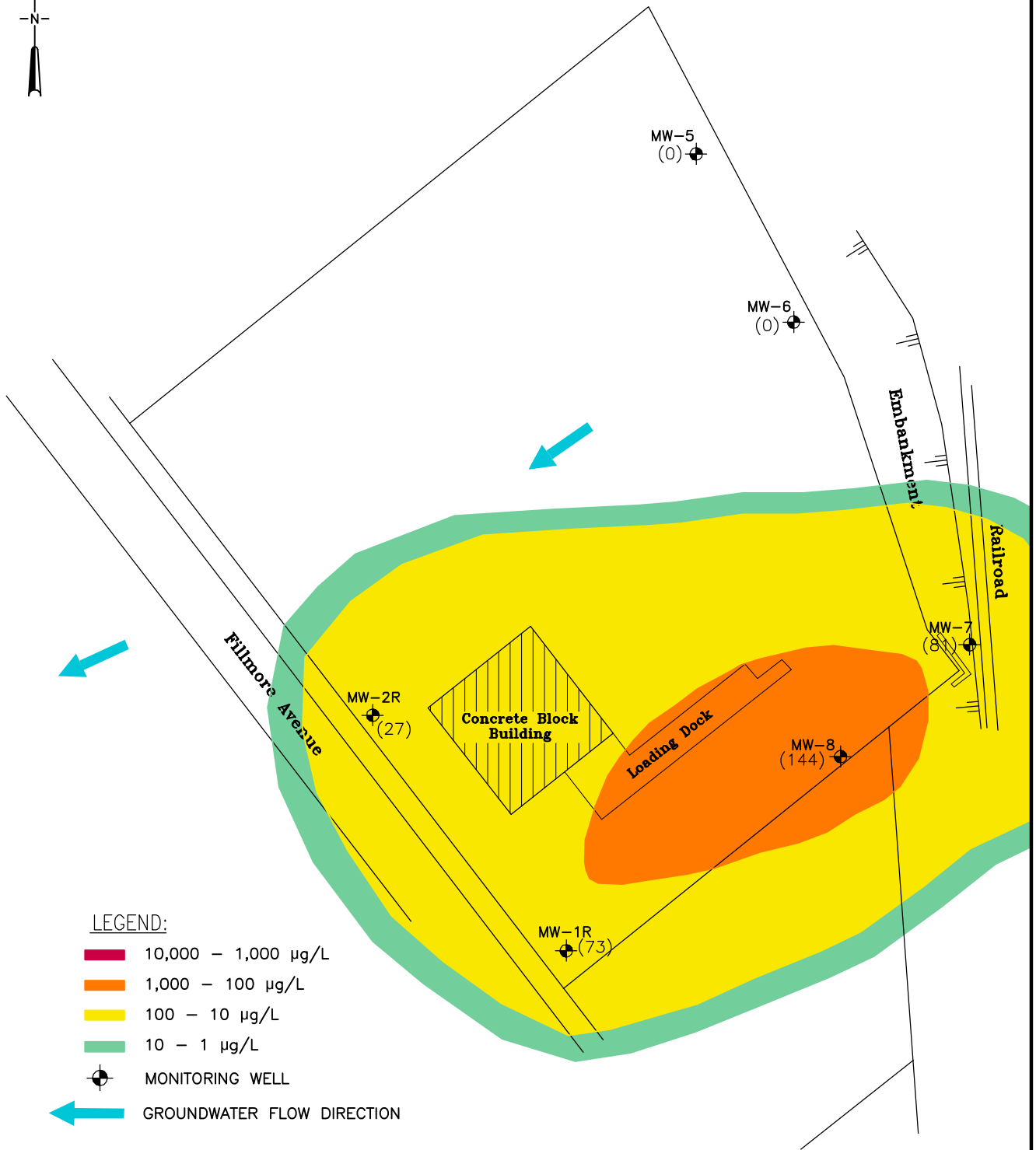
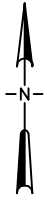
AMHERST, NEW YORK

DATE:09/11

JOB No.:8612199

153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

APPENDIX C – TOTAL GROUNDWATER VOC  
CONCENTRATION MAP – 07/22/11



SCALE IN FEET  
0 40.0 80.0 120



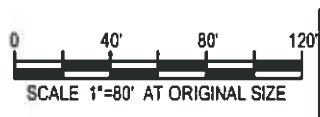
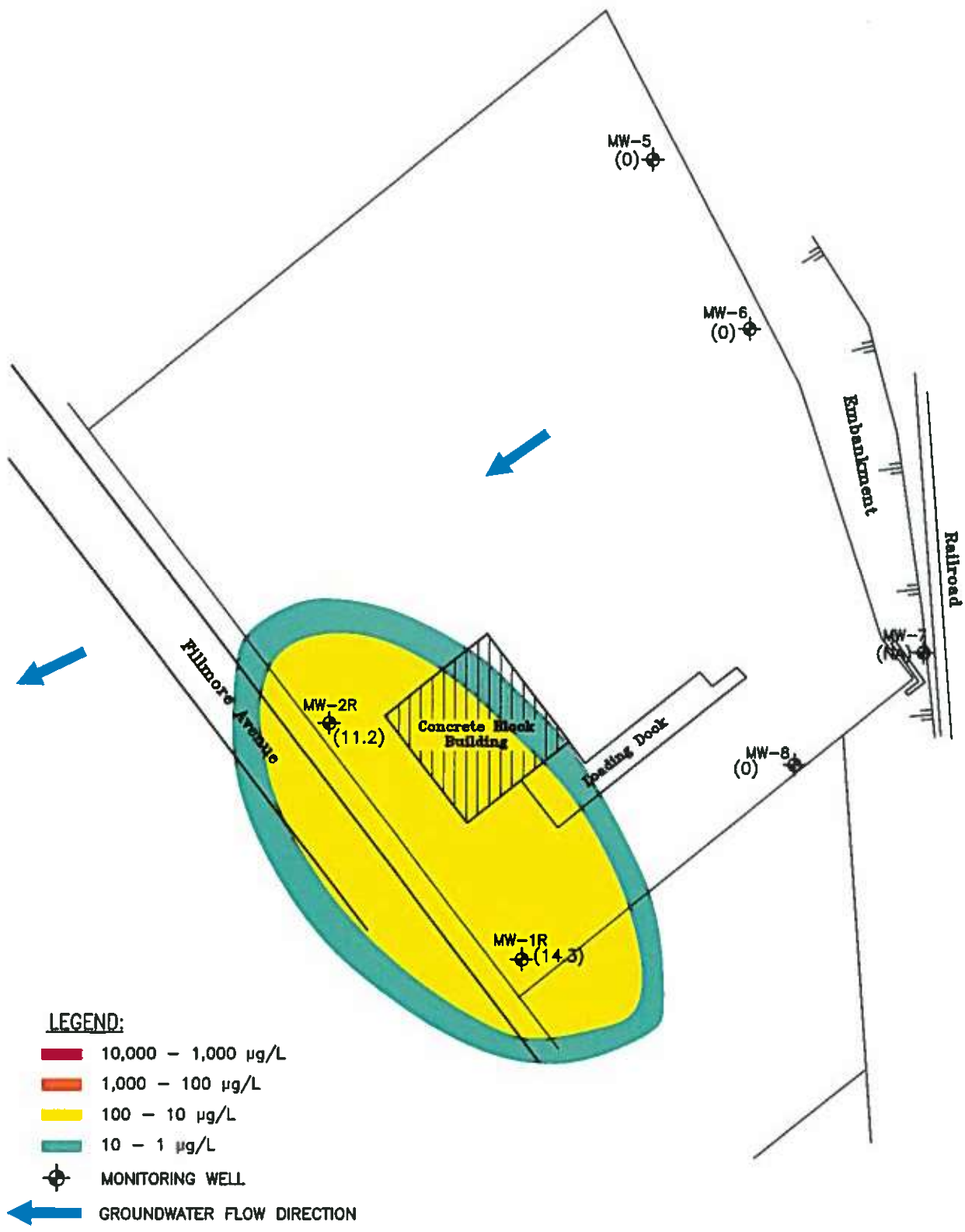
CLIENTS PEOPLE PERFORMANCE

