IBM

8976 Wellington Road
Manassas, VA 20109

March 28, 2019

Amen Omorogbe
Division of Environmental Remediation
New York State Dept. of Environmental Conservation
625 Broadway, 11th Floor
Albany, NY 12233-7017

Re: Former IBM Kingston Facility (TechCity Site)
Site Number: 356002
Order on Consent Index: D3-10023-6-11
2018 Annual Groundwater Monitoring Report

Dear Mr. Omorogbe:

Enclosed please find the 2018 Annual Groundwater Monitoring Report for the former IBM Kingston Facility (TechCity Site). In July 2011, the Part 373 RCRA for the Site was superseded by a Part 375 Order on Consent (Order). This groundwater monitoring report is being submitted per NYSDEC's request. Future groundwater monitoring reports will be included as part of the Periodic Review Reports once the Interim Site Management Plan is approved.

If you have any questions, please call Linda Daubert at (703) 257-2585.

Sincerely yours,

M. E. Meyers
Manager, Environmental Remediation
Corporate Environmental Affairs

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Professional Geologist Certification
Former IBM Kingston Facility (TechCity)
Town of Ulster
Ulster County, New York

2018 Annual Groundwater Monitoring Report
Order on Consent Index # D3-10023-6-11
Site # 356002

March 28, 2019

As the person with primary responsibility for the performance of the geological services and activities associated with the captioned report, I certify that I have reviewed the document titled *"Former IBM Kingston Facility (TechCity), Site Number 356002, Order on Consent Index D3-10023-6-11, 2018 Annual Groundwater Monitoring Report"*. This report is dated March 28, 2019 and was prepared for IBM Corporation by Groundwater Sciences Corporation (GSC) and Groundwater Sciences, P.C. (GSPC).

As a professional geologist licensed in the State of New York, I certify that the associated geological services and this report have been prepared under my direct supervision while working as agent for GSPC. To the best of my knowledge, all such information contained in this report is complete and accurate.

This report bears the seal of a professional geologist; no alterations may be made to the information contained in this report unless made in accordance with Title 8, Article 145, Section 7209 of New York State Education Law.

Signature: _____ Date: 3/28/2019

Name: Dorothy A. Bergmann

License No: 00477

State: New York

Former IBM Kingston Facility (TechCity)
Site Number: 356002
Order on Consent Index: D3-10023-6-11

2018 ANNUAL GROUNDWATER MONITORING REPORT

Prepared for:

IBM Corporate Environmental Affairs
8976 Wellington Road
Manassas, VA 20109

March 28, 2019

Prepared by:
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GMP	Groundwater Monitoring Plan
GSC	Groundwater Sciences Corporation
GSPC	Groundwater Sciences, P.C.
GTF	Groundwater Treatment Facility
GWCS	Groundwater Collection System
IBM	International Business Machines Corporation
IWSL	Industrial Waste Sludge Lagoon
IWTP	Industrial Waste Treatment Plant
NPLA	North Parking Lot Area
NYSDEC	New York State Department of Environmental Conservation
OU	Operable Unit
QA/QC	Quality Assurance/Quality Control
SPDES	State Pollutant Discharge Elimination System
VOCs	Volatile Organic Compounds
Monitoring Parameters	
111-TCA	1,1,1-Trichlorethane
112-TCA	1,1,2-Trichloroethane
11-DCA	1,1-Dichloroethane
11-DCE	1,1-Dichloroethene
12-DCA	1,2-Dichloroethane
12-DCBZ	1,2-Dichlorobenzene
12-DCE	1,2-Dichloroethene (total)
13-DCBZ	1,3-Dichlorobenzene
14-DCBZ	1,4-Dichlorobenzene
CBZ	Chlorobenzene
CEA	Chloroethane
CIS13-DCPRE	Cis-1,2-Dichloropropene
DCDFM	Dichlorodifluoromethane
DCM	Methylene Chloride (Dicholoromethane)
Freon® 113	1,1,2-Trichloro-1,2,2-Trifluoroethane
Freon® 123a	1,2-Dichloro-1,2,2-Trifluoroethane
PCE	Tetrachloroethene
TCE	Trichloroethylene
TCM	Chloroform (Trichloromethane)
VC	Vinyl Chloride

1.0 INTRODUCTION

This Annual Groundwater Monitoring Report, prepared by Groundwater Sciences, P.C. (GSPC) and Groundwater Sciences Corporation (GSC) on behalf of International Business Machines Corporation (IBM), presents the results of the groundwater monitoring and remediation system operation, maintenance, and monitoring activities conducted during the 2018 calendar year at the TechCity (Former IBM Kingston Site (the Site)) located at 300 Enterprise Drive, Kingston, Ulster County, New York (see Figure 1-1).

The Site is listed as a Class 4 Site (Site # 356002) in the Registry of Inactive Hazardous Waste Disposal Sites in New York State and is managed in compliance with the Order on Consent (Order), Index # D3-10023-6-11, signed with New York State Department of Environmental Conservation (NYSDEC) by IBM and TechCity on July 8, 2011.

Section 2.0 of this report presents a Site overview. Section 3.0 reports the results of the inspections and maintenance of the closed former Industrial Waste Sludge Lagoon (IWSL). Section 4.0 includes a discussion of the analytical data for groundwater samples collected during the previous annual period (January 1, 2018 through December 31, 2018). Section 5.0 presents the results of the groundwater remediation system operations Section 6.0 presents the progress of remediation at the Site and includes a report on the contaminant recovery levels and treatment efficiency data for the previous annual period. Section 7.0 provides a summary listing of reports on other activities completed. Section 8.0 provides reference listing of historical documents used in the preparation of this report.

2.0 SITE OVERVIEW

The following sections provide details on the Site, including current Site conditions and the Site chronology.

2.1 Site Background

The Site is located north of the City of Kingston in the Town of Ulster, Ulster County, New York and is bounded by John M. Clarke Drive and Route 9W to the east, Old Neighborhood Road and Route 209 to the north, Esopus Creek to the west, and Boices Lane to the south (see Figure 2-1).

The approximately 258-acre property was first developed by IBM from farmland during the 1950s. The primary activities included the manufacturing of electric typewriters and the development, manufacture and testing of computer systems and related components and technologies. IBM ceased operations during the early-1990s and the property was subsequently subdivided into multiple parcels. In 1998, IBM sold the Site to AG Properties of Kingston, LLC and Ulster Business Complex, LLC. In March 2017, three parcels were set for auction by the Town of Ulster due to nonpayment of taxes. Currently, these three parcels are owned by the Town of Ulster and include: Building B001 and the 5.84 acres on which it sits; the 1-acre site where building B002 used to stand; and; the 0.38-acre site where Building B034 used to stand. The Site is currently managed by TechCity Properties, Inc. (TechCity).

The portion of the Site located east of Enterprise Drive is referred to as the East Campus and includes the majority of the buildings at the Site, many of which are vacant. The portion located west of Enterprise Drive is referred to as the West Campus and includes Buildings 201 (B201), Building 202 (B202) and Building 203 (B203); a large parking area south and west of this building complex; and generally undeveloped land further to the southwest and north of this building complex.

IBM completed extensive RCRA Facility Investigations (RFIs) beginning in the 1990s through 2002 to delineate the occurrence and extent of volatile organic compounds (VOCs) in groundwater beneath the Site. Beginning in 2008, IBM began and/or completed additional investigations of SWMUs that have become accessible as the result of TechCity's redevelopment activities.

Corrective Measures implemented by IBM include the operation and maintenance of a perimeter control system that intercepts the groundwater plume. The perimeter control system consists of two storm water sewer systems, an unsaturated portion of the surficial sand unit that underlies the site, a utility trench barrier wall, and a groundwater collection system (see Figure 2-1).

The site was listed as a Class 4 Site (Site #356002) in the Registry of Inactive Hazardous Waste Disposal Sites in New York State and was managed in compliance with the October 4, 1996 Hazardous Waste Management Permit #3-5154-00067/00090 (6 NYCRR Part 373) (RCRA Permit) until the Order on Consent (Order), Index # D3-10023-6-11, for Site #356002, was signed with New York State Department of Environmental Conservation (NYSDEC) by IBM and TechCity on July 8, 2011. Corrective Action activities at the Site were conducted with oversight of NYSDEC under the RCRA Permit and from July 2011 to present under the Order.

The Order, which supersedes and replaces the former RCRA Permit, divided the Site into ten Operable Units (OUs). The locations of the OUs are depicted in Figure 2-1. Table 2-1 presents a list of the OUs, including TechCity's proposed use for each OU, and which OUs remain listed as a Class 4 Inactive Hazardous Waste Disposal Site.

Table 2-1: Listing of Operable Units, Proposed Use and Status

Operable Unit	Proposed Use	Status
OU 1	Commercial	
OU 2	Commercial	
OU 3	Commercial	Included as part of the Class 4 Inactive Hazardous Waste Disposal Site # 356002
OU 3a	Commercial	Included as part of the Class 4 Inactive Hazardous Waste Disposal Site # 356002
OU 4	Restricted Residential	
OU 4a	Commercial	
OU 5	Commercial	Included as part of the Class 4 Inactive Hazardous Waste Disposal Site # 356002
OU 6	Commercial	
OU 7	Commercial	
OU 8	Commercial	

The Statement of Basis (February 2013) provides an update on the Corrective Action activities at the Site and describes the closure conditions identified by various site investigations from the late 1970s to 2012.

2.2 Generalized Geology

The Site is located within the Hudson-Mohawk Lowland Physiographic Province. The bedrock underlying the western portion of the Site consists of siltstone and shale of the Middle Devonian Age Lower Hamilton Group. The eastern portion of the Site is underlain by both the Lower Hamilton Group and the Lower Devonian Age Onondaga Limestone. The exact location and nature of the contact between these units is not known. The Lower Hamilton Group forms a north-northwest trending bedrock high approximately coincident with Enterprise Drive, and is described as a calcareous shale in boring logs completed during previous Site investigations.

Literature on regional geologic conditions indicate that a glacially-derived sand and gravel unit directly overlies the bedrock west of Enterprise Drive and a glacial till unit overlies the bedrock east of Enterprise Drive. These unconsolidated units are overlain by a varved silt and clay unit that is interpreted to be of lacustrine origin, with a thickness of zero feet in an area where it is absent proximate to the bedrock high, to over 180-feet in the central portion of East Campus as determined by previous Site borings. The clay portion of the varved silt and clay unit serves as an aquitard throughout most the Site, except in the localized area in the vicinity of the bedrock high where it is absent.

A well sorted, fine to coarse-grained sand of lacustrine origin, with intermittent, thin, silty-clay zones, overlies the varved silt and clay (or bedrock where the varved silt and clay is absent in the vicinity of the bedrock high). This surficial sand unit ranges in thickness across the Site from approximately 6-feet in the area of the bedrock ridge to greater than 30-feet in the central portion of the East Campus. A discontinuous transition zone of relatively fine-grained materials is present at the base of the surficial sand unit in some areas of the Site (GSC, 1997).

Generalized descriptions of the near-surface lithologic units encountered at the Site are as follows:

- **Surficial SAND Unit:** Consists of a light brown, fine to medium grained sand containing variable amounts of finer-grained silt and clay. This unit is typically saturated below a depth of approximately 6 to 7-feet below ground surface (ft bgs).
- **SILTY-SAND and CLAY Transition Unit:** Consists of variable amounts of reddish-brown to gray silt, sand, and clay. Typical appearance in a soil core is a silty-sand matrix containing thin lenses of silt and sandy clay. This unit, if present, is generally encountered between 15 to 20-ft bgs in the vicinity of B001.
- **Varved CLAY Unit:** Consists of red-brown and gray, plastic, cohesive, wet clay with intermittent silt zones. Typical appearance in a soil core is clay with laminae of silt and sometimes very fine-grained sand. This unit is typically encountered at approximately 20 to 25-ft bgs in the B001 area, with greater or lesser depths of first occurrence in localized areas.

The thickness of the sand unit increases and the thickness of the transition unit decreases coinciding with a shallowing of the depth to top-of-clay along the western edge of a clay unit "valley" identified in the *RCRA Facility Investigation on Groundwater Plumes* report (GSC, 1997b). This valley is deepest below B001 and B003 (i.e., approximately 30 ft bgs to the top of the clay unit) and extends southward towards Boices Lane.

2.3 Generalized Hydrogeology

The varved clay unit serves as an aquitard throughout most the Site. Therefore groundwater in the bedrock and in the deep sand and gravel and glacial till units that underlie the varved silt and clay is under confined conditions. Groundwater within the surficial sand unit that overlies the varved silt and clay unit is unconfined. The surficial sand unit is typically unsaturated in the area of the bedrock high along Enterprise Drive.

The estimated horizontal hydraulic conductivity of the surficial sand unit ranges from approximately 65 feet per day (ft/day) to 270 ft/day (i.e., 2.3×10^{-2} centimeters per second [cm/sec] to 9.5×10^{-2} cm/sec), with an average hydraulic conductivity of approximately 100 ft/day [2.3×10^{-2} cm/sec]. The horizontal hydraulic conductivity of the varved silt and clay unit has been estimated at approximately one (1) foot per day [3.5×10^{-4} cm/sec]. The vertical hydraulic conductivity of this unit is likely significantly lower than its horizontal hydraulic conductivity due to the horizontal

bedding structure. The low vertical hydraulic conductivity and thickness of the unit support the designation of the varved silt and clay as an aquitard.

3.0 FORMER INDUSTRIAL WASTE SLUDGE LAGOON AREA (OU-5)

The former Industrial Waste Sludge Lagoon (IWSL), designated as OU-5, was rectangular in shape, approximately 158 feet by 60 feet by 10 feet deep and covered an area of approximately 9,500 square feet (0.22 acres). As constructed in 1955, the lagoon was lined with a six inch layer of clay. In 1978, the sludge lagoon was reconstructed and lined with a 45 mil thick membrane liner with nylon reinforcement. Closure of the sludge lagoon commenced on December 1, 1984 in accordance with a NYSDEC approved closure plan. Sludge and solids were removed in addition to the liner.

Trace levels of residual constituents were left in place below the liner (i.e., below an elevation of 141 feet). Two feet of crushed limestone was place to an elevation of 143 feet. The lagoon was then backfilled with clean sand to within 6 inches of finished grade and covered with top soil and seeded. Certification of closure was provided to NYSDEC on June 12, 1985.

In addition to the groundwater monitoring network, OU-5 currently includes two other Engineering Control systems associated with the former IWSL that potentially require maintenance: the IWSL cover system and the security fence. The former IWSL is enclosed within an 8-foot high chain-link fence and all gates are locked except when in use. Warning signs are posted around the fence and bear the legend “Danger – Unauthorized Personnel Keep Out”.

The lagoon cover system and security fence were inspected quarterly in 2018. Routine maintenance activities were conducted to preserve the integrity and functionality of the soil cover system and included mowing and reseeding as necessary to maintain the grass cover on the closed unit. No repairs were required to either the chain-link security fence or the cover system during the previous annual period.

4.0 GROUNDWATER MONITORING RESULTS

An updated and revised Groundwater Monitoring Plan (GMP) was approved by the NYSDEC on August 7, 2013 and was implemented during the third quarter 2013. The following sections detail the monitoring completed during the reporting period.

4.1 Summary of Field Activities

Monitoring wells and piezometers were inspected and sampled during the monitoring period as per the GMP.

4.1.1 Groundwater Monitoring Well Sampling

Routine groundwater samples were collected during the third quarter of 2018. Sampling and analysis of groundwater was performed at the Site in accordance with protocols contained in the currently approved GMP. The results of the routine groundwater sampling and the associated Quality Assurance/Quality Control (QA/QC) data are contained in Appendix A. The next routine sampling per the GMP will be conducted in the fourth quarter of 2019.

4.1.2 Physical Well Inventory and Maintenance

Accessible wells and piezometers were inspected during the monitoring period. During each groundwater elevation measurement event, each accessible monitoring well was inspected for integrity in accordance with the Groundwater Monitoring System Inspection Plan.

4.1.3 Groundwater Elevation Measurements

In addition the GMP monitoring requirements, IBM measured water levels in the hydraulic effectiveness wells that monitor the hydraulic effectiveness of the remedies during the first, second, third and fourth quarters. The results of each of these water level surveys were converted to groundwater elevations and are presented in Appendix B, and are discussed further in Section 4.2.

4.2 Groundwater Flow

Groundwater elevation measurements were used to generate groundwater elevation contour maps for the shallow water table aquifer underlying most of the developed portion of the site. Four

groundwater elevation contour maps were prepared, one for each quarter of 2018, included as Figures 4-1 through Figure 4-4. An enlargement of the northern portion of the Site, including the Groundwater Collection System (GWCS) and the installed trench extension, are included on these figures. Also shown on these figures are the locations of the storm sewer systems on the Site, the location of the GWCS trench (including the trench extension) and the utility trench barrier wall.

An east-west trending groundwater divide has been identified at the Site underlying B001, Building 002 (B002), B003 and Building 005 (B005) (see Figures 4-1 through Figure 4-4). Groundwater to the north of the divide flows west and northwest. Groundwater to the south of the divide flows west and southwest. The water table gradient in the eastern portion of the Site and in the vicinity of the GWCS is higher than the water table gradient in the south and central portion of the Site, and estimated horizontal groundwater flow velocities range from approximately 0.8 ft/day to 2 ft/day (GSC, 1997b).

Groundwater flow is influenced by the presence of the perimeter control system (see Figures 4-1 through Figure 4-4), which is composed of:

- A 42-inch diameter storm sewer pipe that extends from east to west along a line south of B001 through B005, and passes under Enterprise Drive to the south of B201.
- A naturally occurring unsaturated portion of the surficial sand unit that intersects the 42-inch storm sewer south of B201, and extends east-northeast back across Enterprise Drive, and then continues toward the north portion of the Site.
- The GWCS extends along the western and northern perimeter of the North Parking Lot Area. The GWCS is comprised of a set of groundwater cut-off trenches. Water collected in the trenches is treated via air stripping.
- A 60-inch diameter storm sewer pipe that runs parallel to the north property line intersects the GWCS and extends along the western portion of the North Parking Lot Area.
- A utility trench barrier wall, consisting of an approximately 250-foot long trench backfilled with clay with the base keyed into the Varved Clay Unit and the top of the barrier wall completed a minimum of two feet above the recorded high water table. This barrier wall

was installed to mitigate the potential for westward groundwater migration along the underground utility pipes which ultimately terminate at the former Industrial Waste Treatment Facility (IWTF).

4.3 Chemical Constituents in Groundwater

Identified constituents of concern in the surficial sand aquifer include the following chlorinated VOCs: 1,1,1-trichloroethance [111-TCA], trichloroethene [TCE] and tetrachloroethene [PCE], and related degradation products (i.e., 1,1-dichloroethene [1,1-DCE], 1,1-dichloroethane [1,1-DCA], 1,2-cis-dichloroethene [1,2-DCE] and 1,2-dichloroethane [1,2-DCA]). Other VOCs have been detected in groundwater, including carbon tetrachloride, Freon®, and petroleum hydrocarbons; however, concentrations of these VOCs are generally lower and less extensive than the chlorinated compounds.

Four groundwater plumes have been identified at the Site, including:

- The North Parking Lot Area (NPLA) Plume (located to the north of B001 and B003) is primarily composed of TCE and 111-TCA, and to a lesser degree PCE. Based on historic groundwater quality sampling and soil vapor screening investigations, the source areas for this plume are likely associated with historic manufacturing activities in B001, B002, B003, B004 and B005S, including industrial waste sewer lines located beneath these buildings (as noted below) and north of B001 and B003. PCE, TCE, and 111-TCA in the NPLA Plume appear to originate in the central and western portions of the eastern campus, and is moving north-northwest toward the GWCS.
- The B005 Plume Area, located beneath B001, B002, B003, B004 and B005, is primarily composed of TCE and 111-TCA. Based on historic groundwater quality sampling and soil vapor screening investigations, this plume is believed to have originated from activities in B001, B003, B004 and B005S.
- An isolated PCE plume, extending from the southern portion of B005 to the 42-inch sewer and originating from a release(s) at a PCE tank located in the southeastern corner of B005.
- The B036 Area Plume, located on the West Campus near Building 036 (B036), is primarily composed of TCE and 111-TCA. The plume in this area is not likely to have originated from

the former IWSL or from activities associated with the IWTF, but is believed to have migrated from the eastern campus plume along the underground utility pipes prior to the installation of the utility trench barrier wall.

Figures 4-5 and 4-6 present a generalized depiction of areas where groundwater is impacted by VOCs that has been inferred based on historical monitoring data and corresponds to the following compounds: PCE; TCE; 12-DCE; VC; 111-TCA; 11-DCE; 11-DCA; Freon® 113; 12-DCA; TCM and 112-TCA. Compounds less frequently detected include: 12-dichlorobenzene (DCBZ), 13-DCBZ, 14-DCBZ, chlorobenzene (CBZ), and chloroethane (CEA).

Figures 4-5 and 4-6 include postings of the results from the third quarter 2018 sampling event for each of the major constituent(s) and their associated degradation products. The maximum concentrations for the constituents present in these plumes were observed during the 1980s and the concentrations observed on the Site have declined since that time.

Lastly, Figures 4-5 and 4-6 show the delineation of the limits of hydraulic control shown as the site control perimeter. In general, groundwater plumes in the shallow sand aquifer are contained within this boundary with the exception of the B036 Area plume which is believed to have migrated from the eastern campus plume along the underground utility pipes prior to the installation of the utility trench barrier wall.

5.0 GROUNDWATER REMEDIATION SYSTEM OPERATION, MAINTENANCE AND MONITORING (OM&M)

The Groundwater Remediation System consists of the GWCS and NPLA system together with the associated treatment system. The OM&M Plan details the various components of the ongoing operations and maintenance of the system. Maintenance includes such items as pump replacement and routine cleaning of the air stripper units and components.

5.1 Groundwater Remediation System Components

5.1.1 Groundwater Collection System (GWCS)

The two main elements of the GWCS are the interceptor trench and the lateral trench as shown on Figure 5-1. The interceptor portion of the GWCS lies more or less perpendicular to the direction of groundwater flow. The GWCS has been keyed into the relatively impermeable lacustrine silt and clay unit beneath the surficial sand water-bearing unit and, as such, fully intercepts groundwater flow.

From December 1986 through the end of June 1994, the interceptor trench portion of the GWCS consisted of five manholes (MH1 through 5) which are connected by 6-inch diameter perforated pipe. Water recovered from these trenches was conveyed to the on-site IWTF for removal of volatile organic compounds (VOCs) using counter-current air stripping towers. During early 1994, upgrades to the GWCS included the installation of new pumps in the associated trench manholes, the construction of a new treatment building, and the installation of shallow tray aerator units.

As of July 8, 1994, these units were put on-line and groundwater collected by the GWCS was conveyed to the new treatment building, subjected to tray aeration and discharged to sanitary sewer. Additionally, in May 1995, the northwest leg of the GWCS trench was extended approximately 240 feet with three additional trench manholes (MH6 through 8) with one pump was installed at MH6 (see Figure 5-1). On July 10, 1996 the discharge from the tray-aerators was connected to the storm sewer system under the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) Permit NY0108138.

5.1.2 North Parking Lot Area System (Passive Groundwater Collection)

In 1996, IBM initiated a storm-sewer re-routing project at the Site. This project involved the installation of a new storm sewer system and re-routing of certain connections to mitigate groundwater infiltration into the storm water system in the area between and near B003 and B005N. Compliance with SPDES Permit discharge limits at several outfalls to the storm system was the primary focus of the project; however, as a secondary result is the continued use of the now inactive storm sewer line as a collection trench for infiltrating groundwater. Any groundwater collected in the inactive system is re-routed to the GWCS treatment building prior to discharge to a SPDES-permitted outfall. The NPLA system, consisting of two pump stations, Pump Station-1 (PS-1), Pump Station-2 (PS-2), and associated conveyance piping, went online in December 1997.

5.1.3 Groundwater Treatment System

There is one groundwater treatment facility (GTF) operating at the Site which treats groundwater extracted by the GWCS and the NPLA system. The GTF consists of a 1,200 gallon, 4-foot diameter, conical bottom grit tank, two (2) Type 304L stainless steel North East Environmental Products Shallow Tray air strippers (Model 2641), the electrical supply and distribution system, instrumentation, and controls.

The GTF is designed to treat in excess of 120,000 gallons per day or approximately 83 gallons per minute (gpm) of groundwater. The average treatment system flow rate is typically between 30 to 50 gpm. The maximum SPDES-permitted daily discharge limit is 120,000 gallons.

5.2 Summary of Operations

Daily operating data for the GWCS and NPLA are presented in Appendix C. With the exception of minimal downtime for routine maintenance activities and minor repairs, the groundwater treatment system was operated continuously in accordance with the Operations, Maintenance, and Monitoring Plan.

Appendix D contains a summary printout of the GWCS and NPLA sampling data for the reporting period and also includes treatment system monitoring results for the samples collected under SPDES Permit NY0108138, including the final effluent from the treatment system, Outfall 01A.

6.0 PROGRESS OF REMEDIATION

Historical activities combined with the satisfaction of the RCRA Permit requirements from 1988 through 2011 and from July 2011 to present under the Order have resulted in extensive remediation of contaminated media on Site.

The Groundwater Remediation System, including the GWCS, NPLA system, and the on-site treatment system, operated as designed during the reporting period.

The effluent concentrations from the on-site treatment system were within the SPDES permit effluent limits.

The 2018 mass removal calculations for the Groundwater Remediation System are presented in Appendix D.

Long-term operations began at the GWCS in 1986 and continued operations since that time has produced 543 million gallons. Total mass removed as of year-end 2018 is approximately 2,800 pounds. Approximately 18.7 million gallons of groundwater was collected and treated from the GWCS or, on average, 51,202 gallons per day over the 2018 calendar year. The average flowrate was approximately 35.6 gpm. For this annual period, approximately 27.57 pounds of VOCs were removed by the GWCS.

Operation of the NPLA pump stations began in December 1997. Continued operations since that time has produced 42 million gallons of water. Total mass removed by the NPLA as of year-end 2018 is approximately 29.2 pounds. Approximately 2.9 million gallons of groundwater was collected from the NPLA pump stations or, on average, 7,829 gallons per day over the 2018 calendar year. For this annual period, approximately 1.2 pounds of VOCs were removed by the NPLA system.

The ongoing remedial program continues to be effective in reducing and containing the dissolved groundwater plume and in removing contaminant mass from Site groundwater.

7.0 OTHER ACTIVITIES AND REPORTING

Several activities were conducted at the Site in 2018 under the oversight of NYSDEC. These investigations included implementation of the NYSDEC approved work plans under the current Consent Order. The investigation results will be reported and submitted to NYSDEC in separate reports and are not included herein. Following is a summary of activities and submittals for the 2018 Calendar Year:

Conducted the annual Vapor Intrusion sampling (March 2018), Golder Associates;

Supplemental Remedial Investigation Report for SWMU M (June 22, 2018), Golder Associates;

Emerging Contaminants (Poly- and Perfluoroalkyl Substances and 1,4-Dioxane) Sampling Work Plan (July 31, 2018), Groundwater Sciences Corporation;

2018 Annual Vapor Intrusion Monitoring Report, Building 021 (December 21, 2018), Golder Associates

8.0 REFERENCES

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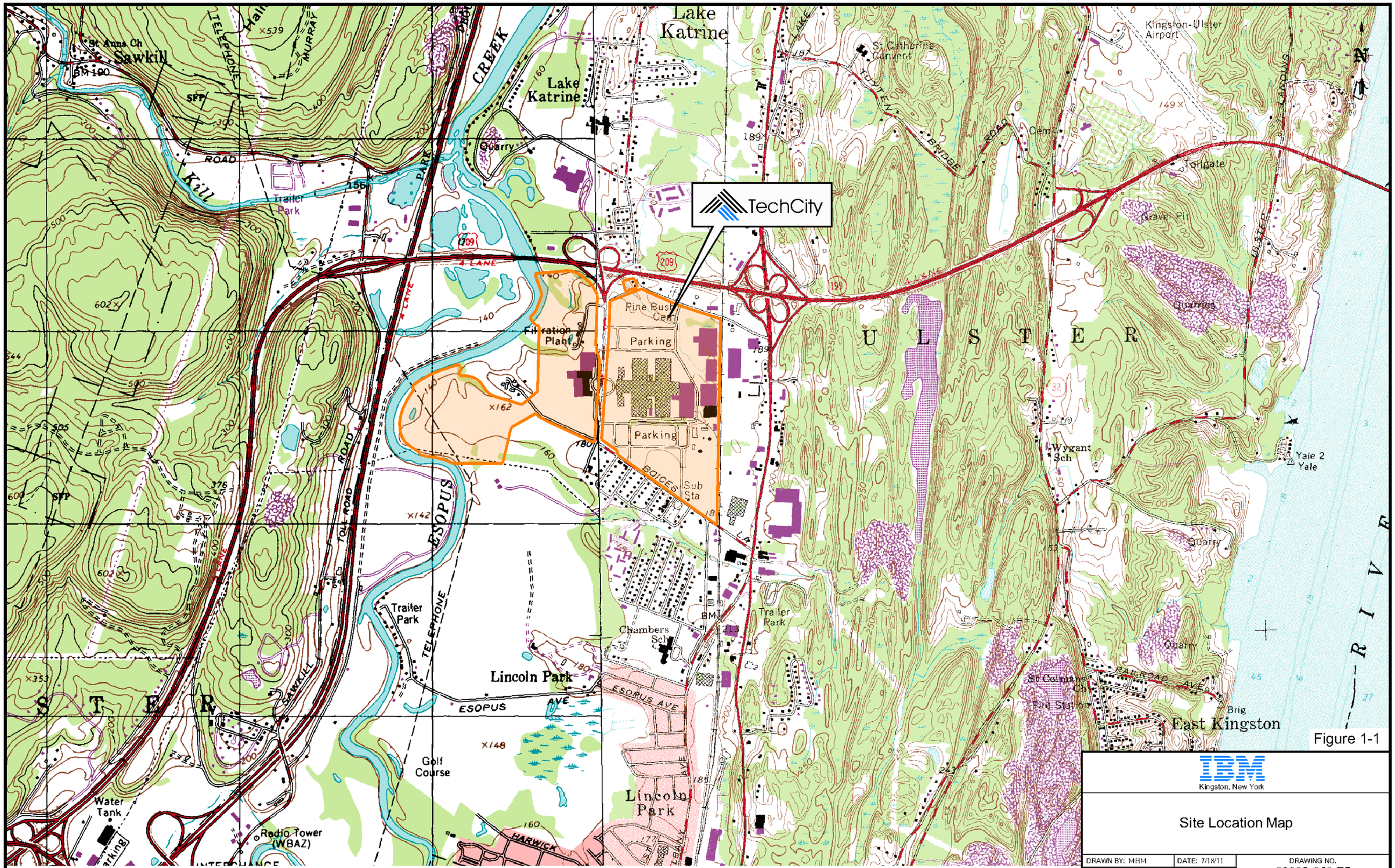


Portions of the Kingston East (1963, photorevised 1980) and Kingston West (1997) 7.5 Minute USGS Quadrangles

Scale
0 750' 1500'

Figure 1-1

IBM
Kingston, New York

Site Location Map

DRAWN BY: MHM	DATE: 7/18/11	DRAWING NO. 93002-059-E7
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

SOLID WASTE MANAGEMENT UNITS (SWMUs)

A: B029 Chemical Distribution Center
B: B036 Container Storage Area
C: Former B058
D: Former Waste Acetone Storage Tank
E: Former Waste IPA Storage Tank
F: Former East Side Waste Tanks
G: Former Waste PCE Tank
H: Former East SRP Tank
I: Former West SRP
J: Wastewater Treatment Tanks
K: Emergency Wastewater Holding Tanks
L: Former Industrial Waste Sludge Lagoon
M: Industrial Waste Sewer Lines
N: Inactive B036 Construction and Debris Landfill
O: Salt Barn Parking Lot Sand Fill Area
P: Former B035 Dry Well
Q: Former B031 Lagoon
R: Former Waste TCA Tank (B005(S))
S: Former Waste TCA Tank (B001)
T: Former Waste Oil Tank
U: North Parking Lot Area Plume
V: B005 Plume
W: Former B004 Separator Tank
X: B031 Separator
Y: Former Fluoride Wastewater Ejector Tank
Z: Inactive B033 Septic System
AA: Inactive B031 Septic System
AB: Former B001 TCA Recovery Unit
AC: Former B005(S) Solvent Recovery Process Unit
AD: Former Fire Training Area
AE: B202 Elevator No. 2
AF: Inactive West Demolition Debris Fill Area

Groundwater Collection System
60" Storm
North Parking Lot Area (NPLA) System
Utility Trench Barrier Wall
42" Storm
Esopus Creek
Route 209
Old Neighborhood Road
Route 9W
Enterprise Drive
John M. Clark Road
Mountain View Court
Boices Lane
Oak View Drive
B049 GWCS Treatment Bldg.
PS1
PS2
B029
B052
B005N
B064
B043
B034
B023
B022
B021
B001
B002
B003
B004
B042
Former B005S
B033
B051
B038*
B056
Former B058 Area
B031
B032
B047
COOLING TWRS.
B025
B024
B035
B202
B203
B201
B070
1
2
3
3a
4
4a
5
6
7
8

Figure 2-1

IBM
Kingston, New York

Site Layout and Area Map

DRAWN BY: MHM	DATE: 3/13/19	DRAWING NO. 93002-113-F1
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

LEGEND

- Storm Sewer Line
- North Parking Lot Area (NPLA) System
- Area of 1,1,1-Trichloroethane/Tricholoroethene >5 µg/l (5/08)
- Groundwater Collection System (GWCS)
- GWCS Trench Extension
- Subsurface Utility Trench Barrier Wall
- Solid Waste Management Unit
- # - Operable Unit
- Property Line

N

Scale
0 220' 440'

IWSL Detail, 2X

GWCS Detail, 2X

Esopus Creek

Route 209

Old Neighborhood Rd.

Enterprise Drive

Mtn. View Ct.

Boices Lane

Landing Area

Former B058 Area

60" STORM

36" STORM

27" STORM

42" STORM

B001 B002 B003 B004 B005 B005N B021 B022 B023 B024 B025 B029 B031 B032 B033 B034 B035 B036 B038 B042 B043 B051 B052 B056 B064 B201 B202 B203

LEGEND

- ▲ - Monitoring Well Location (installed in soil)
- △ - Temporary Monitoring Point
- ○ - North Parking Lot Area Pump Station
- Property Line
- Site Control Perimeter
- 178 - Groundwater Elevation Contour
- 177.98 - Groundwater Elevation
- NA - Not Accessible
- Groundwater Divide
- Inferred Direction of Groundwater Flow
- Groundwater Collection System (GWCS)
- GWCS Trench Extension
- 162.64 - GWCS Invert Elevation
- Subsurface Utility Trench Barrier Wall
- Unsaturated Surficial Sand Unit (Perennially Saturated Shallow Sand Absent)

Scale 0 300' 400'

Figure 4-1

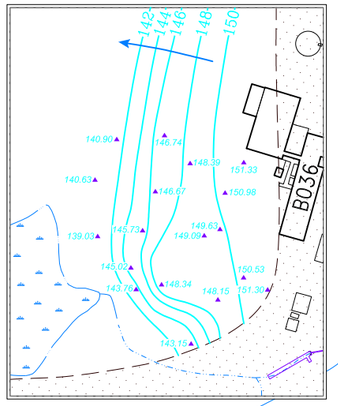
IBM Kingston, New York

Surficial Sand Aquifer Groundwater Elevation Contour Map February 1, 2018 (First Quarter 2018)

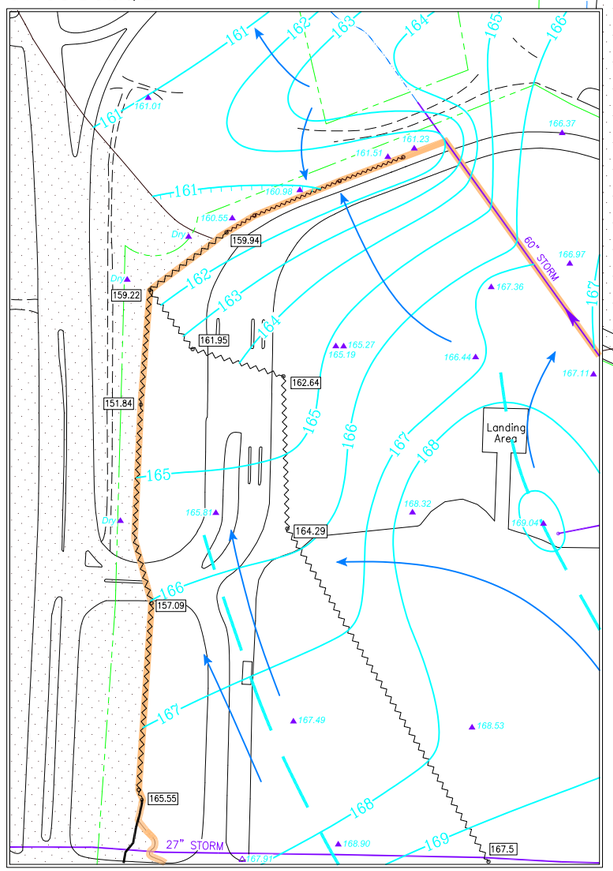
DRAWN BY: MHM	DATE: 10/24/18	DRAWING NO. 93002-129-D1
CHECKED & APPROVED BY: CES		

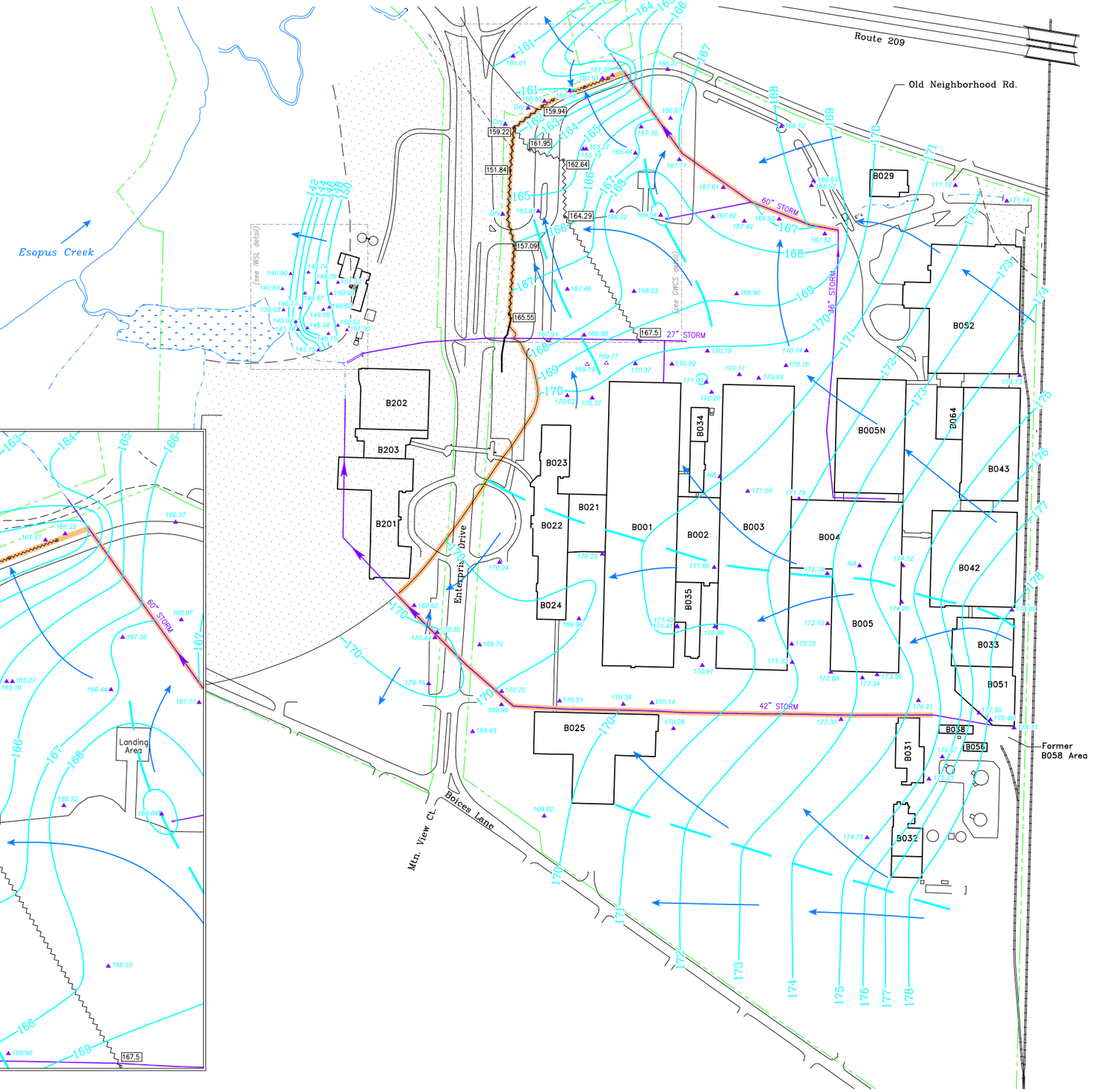
GROUNDWATER SCIENCES CORPORATION

IWSL Detail, 2X



GWCS Detail, 2X





LEGEND

- ▲ - Monitoring Well Location (installed in soil)
- △ - Temporary Monitoring Point
- ○ - North Parking Lot Area Pump Station
- Property Line
- Site Control Perimeter
- 178 - Groundwater Elevation Contour
- 178.09 - Groundwater Elevation
- NA - Not Accessible
- Groundwater Divide
- Inferred Direction of Groundwater Flow
- Groundwater Collection System (GWCS)
- GWCS Trench Extension
- 162.64 - GWCS Invert Elevation
- Subsurface Utility Trench Barrier Wall
- Unsaturated Surficial Sand Unit (Perennially Saturated Shallow Sand Absent)

Scale
0 300' 400'

Figure 4-2

IBM
Kingston, New York

Surficial Sand Aquifer
Groundwater Elevation Contour Map
April 14, 2018 (Second Quarter 2018)

DRAWN BY: MHM	DATE: 3/13/19	DRAWING NO. 93002-129-E1
CHECKED & APPROVED BY: CES/DAB		

GROUNDWATER SCIENCES CORPORATION

IWSL Detail, 2X

GWCS Detail, 2X

Esopus Creek

Route 209

Old Neighborhood Rd.