AMHERST, NEW YORK

DATE:09/12 JOB No.:8612199

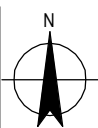
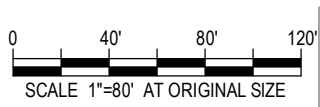
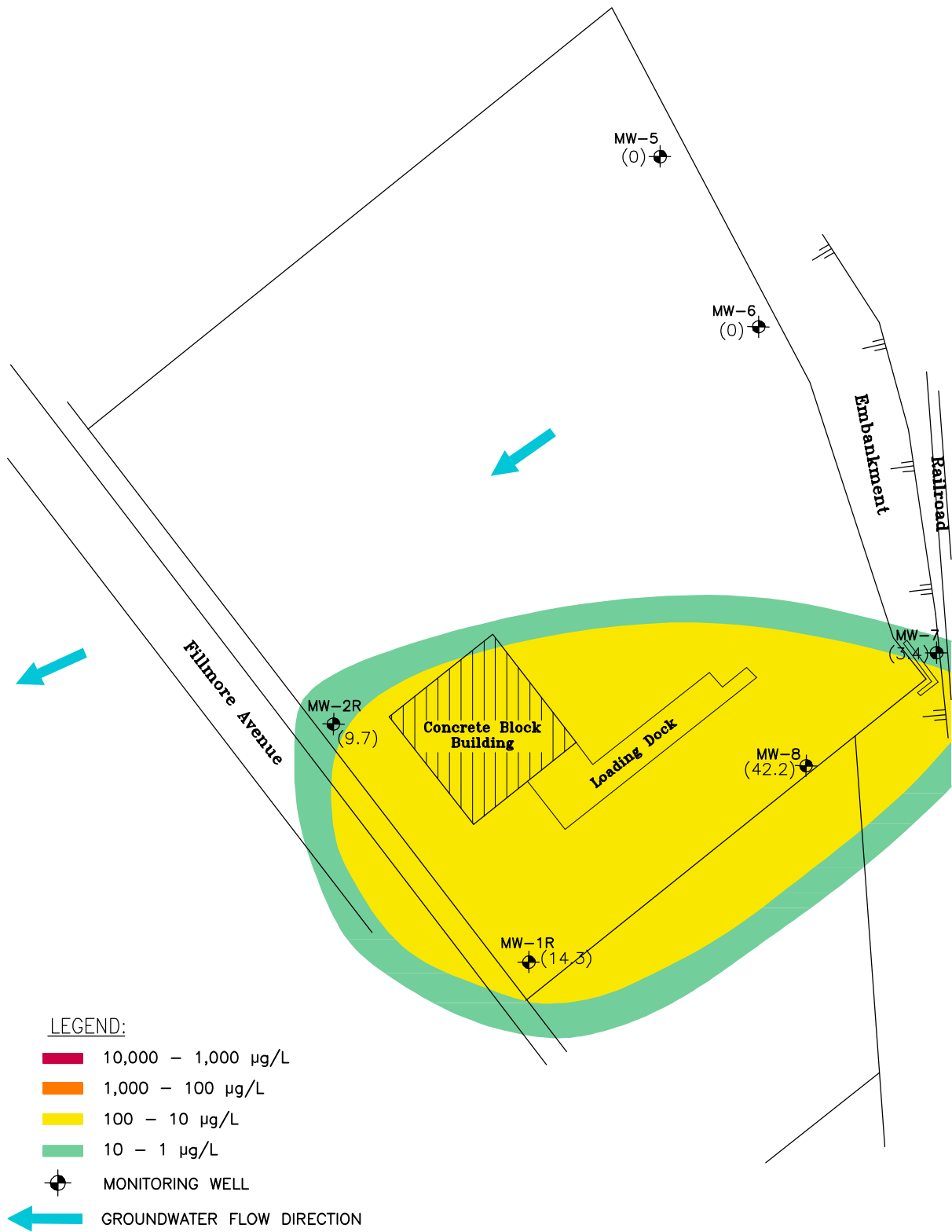
153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

FIGURE 4 – TOTAL GROUNDWATER VOC  
CONCENTRATION MAP – 07/24/12



153 FILLMORE AVENUE SITE  
 TONAWANDA, NEW YORK  
 GROUNDWATER MONITORING REPORT  
 TOTAL GROUNDWATER VOC  
 CONCENTRATION MAP - 07/24/13

Job Number | 86-12199  
 Revision | A  
 Date | 09 13  
**Figure 04**

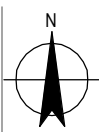
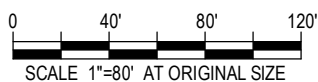
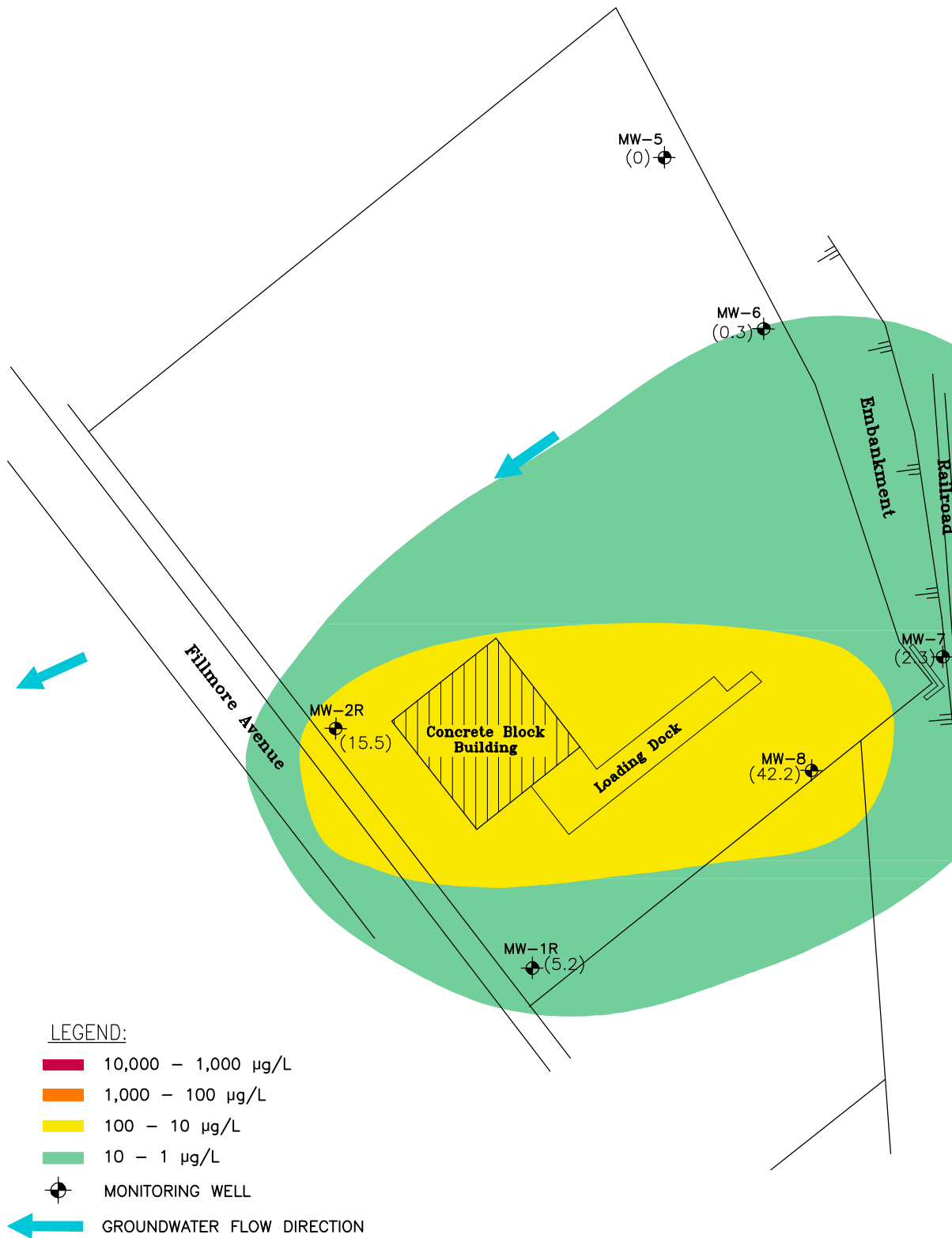