Enterprise Drive

Mtn. View Ct.

Boices Lane

Landing Area

Former B058 Area

60" STORM

36" STORM

27" STORM

42" STORM

(see IWSL detail)

(see GWCS detail)

B001 B002 B003 B004 B005 B005N B021 B022 B023 B024 B025 B029 B031 B032 B033 B034 B035 B036 B038 B042 B043 B051 B052 B056 B064 B201 B202 B203

LEGEND

- ▲ - Monitoring Well Location (installed in soil)
- △ - Temporary Monitoring Point
- ○ - North Parking Lot Area Pump Station
- Property Line
- Site Control Perimeter
- 178 - Groundwater Elevation Contour
- 177.50 - Groundwater Elevation
- NA - Not Accessible
- Groundwater Divide
- Inferred Direction of Groundwater Flow
- Groundwater Collection System (GWCS)
- GWCS Trench Extension
- 162.64 - GWCS Invert Elevation
- Subsurface Utility Trench Barrier Wall
- Unsaturated Surficial Sand Unit (Perennially Saturated Shallow Sand Absent)

Scale

0 300' 400'

Figure 4-3

IBM

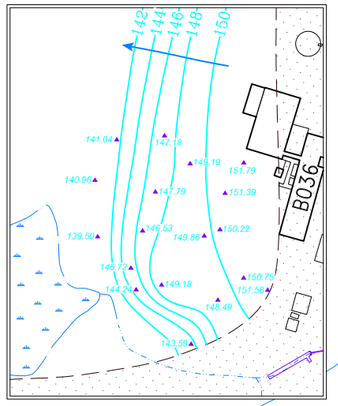
Kingston, New York

Surficial Sand Aquifer
Groundwater Elevation Contour Map
July 11, 2018 (Third Quarter 2018)

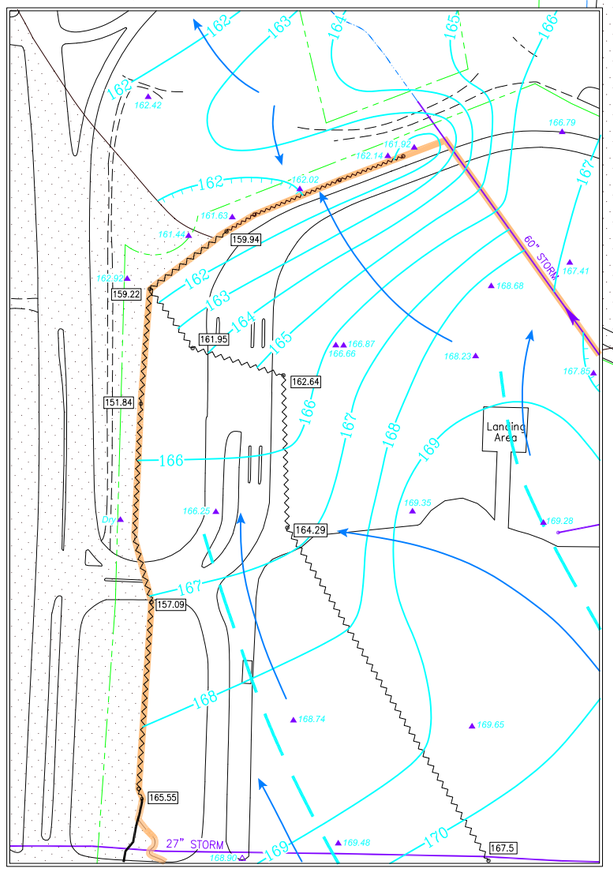
DRAWN BY: MHM	DATE: 2/19/19	DRAWING NO. 93002-129-F1
CHECKED & APPROVED BY: CES		

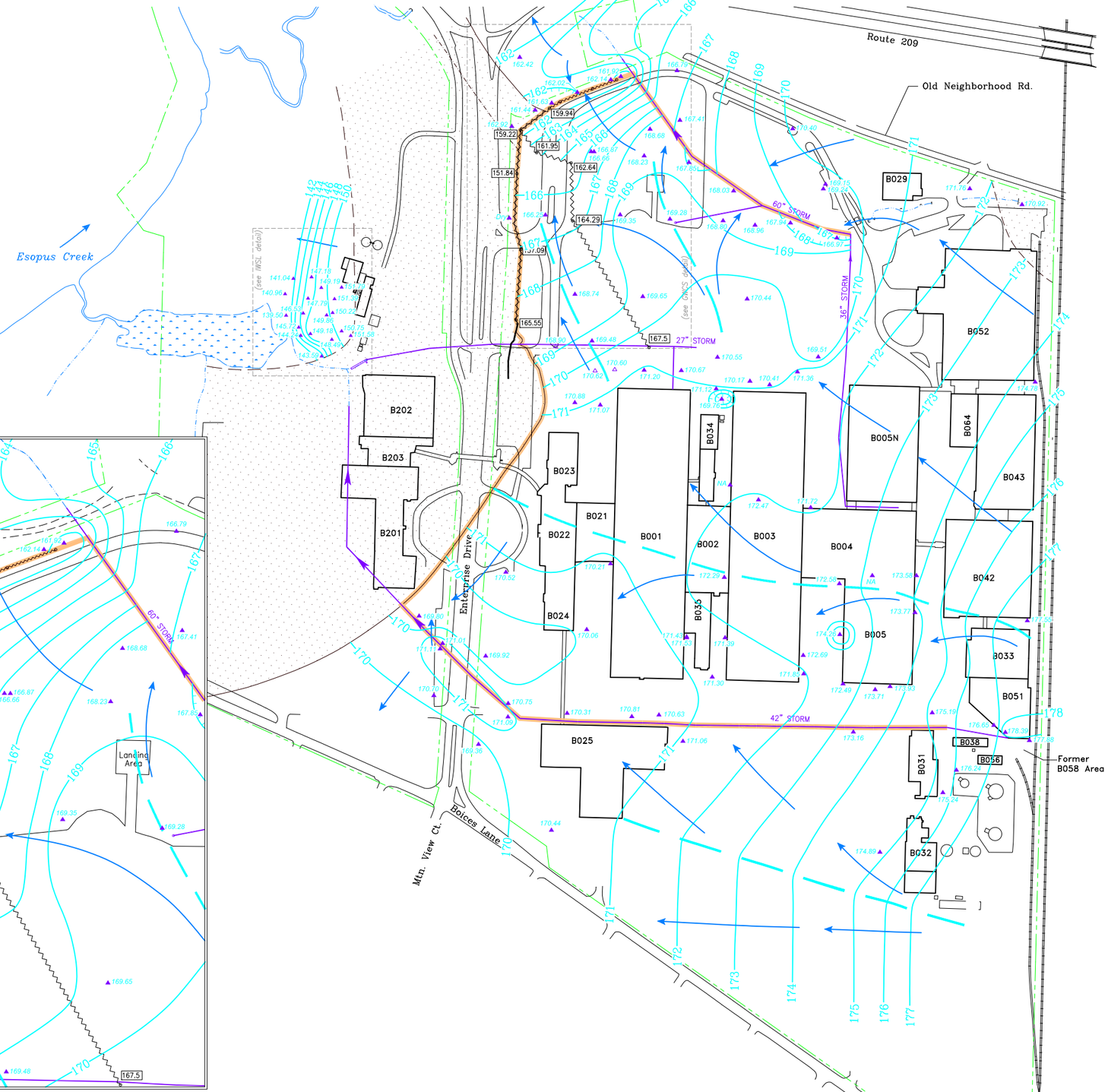
GROUNDWATER SCIENCES CORPORATION

IWSL Detail, 2X



GWCS Detail, 2X





Scale
0 300' 400'

LEGEND

- ▲ - Monitoring Well Location (installed in soil)
- △ - Temporary Monitoring Point
- ○ - North Parking Lot Area Pump Station
- Property Line
- Site Control Perimeter
- 178 - Groundwater Elevation Contour
- 177.55 - Groundwater Elevation
- NA - Not Accessible
- Groundwater Divide
- Inferred Direction of Groundwater Flow
- Groundwater Collection System (GWCS)
- GWCS Trench Extension
- 162.64 - GWCS Invert Elevation
- Subsurface Utility Trench Barrier Wall
- Unsaturated Surficial Sand Unit (Perennially Saturated Shallow Sand Absent)

Figure 4-4

IBM
Kingston, New York

Surficial Sand Aquifer
Groundwater Elevation Contour Map
October 10, 2018 (Fourth Quarter 2018)

DRAWN BY: MHM	DATE: 3/13/19	DRAWING NO. 93002-129-G1
CHECKED & APPROVED BY: CES/DAB		

GROUNDWATER SCIENCES CORPORATION

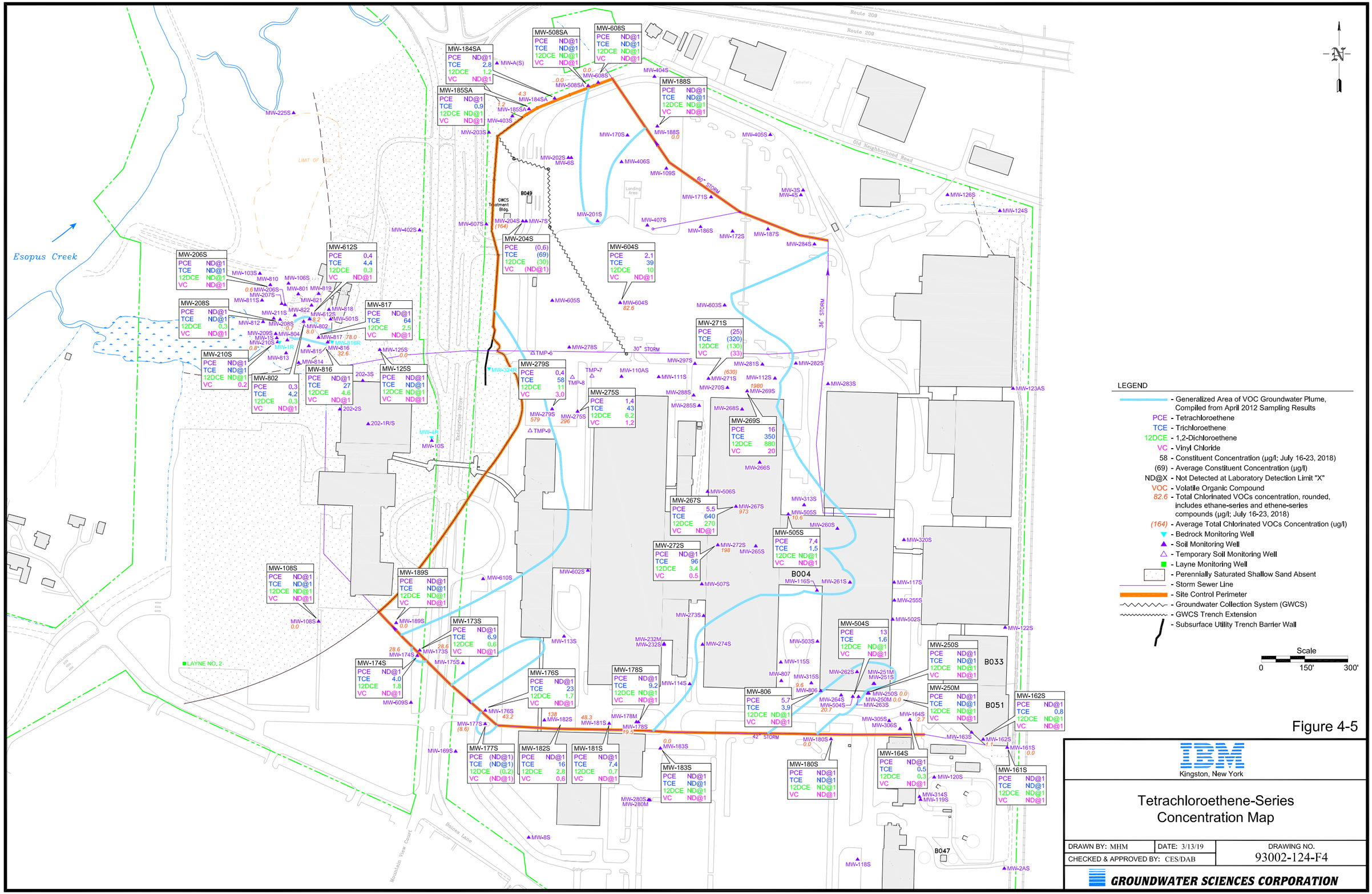


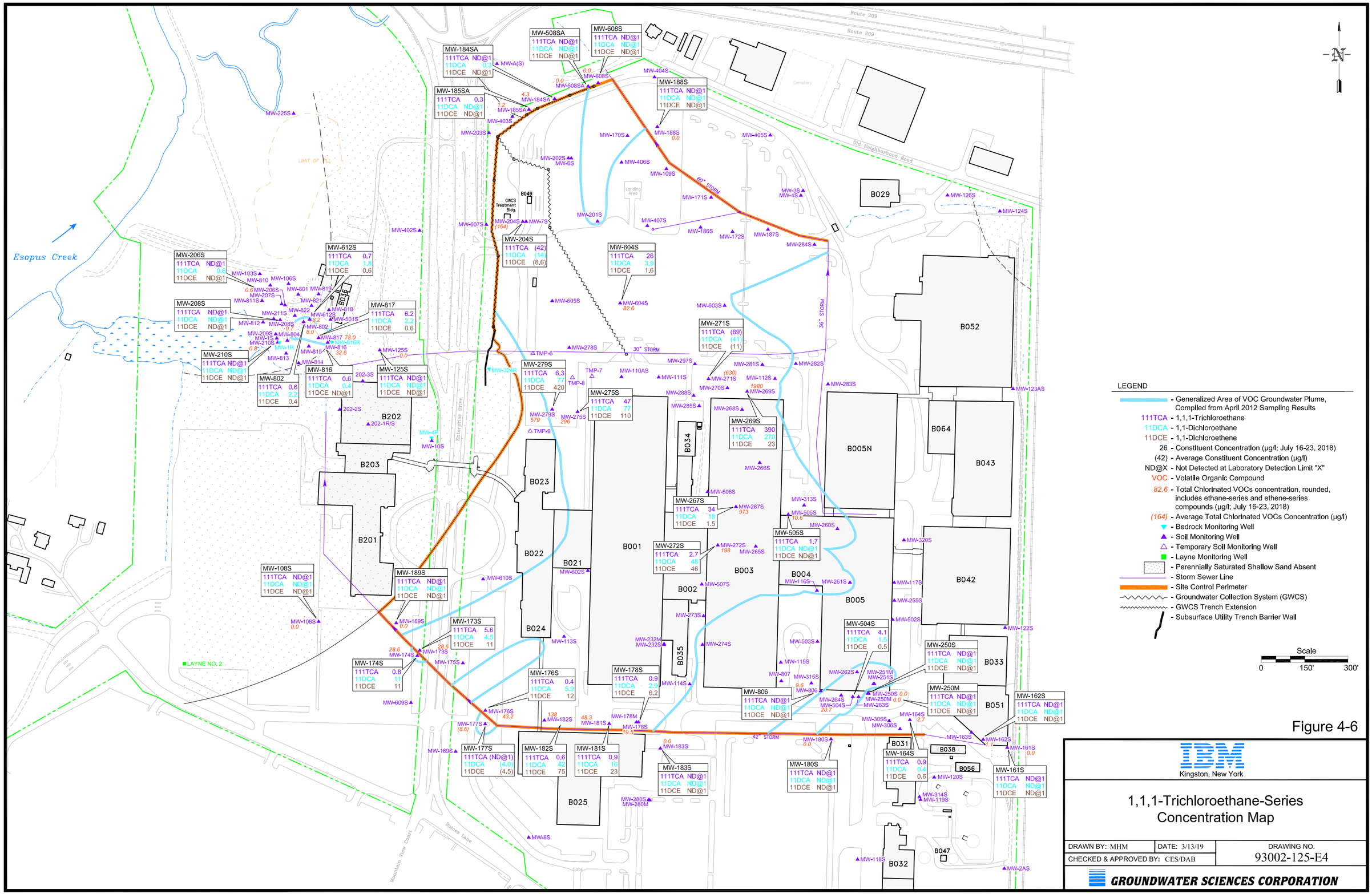
Figure 4-5

IBM
Kingston, New York

Tetrachloroethene-Series Concentration Map

DRAWN BY: MHM	DATE: 3/13/19	DRAWING NO. 93002-124-F4
CHECKED & APPROVED BY: CES/DAB		

GROUNDWATER SCIENCES CORPORATION



LEGEND

- Generalized Area of VOC Groundwater Plume, Compiled from April 2012 Sampling Results
- 111TCA - 1,1,1-Trichloroethane
- 11DCA - 1,1-Dichloroethane
- 11DCE - 1,1-Dichloroethene
- 26 - Constituent Concentration (µg/l; July 16-23, 2018)
- (42) - Average Constituent Concentration (µg/l)
- ND@X - Not Detected at Laboratory Detection Limit "X"
- VOC - Volatile Organic Compound
- 82.6 - Total Chlorinated VOCs concentration, rounded, includes ethane-series and ethene-series compounds (µg/l; July 16-23, 2018)
- (164) - Average Total Chlorinated VOCs Concentration (µg/l)
- ▼ - Bedrock Monitoring Well
- ▲ - Soil Monitoring Well
- △ - Temporary Soil Monitoring Well
- ■ - Layne Monitoring Well
- - Perennially Saturated Shallow Sand Absent
- - Storm Sewer Line
- - Site Control Perimeter
- - Groundwater Collection System (GWCS)
- - GWCS Trench Extension
- - Subsurface Utility Trench Barrier Wall

Scale
0 150' 300'

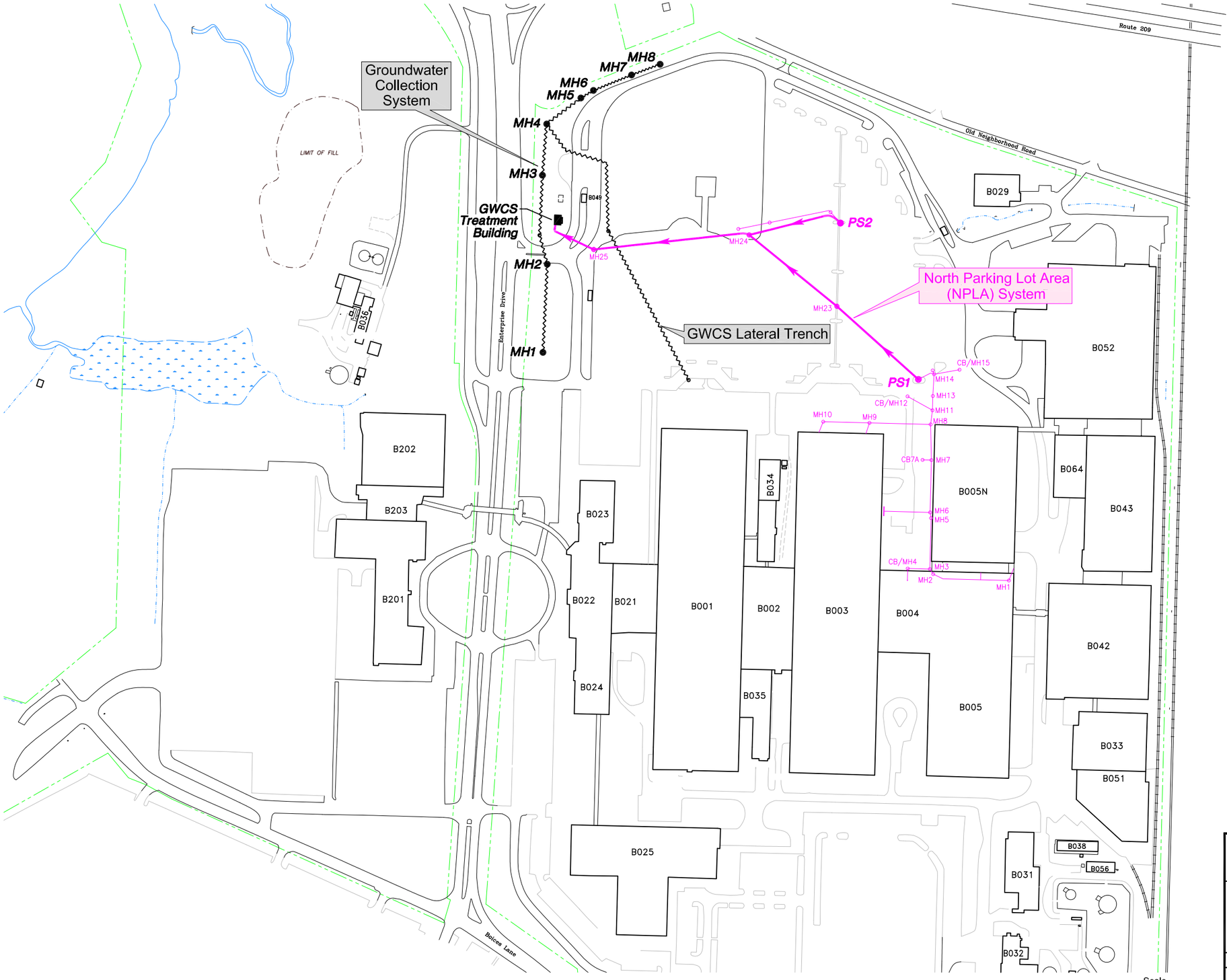
Figure 4-6

IBM
Kingston, New York

1,1,1-Trichloroethane-Series Concentration Map

DRAWN BY: MHM	DATE: 3/13/19	DRAWING NO. 93002-125-E4
CHECKED & APPROVED BY: CES/DAB		

GROUNDWATER SCIENCES CORPORATION



LEGEND

GWCS - Groundwater Collection System
MH - Manhole
PS - Pump Station
CS - Confined Space
- GWCS Interceptor Trench (Dec. 1986 - June 1994)
- GWCS Trench Extension (online July 1994)
- North Parking Lot Area (NPLA) System

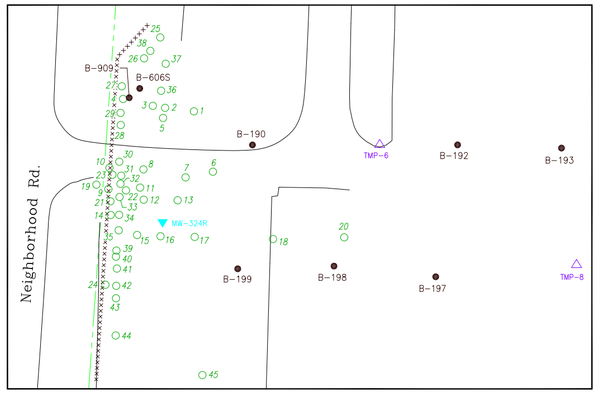
Figure 5-1

IBM
Kingston, New York

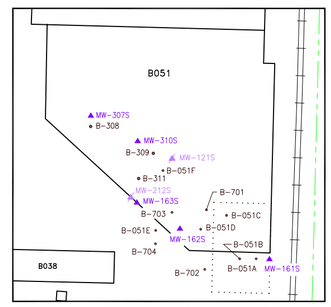
Groundwater Remediation System Location Map

DRAWN BY: MJ/MHM	DATE: 3/23/17	DRAWING NO. 93002-089-E1
CHECKED & APPROVED BY: MTL/DAB		

GROUNDWATER SCIENCES CORPORATION



Detail (4X)



Former B058 Detail (Scale 3X)

– Monitoring Well Location (installed in soil)
– Temporary Monitoring Point
– Monitoring Well Location (installed in bedrock)
– Production Well Location (Layne)
– Railroad
– Property Line
– Former Structure
– Abandoned Monitoring Well Location (installed in soil)
– Abandoned Temporary Monitoring Point
– Abandoned Monitoring Well Location (installed in bedrock)
– Abandoned Production Well Location (Layne)
– Soil Boring or Test Pit Location
– Groundwater Collection System (GWCS)
– GWCS Trench Extension

Scale
0 150' 300'

Plate 1

IBM
Kingston, New York

Soil Boring, Test Pit and Well Location Map

DRAWN BY: MHM	DATE: 9/18/17	DRAWING NO. 93002-055-N2
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

Appendix A

Groundwater and Field QA/QC Data Report

Former IBM Kingston Facility
Groundwater Monitoring Data Report
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		MW-108-S	MW-125-S	MW-161-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/16/18	07/20/18	07/17/18
LABORATORY SAMPLE I.D.		420139688-2	420139907-14	420139687-5
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	7.35	7.24	6.40
SPECIFIC CONDUCTANCE	umhos/cm	547	606	4555
TEMPERATURE	C	20.3	13.2	17.5
METALS				
ARSENIC, DISSOLVED	mg/l	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1

Former IBM Kingston Facility
Groundwater Monitoring Data Report
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		MW-108-S	MW-125-S	MW-161-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/16/18	07/20/18	07/17/18
LABORATORY SAMPLE I.D.		420139688-2	420139907-14	420139687-5
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

Former IBM Kingston Facility
Groundwater Monitoring Data Report
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		MW-162-S	MW-164-S	MW-173-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/17/18	07/17/18	07/16/18
LABORATORY SAMPLE I.D.		420139687-4	420139687-3	420139688-4
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	6.33	6.82	7.20
SPECIFIC CONDUCTANCE	umhos/cm	3276	1914	1198
TEMPERATURE	C	16.7	17.1	19.6
METALS				
ARSENIC, DISSOLVED	mg/l	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	0.94J	5.6
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	0.41J	4.5
1,1-DICHLOROETHYLENE	ug/l	ND@1	0.56J	11
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	0.29J	0.58J

SAMPLE LOCATION		MW-162-S	MW-164-S	MW-173-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/17/18	07/17/18	07/16/18
LABORATORY SAMPLE I.D.		420139687-4	420139687-3	420139688-4
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	0.31J	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	0.82J	0.53J	6.9
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

SAMPLE LOCATION		MW-174-S	MW-176-S	MW-177-S	MW-177-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	DUPLICATE
SAMPLE DATE		07/16/18	07/16/18	07/16/18	07/16/18
LABORATORY SAMPLE I.D.		420139688-5	420139688-8	420139688-6	420139688-7
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS					
PH	pH	7.39	7.03	7.46	7.46
SPECIFIC CONDUCTANCE	umhos/cm	513	1054	894	894
TEMPERATURE	C	15.5	18.2	19.6	19.6
METALS					
ARSENIC, DISSOLVED	mg/l	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	0.83J	0.42J	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	11	5.9	3.1	4.9
1,1-DICHLOROETHYLENE	ug/l	11	12	3.4	5.5
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	1.8	1.7	ND@1	0.36J

SAMPLE LOCATION		MW-174-S	MW-176-S	MW-177-S	MW-177-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	DUPLICATE
SAMPLE DATE		07/16/18	07/16/18	07/16/18	07/16/18
LABORATORY SAMPLE I.D.		420139688-5	420139688-8	420139688-6	420139688-7
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	0.22J	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	4.0	23	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA	NA

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SAMPLE LOCATION		MW-178-S	MW-180-S	MW-181-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/16/18	07/16/18	07/16/18
LABORATORY SAMPLE I.D.		420139688-10	420139688-13	420139688-11
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	6.10	7.06	7.08
SPECIFIC CONDUCTANCE	umhos/cm	370	925	709
TEMPERATURE	C	14.7	18.3	19.2
METALS				
ARSENIC, DISSOLVED	mg/l	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	0.86J	ND@1	0.93J
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	2.9	ND@1	16
1,1-DICHLOROETHYLENE	ug/l	6.2	ND@1	23
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	0.70J

SAMPLE LOCATION		MW-178-S	MW-180-S	MW-181-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/16/18	07/16/18	07/16/18
LABORATORY SAMPLE I.D.		420139688-10	420139688-13	420139688-11
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	0.31J	ND@1	0.28J
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	9.2	ND@1	7.4
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

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SAMPLE LOCATION		MW-182-S	MW-183-S	MW-184-SA
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/16/18	07/16/18	07/19/18
LABORATORY SAMPLE I.D.		420139688-12	420139688-9	420139907-9
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	6.84	6.27	7.17
SPECIFIC CONDUCTANCE	umhos/cm	712	240	854
TEMPERATURE	C	14.8	18.4	14.2
METALS				
ARSENIC, DISSOLVED	mg/l	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	0.59J	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	42	ND@1	0.28J
1,1-DICHLOROETHYLENE	ug/l	75D	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	0.52J	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	0.37J	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	2.8	ND@1	1.2

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SAMPLE LOCATION		MW-182-S	MW-183-S	MW-184-SA
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/16/18	07/16/18	07/19/18
LABORATORY SAMPLE I.D.		420139688-12	420139688-9	420139907-9
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	16	ND@1	2.8
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	0.62J	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

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SAMPLE LOCATION		MW-185-SA	MW-188-S	MW-189-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/19/18	07/19/18	07/16/18
LABORATORY SAMPLE I.D.		420139907-10	420139907-6	420139688-3
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	7.25	6.45	7.21
SPECIFIC CONDUCTANCE	umhos/cm	754	390	1168
TEMPERATURE	C	14.3	14.0	20.5
METALS				
ARSENIC, DISSOLVED	mg/l	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	0.27J	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1

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SAMPLE LOCATION		MW-185-SA	MW-188-S	MW-189-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/19/18	07/19/18	07/16/18
LABORATORY SAMPLE I.D.		420139907-10	420139907-6	420139688-3
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	0.89J	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

SAMPLE LOCATION		MW-204-S	MW-204-S	MW-206-S	MW-208-S
SAMPLE DESCRIPTION		GROUNDWATER	DUPLICATE	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/20/18	07/20/18	07/23/18	07/23/18
LABORATORY SAMPLE I.D.		420139907-12	420139907-13	420139998-4	420139998-3
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	ND@10	ND@10
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS					
PH	pH	7.72	7.72	7.21	6.89
SPECIFIC CONDUCTANCE	umhos/cm	933	933	881	702
TEMPERATURE	C	15.6	15.6	14.6	14.1
METALS					
ARSENIC, DISSOLVED	mg/l	NA	NA	0.0069	0.023
CADMIUM, DISSOLVED	mg/l	NA	NA	ND@0.0010	ND@0.0010
LEAD, DISSOLVED	mg/l	NA	NA	ND@0.0010	ND@0.0010
SILVER, DISSOLVED	mg/l	NA	NA	ND@0.0010	ND@0.0010
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	39	44	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	13	15	0.63J	ND@1
1,1-DICHLOROETHYLENE	ug/l	8.0	9.1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	0.54J	0.63J	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	28	32	ND@1	0.29J

SAMPLE LOCATION		MW-204-S	MW-204-S	MW-206-S	MW-208-S
SAMPLE DESCRIPTION		GROUNDWATER	DUPLICATE	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/20/18	07/20/18	07/23/18	07/23/18
LABORATORY SAMPLE I.D.		420139907-12	420139907-13	420139998-4	420139998-3
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	0.42J
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	0.55J	0.60J	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	0.56J	0.64J	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	61D	76D	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA	NA

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SAMPLE LOCATION		MW-210-S	MW-250-M	MW-250-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/23/18	07/16/18	07/16/18
LABORATORY SAMPLE I.D.		420139998-2	420139688-16	420139688-17
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	ND@10	NA	NA
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	6.99	6.72	7.13
SPECIFIC CONDUCTANCE	umhos/cm	1065	1044	799
TEMPERATURE	C	14.0	15.7	20.9
METALS				
ARSENIC, DISSOLVED	mg/l	0.110	NA	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0010	NA	NA
LEAD, DISSOLVED	mg/l	ND@0.0010	NA	NA
SILVER, DISSOLVED	mg/l	ND@0.0010	NA	NA
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1

SAMPLE LOCATION		MW-210-S	MW-250-M	MW-250-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/23/18	07/16/18	07/16/18
LABORATORY SAMPLE I.D.		420139998-2	420139688-16	420139688-17
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	0.58J	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	0.17J	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

SAMPLE LOCATION		MW-267-S	MW-269-S	MW-271-S	MW-271-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	DUPLICATE
SAMPLE DATE		07/19/18	07/17/18	07/17/18	07/17/18
LABORATORY SAMPLE I.D.		420139907-2	420139687-7	420139687-8	420139687-9
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	0.26J	0.39J
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS					
PH	pH	6.21	NA	6.76	6.76
SPECIFIC CONDUCTANCE	umhos/cm	469	NA	645	645
TEMPERATURE	C	18.2	NA	13.1	13.1
METALS					
ARSENIC, DISSOLVED	mg/l	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	34	390D	44D	93D
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	1.8	1.6
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	18	270D	39	42
1,1-DICHLOROETHYLENE	ug/l	1.5	23	9.1	13
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	0.58J	0.95J	0.85J
1,2-DICHLOROETHANE	ug/l	ND@1	26	2.7	3.0
1,2-DICHLOROETHYLENE, TOTAL	ug/l	270D	880D	110D	140D

SAMPLE LOCATION		MW-267-S	MW-269-S	MW-271-S	MW-271-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	DUPLICATE
SAMPLE DATE		07/19/18	07/17/18	07/17/18	07/17/18
LABORATORY SAMPLE I.D.		420139907-2	420139687-7	420139687-8	420139687-9
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	0.37J	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	4.0	4.8	1.8	1.8
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	5.5	16	25	25
TOLUENE	ug/l	NA	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	640D	350D	290D	350D
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	20	32	33
XYLENE, TOTAL	ug/l	NA	ND@1	ND@1	ND@1

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SAMPLE LOCATION		MW-272-S	MW-275-S	MW-279-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/19/18	07/19/18	07/19/18
LABORATORY SAMPLE I.D.		420139907-3	420139907-4	420139907-5
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	6.58	6.59	6.36
SPECIFIC CONDUCTANCE	umhos/cm	1027	538	498
TEMPERATURE	C	18.9	16.5	17.6
METALS				
ARSENIC, DISSOLVED	mg/l	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	2.7	47D	6.3
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	0.52J	6.3	1.0
1,1-DICHLOROETHANE	ug/l	48	77D	77D
1,1-DICHLOROETHYLENE	ug/l	46	110D	420D
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	0.52J	1.1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	2.3	1.6
1,2-DICHLOROETHYLENE, TOTAL	ug/l	3.4	6.2	11

SAMPLE LOCATION		MW-272-S	MW-275-S	MW-279-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/19/18	07/19/18	07/19/18
LABORATORY SAMPLE I.D.		420139907-3	420139907-4	420139907-5
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	0.88J	0.84J
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	1.4	0.35J
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	96D	43	58D
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	0.51J	1.2	3.0
XYLENE, TOTAL	ug/l	NA	NA	NA

SAMPLE LOCATION		MW-504-S	MW-505-S	MW-508-SA
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/16/18	07/17/18	07/19/18
LABORATORY SAMPLE I.D.		420139688-15	420139687-6	420139907-8
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	6.52	7.72	6.81
SPECIFIC CONDUCTANCE	umhos/cm	1531	386	668
TEMPERATURE	C	15.8	18.9	15.4
METALS				
ARSENIC, DISSOLVED	mg/l	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	4.1	1.7	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	1.5	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	0.51J	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1

SAMPLE LOCATION		MW-504-S	MW-505-S	MW-508-SA
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/16/18	07/17/18	07/19/18
LABORATORY SAMPLE I.D.		420139688-15	420139687-6	420139907-8
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	13	7.4	ND@1
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	1.6	1.5	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

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SAMPLE LOCATION		MW-604-S	MW-608-S	MW-612-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/17/18	07/19/18	07/20/18
LABORATORY SAMPLE I.D.		420139687-10	420139907-7	420139907-17
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	NA	NA	ND@10
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	6.82	6.83	6.83
SPECIFIC CONDUCTANCE	umhos/cm	214	927	913
TEMPERATURE	C	18.4	16.4	12.9
METALS				
ARSENIC, DISSOLVED	mg/l	NA	NA	ND@0.0014
CADMIUM, DISSOLVED	mg/l	NA	NA	ND@0.0010
LEAD, DISSOLVED	mg/l	NA	NA	ND@0.0010
SILVER, DISSOLVED	mg/l	NA	NA	ND@0.0010
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	26	ND@1	0.72J
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	3.9	ND@1	1.8
1,1-DICHLOROETHYLENE	ug/l	1.6	ND@1	0.55J
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	10	ND@1	0.34J

SAMPLE LOCATION		MW-604-S	MW-608-S	MW-612-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/17/18	07/19/18	07/20/18
LABORATORY SAMPLE I.D.		420139687-10	420139907-7	420139907-17
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	2.1	ND@1	0.42J
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	39	ND@1	4.4
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