153 FILLMORE AVENUE SITE  
 TONAWANDA, NEW YORK  
 GROUNDWATER MONITORING REPORT  
 TOTAL GROUNDWATER VOC  
 CONCENTRATION MAP - 07/15/14

Job Number | 86-12199  
 Revision | A  
 Date | 09 14

**Figure 04**

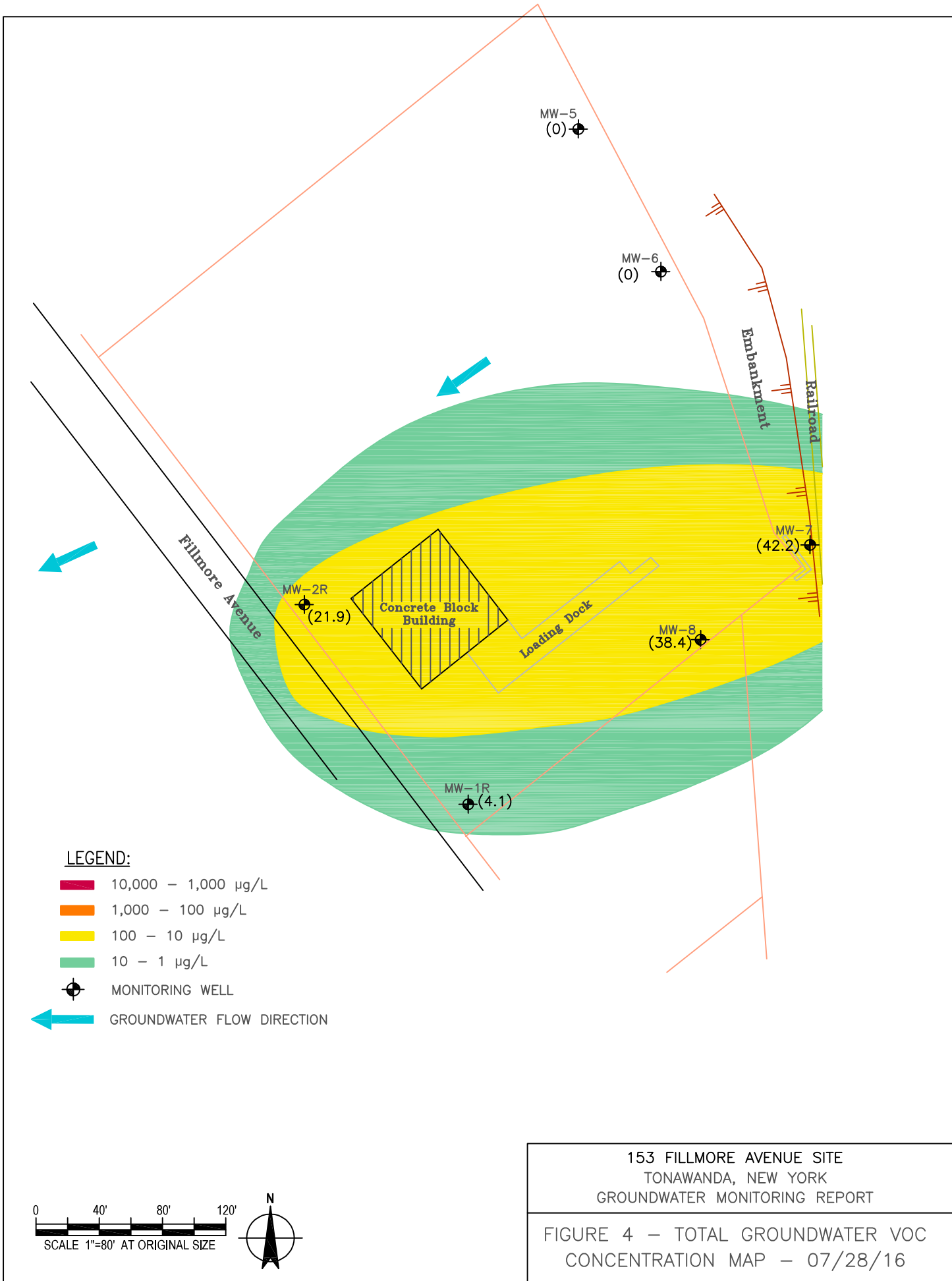




153 FILLMORE AVENUE SITE  
 TONAWANDA, NEW YORK  
 GROUNDWATER MONITORING REPORT  
 TOTAL GROUNDWATER VOC  
 CONCENTRATION MAP - 07/23/15