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SAMPLE LOCATION		MW-802	MW-806-S	MW-816
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/20/18	07/16/18	07/20/18
LABORATORY SAMPLE I.D.		420139907-18	420139688-14	420139907-15
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
ACID EXTRACTABLES				
PHENOLS, TOTAL	ug/l	ND@10	NA	ND@10
BASE/NEUTRAL EXTRACTABLES				
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1
INDICATOR PARAMETERS				
PH	pH	7.17	6.65	7.17
SPECIFIC CONDUCTANCE	umhos/cm	1002	607	827
TEMPERATURE	C	13.2	17.2	14.1
METALS				
ARSENIC, DISSOLVED	mg/l	ND@0.0014	NA	ND@0.0014
CADMIUM, DISSOLVED	mg/l	ND@0.0010	NA	ND@0.0010
LEAD, DISSOLVED	mg/l	ND@0.0010	NA	ND@0.0010
SILVER, DISSOLVED	mg/l	ND@0.0010	NA	ND@0.0010
VOLATILE ORGANICS				
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	0.62J	ND@1	0.55J
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	2.2	ND@1	0.40J
1,1-DICHLOROETHYLENE	ug/l	0.37J	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	0.31J	ND@1	4.6

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SAMPLE LOCATION		MW-802	MW-806-S	MW-816
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/20/18	07/16/18	07/20/18
LABORATORY SAMPLE I.D.		420139907-18	420139688-14	420139907-15
SAMPLE RUN NUMBER		01	01	01
SAMPLE COMMENT CODES				
PARAMETER	UNITS			
VOLATILE ORGANICS (Continued)				
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	0.32J	5.7	ND@1
TOLUENE	ug/l	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	4.2	3.9	27
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA

SAMPLE LOCATION		MW-817
SAMPLE DESCRIPTION		GROUNDWATER
SAMPLE DATE		07/20/18
LABORATORY SAMPLE I.D.		420139907-16
SAMPLE RUN NUMBER		01
SAMPLE COMMENT CODES		
PARAMETER	UNITS	
ACID EXTRACTABLES		
PHENOLS, TOTAL	ug/l	ND@10
BASE/NEUTRAL EXTRACTABLES		
1,2-DICHLOROBENZENE	ug/l	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1
INDICATOR PARAMETERS		
PH	pH	7.23
SPECIFIC CONDUCTANCE	umhos/cm	820
TEMPERATURE	C	14.2
METALS		
ARSENIC, DISSOLVED	mg/l	ND@0.0014
CADMIUM, DISSOLVED	mg/l	ND@0.0010
LEAD, DISSOLVED	mg/l	ND@0.0010
SILVER, DISSOLVED	mg/l	ND@0.0010
VOLATILE ORGANICS		
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1
1,1,1-TRICHLOROETHANE	ug/l	6.2
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1
1,1-DICHLOROETHANE	ug/l	2.2
1,1-DICHLOROETHYLENE	ug/l	0.61J
1,2,3-TRICHLOROPROPANE	ug/l	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1
1,2-DICHLOROETHANE	ug/l	1.8
1,2-DICHLOROETHYLENE, TOTAL	ug/l	2.5

SAMPLE LOCATION		MW-817
SAMPLE DESCRIPTION		GROUNDWATER
SAMPLE DATE		07/20/18
LABORATORY SAMPLE I.D.		420139907-16
SAMPLE RUN NUMBER		01
SAMPLE COMMENT CODES		
PARAMETER	UNITS	
VOLATILE ORGANICS (Continued)		
1,2-DICHLOROPROPANE	ug/l	ND@1
2-CHLOROTOLUENE	ug/l	NA
4-CHLOROTOLUENE	ug/l	ND@1
BENZENE	ug/l	NA
BROMOBENZENE	ug/l	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1
BROMOFORM	ug/l	ND@1
BROMOMETHANE	ug/l	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1
CHLOROBENZENE	ug/l	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1
CHLOROETHANE	ug/l	ND@1
CHLOROFORM	ug/l	0.72J
CHLOROMETHANE	ug/l	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1
DIBROMOMETHANE	ug/l	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1
ETHYLBENZENE	ug/l	NA
METHYLENE CHLORIDE	ug/l	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1
TOLUENE	ug/l	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1
TRICHLOROETHYLENE	ug/l	64D
TRICHLOROFLUOROMETHANE	ug/l	ND@1
VINYL CHLORIDE	ug/l	ND@1
XYLENE, TOTAL	ug/l	NA

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EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

NA	Not Analyzed
ND@X	Not Detected at Detection Limit X
BMRL@X	Below Minimum Reporting Limit of X

CODE	EXPLANATION
^	Non-Standard Measurement Unit
c	Sample contained sediment which may have contributed to reported results
d	24 Hour Composite Sample
B	Analyte detected in both the sample and the laboratory blank
D	Compounds identifed at a secondary dilution factor
E	Concentration exceeds the calibration range of the GC/MS instrument
J	Estimated Value
N	Spiked sample recovery not within control limits
P	Lower of 2 GC column concentrations that have more than 25% difference
R	Reported value is less than the CRDL but greater than the IDL
S	Surrogate recoveries exceed acceptable control limits
W	Post digestion spike FAA out of control limits; sample absorbance < 50%
*	Manhole flooded when sediment sample collected
A	Monitoring well replaced. Sample collected from replacement well.
L	Lab Error
H	Sample was prepped or analyzed beyond specified method holding time
p	%RPD between primary & confirmation column is >40%. Lower value reported

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SAMPLE LOCATION		EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK
SAMPLE DESCRIPTION		WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND
SAMPLE DATE		07/16/18	07/17/18	07/19/18	07/20/18	07/23/18
LABORATORY SAMPLE I.D.		420139688-18	420139687-2	420139907-11	420139907-19	420139998-5
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	NA	NA	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK
SAMPLE DESCRIPTION		WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND
SAMPLE DATE		07/16/18	07/17/18	07/19/18	07/20/18	07/23/18
LABORATORY SAMPLE I.D.		420139688-18	420139687-2	420139907-11	420139907-19	420139998-5
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	NA	NA	NA	NA

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SAMPLE LOCATION		TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
SAMPLE DESCRIPTION		7/16-17/18	7/17/2018	7/19-20/18	7/23-24/18
SAMPLE DATE		07/16/18	07/17/18	07/19/18	07/23/18
LABORATORY SAMPLE I.D.		420139688-1	420139687-1	420139907-1	420139998-1
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROTOLUENE	ug/l	NA	ND@1	NA	NA
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	ND@1	NA	NA
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	ND@1	NA	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	ND@1	NA	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1

Former IBM Kingston Facility
Field Quality Assurance / Control Data
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
SAMPLE DESCRIPTION		7/16-17/18	7/17/2018	7/19-20/18	7/23-24/18
SAMPLE DATE		07/16/18	07/17/18	07/19/18	07/23/18
LABORATORY SAMPLE I.D.		420139688-1	420139687-1	420139907-1	420139998-1
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	ND@1	NA	NA

Former IBM Kingston Facility
Field Quality Assurance / Control Data
January 1, 2018 - December 31, 2018

EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

NA	Not Analyzed
ND@X	Not Detected at Detection Limit X
BMRL@X	Below Minimum Reporting Limit of X

CODE	EXPLANATION
^	Non-Standard Measurement Unit
c	Sample contained sediment which may have contributed to reported results
d	24 Hour Composite Sample
B	Analyte detected in both the sample and the laboratory blank
D	Compounds identifed at a secondary dilution factor
E	Concentration exceeds the calibration range of the GC/MS instrument
J	Estimated Value
N	Spiked sample recovery not within control limits
P	Lower of 2 GC column concentrations that have more than 25% difference
R	Reported value is less than the CRDL but greater than the IDL
S	Surrogate recoveries exceed acceptable control limits
W	Post digestion spike FAA out of control limits; sample absorbance < 50%
*	Manhole flooded when sediment sample collected
A	Monitoring well replaced. Sample collected from replacement well.
L	Lab Error
H	Sample was prepped or analyzed beyond specified method holding time
p	%RPD between primary & confirmation column is >40%. Lower value reported

Appendix B

Groundwater Elevation Table

Kingston Site
2018 Water Level Data

Well	Elevation	02/01/18		04/13/18		07/11/18		10/10/18	
	TOC	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE
MW-001-R	**150.93**	9.00	141.93	7.52	143.41	8.52	142.41	7.15	143.78
MW-003-S	**173.03**	4.16	168.87	4.20	168.83	4.58	168.45	3.88	169.15
MW-004-R	**176.08**	4.10	171.98	5.80	170.28	9.42	166.66	7.80	168.28
MW-004-S	**172.74**	4.18	168.56	4.22	168.52	4.38	168.36	3.50	169.24
MW-006-S	**172.69**	7.13	165.56	7.42	165.27	7.79	164.90	5.82	166.87
MW-008-S	**178.17**	8.60	169.57	8.25	169.92	7.75	170.42	7.73	170.44
MW-010-S	**176.94**	5.33	171.61	5.71	171.23	Dry		7.38	169.56
MW-106-S	**152.00**	5.71	146.29	5.26	146.74	5.79	146.21	4.82	147.18
MW-108-S	**177.26**	6.73	170.53	6.52	170.74	8.78	168.48	6.86	170.40
MW-109-S	**174.53**	7.18	167.35	7.42	167.11	8.47	166.06	6.68	167.85
MW-110-SA	**180.15**	10.18	169.97	9.78	170.37	10.92	169.23	8.95	171.20
MW-111-S	**179.39**	9.38	170.01	9.10	170.29	9.62	169.77	8.72	170.67
MW-112-S	**180.16**	9.52	170.64	9.40	170.76	10.20	169.96	8.80	171.36
MW-113-S	**177.03**	7.19	169.84	7.07	169.96	7.16	169.87	6.97	170.06
MW-114-S	**176.92**	6.35	170.57	6.11	170.81	6.53	170.39	5.62	171.30
MW-115-S	**181.20**	9.00	172.20	8.92	172.28	9.47	171.73	8.51	172.69
MW-116-S	**181.28**	8.45	172.83	8.50	172.78	8.91	172.37	8.70	172.58
MW-117-S	**180.75**	6.29	174.46	6.23	174.52	7.22	173.53	7.17	173.58
MW-118-S	**182.96**	8.00	174.96	8.21	174.75	8.12	174.84	8.07	174.89
MW-119-S	**183.87**	8.48	175.39	8.54	175.33	8.65	175.22	8.63	175.24
MW-120-S	**185.20**	9.47	175.73	9.53	175.67	9.00	176.20	8.96	176.24
MW-122-S	**183.62**	5.64	177.98	5.53	178.09	6.12	177.50	6.07	177.55
MW-123-SA	**178.21**	3.70	174.51	3.48	174.73	3.68	174.53	3.43	174.78
MW-124-S	**179.14**	8.72	170.42	8.00	171.14	9.82	169.32	8.22	170.92
MW-125-S	**173.88**	11.30	162.58	11.70	162.18	13.26	160.62	11.36	162.52
MW-126-S	**180.64**	9.11	171.53	8.92	171.72	10.36	170.28	8.88	171.76
MW-161-S	**183.36**	4.82	178.54	5.25	178.11	5.53	177.83	5.48	177.88
MW-162-S	**184.36**	5.93	178.43	5.90	178.46	6.02	178.34	5.97	178.39
MW-163-S	**185.65**	8.80	176.85	8.15	177.50	9.06	176.59	9.00	176.65
MW-164-S	**182.31**	8.12	174.19	8.10	174.21	8.45	173.86	7.12	175.19
MW-169-S	**178.07**	8.72	169.35	8.64	169.43	8.83	169.24	8.71	169.36
MW-170-S	**174.36**	6.45	167.91	7.00	167.36	7.48	166.88	5.68	168.68
MW-171-S	**172.51**	4.96	167.55	4.90	167.61	5.45	167.06	4.48	168.03
MW-172-S	**171.68**	4.22	167.46	4.26	167.42	3.66	168.02	2.72	168.96
MW-173-S	**179.83**	10.10	169.73	9.55	170.28	10.12	169.71	8.82	171.01
MW-174-S	**179.89**	10.39	169.50	9.45	170.44	9.86	170.03	8.78	171.11
MW-175-S	**177.99**	8.36	169.63	8.24	169.75	8.18	169.81	8.07	169.92
MW-176-S	**177.55**	8.00	169.55	7.33	170.22	7.60	169.95	6.80	170.75
MW-177-S	**177.94**	8.48	169.46	7.95	169.99	8.25	169.69	6.85	171.09
MW-178-S	**179.29**	9.81	169.48	9.15	170.14	9.25	170.04	8.66	170.63
MW-180-S	**179.45**	6.70	172.75	7.12	172.33	7.13	172.32	6.29	173.16
MW-181-S	**177.38**	7.62	169.76	7.00	170.38	7.40	169.98	6.57	170.81
MW-182-S	**180.09**	9.98	170.11	9.58	170.51	10.04	170.05	9.78	170.31
MW-183-S	**174.38**	4.45	169.93	4.10	170.28	4.20	170.18	3.32	171.06
MW-184-SA	**171.30**	10.50	160.80	10.32	160.98	11.52	159.78	9.28	162.02
MW-185-SA	**176.88**	17.10	159.78	16.33	160.55	17.30	159.58	15.25	161.63
MW-186-S	**172.60**	4.81	167.79	4.78	167.82	4.11	168.49	3.80	168.80
MW-187-S	**170.82**	4.23	166.59	4.19	166.63	3.42	167.40	2.88	167.94
MW-188-S	**174.59**	7.92	166.67	7.62	166.97	8.25	166.34	7.18	167.41
MW-189-S	**175.52**	6.15	169.37	5.60	169.92	5.77	169.75	5.72	169.80
MW-201-S	**177.00**	8.68	168.32	8.68	168.32	9.18	167.82	7.65	169.35
MW-202-S	**173.29**	7.49	165.80	8.10	165.19	8.32	164.97	6.63	166.66
MW-203-S	**175.16**	Dry		Dry		Dry		12.24	162.92
MW-204-S	**173.93**	8.86	165.07	8.12	165.81	8.87	165.06	7.68	166.25
MW-206-S	**152.42**	6.22	146.20	5.75	146.67	6.67	145.75	4.63	147.79
MW-208-S	**152.31**	7.15	145.16	6.58	145.73	7.60	144.71	5.78	146.53
MW-209-S	**152.02**	7.50	144.52	7.00	145.02	7.75	144.27	6.30	145.72
MW-210-S	**151.99**	8.55	143.44	8.23	143.76	9.82	142.17	7.75	144.24
MW-232-M	**180.94**	10.42	170.52	9.52	171.42	9.83	171.11	9.51	171.43
MW-232-S	**181.03**	10.36	170.67	9.62	171.41	9.76	171.27	9.50	171.53
MW-250-M	**178.09**	5.12	172.97	4.70	173.39	4.82	173.27	4.16	173.93
MW-261-S	**178.85**	NM		NM		NM		NM	
MW-267-S	**178.77**	7.28	171.49	7.19	171.58	7.24	171.53	6.30	172.47
MW-269-S	**180.89**	10.42	170.47	10.40	170.49	10.53	170.36	10.48	170.41
MW-270-S	**180.48**	10.28	170.20	10.31	170.17	10.49	169.99	10.31	170.17
MW-274-S	**177.71**	6.89	170.82	6.73	170.98	6.55	171.16	6.32	171.39
MW-275-S	**180.97**	11.28	169.69	10.60	170.37	11.11	169.86	9.90	171.07
MW-278-S	**180.48**	12.00	168.48	11.58	168.90	12.40	168.08	11.00	169.48
MW-279-S	**180.23**	10.72	169.51	9.61	170.62	10.60	169.63	9.35	170.88
MW-282-S	**176.63**	6.55	170.08	6.49	170.14	9.35	167.28	7.12	169.51
MW-284-S	**174.77**	8.22	166.55	7.25	167.52	8.90	165.87	7.80	166.97
MW-285-S	**180.46**	10.33	170.13	10.26	170.20	10.79	169.67	10.70	169.76

Kingston Site
2018 Water Level Data

Well	Elevation	02/01/18		04/13/18		07/11/18		10/10/18	
	TOC	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE
MW-288-S	**180.22**	9.95	170.27	9.22	171.00	10.35	169.87	9.10	171.12
MW-297-S	**180.07**	10.32	169.75	9.88	170.19	10.82	169.25	9.52	170.55
MW-402-S	**173.94**	Dry		15.83	158.11	Dry		14.13	159.81
MW-403-S	**176.89**	Dry		Dry		Dry		15.45	161.44
MW-404-S	**171.17**	4.75	166.42	4.80	166.37	5.46	165.71	4.38	166.79
MW-405-S	**174.93**	6.88	168.05	6.83	168.10	6.96	167.97	4.53	170.40
MW-406-S	**175.85**	8.82	167.03	9.41	166.44	9.52	166.33	7.62	168.23
MW-407-S	**176.66**	8.16	168.50	7.62	169.04	8.75	167.91	7.38	169.28
MW-502-S	**180.90**	6.68	174.22	6.64	174.26	7.20	173.70	7.13	173.77
MW-503-S	**180.71**	7.91	172.80	7.96	172.75	8.52	172.19	6.45	174.26
MW-504-S	**177.11**	3.92	173.19	3.77	173.34	4.12	172.99	3.40	173.71
MW-505-S	**179.08**	7.33	171.75	7.29	171.79	7.40	171.68	7.36	171.72
MW-506-S	**180.14**	NM		NM		NM		NM	
MW-507-S	**178.61**	7.04	171.57	7.01	171.60	7.19	171.42	6.32	172.29
MW-508-SA	**169.89**	8.26	161.63	8.38	161.51	10.10	159.79	7.75	162.14
MW-602-S	**178.37**	8.10	170.27	8.14	170.23	8.23	170.14	8.16	170.21
MW-603-S	**174.74**	5.80	168.94	5.84	168.90	5.80	168.94	4.30	170.44
MW-604-S	**175.93**	7.45	168.48	7.40	168.53	7.43	168.50	6.28	169.65
MW-605-S	**176.06**	8.42	167.64	8.57	167.49	8.52	167.54	7.32	168.74
MW-607-S	**174.01**	Dry		Dry		Dry		Dry	
MW-608-S	**170.23**	8.65	161.58	9.00	161.23	9.82	160.41	8.31	161.92
MW-609-S	**178.58**	9.06	169.52	8.42	170.16	8.86	169.72	7.88	170.70
MW-610-S	**178.05**	7.93	170.12	7.81	170.24	7.88	170.17	7.53	170.52
MW-612-S	**156.22**	8.33	147.89	6.59	149.63	8.19	148.03	6.00	150.22
MW-801-S	**152.27**	5.33	146.94	3.88	148.39	5.18	147.09	3.08	149.19
MW-802-S	**153.42**	5.92	147.50	4.33	149.09	5.42	148.00	3.56	149.86
MW-804-S	**152.74**	6.08	146.66	4.40	148.34	6.11	146.63	3.56	149.18
MW-806-S	**176.49**	3.60	172.89	3.81	172.68	4.20	172.29	4.00	172.49
MW-807-S	**177.63**	6.62	171.01	6.30	171.33	6.70	170.93	5.78	171.85
MW-810	**145.03**	4.27	140.76	4.13	140.90	4.58	140.45	3.99	141.04
MW-811S	**144.93**	4.38	140.55	4.30	140.63	4.67	140.26	3.97	140.96
MW-812	**146.73**	7.92	138.81	7.70	139.03	8.13	138.60	7.23	139.50
MW-814	**151.70**	8.53	143.17	8.55	143.15	10.00	141.70	8.11	143.59
MW-815	**156.30**	8.42	147.88	8.15	148.15	11.00	145.30	7.81	148.49
MW-816	**161.40**	12.02	149.38	10.10	151.30	13.76	147.64	9.82	151.58
MW-817	**160.53**	11.28	149.25	10.00	150.53	12.63	147.90	9.78	150.75
MW-819	**154.79**	5.80	148.99	3.46	151.33	4.38	150.41	3.00	151.79
MW-821	**154.70**	6.10	148.60	3.72	150.98	5.38	149.32	3.31	151.39
MW-A	**172.34**	11.28	161.06	11.33	161.01	11.64	160.70	9.92	162.42
TMP-6	**177.51**	9.56	167.95	9.60	167.91	9.22	168.29	8.61	168.90
TMP-7	**180.08**	10.25	169.83	10.31	169.77	10.65	169.43	9.48	170.60
TMP-8	**177.50**	8.49	169.01	8.31	169.19	8.10	169.40	6.88	170.62

NM = Not Measured, Damaged or Inaccessible

Appendix C

Groundwater Withdrawal Data Tables (GWCS and NPLA)

Former IBM Kingston Site (TechCity Facility)
Groundwater Collection System and North Parking Lot Area Extraction Data
Last Updated: *02/08/19*

Date	NPLA PS1 & PS2 Daily Flow (gal)	Average Pumping Rate (NPLA) (gpm)	Total GWCS Daily Flow (gal)	Average Pumping Rate (GWCS) (gpm)	Average Daily Flow Treatment System (gal)	Average Pumping Rate Treatment Sys (gpm)	Cumulative Gallons Pumped (NPLA only)	Cumulative Gallons Pumped (GWCS only)	Cumulative Gallons Pumped (Overall)
1-Jan-18	2,932	2.0	29,654	20.6	32,586	22.6	39,221,203	524,347,235	563,568,438
2-Jan-18	2,989	2.1	29,727	20.6	32,716	22.7	39,224,192	524,376,962	563,601,154
3-Jan-18	3,065	2.1	29,174	20.3	32,239	22.4	39,227,257	524,406,136	563,633,393
4-Jan-18	2,986	2.1	26,923	18.7	29,909	20.8	39,230,243	524,433,059	563,663,302
5-Jan-18	2,886	2.0	30,188	21.0	33,074	23.0	39,233,129	524,463,247	563,696,376
6-Jan-18	2,939	2.0	30,279	21.0	33,218	23.1	39,236,068	524,493,526	563,729,594
7-Jan-18	2,908	2.0	28,372	19.7	31,280	21.7	39,238,976	524,521,898	563,760,874
8-Jan-18	2,945	2.0	28,088	19.5	31,033	21.6	39,241,921	524,549,986	563,791,907
9-Jan-18	2,896	2.0	29,327	20.4	32,223	22.4	39,244,817	524,579,313	563,824,130
10-Jan-18	2,919	2.0	28,194	19.6	31,113	21.6	39,247,736	524,607,507	563,855,243
11-Jan-18	3,026	2.1	28,088	19.5	31,114	21.6	39,250,762	524,635,595	563,886,357
12-Jan-18	3,729	2.6	25,747	17.9	29,476	20.5	39,254,491	524,661,342	563,915,833
13-Jan-18	3,040	2.1	33,468	23.2	36,508	25.4	39,257,531	524,694,810	563,952,341
14-Jan-18	3,039	2.1	34,422	23.9	37,461	26.0	39,260,570	524,729,232	563,989,802
15-Jan-18	3,044	2.1	35,274	24.5	38,318	26.6	39,263,614	524,764,506	564,028,120
16-Jan-18	2,923	2.0	35,843	24.9	38,766	26.9	39,266,537	524,800,349	564,066,886
17-Jan-18	2,987	2.1	35,913	24.9	38,900	27.0	39,269,524	524,836,262	564,105,786
18-Jan-18	2,916	2.0	35,732	24.8	38,648	26.8	39,272,440	524,871,994	564,144,434
19-Jan-18	2,971	2.1	35,919	24.9	38,890	27.0	39,275,411	524,907,913	564,183,324
20-Jan-18	2,868	2.0	36,904	25.6	39,772	27.6	39,278,279	524,944,817	564,223,096
21-Jan-18	2,816	2.0	36,733	25.5	39,549	27.5	39,281,095	524,981,550	564,262,645
22-Jan-18	2,784	1.9	35,686	24.8	38,470	26.7	39,283,879	525,017,236	564,301,115
23-Jan-18	4,319	3.0	35,417	24.6	39,736	27.6	39,288,198	525,052,653	564,340,851
24-Jan-18	2,865	2.0	39,396	27.4	42,261	29.3	39,291,063	525,092,049	564,383,112
25-Jan-18	2,822	2.0	39,986	27.8	42,808	29.7	39,293,885	525,132,035	564,425,920
26-Jan-18	2,773	1.9	40,455	28.1	43,228	30.0	39,296,658	525,172,490	564,469,148
27-Jan-18	2,745	1.9	39,855	27.7	42,600	29.6	39,299,403	525,212,345	564,511,748
28-Jan-18	2,788	1.9	40,802	28.3	43,590	30.3	39,302,191	525,253,147	564,555,338
29-Jan-18	2,714	1.9	40,497	28.1	43,211	30.0	39,304,905	525,293,644	564,598,549
30-Jan-18	2,688	1.9	39,891	27.7	42,579	29.6	39,307,593	525,333,535	564,641,128
31-Jan-18	2,604	1.8	40,551	28.2	43,155	30.0	39,310,197	525,374,086	564,684,283
1-Feb-18	2,659	1.8	38,518	26.7	41,177	28.6	39,312,856	525,412,604	564,725,460
2-Feb-18	2,620	1.8	41,558	28.9	44,178	30.7	39,315,476	525,454,162	564,769,638
3-Feb-18	2,553	1.8	39,082	27.1	41,635	28.9	39,318,029	525,493,244	564,811,273
4-Feb-18	2,604	1.8	37,247	25.9	39,851	27.7	39,320,633	525,530,491	564,851,124
5-Feb-18	2,575	1.8	40,707	28.3	43,282	30.1	39,323,208	525,571,198	564,894,406
6-Feb-18	2,576	1.8	38,717	26.9	41,293	28.7	39,325,784	525,609,915	564,935,699
7-Feb-18	2,559	1.8	38,700	26.9	41,259	28.7	39,328,343	525,648,615	564,976,958
8-Feb-18	2,491	1.7	39,382	27.3	41,873	29.1	39,330,834	525,687,997	565,018,831
9-Feb-18	2,529	1.8	38,134	26.5	40,663	28.2	39,333,363	525,726,131	565,059,494

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10-Feb-18	2,587	1.8	37,533	26.1	40,120	27.9	39,335,950	525,763,664	565,099,614
11-Feb-18	3,352	2.3	38,712	26.9	42,064	29.2	39,339,302	525,802,376	565,141,678
12-Feb-18	2,724	1.9	44,184	30.7	46,908	32.6	39,342,026	525,846,560	565,188,586
13-Feb-18	2,586	1.8	43,350	30.1	45,936	31.9	39,344,612	525,889,910	565,234,522
14-Feb-18	2,601	1.8	42,960	29.8	45,561	31.6	39,347,213	525,932,870	565,280,083
15-Feb-18	2,537	1.8	42,484	29.5	45,021	31.3	39,349,750	525,975,354	565,325,104
16-Feb-18	2,434	1.7	45,077	31.3	47,511	33.0	39,352,184	526,020,431	565,372,615
17-Feb-18	2,490	1.7	44,234	30.7	46,724	32.4	39,354,674	526,064,665	565,419,339
18-Feb-18	2,441	1.7	43,754	30.4	46,195	32.1	39,357,115	526,108,419	565,465,534
19-Feb-18	2,416	1.7	43,925	30.5	46,341	32.2	39,359,531	526,152,344	565,511,875
20-Feb-18	2,444	1.7	43,004	29.9	45,448	31.6	39,361,975	526,195,348	565,557,323
21-Feb-18	2,423	1.7	43,867	30.5	46,290	32.1	39,364,398	526,239,215	565,603,613
22-Feb-18	2,500	1.7	44,332	30.8	46,832	32.5	39,366,898	526,283,547	565,650,445
23-Feb-18	2,373	1.6	42,685	29.6	45,058	31.3	39,369,271	526,326,232	565,695,503
24-Feb-18	2,414	1.7	44,164	30.7	46,578	32.3	39,371,685	526,370,396	565,742,081
25-Feb-18	2,459	1.7	44,994	31.2	47,453	33.0	39,374,144	526,415,390	565,789,534
26-Feb-18	2,487	1.7	47,212	32.8	49,699	34.5	39,376,631	526,462,602	565,839,233
27-Feb-18	2,311	1.6	49,106	34.1	51,417	35.7	39,378,942	526,511,708	565,890,650
28-Feb-18	2,330	1.6	48,250	33.5	50,580	35.1	39,381,272	526,559,958	565,941,230
1-Mar-18	2,298	1.6	49,089	34.1	51,387	35.7	39,383,570	526,609,047	565,992,617
2-Mar-18	2,259	1.6	52,316	36.3	54,575	37.9	39,385,829	526,661,363	566,047,192
3-Mar-18	2,323	1.6	56,086	38.9	58,409	40.6	39,388,152	526,717,449	566,105,601
4-Mar-18	2,084	1.4	58,093	40.3	60,177	41.8	39,390,236	526,775,542	566,165,778
5-Mar-18	2,036	1.4	59,149	41.1	61,185	42.5	39,392,272	526,834,691	566,226,963
6-Mar-18	1,908	1.3	59,385	41.2	61,293	42.6	39,394,180	526,894,076	566,288,256
7-Mar-18	1,711	1.2	58,496	40.6	60,207	41.8	39,395,891	526,952,572	566,348,463
8-Mar-18	1,603	1.1	58,277	40.5	59,880	41.6	39,397,494	527,010,849	566,408,343
9-Mar-18	2,015	1.4	58,977	41.0	60,992	42.4	39,399,509	527,069,826	566,469,335
10-Mar-18	1,548	1.1	58,114	40.4	59,662	41.4	39,401,057	527,127,940	566,528,997
11-Mar-18	1,448	1.0	58,394	40.6	59,842	41.6	39,402,505	527,186,334	566,588,839
12-Mar-18	1,474	1.0	55,960	38.9	57,434	39.9	39,403,979	527,242,294	566,646,273
13-Mar-18	1,298	0.9	56,365	39.1	57,663	40.0	39,405,277	527,298,659	566,703,936
14-Mar-18	1,108	0.8	56,711	39.4	57,819	40.2	39,406,385	527,355,370	566,761,755
15-Mar-18	1,297	0.9	56,778	39.4	58,075	40.3	39,407,682	527,412,148	566,819,830
16-Mar-18	1,066	0.7	57,388	39.9	58,454	40.6	39,408,748	527,469,536	566,878,284
17-Mar-18	915	0.6	55,471	38.5	56,386	39.2	39,409,663	527,525,007	566,934,670
18-Mar-18	741	0.5	55,880	38.8	56,621	39.3	39,410,404	527,580,887	566,991,291
19-Mar-18	1,623	1.1	55,485	38.5	57,108	39.7	39,412,027	527,636,372	567,048,399
20-Mar-18	2,593	1.8	53,291	37.0	55,884	38.8	39,414,620	527,689,663	567,104,283
21-Mar-18	2,627	1.8	53,523	37.2	56,150	39.0	39,417,247	527,743,186	567,160,433

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22-Mar-18	2,616	1.8	53,491	37.1	56,107	39.0	39,419,863	527,796,677	567,216,540
23-Mar-18	2,510	1.7	52,651	36.6	55,161	38.3	39,422,373	527,849,328	567,271,701
24-Mar-18	2,607	1.8	51,865	36.0	54,472	37.8	39,424,980	527,901,193	567,326,173
25-Mar-18	2,479	1.7	52,132	36.2	54,611	37.9	39,427,459	527,953,325	567,380,784
26-Mar-18	2,589	1.8	50,459	35.0	53,048	36.8	39,430,048	528,003,784	567,433,832
27-Mar-18	2,476	1.7	49,451	34.3	51,927	36.1	39,432,524	528,053,235	567,485,759
28-Mar-18	2,523	1.8	49,083	34.1	51,606	35.8	39,435,047	528,102,318	567,537,365
29-Mar-18	2,413	1.7	48,862	33.9	51,275	35.6	39,437,460	528,151,180	567,588,640
30-Mar-18	2,533	1.8	48,906	34.0	51,439	35.7	39,439,993	528,200,086	567,640,079
31-Mar-18	2,514	1.7	46,740	32.5	49,254	34.2	39,442,507	528,246,826	567,689,333
1-Apr-18	2,464	1.7	47,405	32.9	49,869	34.6	39,444,971	528,294,231	567,739,202
2-Apr-18	2,378	1.7	46,704	32.4	49,082	34.1	39,447,349	528,340,935	567,788,284
3-Apr-18	2,339	1.6	45,631	31.7	47,970	33.3	39,449,688	528,386,566	567,836,254
4-Apr-18	2,430	1.7	44,988	31.2	47,418	32.9	39,452,118	528,431,554	567,883,672
5-Apr-18	2,326	1.6	46,600	32.4	48,926	34.0	39,454,444	528,478,154	567,932,598
6-Apr-18	2,315	1.6	44,408	30.8	46,723	32.4	39,456,759	528,522,562	567,979,321
7-Apr-18	2,271	1.6	45,431	31.5	47,702	33.1	39,459,030	528,567,993	568,027,023
8-Apr-18	2,396	1.7	44,784	31.1	47,180	32.8	39,461,426	528,612,777	568,074,203
9-Apr-18	2,159	1.5	44,913	31.2	47,072	32.7	39,463,585	528,657,690	568,121,275
10-Apr-18	2,310	1.6	43,542	30.2	45,852	31.8	39,465,895	528,701,232	568,167,127
11-Apr-18	2,284	1.6	43,579	30.3	45,863	31.8	39,468,179	528,744,811	568,212,990
12-Apr-18	2,246	1.6	42,549	29.5	44,795	31.1	39,470,425	528,787,360	568,257,785
13-Apr-18	2,117	1.5	43,359	30.1	45,476	31.6	39,472,542	528,830,719	568,303,261
14-Apr-18	2,227	1.5	43,881	30.5	46,108	32.0	39,474,769	528,874,600	568,349,369
15-Apr-18	2,220	1.5	42,433	29.5	44,653	31.0	39,476,989	528,917,033	568,394,022
16-Apr-18	2,930	2.0	41,407	28.8	44,337	30.8	39,479,919	528,958,440	568,438,359
17-Apr-18	2,295	1.6	46,432	32.2	48,727	33.8	39,482,214	529,004,872	568,487,086
18-Apr-18	2,121	1.5	48,017	33.3	50,138	34.8	39,484,335	529,052,889	568,537,224
19-Apr-18	2,192	1.5	48,995	34.0	51,187	35.5	39,486,527	529,101,884	568,588,411
20-Apr-18	2,101	1.5	50,201	34.9	52,302	36.3	39,488,628	529,152,085	568,640,713
21-Apr-18	2,019	1.4	49,562	34.4	51,581	35.8	39,490,647	529,201,647	568,692,294
22-Apr-18	2,001	1.4	50,634	35.2	52,635	36.6	39,492,648	529,252,281	568,744,929
23-Apr-18	2,038	1.4	50,146	34.8	52,184	36.2	39,494,686	529,302,427	568,797,113
24-Apr-18	1,904	1.3	49,220	34.2	51,124	35.5	39,496,590	529,351,647	568,848,237
25-Apr-18	1,987	1.4	48,429	33.6	50,416	35.0	39,498,577	529,400,076	568,898,653
26-Apr-18	1,855	1.3	50,617	35.2	52,472	36.4	39,500,432	529,450,693	568,951,125
27-Apr-18	1,931	1.3	49,101	34.1	51,032	35.4	39,502,363	529,499,794	569,002,157
28-Apr-18	1,789	1.2	50,805	35.3	52,594	36.5	39,504,152	529,550,599	569,054,751
29-Apr-18	1,872	1.3	51,579	35.8	53,451	37.1	39,506,024	529,602,178	569,108,202
30-Apr-18	1,829	1.3	52,360	36.4	54,189	37.6	39,507,853	529,654,538	569,162,391

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1-May-18	8,361	5.8	52,719	36.6	61,080	42.4	39,516,214	529,707,257	569,223,471
2-May-18	22,859	15.9	51,195	35.6	74,054	51.4	39,539,073	529,758,452	569,297,525
3-May-18	22,777	15.8	52,273	36.3	75,050	52.1	39,561,850	529,810,725	569,372,575
4-May-18	22,820	15.8	51,898	36.0	74,718	51.9	39,584,670	529,862,623	569,447,293
5-May-18	22,577	15.7	53,129	36.9	75,706	52.6	39,607,247	529,915,752	569,522,999
6-May-18	22,370	15.5	52,151	36.2	74,521	51.8	39,629,617	529,967,903	569,597,520
7-May-18	22,365	15.5	47,555	33.0	69,920	48.6	39,651,982	530,015,458	569,667,440
8-May-18	22,271	15.5	46,862	32.5	69,133	48.0	39,674,253	530,062,320	569,736,573
9-May-18	21,903	15.2	51,457	35.7	73,360	50.9	39,696,156	530,113,777	569,809,933
10-May-18	20,853	14.5	50,472	35.1	71,325	49.5	39,717,009	530,164,249	569,881,258
11-May-18	19,786	13.7	51,743	35.9	71,529	49.7	39,736,795	530,215,992	569,952,787
12-May-18	18,950	13.2	51,349	35.7	70,299	48.8	39,755,745	530,267,341	570,023,086
13-May-18	18,165	12.6	50,159	34.8	68,324	47.4	39,773,910	530,317,500	570,091,410
14-May-18	17,699	12.3	48,969	34.0	66,668	46.3	39,791,609	530,366,469	570,158,078
15-May-18	17,168	11.9	49,897	34.7	67,065	46.6	39,808,777	530,416,366	570,225,143
16-May-18	17,862	12.4	49,810	34.6	67,672	47.0	39,826,639	530,466,176	570,292,815
17-May-18	18,044	12.5	49,040	34.1	67,084	46.6	39,844,683	530,515,216	570,359,899
18-May-18	16,871	11.7	48,972	34.0	65,843	45.7	39,861,554	530,564,188	570,425,742
19-May-18	18,636	12.9	47,467	33.0	66,103	45.9	39,880,190	530,611,655	570,491,845
20-May-18	20,905	14.5	48,986	34.0	69,891	48.5	39,901,095	530,660,641	570,561,736
21-May-18	20,053	13.9	48,652	33.8	68,705	47.7	39,921,148	530,709,293	570,630,441
22-May-18	19,479	13.5	48,096	33.4	67,575	46.9	39,940,627	530,757,389	570,698,016
23-May-18	18,511	12.9	48,438	33.6	66,949	46.5	39,959,138	530,805,827	570,764,965
24-May-18	17,050	11.8	47,410	32.9	64,460	44.8	39,976,188	530,853,237	570,829,425
25-May-18	16,650	11.6	46,236	32.1	62,886	43.7	39,992,838	530,899,473	570,892,311
26-May-18	16,205	11.3	47,812	33.2	64,017	44.5	40,009,043	530,947,285	570,956,328
27-May-18	14,977	10.4	46,913	32.6	61,890	43.0	40,024,020	530,994,198	571,018,218
28-May-18	15,174	10.5	46,499	32.3	61,673	42.8	40,039,194	531,040,697	571,079,891
29-May-18	13,948	9.7	45,691	31.7	59,639	41.4	40,053,142	531,086,388	571,139,530
30-May-18	13,633	9.5	46,373	32.2	60,006	41.7	40,066,775	531,132,761	571,199,536
31-May-18	13,842	9.6	43,904	30.5	57,746	40.1	40,080,617	531,176,665	571,257,282
31-May-18	13,842	9.6	43,904	30.5	57,746	40.1	40,094,459	531,220,569	571,315,028
1-Jun-18	13,433	9.3	44,647	31.0	58,080	40.3	40,107,892	531,265,216	571,373,108
2-Jun-18	12,494	8.7	45,382	31.5	57,876	40.2	40,120,386	531,310,598	571,430,984
3-Jun-18	12,031	8.4	44,322	30.8	56,353	39.1	40,132,417	531,354,920	571,487,337
4-Jun-18	13,474	9.4	42,859	29.8	56,333	39.1	40,145,891	531,397,779	571,543,670
5-Jun-18	12,692	8.8	43,104	29.9	55,796	38.7	40,158,583	531,440,883	571,599,466
6-Jun-18	12,102	8.4	44,915	31.2	57,017	39.6	40,170,685	531,485,798	571,656,483
7-Jun-18	11,516	8.0	43,910	30.5	55,426	38.5	40,182,201	531,529,708	571,711,909
8-Jun-18	11,121	7.7	42,610	29.6	53,731	37.3	40,193,322	531,572,318	571,765,640