Job Number | 86-12199  
 Revision | A  
 Date | 12 15

**Figure 04**

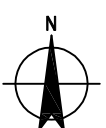


**LEGEND:**

- 10,000 – 1,000 µg/L
- 1,000 – 100 µg/L
- 100 – 10 µg/L
- 10 – 1 µg/L

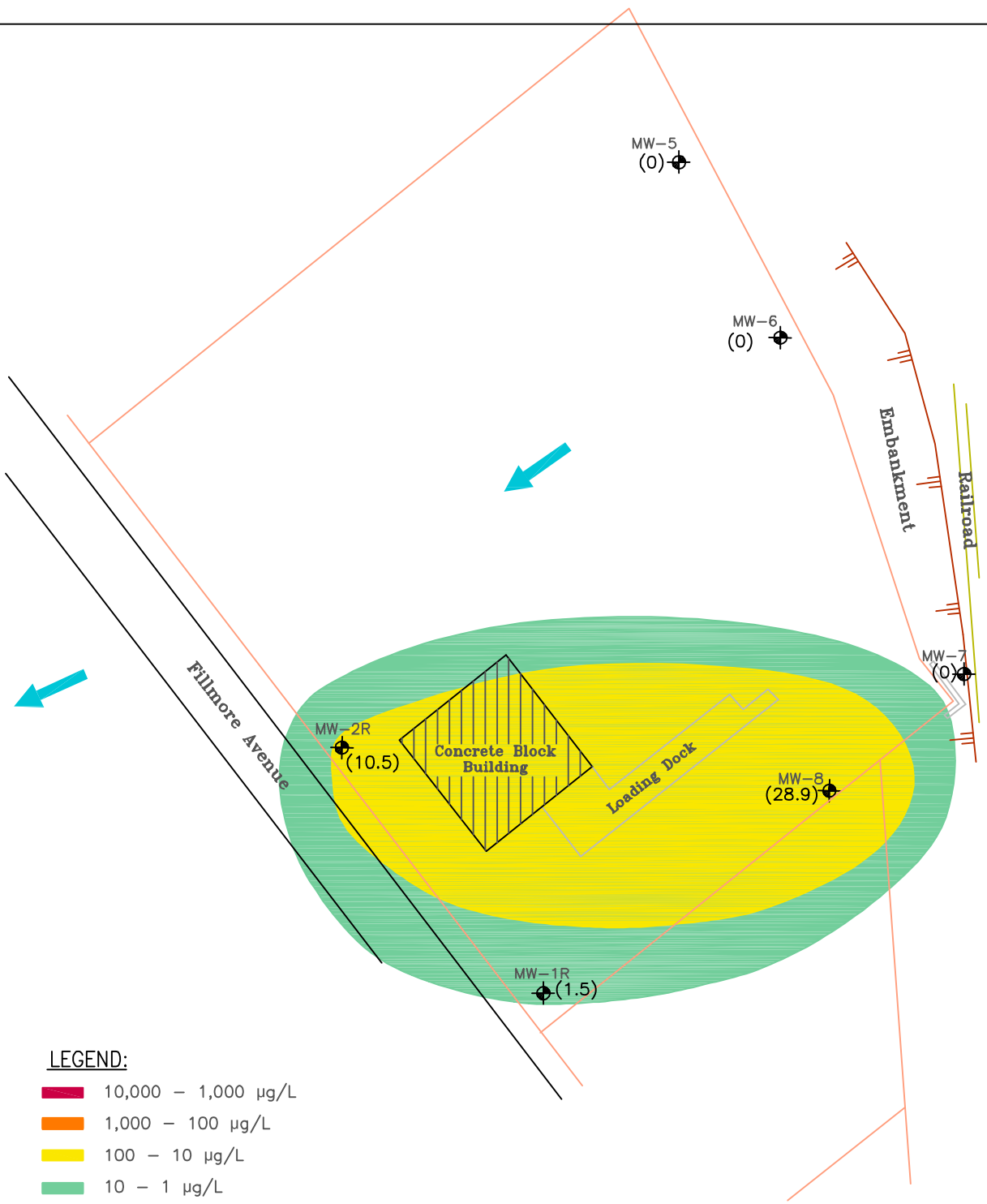
MONITORING WELL

GROUNDWATER FLOW DIRECTION



153 FILLMORE AVENUE SITE  
 TONAWANDA, NEW YORK  
 GROUNDWATER MONITORING REPORT

FIGURE 4 – TOTAL GROUNDWATER VOC  
 CONCENTRATION MAP – 07/28/16



**LEGEND:**

- 10,000 – 1,000 µg/L
- 1,000 – 100 µg/L
- 100 – 10 µg/L
- 10 – 1 µg/L

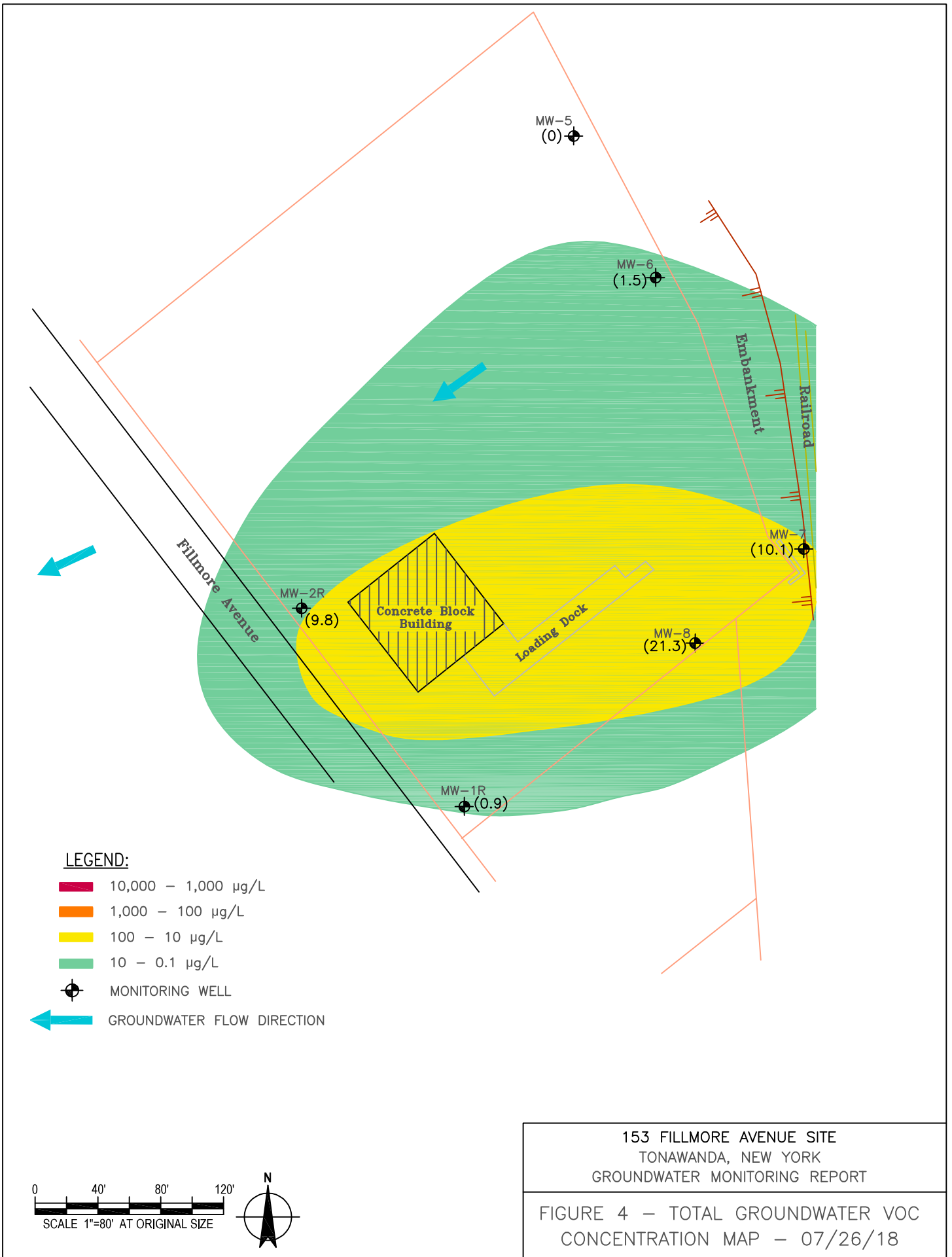
MONITORING WELL

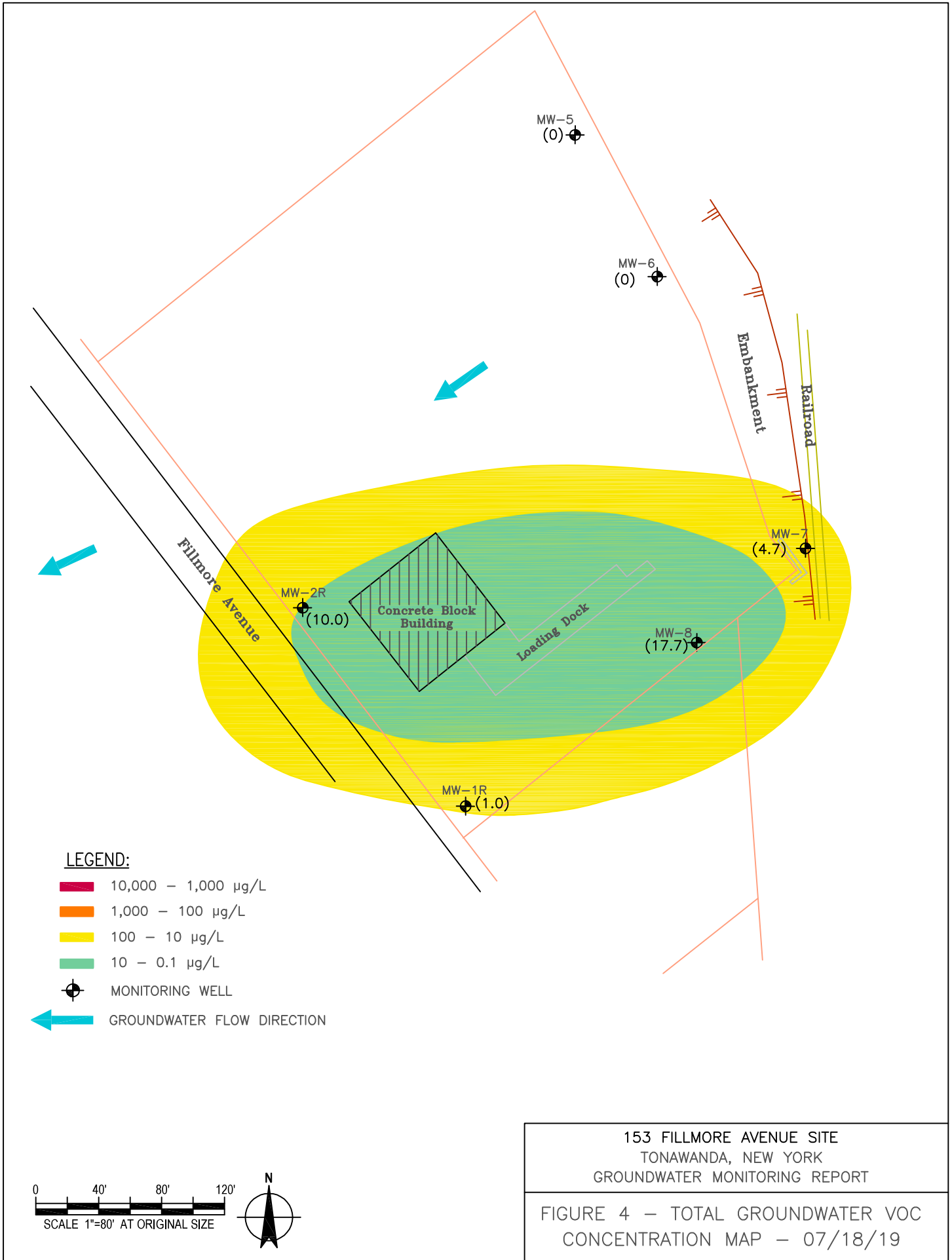
GROUNDWATER FLOW DIRECTION



153 FILLMORE AVENUE SITE  
TONAWANDA, NEW YORK  
GROUNDWATER MONITORING REPORT

FIGURE 4 – TOTAL GROUNDWATER VOC  
CONCENTRATION MAP – 07/27/17





MW-5  
(0)

MW-6  
(0)

Embankment

Railroad

MW-7  
(4.7)

MW-2R  
(10.0)

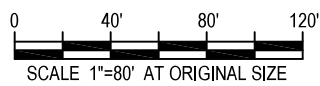
Concrete Block Building

Loading Dock

MW-8  
(17.7)

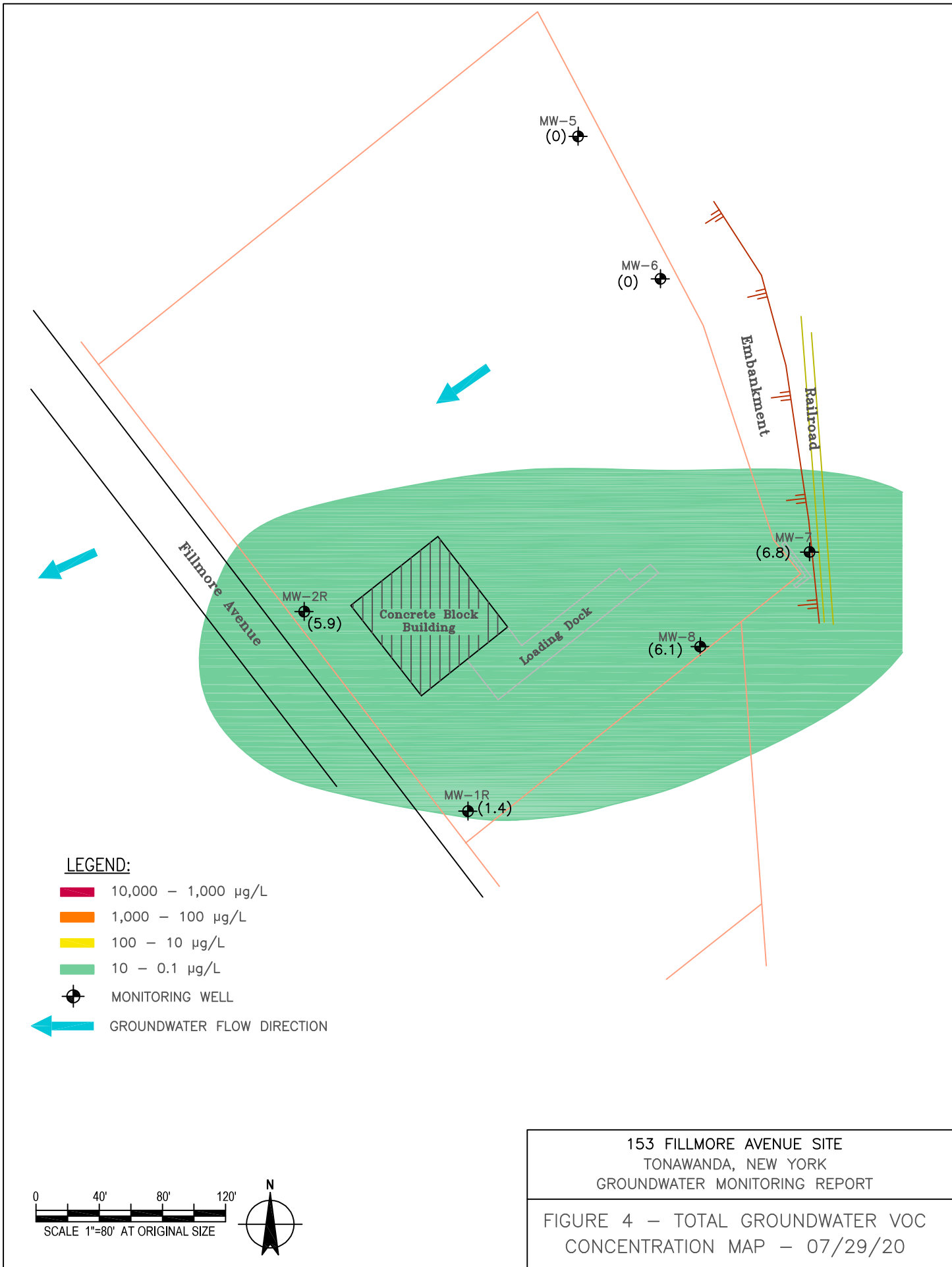
MW-1R  
(1.0)