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9-Jun-18	10,751	7.5	42,679	29.6	53,430	37.1	40,204,073	531,614,997	571,819,070
10-Jun-18	10,138	7.0	42,134	29.3	52,272	36.3	40,214,211	531,657,131	571,871,342
11-Jun-18	10,185	7.1	42,664	29.6	52,849	36.7	40,224,396	531,699,795	571,924,191
12-Jun-18	9,565	6.6	41,425	28.8	50,990	35.4	40,233,961	531,741,220	571,975,181
13-Jun-18	9,935	6.9	40,696	28.3	50,631	35.2	40,243,896	531,781,916	572,025,812
14-Jun-18	9,376	6.5	41,460	28.8	50,836	35.3	40,253,272	531,823,376	572,076,648
15-Jun-18	8,643	6.0	41,944	29.1	50,587	35.1	40,261,915	531,865,320	572,127,235
16-Jun-18	8,854	6.1	39,929	27.7	48,783	33.9	40,270,769	531,905,249	572,176,018
17-Jun-18	7,876	5.5	40,503	28.1	48,379	33.6	40,278,645	531,945,752	572,224,397
18-Jun-18	8,816	6.1	39,630	27.5	48,446	33.6	40,287,461	531,985,382	572,272,843
19-Jun-18	7,700	5.3	39,082	27.1	46,782	32.5	40,295,161	532,024,464	572,319,625
20-Jun-18	8,026	5.6	39,348	27.3	47,374	32.9	40,303,187	532,063,812	572,366,999
21-Jun-18	7,635	5.3	39,596	27.5	47,231	32.8	40,310,822	532,103,408	572,414,230
22-Jun-18	6,939	4.8	38,419	26.7	45,358	31.5	40,317,761	532,141,827	572,459,588
23-Jun-18	7,011	4.9	38,305	26.6	45,316	31.5	40,324,772	532,180,132	572,504,904
24-Jun-18	7,581	5.3	38,119	26.5	45,700	31.7	40,332,353	532,218,251	572,550,604
25-Jun-18	8,328	5.8	39,810	27.6	48,138	33.4	40,340,681	532,258,061	572,598,742
26-Jun-18	8,523	5.9	38,427	26.7	46,950	32.6	40,349,204	532,296,488	572,645,692
27-Jun-18	7,882	5.5	37,736	26.2	45,618	31.7	40,357,086	532,334,224	572,691,310
28-Jun-18	10,792	7.5	37,839	26.3	48,631	33.8	40,367,878	532,372,063	572,739,941
29-Jun-18	11,331	7.9	38,775	26.9	50,106	34.8	40,379,209	532,410,838	572,790,047
30-Jun-18	10,329	7.2	38,003	26.4	48,332	33.6	40,389,538	532,448,841	572,838,379
1-Jul-18	9,461	6.6	38,110	26.5	47,571	33.0	40,398,999	532,486,951	572,885,950
2-Jul-18	8,992	6.2	38,415	26.7	47,407	32.9	40,407,991	532,525,366	572,933,357
3-Jul-18	8,400	5.8	37,584	26.1	45,984	31.9	40,416,391	532,562,950	572,979,341
4-Jul-18	7,825	5.4	37,708	26.2	45,533	31.6	40,424,216	532,600,658	573,024,874
5-Jul-18	7,358	5.1	36,540	25.4	43,898	30.5	40,431,574	532,637,198	573,068,772
6-Jul-18	7,634	5.3	37,030	25.7	44,664	31.0	40,439,208	532,674,228	573,113,436
7-Jul-18	7,220	5.0	36,470	25.3	43,690	30.3	40,446,428	532,710,698	573,157,126
8-Jul-18	6,867	4.8	36,268	25.2	43,135	30.0	40,453,295	532,746,966	573,200,261
9-Jul-18	6,664	4.6	35,193	24.4	41,857	29.1	40,459,959	532,782,159	573,242,118
10-Jul-18	6,362	4.4	35,050	24.3	41,412	28.8	40,466,321	532,817,209	573,283,530
11-Jul-18	6,167	4.3	35,971	25.0	42,138	29.3	40,472,488	532,853,180	573,325,668
12-Jul-18	6,136	4.3	35,694	24.8	41,830	29.0	40,478,624	532,888,874	573,367,498
13-Jul-18	6,051	4.2	35,176	24.4	41,227	28.6	40,484,675	532,924,050	573,408,725
14-Jul-18	6,321	4.4	34,231	23.8	40,552	28.2	40,490,996	532,958,281	573,449,277
15-Jul-18	7,466	5.2	34,837	24.2	42,303	29.4	40,498,462	532,993,118	573,491,580
16-Jul-18	6,191	4.3	34,455	23.9	40,646	28.2	40,504,653	533,027,573	573,532,226
17-Jul-18	3,766	2.6	20,225	14.0	23,991	16.7	40,508,419	533,047,798	573,556,217
18-Jul-18	7,177	5.0	25,594	17.8	32,771	22.8	40,515,596	533,073,392	573,588,988

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19-Jul-18	11,487	8.0	50,582	35.1	62,069	43.1	40,527,083	533,123,974	573,651,057
20-Jul-18	11,351	7.9	39,559	27.5	50,910	35.4	40,538,434	533,163,533	573,701,967
21-Jul-18	11,230	7.8	37,573	26.1	48,803	33.9	40,549,664	533,201,106	573,750,770
22-Jul-18	11,120	7.7	38,258	26.6	49,378	34.3	40,560,784	533,239,364	573,800,148
23-Jul-18	9,909	6.9	37,602	26.1	47,511	33.0	40,570,693	533,276,966	573,847,659
24-Jul-18	10,589	7.4	38,367	26.6	48,956	34.0	40,581,282	533,315,333	573,896,615
25-Jul-18	10,197	7.1	37,446	26.0	47,643	33.1	40,591,479	533,352,779	573,944,258
26-Jul-18	10,195	7.1	39,634	27.5	49,829	34.6	40,601,674	533,392,413	573,994,087
27-Jul-18	10,114	7.0	40,923	28.4	51,037	35.4	40,611,788	533,433,336	574,045,124
28-Jul-18	9,824	6.8	40,098	27.8	49,922	34.7	40,621,612	533,473,434	574,095,046
29-Jul-18	10,001	6.9	39,871	27.7	49,872	34.6	40,631,613	533,513,305	574,144,918
30-Jul-18	9,655	6.7	40,701	28.3	50,356	35.0	40,641,268	533,554,006	574,195,274
31-Jul-18	9,867	6.9	39,063	27.1	48,930	34.0	40,651,135	533,593,069	574,244,204
1-Aug-18	9,412	6.5	47,048	32.7	56,460	39.2	40,660,547	533,640,117	574,300,664
2-Aug-18	9,699	6.7	40,639	28.2	50,338	35.0	40,670,246	533,680,756	574,351,002
3-Aug-18	9,739	6.8	38,943	27.0	48,682	33.8	40,679,985	533,719,699	574,399,684
4-Aug-18	9,636	6.7	40,676	28.2	50,312	34.9	40,689,621	533,760,375	574,449,996
5-Aug-18	9,265	6.4	41,243	28.6	50,508	35.1	40,698,886	533,801,618	574,500,504
6-Aug-18	9,538	6.6	41,551	28.9	51,089	35.5	40,708,424	533,843,169	574,551,593
7-Aug-18	9,634	6.7	41,111	28.5	50,745	35.2	40,718,058	533,884,280	574,602,338
8-Aug-18	10,004	6.9	41,371	28.7	51,375	35.7	40,728,062	533,925,651	574,653,713
9-Aug-18	9,763	6.8	44,026	30.6	53,789	37.4	40,737,825	533,969,677	574,707,502
10-Aug-18	9,731	6.8	44,618	31.0	54,349	37.7	40,747,556	534,014,295	574,761,851
11-Aug-18	9,729	6.8	45,640	31.7	55,369	38.5	40,757,285	534,059,935	574,817,220
12-Aug-18	9,707	6.7	45,192	31.4	54,899	38.1	40,766,992	534,105,127	574,872,119
13-Aug-18	9,648	6.7	45,849	31.8	55,497	38.5	40,776,640	534,150,976	574,927,616
14-Aug-18	9,523	6.6	46,752	32.5	56,275	39.1	40,786,163	534,197,728	574,983,891
15-Aug-18	9,129	6.3	49,631	34.5	58,760	40.8	40,795,292	534,247,359	575,042,651
16-Aug-18	9,060	6.3	50,659	35.2	59,719	41.5	40,804,352	534,298,018	575,102,370
17-Aug-18	9,022	6.3	50,601	35.1	59,623	41.4	40,813,374	534,348,619	575,161,993
18-Aug-18	8,943	6.2	51,395	35.7	60,338	41.9	40,822,317	534,400,014	575,222,331
19-Aug-18	8,899	6.2	52,462	36.4	61,361	42.6	40,831,216	534,452,476	575,283,692
20-Aug-18	8,903	6.2	52,567	36.5	61,470	42.7	40,840,119	534,505,043	575,345,162
21-Aug-18	8,877	6.2	51,105	35.5	59,982	41.7	40,848,996	534,556,148	575,405,144
22-Aug-18	8,806	6.1	51,750	35.9	60,556	42.1	40,857,802	534,607,898	575,465,700
23-Aug-18	8,717	6.1	51,966	36.1	60,683	42.1	40,866,519	534,659,864	575,526,383
24-Aug-18	8,641	6.0	51,634	35.9	60,275	41.9	40,875,160	534,711,498	575,586,658
25-Aug-18	8,568	6.0	51,041	35.4	59,609	41.4	40,883,728	534,762,539	575,646,267
26-Aug-18	8,490	5.9	49,527	34.4	58,017	40.3	40,892,218	534,812,066	575,704,284
27-Aug-18	8,392	5.8	49,357	34.3	57,749	40.1	40,900,610	534,861,423	575,762,033

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28-Aug-18	8,325	5.8	47,943	33.3	56,268	39.1	40,908,935	534,909,366	575,818,301
29-Aug-18	8,238	5.7	47,634	33.1	55,872	38.8	40,917,173	534,957,000	575,874,173
30-Aug-18	8,144	5.7	47,975	33.3	56,119	39.0	40,925,317	535,004,975	575,930,292
31-Aug-18	8,060	5.6	46,662	32.4	54,722	38.0	40,933,377	535,051,637	575,985,014
1-Sep-18	7,929	5.5	46,569	32.3	54,498	37.8	40,941,306	535,098,206	576,039,512
2-Sep-18	7,741	5.4	45,711	31.7	53,452	37.1	40,949,047	535,143,917	576,092,964
3-Sep-18	7,477	5.2	45,364	31.5	52,841	36.7	40,956,524	535,189,281	576,145,805
4-Sep-18	7,248	5.0	44,360	30.8	51,608	35.8	40,963,772	535,233,641	576,197,413
5-Sep-18	7,058	4.9	43,581	30.3	50,639	35.2	40,970,830	535,277,222	576,248,052
6-Sep-18	6,805	4.7	43,577	30.3	50,382	35.0	40,977,635	535,320,799	576,298,434
7-Sep-18	6,626	4.6	44,463	30.9	51,089	35.5	40,984,261	535,365,262	576,349,523
8-Sep-18	6,503	4.5	43,492	30.2	49,995	34.7	40,990,764	535,408,754	576,399,518
9-Sep-18	6,329	4.4	43,401	30.1	49,730	34.5	40,997,093	535,452,155	576,449,248
10-Sep-18	6,191	4.3	42,956	29.8	49,147	34.1	41,003,284	535,495,111	576,498,395
11-Sep-18	6,092	4.2	45,132	31.3	51,224	35.6	41,009,376	535,540,243	576,549,619
12-Sep-18	6,078	4.2	46,621	32.4	52,699	36.6	41,015,454	535,586,864	576,602,318
13-Sep-18	6,184	4.3	50,525	35.1	56,709	39.4	41,021,638	535,637,389	576,659,027
14-Sep-18	6,232	4.3	51,704	35.9	57,936	40.2	41,027,870	535,689,093	576,716,963
15-Sep-18	6,254	4.3	52,887	36.7	59,141	41.1	41,034,124	535,741,980	576,776,104
16-Sep-18	6,222	4.3	52,887	36.7	59,109	41.0	41,040,346	535,794,867	576,835,213
17-Sep-18	6,185	4.3	53,239	37.0	59,424	41.3	41,046,531	535,848,106	576,894,637
18-Sep-18	6,145	4.3	53,885	37.4	60,030	41.7	41,052,676	535,901,991	576,954,667
19-Sep-18	6,074	4.2	57,974	40.3	64,048	44.5	41,058,750	535,959,965	577,018,715
20-Sep-18	6,041	4.2	59,362	41.2	65,403	45.4	41,064,791	536,019,327	577,084,118
21-Sep-18	6,007	4.2	59,440	41.3	65,447	45.4	41,070,798	536,078,767	577,149,565
22-Sep-18	6,033	4.2	60,662	42.1	66,695	46.3	41,076,831	536,139,429	577,216,260
23-Sep-18	6,296	4.4	60,258	41.8	66,554	46.2	41,083,127	536,199,687	577,282,814
24-Sep-18	6,272	4.4	59,062	41.0	65,334	45.4	41,089,399	536,258,749	577,348,148
25-Sep-18	6,235	4.3	59,375	41.2	65,610	45.6	41,095,634	536,318,124	577,413,758
26-Sep-18	5,920	4.1	62,192	43.2	68,112	47.3	41,101,554	536,380,316	577,481,870
27-Sep-18	13,711	9.5	64,990	45.1	78,701	54.7	41,115,265	536,445,306	577,560,571
28-Sep-18	7,079	4.9	67,769	47.1	74,848	52.0	41,122,344	536,513,075	577,635,419
29-Sep-18	6,685	4.6	69,143	48.0	75,828	52.7	41,129,029	536,582,218	577,711,247
30-Sep-18	6,335	4.4	70,005	48.6	76,340	53.0	41,135,364	536,652,223	577,787,587
1-Oct-18	5,974	4.1	70,014	48.6	75,988	52.8	41,141,338	536,722,237	577,863,575
2-Oct-18	6,836	4.7	69,686	48.4	76,522	53.1	41,148,174	536,791,923	577,940,097
3-Oct-18	6,438	4.5	70,308	48.8	76,746	53.3	41,154,612	536,862,231	578,016,843
4-Oct-18	5,724	4.0	71,327	49.5	77,051	53.5	41,160,336	536,933,558	578,093,894
5-Oct-18	5,401	3.8	71,808	49.9	77,209	53.6	41,165,737	537,005,366	578,171,103
6-Oct-18	5,354	3.7	71,500	49.7	76,854	53.4	41,171,091	537,076,866	578,247,957

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7-Oct-18	5,105	3.5	70,995	49.3	76,100	52.8	41,176,196	537,147,861	578,324,057
8-Oct-18	5,138	3.6	70,876	49.2	76,014	52.8	41,181,334	537,218,737	578,400,071
9-Oct-18	5,172	3.6	69,845	48.5	75,017	52.1	41,186,506	537,288,582	578,475,088
10-Oct-18	5,035	3.5	69,344	48.2	74,379	51.7	41,191,541	537,357,926	578,549,467
11-Oct-18	6,063	4.2	67,676	47.0	73,739	51.2	41,197,604	537,425,602	578,623,206
12-Oct-18	5,416	3.8	69,596	48.3	75,012	52.1	41,203,020	537,495,198	578,698,218
13-Oct-18	4,805	3.3	69,528	48.3	74,333	51.6	41,207,825	537,564,726	578,772,551
14-Oct-18	4,853	3.4	69,204	48.1	74,057	51.4	41,212,678	537,633,930	578,846,608
15-Oct-18	4,771	3.3	67,993	47.2	72,764	50.5	41,217,449	537,701,923	578,919,372
16-Oct-18	4,630	3.2	68,796	47.8	73,426	51.0	41,222,079	537,770,719	578,992,798
17-Oct-18	4,958	3.4	67,634	47.0	72,592	50.4	41,227,037	537,838,353	579,065,390
18-Oct-18	4,859	3.4	66,557	46.2	71,416	49.6	41,231,896	537,904,910	579,136,806
19-Oct-18	4,912	3.4	63,408	44.0	68,320	47.4	41,236,808	537,968,318	579,205,126
20-Oct-18	4,904	3.4	62,052	43.1	66,956	46.5	41,241,712	538,030,370	579,272,082
21-Oct-18	4,860	3.4	63,867	44.4	68,727	47.7	41,246,572	538,094,237	579,340,809
22-Oct-18	4,953	3.4	61,199	42.5	66,152	45.9	41,251,525	538,155,436	579,406,961
23-Oct-18	4,824	3.4	60,135	41.8	64,959	45.1	41,256,349	538,215,571	579,471,920
24-Oct-18	4,880	3.4	59,442	41.3	64,322	44.7	41,261,229	538,275,013	579,536,242
25-Oct-18	4,984	3.5	58,315	40.5	63,299	44.0	41,266,213	538,333,328	579,599,541
26-Oct-18	5,017	3.5	57,714	40.1	62,731	43.6	41,271,230	538,391,042	579,662,272
27-Oct-18	4,959	3.4	55,383	38.5	60,342	41.9	41,276,189	538,446,425	579,722,614
28-Oct-18	5,141	3.6	57,532	40.0	62,673	43.5	41,281,330	538,503,957	579,785,287
29-Oct-18	5,051	3.5	56,817	39.5	61,868	43.0	41,286,381	538,560,774	579,847,155
30-Oct-18	5,273	3.7	56,444	39.2	61,717	42.9	41,291,654	538,617,218	579,908,872
31-Oct-18	5,143	3.6	55,154	38.3	60,297	41.9	41,296,797	538,672,372	579,969,169
1-Nov-18	5,166	3.6	55,135	38.3	60,301	41.9	41,301,963	538,727,507	580,029,470
2-Nov-18	5,083	3.5	54,115	37.6	59,198	41.1	41,307,046	538,781,622	580,088,668
3-Nov-18	6,734	4.7	59,162	41.1	65,896	45.8	41,313,780	538,840,784	580,154,564
4-Nov-18	5,364	3.7	62,750	43.6	68,114	47.3	41,319,144	538,903,534	580,222,678
5-Nov-18	5,162	3.6	63,983	44.4	69,145	48.0	41,324,306	538,967,517	580,291,823
6-Nov-18	5,771	4.0	64,010	44.5	69,781	48.5	41,330,077	539,031,527	580,361,604
7-Nov-18	5,285	3.7	67,113	46.6	72,398	50.3	41,335,362	539,098,640	580,434,002
8-Nov-18	4,957	3.4	68,928	47.9	73,885	51.3	41,340,319	539,167,568	580,507,887
9-Nov-18	4,740	3.3	67,989	47.2	72,729	50.5	41,345,059	539,235,557	580,580,616
10-Nov-18	4,796	3.3	70,050	48.6	74,846	52.0	41,349,855	539,305,607	580,655,462
11-Nov-18	4,457	3.1	71,087	49.4	75,544	52.5	41,354,312	539,376,694	580,731,006
12-Nov-18	4,039	2.8	71,189	49.4	75,228	52.2	41,358,351	539,447,883	580,806,234
13-Nov-18	4,351	3.0	71,003	49.3	75,354	52.3	41,362,702	539,518,886	580,881,588
14-Nov-18	4,075	2.8	72,850	50.6	76,925	53.4	41,366,777	539,591,736	580,958,513
15-Nov-18	3,850	2.7	72,480	50.3	76,330	53.0	41,370,627	539,664,216	581,034,843