Fillmore Avenue



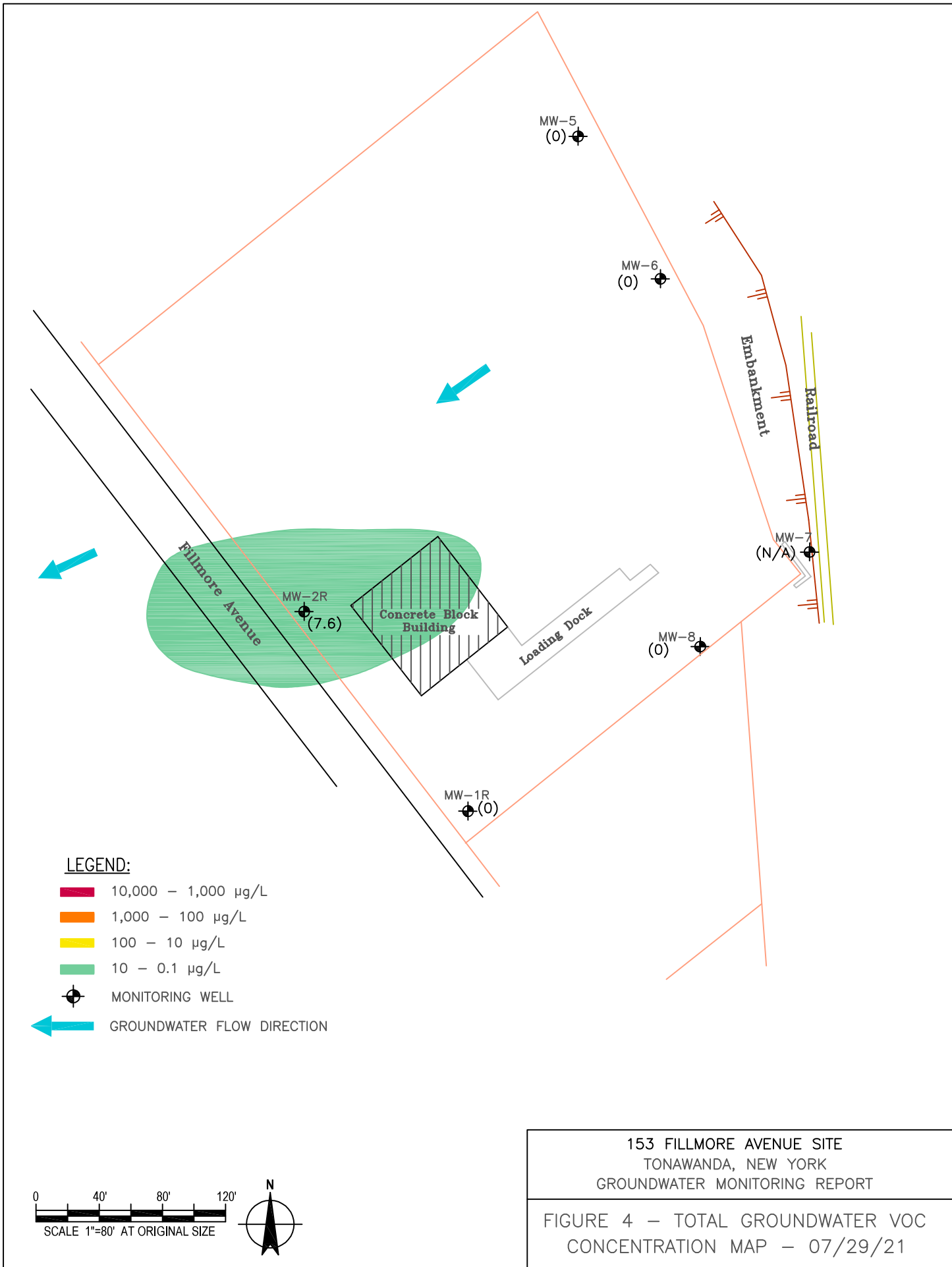
153 FILLMORE AVENUE SITE  
 TONAWANDA, NEW YORK  
 GROUNDWATER MONITORING REPORT

FIGURE 4 – TOTAL GROUNDWATER VOC  
 CONCENTRATION MAP – 07/18/19



153 FILLMORE AVENUE SITE  
 TONAWANDA, NEW YORK  
 GROUNDWATER MONITORING REPORT

FIGURE 4 – TOTAL GROUNDWATER VOC  
 CONCENTRATION MAP – 07/29/20



MW-5  
(0)

MW-6  
(0)

MW-7  
(N/A)

MW-8  
(0)

MW-2R  
(7.6)

MW-1R  
(0)

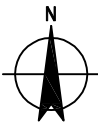
Fillmore Avenue

Concrete Block Building

Loading Dock

Embankment

Railroad



## **APPENDIX D**

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### **Historical SVOC Analytical Test Results**



**Monitoring Well MW-1**  
**Semi-Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Semi-Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/08/01	07/23/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15
Phenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethyl) ether	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Isophorone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethoxy) methane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NE	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	<b>0.93J</b>	ND
Acenaphthylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20.0	µg/L	ND	ND	ND	ND	ND	<b>1.2</b>	ND	ND
2,4-Dinitrophenol	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Fluorene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	50.0	µg/L	-	<b>2 J</b>	ND	ND	ND	ND	ND	<b>0.48J</b>
Fluoranthene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benz(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-ethylhexyl) phthalate	5.0	µg/L	ND	<b>8 J</b>	<b>1 J</b>	<b>6.2 B</b>	<b>2.3 J</b>	<b>4.8</b>	<b>1.7J</b>	ND
Di-n-octyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i) perylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
(3+4)-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroisopropyl) ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. 06/98, Class GA.  
 Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.  
 NE = NYSDEC TOGS 1.1.1 water quality standard not established.  
 ND - Not detected for at or above reporting limit  
 J - Analyte detected estimated value below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 - = The analyte was not sampled for.

**Monitoring Well MW-2**  
**Semi-Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Semi-Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/08/01	07/23/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15
Phenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	<b>0.34J</b>
bis(2-chloroethyl) ether	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Isophorone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethoxy) methane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NE	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Chloro-phthalene	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	<b>1.2J</b>	ND
Acenaphthylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20.0	µg/L	ND	<b>1 J</b>	ND	ND	<b>2.3 J</b>	ND	<b>1.0</b>	<b>0.78J</b>
2,4-Dinitrophenol	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Fluorene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	50.0	µg/L	-	<b>2 J</b>	ND	ND	<b>1.2 J</b>	ND	<b>0.4J</b>	<b>0.34J</b>
Fluoranthene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50.0	µg/L	ND	ND	ND	ND	<b>1.1 J</b>	ND	ND	ND
Butyl benzyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benz(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-ethylhexyl) phthalate	5.0	µg/L	ND	<b>9 J</b>	<b>30 J</b>	<b>6.5 B</b>	<b>25</b>	ND	<b>1.9J</b>	ND
Di-n-octyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i) perylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
(3+4)-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroisopropyl) ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. 06/98, Class GA.  
 Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.  
 NE = NYSDEC TOGS 1.1.1 water quality standard not established.  
 ND - Not detected for at or above reporting limit  
 J - Analyte detected estimated value below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 - = The analyte was not sampled for.

**Monitoring Well MW-5**  
**Semi-Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Semi-Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/08/01	07/26/07	08/27/08	07/22/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15
Phenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethyl) ether	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethoxy) methane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	µg/L	<b>59</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NE	µg/L	<b>800</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloro-phthalene	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	<b>1.0 J</b>	ND
Acenaphthylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	<b>0.64 J</b>	ND
2,6-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20.0	µg/L	<b>65</b>	ND	ND	ND	ND	<b>1 J</b>	<b>1.5 J</b>	<b>2.3</b>	ND	<b>0.54</b>
2,4-Dinitrophenol	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50.0	µg/L	<b>93</b>	ND	ND	ND	ND	ND	<b>1.2 J</b>	ND	<b>0.51 J</b>	<b>0.49</b>
4-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50.0	µg/L	<b>220</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NE	µg/L	-	ND	ND	ND	ND	<b>2 J</b>	<b>3.2 J</b>	ND	ND	<b>0.34</b>
Di-n-butyl phthalate	50.0	µg/L	-	ND	ND	<b>3 J</b>	<b>2 J</b>	ND	ND	ND	<b>0.45 J</b>	<b>0.61</b>
Fluoranthene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benz(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-ethylhexyl) phthalate	5.0	µg/L	ND	<b>4 J</b>	<b>7 J</b>	<b>7 J</b>	<b>3 J</b>	<b>4 J</b>	ND	ND	<b>1.8 J</b>	ND
Di-n-octyl phthalate	50.0	µg/L	-	<b>75</b>	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i) perylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
(3+4)-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroisopropyl) ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. 06/98, Class GA.  
 Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.  
 NE = NYSDEC TOGS 1.1.1 water quality standard not established.  
 ND = Not detected for at or above reporting limit  
 J - Analyte detected estimated value below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 - = The analyte was not sampled for.

**Monitoring Well MW-6**  
**Semi-Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Semi-Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/08/01	07/26/07	08/27/08	07/22/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15
Phenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethyl) ether	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NE	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethoxy) methane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NE	µg/L	800	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloro-phthalene	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	1.2 J	ND
Acenaphthylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	0.59 J	0.43
2,6-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20.0	µg/L	120	ND	3 J	ND	ND	2 J	3.4 J	1.0	3.0	2.4
2,4-Dinitrophenol	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	50.0	µg/L	72	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50.0	µg/L	200	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50.0	µg/L	530	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	50.0	µg/L	-	ND	ND	3 J	ND	ND	ND	ND	0.48 J	0.60
Fluoranthene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50.0	µg/L	64	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benz(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-ethylhexyl) phthalate	5.0	µg/L	ND	8 J	2 J	8 J	3 J	4 J	ND	ND	1.9 J	ND
Di-n-octyl phthalate	50.0	µg/L	-	5 J	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i) perylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
(3+4)-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroisopropyl) ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. 06/98, Class GA.  
 Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.  
 NE = NYSDEC TOGS 1.1.1 water quality standard not established.  
 ND = Not detected for at or above reporting limit  
 J - Analyte detected estimated value below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 - = The analyte was not sampled for.

**Monitoring Well MW-7**  
**Semi-Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Semi-Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units											
			08/08/01	07/26/07	08/27/08	07/23/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15	
Phenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
bis(2-chloroethyl) ether	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2-Chlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
N-Nitrosodi-n-propylamine	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Hexachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Nitrobenzene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Isophorone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2-Nitrophenol	NE	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2,4-Dimethylphenol	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
bis(2-chloroethoxy) methane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2,4-Dichlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
1,2,4-Trichlorobenzene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Naphthalene	10.0	µg/L	<b>3,000</b>	ND	ND	ND	ND	ND	ND	ND	*NA	ND	<b>0.81</b>
4-Chloroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Hexachlorobutadiene	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
4-Chloro-3-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2-Methylnaphthalene	NE	µg/L	<b>1,100</b>	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Hexachlorocyclopentadiene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2,4,6-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2,4,5-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2-Chloro-phthalene	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Dimethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	<b>1.1 J</b>	ND
Acenaphthylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	<b>0.36</b>
2,6-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
3-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Acenaphthene	20.0	µg/L	<b>590</b>	ND	ND	ND	ND	ND	<b>9.6 J</b>	ND	*NA	ND	<b>0.54</b>
2,4-Dinitrophenol	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
4-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Dibenzofuran	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
2,4-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Diethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	<b>0.47 J</b>	ND
4-Chlorophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Fluorene	50.0	µg/L	<b>430</b>	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
4-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
4,6-Dinitro-2-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
N-Nitrosodiphenylamine	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
4-Bromophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Hexachlorobenzene	0.04	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Pentachlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Phenanthrene	50.0	µg/L	<b>1,100</b>	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Anthracene	50.0	µg/L	<b>350</b>	ND	ND	ND	ND	ND	ND	ND	*NA	<b>0.45 J</b>	ND
Carbazole	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Di-n-butyl phthalate	50.0	µg/L	-	ND	ND	<b>3 J</b>	<b>1 J</b>	ND	ND	ND	*NA	<b>0.74 J</b>	<b>0.62</b>
Fluoranthene	50.0	µg/L	<b>270</b>	ND	ND	ND	ND	ND	<b>9.4 J</b>	ND	*NA	ND	ND
Pyrene	50.0	µg/L	<b>480</b>	<b>3 J</b>	ND	ND	ND	ND	<b>28</b>	ND	*NA	ND	ND
Butyl benzyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
3,3'-Dichlorobenzidine	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Benzo(a)anthracene	0.002	µg/L	<b>150</b>	<b>1 J</b>	ND	ND	ND	ND	<b>16</b>	ND	*NA	ND	<b>0.26</b>
Chrysene	0.002	µg/L	<b>140</b>	<b>1 J</b>	ND	ND	ND	ND	<b>17</b>	ND	*NA	ND	ND
bis(2-ethylhexyl) phthalate	5.0	µg/L	ND	ND	ND	<b>82</b>	<b>2 J</b>	<b>7 J</b>	<b>8.6 J</b>	ND	*NA	<b>1.6 J</b>	ND
Di-n-octyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	-	<b>1 J</b>	ND	ND	ND	ND	<b>16</b>	ND	*NA	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	<b>16</b>	ND	*NA	ND	ND
Benzo(a)pyrene	NE	µg/L	-	<b>2 J</b>	ND	ND	ND	ND	<b>29</b>	ND	*NA	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Dibenz(a,h)anthracene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
Benzo(g,h,i) perylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	<b>0.16</b>
(3+4)-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND
bis(2-chloroisopropyl) ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	*NA	ND	ND

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998. Class GA.

Bolded concentrations indicated the analyte was detected.

Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

ND - Not detected for at or above reporting limit

J - Analyte detected estimated value below quantitation limits

- = The analyte was not sampled for.

\*NA - Unable to purge or sample due to equipment failure or no water was able to be removed from well. No water was retrievable.