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16-Nov-18	3,415	2.4	71,710	49.8	75,125	52.2	41,374,042	539,735,926	581,109,968
17-Nov-18	1,162	0.8	72,599	50.4	73,761	51.2	41,375,204	539,808,525	581,183,729
18-Nov-18	785	0.5	72,134	50.1	72,919	50.6	41,375,989	539,880,659	581,256,648
19-Nov-18	859	0.6	72,019	50.0	72,878	50.6	41,376,848	539,952,678	581,329,526
20-Nov-18	990	0.7	73,457	51.0	74,447	51.7	41,377,838	540,026,135	581,403,973
21-Nov-18	921	0.6	75,248	52.3	76,169	52.9	41,378,759	540,101,383	581,480,142
22-Nov-18	768	0.5	76,495	53.1	77,263	53.7	41,379,527	540,177,878	581,557,405
23-Nov-18	4,713	3.3	80,787	56.1	85,500	59.4	41,384,240	540,258,665	581,642,905
24-Nov-18	20,141	14.0	80,208	55.7	100,349	69.7	41,404,381	540,338,873	581,743,254
25-Nov-18	21,255	14.8	77,647	53.9	98,902	68.7	41,425,636	540,416,520	581,842,156
26-Nov-18	21,440	14.9	76,251	53.0	97,691	67.8	41,447,076	540,492,771	581,939,847
27-Nov-18	22,127	15.4	79,763	55.4	101,890	70.8	41,469,203	540,572,534	582,041,737
28-Nov-18	20,699	14.4	84,259	58.5	104,958	72.9	41,489,902	540,656,793	582,146,695
29-Nov-18	20,072	13.9	86,138	59.8	106,210	73.8	41,509,974	540,742,931	582,252,905
30-Nov-18	19,711	13.7	85,357	59.3	105,068	73.0	41,529,685	540,828,288	582,357,973
1-Dec-18	19,555	13.6	83,718	58.1	103,273	71.7	41,549,240	540,912,006	582,461,246
2-Dec-18	19,656	13.7	79,725	55.4	99,381	69.0	41,568,896	540,991,731	582,560,627
3-Dec-18	19,108	13.3	80,305	55.8	99,413	69.0	41,588,004	541,072,036	582,660,040
4-Dec-18	18,889	13.1	79,906	55.5	98,795	68.6	41,606,893	541,151,942	582,758,835
5-Dec-18	18,896	13.1	77,280	53.7	96,176	66.8	41,625,789	541,229,222	582,855,011
6-Dec-18	18,781	13.0	76,374	53.0	95,155	66.1	41,644,570	541,305,596	582,950,166
7-Dec-18	18,343	12.7	74,933	52.0	93,276	64.8	41,662,913	541,380,529	583,043,442
8-Dec-18	18,239	12.7	72,978	50.7	91,217	63.3	41,681,152	541,453,507	583,134,659
9-Dec-18	18,407	12.8	70,437	48.9	88,844	61.7	41,699,559	541,523,944	583,223,503
10-Dec-18	17,969	12.5	69,964	48.6	87,933	61.1	41,717,528	541,593,908	583,311,436
11-Dec-18	17,817	12.4	67,728	47.0	85,545	59.4	41,735,345	541,661,636	583,396,981
12-Dec-18	17,748	12.3	67,937	47.2	85,685	59.5	41,753,093	541,729,573	583,482,666
13-Dec-18	17,488	12.1	66,482	46.2	83,970	58.3	41,770,581	541,796,055	583,566,636
14-Dec-18	17,365	12.1	64,062	44.5	81,427	56.5	41,787,946	541,860,117	583,648,063
15-Dec-18	17,229	12.0	63,117	43.8	80,346	55.8	41,805,175	541,923,234	583,728,409
16-Dec-18	17,127	11.9	61,273	42.6	78,400	54.4	41,822,302	541,984,507	583,806,809
17-Dec-18	17,099	11.9	60,801	42.2	77,900	54.1	41,839,401	542,045,308	583,884,709
18-Dec-18	16,919	11.7	61,998	43.1	78,917	54.8	41,856,320	542,107,306	583,963,626
19-Dec-18	16,789	11.7	59,587	41.4	76,376	53.0	41,873,109	542,166,893	584,040,002
20-Dec-18	16,937	11.8	58,753	40.8	75,690	52.6	41,890,046	542,225,646	584,115,692
21-Dec-18	18,793	13.1	59,308	41.2	78,101	54.2	41,908,839	542,284,954	584,193,793
22-Dec-18	17,236	12.0	73,337	50.9	90,573	62.9	41,926,075	542,358,291	584,284,366
23-Dec-18	16,753	11.6	75,515	52.4	92,268	64.1	41,942,828	542,433,806	584,376,634
24-Dec-18	16,601	11.5	75,531	52.5	92,132	64.0	41,959,429	542,509,337	584,468,766
25-Dec-18	16,563	11.5	75,364	52.3	91,927	63.8	41,975,992	542,584,701	584,560,693

Former IBM Kingston Site (TechCity Facility)
Groundwater Collection System and North Parking Lot Area Extraction Data
Last Updated: *02/08/19*

Date	NPLA PS1 & PS2 Daily Flow (gal)	Average Pumping Rate (NPLA) (gpm)	Total GWCS Daily Flow (gal)	Average Pumping Rate (GWCS) (gpm)	Average Daily Flow Treatment System (gal)	Average Pumping Rate Treatment Sys (gpm)	Cumulative Gallons Pumped (NPLA only)	Cumulative Gallons Pumped (GWCS only)	Cumulative Gallons Pumped (Overall)
26-Dec-18	16,505	11.5	74,433	51.7	90,938	63.2	41,992,497	542,659,134	584,651,631
27-Dec-18	16,558	11.5	72,365	50.3	88,923	61.8	42,009,055	542,731,499	584,740,554
28-Dec-18	16,696	11.6	69,638	48.4	86,334	60.0	42,025,751	542,801,137	584,826,888
29-Dec-18	16,574	11.5	70,713	49.1	87,287	60.6	42,042,325	542,871,850	584,914,175
30-Dec-18	16,681	11.6	68,431	47.5	85,112	59.1	42,059,006	542,940,281	584,999,287
31-Dec-18	16,723	11.6	66,074	45.9	82,797	57.5	42,075,729	543,006,355	585,082,084

Appendix D

Groundwater Extraction and Treatment System Data Report including Flux Calculations

Former IBM Kingston Facility
Groundwater Treatment System Effectiveness Data
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		01/08/18	01/11/18	02/01/18	02/08/18	03/01/18	03/08/18
LABORATORY SAMPLE I.D.		420131442-3	420131641-2	420132396-3	420132649-2	420133574-3	420133803-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	NA	NA	NA	NA	NA	NA
TEMPERATURE	C	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
TOTAL SUSPENDED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
METALS							
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	42	95D	34	41	52	31
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	14	28	12	13	16	9.8
1,1-DICHLOROETHYLENE	ug/l	7.3	21	7.4	9.0	14	6.4
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	1.0	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	46	27	39	43	22	32
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

Former IBM Kingston Facility
Groundwater Treatment System Effectiveness Data
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		01/08/18	01/11/18	02/01/18	02/08/18	03/01/18	03/08/18
LABORATORY SAMPLE I.D.		420131442-3	420131641-2	420132396-3	420132649-2	420133574-3	420133803-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	2.2	1.0	1.8	2.3	1.3	2.3
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	94	55	79	96	53	82
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

Former IBM Kingston Facility
Groundwater Treatment System Effectiveness Data
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		04/09/18	04/17/18	05/03/18	05/10/18	06/07/18	06/14/18
LABORATORY SAMPLE I.D.		420135109-3	420135454-2	420136208-3	420136552-2	420137791-3	420138147-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	NA	NA	NA	NA	NA	NA
TEMPERATURE	C	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
TOTAL SUSPENDED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
METALS							
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	37	32	30	33	60	41
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	14	11	11	11	19	12
1,1-DICHLOROETHYLENE	ug/l	17	9.3	5.7	6.0	18	8.6
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	22	35	36	38	24	35
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

Former IBM Kingston Facility
Groundwater Treatment System Effectiveness Data
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		04/09/18	04/17/18	05/03/18	05/10/18	06/07/18	06/14/18
LABORATORY SAMPLE I.D.		420135109-3	420135454-2	420136208-3	420136552-2	420137791-3	420138147-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	1.5	2.0	1.8	1.9	1.1	2.0
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	56	86	81	85	54	91
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

Former IBM Kingston Facility
Groundwater Treatment System Effectiveness Data
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/05/18	07/12/18	08/09/18	08/16/18	09/07/18	09/18/18
LABORATORY SAMPLE I.D.		420139131-3	420139539-2	420140891-3	420141264-2	420142270-3	420142769-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	NA	NA	NA	NA	NA	NA
TEMPERATURE	C	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
TOTAL SUSPENDED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
METALS							
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	48	76	41	63	47D	30
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	14	23	12	19	20	10
1,1-DICHLOROETHYLENE	ug/l	9.6	23	6.5	16	15	4.5
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	47	26	42	33	32	35
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/05/18	07/12/18	08/09/18	08/16/18	09/07/18	09/18/18
LABORATORY SAMPLE I.D.		420139131-3	420139539-2	420140891-3	420141264-2	420142270-3	420142769-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	1.8	ND@1	1.8	ND@1	1.5	1.6
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	82D	61	91	65	55D	54D
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/04/18	10/11/18	11/01/18	11/08/18	12/06/18	12/13/18
LABORATORY SAMPLE I.D.		420143671-3	420143996-2	420144872-3	420145268-2	420146498-3	420146927-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	NA	NA	NA	NA	NA	NA
TEMPERATURE	C	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
TOTAL SUSPENDED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
METALS							
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	24	41	28	44	33	39
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	8.3	19	10	20	16	18
1,1-DICHLOROETHYLENE	ug/l	4.4	15	5.3	16	16	17
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	28	26	29	27	19	28
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS	GWCS UP AS
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/04/18	10/11/18	11/01/18	11/08/18	12/06/18	12/13/18
LABORATORY SAMPLE I.D.		420143671-3	420143996-2	420144872-3	420145268-2	420146498-3	420146927-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	1.5	1.3	ND@1	1.1	ND@1	1.2
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	51D	180D	69D	49D	45	51D
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		01/08/18	02/01/18	03/01/18	04/09/18	05/03/18	06/07/18
LABORATORY SAMPLE I.D.		420131442-2	420132396-2	420133574-2	420135109-2	420136208-2	420137791-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	NA	NA	NA	NA	NA	NA
TEMPERATURE	C	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
TOTAL SUSPENDED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
METALS							
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	1.0	ND@1	22	1.8	5.5	12
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	6.9	ND@1	4.7	3.8
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	2.5	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	1.3	ND@1	24	1.7	5.3	8.2
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		01/08/18	02/01/18	03/01/18	04/09/18	05/03/18	06/07/18
LABORATORY SAMPLE I.D.		420131442-2	420132396-2	420133574-2	420135109-2	420136208-2	420137791-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	1.0	1.1	1.2	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	2.1	1.9	14	2.0	4.0	33
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/05/18	08/09/18	09/07/18	10/04/18	11/01/18	12/06/18
LABORATORY SAMPLE I.D.		420139131-2	420140891-2	420142270-2	420143671-2	420144872-2	420146498-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	NA	NA	NA	NA	NA	NA
TEMPERATURE	C	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
TOTAL SUSPENDED SOLIDS	mg/l	NA	NA	NA	NA	NA	NA
METALS							
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	2.4	2.0	2.5	57D	2.4	54D
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	2.2	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	1.6	1.1	1.8	53	1.7	26
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	1.8
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	4.3	1.6	1.9	30	1.1	49
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL	NPLA INFL
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		07/05/18	08/09/18	09/07/18	10/04/18	11/01/18	12/06/18
LABORATORY SAMPLE I.D.		420139131-2	420140891-2	420142270-2	420143671-2	420144872-2	420146498-2
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	1.3	1.5	4.1	1.0	4.2
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	71	3.4	3.1	22	3.0	34
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	2.7
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		01/08/18	01/08/18	01/11/18	02/01/18	02/08/18	03/01/18
LABORATORY SAMPLE I.D.		420131441-1	420131442-1	420131641-1	420132396-1	420132649-1	420133574-1
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	NA	8.45	8.37	8.46	8.14	7.30
TEMPERATURE	C	NA	11.7	14.0	12.9	10.9	11.6
TOTAL DISSOLVED SOLIDS	mg/l	NA	420	NA	330	NA	390
TOTAL SUSPENDED SOLIDS	mg/l	NA	ND@1.0	NA	1.1	NA	ND@1.0
METALS							
LEAD, TOTAL	mg/l	ND@0.0050	NA	NA	NA	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
ACROLEIN	ug/l	NA	ND@2	ND@2	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		01/08/18	01/08/18	01/11/18	02/01/18	02/08/18	03/01/18
LABORATORY SAMPLE I.D.		420131441-1	420131442-1	420131641-1	420132396-1	420132649-1	420133574-1
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		03/08/18	04/09/18	04/09/18	04/17/18	05/03/18	05/10/18
LABORATORY SAMPLE I.D.		420133803-1	420135109-1	420135110-1	420135454-1	420136208-1	420136552-1
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	7.97	8.14	NA	8.12	7.92	7.85
TEMPERATURE	C	11.4	10.9	NA	13.7	14.1	14.2
TOTAL DISSOLVED SOLIDS	mg/l	NA	480	NA	NA	490	NA
TOTAL SUSPENDED SOLIDS	mg/l	NA	1.2	NA	NA	1.2	NA
METALS							
LEAD, TOTAL	mg/l	NA	NA	ND@0.0050	NA	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	NA	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1

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SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		03/08/18	04/09/18	04/09/18	04/17/18	05/03/18	05/10/18
LABORATORY SAMPLE I.D.		420133803-1	420135109-1	420135110-1	420135454-1	420136208-1	420136552-1
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	NA	ND@1	ND@1	ND@1

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SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		06/07/18	06/14/18	07/05/18	07/05/18	07/12/18	08/09/18
LABORATORY SAMPLE I.D.		420137791-1	420138147-1	420139131-1	420139133-1	420139539-1	420140891-1
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	8.31	8.13	8.27	NA	8.28	8.42
TEMPERATURE	C	15.6	19.1	20.3	NA	19.2	21.5
TOTAL DISSOLVED SOLIDS	mg/l	400	NA	390	NA	NA	440
TOTAL SUSPENDED SOLIDS	mg/l	1.7	NA	8.3	NA	NA	3.0
METALS							
LEAD, TOTAL	mg/l	NA	NA	NA	ND@0.0050	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	NA	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1

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SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		06/07/18	06/14/18	07/05/18	07/05/18	07/12/18	08/09/18
LABORATORY SAMPLE I.D.		420137791-1	420138147-1	420139131-1	420139133-1	420139539-1	420140891-1
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1

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SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		08/16/18	09/07/18	09/18/18	10/04/18	10/04/18	10/11/18
LABORATORY SAMPLE I.D.		420141264-1	420142270-1	420142769-1	420143670-1	420143671-1	420143996-1
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
INDICATOR PARAMETERS							
PH	pH	8.05	8.39	8.24	NA	8.42	8.32
TEMPERATURE	C	20.2	19.0	20.4	NA	19.5	20.6
TOTAL DISSOLVED SOLIDS	mg/l	NA	460	NA	NA	510	NA
TOTAL SUSPENDED SOLIDS	mg/l	NA	ND@1.0	NA	NA	ND@1.0	NA
METALS							
LEAD, TOTAL	mg/l	NA	NA	NA	ND@0.0050	NA	NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	NA	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1

Former IBM Kingston Facility
Groundwater Treatment System Effectiveness Data
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		08/16/18	09/07/18	09/18/18	10/04/18	10/04/18	10/11/18
LABORATORY SAMPLE I.D.		420141264-1	420142270-1	420142769-1	420143670-1	420143671-1	420143996-1
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
BROMOFORM	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	NA	ND@1	ND@1

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January 1, 2018 - December 31, 2018

SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		11/01/18	11/08/18	12/06/18	12/13/18
LABORATORY SAMPLE I.D.		420144872-1	420145268-1	420146498-1	420146927-1
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS					
PH	pH	8.53	7.80	8.33	7.96
TEMPERATURE	C	17.7	17.3	15.0	16.5
TOTAL DISSOLVED SOLIDS	mg/l	430	NA	390	NA
TOTAL SUSPENDED SOLIDS	mg/l	ND@1.0	NA	ND@1.0	NA
METALS					
LEAD, TOTAL	mg/l	NA	NA	NA	NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
ACROLEIN	ug/l	ND@2	ND@2	ND@2	ND@2
ACRYLONITRILE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1

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Groundwater Treatment System Effectiveness Data
January 1, 2018 - December 31, 2018

SAMPLE LOCATION		SPDES OF 01A	SPDES OF 01A	SPDES OF 01A	SPDES OF 01A
SAMPLE DESCRIPTION		SPDES OUTFL	SPDES OUTFL	SPDES OUTFL	SPDES OUTFL
SAMPLE DATE		11/01/18	11/08/18	12/06/18	12/13/18
LABORATORY SAMPLE I.D.		420144872-1	420145268-1	420146498-1	420146927-1
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1

Former IBM Kingston Facility
Groundwater Treatment System Effectiveness Data
January 1, 2018 - December 31, 2018

EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

NA	Not Analyzed
ND@X	Not Detected at Detection Limit X
BMRL@X	Below Minimum Reporting Limit of X

CODE	EXPLANATION
^	Non-Standard Measurement Unit
c	Sample contained sediment which may have contributed to reported results
d	24 Hour Composite Sample
B	Analyte detected in both the sample and the laboratory blank
D	Compounds identifed at a secondary dilution factor
E	Concentration exceeds the calibration range of the GC/MS instrument
J	Estimated Value
N	Spiked sample recovery not within control limits
P	Lower of 2 GC column concentrations that have more than 25% difference
R	Reported value is less than the CRDL but greater than the IDL
S	Surrogate recoveries exceed acceptable control limits
W	Post digestion spike FAA out of control limits; sample absorbance < 50%
*	Manhole flooded when sediment sample collected
A	Monitoring well replaced. Sample collected from replacement well.
L	Lab Error
H	Sample was prepped or analyzed beyond specified method holding time
p	%RPD between primary & confirmation column is >40%. Lower value reported

Former IBM Kingston Facility Flux Calculations

Groundwater Collection System and
North Parking Lot Area Passive Groundwater Collection System

Groundwater Collection System

Total Gallons Extracted January 1, 2018 - December 31, 2018: 18,688,774

Average Flow Rate 51,202 gal/day

	avg. ug/l	Flux lbs/day
Tetrachloroethene	1.7	0.00070
Trichloroethene	73.5	0.03140
12-Dichloroethene(tot)	32.1	0.01371
Vinyl Chloride	0.0	0.00000
111-Trichloroethane	43.4	0.01854
11-Dichloroethane	15.0	0.00641
12-Dichloroethane	0.1	0.00004
11-Dichloroethene	11.6	0.00495
Freon 113	0.0	0.00000
Freon 123a	0.0	0.00000

Total flux contributed by GWCS: 0.07574 lbs/day
Annual Flux for GWCS: 27.65 lbs

North Parking Lot Area Passive Groundwater Collection System

Total Gallons Extracted January 1, 2018 - December 31, 2018: 2,857,458

Average Flow Rate 7,829 gal/day

	avg. ug/l	Flux lbs/day
Tetrachloroethene	1.3	0.00008
Trichloroethene	16.1	0.00105
12-Dichloroethene(tot)	11.7	0.00076
Vinyl Chloride	0.2	0.00001
111-Trichloroethane	13.5	0.00088
11-Dichloroethane	8.4	0.00055
12-Dichloroethane	0.0	0.00000
11-Dichloroethene	0.4	0.00002
Freon 113	0.2	0.00001
Freon 123a	0.0	0.00000

Total flux contributed by NPLA pump stations: 0.00337 lbs/day
Annual Flux for NPLA pump stations: 1.23 lbs

overall flux: ***28.8767***