**Monitoring Well MW-8**  
**Semi-Volatile Organic Analytical Test Results**  
**153 Fillmore Avenue Site**

Semi-Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards <sup>1</sup>	Units	08/08/01	07/26/07	08/27/08	07/22/09	07/15/10	07/22/11	07/24/12	07/24/13	07/15/14	07/23/15
Phenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethyl) ether	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.4	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NE	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethoxy) methane	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NE	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloro-phthalene	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	<b>1.3 J</b>	ND
Acenaphthylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20.0	µg/L	<b>13</b>	<b>4 J</b>	<b>3 J</b>	<b>2 J</b>	<b>2 J</b>	<b>1 J</b>	<b>1.4 J</b>	ND	<b>2.2</b>	<b>1.4</b>
2,4-Dinitrophenol	10.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50.0	µg/L	<b>6</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	50.0	µg/L	-	ND	ND	<b>4 J</b>	<b>2 J</b>	ND	ND	ND	<b>0.57 J</b>	<b>0.64</b>
Fluoranthene	50.0	µg/L	<b>8</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50.0	µg/L	<b>9</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	5.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benz(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-ethylhexyl) phthalate	5.0	µg/L	<b>85</b>	ND	ND	<b>8 J</b>	<b>3 J</b>	<b>4 J</b>	ND	ND	<b>2.3 J</b>	ND
Di-n-octyl phthalate	50.0	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i) perylene	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
(3+4)-Methylphenol	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	<b>1.30</b>
bis(2-chloroisopropyl) ether	NE	µg/L	-	ND	ND	ND	ND	ND	ND	ND	ND	ND

1. NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. 06/98, Class GA.  
 Bolded concentrations indicated the analyte was detected. Bolded and shaded concentrations indicate exceedance of TOGS 1.1.1 criteria.  
 NE = NYSDEC TOGS 1.1.1 water quality standard not established.  
 ND - Not detected for at or above reporting limit  
 J - Analyte detected estimated value below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 - = The analyte was not sampled for.

# **APPENDIX E**

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## **Part 375 Soil Cleanup Objectives**

(b) Restricted use soil cleanup objectives.

**Table 375-6.8(b): Restricted Use Soil Cleanup Objectives**

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
<b>Metals</b>							
Arsenic	7440-38-2	16 <sup>f</sup>	16 <sup>f</sup>	16 <sup>f</sup>	16 <sup>f</sup>	13 <sup>f</sup>	16 <sup>f</sup>
Barium	7440-39-3	350 <sup>f</sup>	400	400	10,000 <sup>d</sup>	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5 <sup>f</sup>	4.3	9.3	60	4	7.5
Chromium, hexavalent <sup>h</sup>	18540-29-9	22	110	400	800	1 <sup>e</sup>	19
Chromium, trivalent <sup>h</sup>	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 <sup>d</sup>	50	1,720
Total Cyanide <sup>h</sup>		27	27	27	10,000 <sup>d</sup>	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63 <sup>f</sup>	450
Manganese	7439-96-5	2,000 <sup>f</sup>	2,000 <sup>f</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	1600 <sup>f</sup>	2,000 <sup>f</sup>
Total Mercury		0.81 <sup>j</sup>	0.81 <sup>j</sup>	2.8 <sup>j</sup>	5.7 <sup>j</sup>	0.18 <sup>f</sup>	0.73
Nickel	7440-02-0	140	310	310	10,000 <sup>d</sup>	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9 <sup>f</sup>	4 <sup>f</sup>
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 <sup>d</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	109 <sup>f</sup>	2,480
<b>PCBs/Pesticides</b>							
2,4,5-TP Acid (Silvex)	93-72-1	58	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 <sup>e</sup>	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 <sup>e</sup>	136
4,4'-DDD	72-54-8	2.6	13	92	180	0.0033 <sup>e</sup>	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04 <sup>g</sup>	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9



**Table 375-6.8(b): Restricted Use Soil Cleanup Objectives**

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	0.04 <sup>g</sup>	0.25
Dibenzofuran	132-64-9	14	59	350	1,000 <sup>c</sup>	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8 <sup>i</sup>	24 <sup>i</sup>	200 <sup>i</sup>	920 <sup>i</sup>	NS	102
Endosulfan II	33213-65-9	4.8 <sup>i</sup>	24 <sup>i</sup>	200 <sup>i</sup>	920 <sup>i</sup>	NS	102
Endosulfan sulfate	1031-07-8	4.8 <sup>i</sup>	24 <sup>i</sup>	200 <sup>i</sup>	920 <sup>i</sup>	NS	1,000 <sup>c</sup>
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
<b>Semivolatiles</b>							
Acenaphthene	83-32-9	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	20	98
Acenaphthylene	208-96-8	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	107
Anthracene	120-12-7	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	1,000 <sup>c</sup>
Benz(a)anthracene	56-55-3	1 <sup>f</sup>	1 <sup>f</sup>	5.6	11	NS	1 <sup>f</sup>
Benzo(a)pyrene	50-32-8	1 <sup>f</sup>	1 <sup>f</sup>	1 <sup>f</sup>	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1 <sup>f</sup>	1 <sup>f</sup>	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	1,000 <sup>c</sup>
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1 <sup>f</sup>	3.9	56	110	NS	1 <sup>f</sup>
Dibenz(a,h)anthracene	53-70-3	0.33 <sup>e</sup>	0.33 <sup>e</sup>	0.56	1.1	NS	1,000 <sup>c</sup>
Fluoranthene	206-44-0	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	1,000 <sup>c</sup>
Fluorene	86-73-7	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5 <sup>f</sup>	0.5 <sup>f</sup>	5.6	11	NS	8.2
m-Cresol	108-39-4	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	0.33 <sup>e</sup>
Naphthalene	91-20-3	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	12

**Table 375-6.8(b): Restricted Use Soil Cleanup Objectives**

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	0.33 <sup>e</sup>
p-Cresol	106-44-5	34	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	0.33 <sup>e</sup>
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8 <sup>e</sup>	0.8 <sup>e</sup>
Phenanthrene	85-01-8	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	1,000 <sup>c</sup>
Phenol	108-95-2	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	30	0.33 <sup>e</sup>
Pyrene	129-00-0	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	1,000 <sup>c</sup>
<b>Volatiles</b>							
1,1,1-Trichloroethane	71-55-6	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	0.33
1,2-Dichlorobenzene	95-50-1	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02 <sup>f</sup>
cis-1,2-Dichloroethene	156-59-2	59	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1 <sup>e</sup>	0.1 <sup>e</sup>
Acetone	67-64-1	100 <sup>a</sup>	100 <sup>b</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33 <sup>e</sup>	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	100 <sup>a</sup>	0.12

**Table 375-6.8(b): Restricted Use Soil Cleanup Objectives**

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	0.93
Methylene chloride	75-09-2	51	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	12	0.05
n-Propylbenzene	103-65-1	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	3.9
sec-Butylbenzene	135-98-8	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	11
tert-Butylbenzene	98-06-6	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100 <sup>a</sup>	100 <sup>a</sup>	500 <sup>b</sup>	1,000 <sup>c</sup>	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).  
 NS=Not specified. See Technical Support Document (TSD).

**Footnotes**

- <sup>a</sup> The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.
- <sup>b</sup> The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.
- <sup>c</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.
- <sup>d</sup> The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.
- <sup>e</sup> For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.
- <sup>f</sup> For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
- <sup>g</sup> This SCO is derived from data on mixed isomers of BHC.
- <sup>h</sup> The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
- <sup>i</sup> This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
- <sup>j</sup> This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.