PERIODIC REVIEW REPORT
FOR PERIOD
JANUARY 2018 THROUGH DECEMBER 2018

ROCHESTER FIRE TRAINING ACADEMY
1190 SCOTTSVILLE ROAD
ROCHESTER, NEW YORK, 14624
NYSDEC SITE #828015

Prepared For: **City of Rochester**
Division of Environmental Quality
Rochester, New York

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1563 Lyell Avenue
Rochester, New York

Date: **January 2019**

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I. Executive Summary

A. Summary

The Rochester Fire Training Academy (RFA) site (Site) is located on the west bank of the Genesee River at 1190 Scottsville Road in the City of Rochester, Monroe County, New York. A Site location map is included as Figure 1. The Site is divided into five areas, which include the North Disposal Area (NDA), Training Grounds Area (TGA), Police Obstacle Course/Firing Range, South Disposal Area (SDA), and the Genesee Valley Park Area (GVPA). A Site map is included as Figure 2.

Based upon the results of remedial investigation activities, the types of contamination at the Site that were identified to require remediation included:

- Polychlorinated biphenyls (PCB's);
- Heavy metals, including lead and cadmium; and
- Volatile Organic Compounds (VOC's).

Remedial actions performed at the Site in accordance with the March 1993 Record of Decision include:

- Excavation and treatment of selected soils in the SDA and TGA, followed by on-site soil conditioning and placement in the NDA (completed);
- Excavation and off-site disposal of a smaller volume of soils (completed);
- Excavation and placement of GVPA soils in the NDA (completed);
- Restoration of the remediation areas (SDA, TGA and GVPA) (completed);
- Capping of the NDA (completed);
- Groundwater collection and treatment in the SDA (ongoing); and
- General Site management activities (ongoing).

B. Effectiveness of the Remedial Program

Progress made during the reporting period toward meeting the remedial objectives for the Site include continued operation and monitoring of the SDA groundwater collection and treatment system, and maintenance of the associated Site institutional and engineering controls in accordance with the general requirements of the Site Operation and Maintenance Manual. Monitoring data from the work completed to date shows that the remedial program is currently meeting, and has the ability to achieve, the remedial objectives for the Site.

C. Compliance

No areas were identified as being currently out of compliance with the Site management and monitoring program requirements, as described in the current Operation and Maintenance Manual dated December 2017. As such, no steps are currently deemed necessary to correct areas of non-compliance.

D. Recommendations

PRR recommendations and proposed scheduling are detailed in Section VI.C. A summary of these recommendations is provided below.

1. Since residual contamination remains on the Site, applicable site management requirements, as specified in the current Operations and Maintenance Manual, should be continued.

2. Surface sealing of minor joints and/or cracks is needed on an ongoing basis to maintain the integrity of the TGA cap. An existing open area of excavation at the TGA (see IC/EC Certification attachment, Appendix E) is currently protected from rainfall and infiltration, and the plastic sheeting cover needs to be maintained until construction is completed and a permanent impermeable surface cover is restored to the TGA. For the TGA, Monroe County is responsible for "maintaining the facility consistent with the Site Record of Decision and the New York State approved Operations and Maintenance Manual for the Site".

II. Site Overview

The RFA is an active police and fire training academy which has been operated by the City of Rochester since 1954. During the time period from 1954 through 1980, flammable liquids from local industries and other sources were accepted by the RFA as sources of fuel for training purposes. In 1980, the New York State Department of Environmental Conservation (NYSDEC) began investigating the RFA's disposal practices, and subsequently directed the removal of more than 200 drums and numerous chemical reagent bottles from the NDA, SDA, and TGA. While no hazardous waste disposal occurred in the GVPA, some surficial contamination of park grounds did occur adjacent to the site along the Genesee River.

The City of Rochester signed an Order on Consent with the NYSDEC on May 5, 1989 to investigate the extent of contamination and remediate the site. To address the nature of the contamination and determine the most appropriate alternatives to remediate the site, the City retained Malcolm Pirnie, Inc. to conduct a Remedial Investigation/Feasibility Study (RIFS). The RIFS results indicated that area soils were contaminated with polychlorinated biphenyls (PCBs), lead, cadmium, and volatile organic compounds (VOCs). The primary focus was on the TGA, GVPA, and SDA portions of the property. Groundwater contamination at the RFA site, caused by the storage and disposal of solvents, was determined to be essentially confined to the SDA. SDA soils were shown to be contaminated with VOCs as well as PCBs and metals. Soils in the TGA and the GVPA were shown to be contaminated primarily with PCBs and metals.

Based on the results of the RIFS, a NYSDEC Record of Decision was published in March 1993 that specified remedial actions and objectives for the groundwater and soils to meet applicable standards, criteria, and guidelines (SCGs), and to protect human health and the environment. The selected remedy specified that heavily contaminated soils were to be treated and/or removed from the Site, with residual Site contamination to be addressed through natural attenuation supplemented by institutional and engineering controls, including capping/covering select areas for isolation and to minimize infiltration, and groundwater treatment for contaminant removal and hydraulic containment.

Specifically, the remedial design for the site required that soils in the SDA containing total VOCs, PCBs, or cadmium equal to or above 10 mg/kg and/or containing lead concentrations equal to or greater than 250 mg/kg be excavated. The excavated soils were conditioned using a thermal desorber to reduce VOC levels to less than the Action Limit of 10 mg/kg. Following desorption, soils requiring solidification and stabilization were stockpiled in the TGA for additional treatment consisting of mixing the soil with cement and water to form a slurry. The slurry was then placed in the NDA and later capped with a soil/synthetic cover barrier layer. Excavated soils containing PCB concentrations greater than or equal to 50 mg/kg were disposed of off-site.

The groundwater treatment remedial component consists of a groundwater intercept trench and treatment plant installed at the SDA to provide for contaminant removal and a degree of hydraulic containment. Contaminated groundwater is collected via a 191-ft long collection trench, and pumped via a submersible pump station to the Groundwater Treatment System (GWTS) building located on the southwestern portion of the SDA. The GWTS processes groundwater through dual particulate filters and an air stripper to remove VOC's prior to discharge to the Monroe County sanitary sewer system. Operation of the GWTS was initiated in March 1998, and the GWTS discharge is permitted and regulated under a sanitary sewer industrial use permit granted by the Monroe County Department of Pure Waters (MCPW permit #705).

III. Monitoring Plan Compliance and Remedy Evaluation

A. Monitoring Plan Components

Monitoring and laboratory analyses were completed in accordance with the Operations and Maintenance Manual (O&MM) monitoring plan and Sewer Discharge Permit requirements. A summary of the routine monitoring and analyses is provided in the table below. Other site monitoring and inspections are as detailed in Section V.A.

Item	Frequency	Lab Analyses
Groundwater Monitoring Well Sampling	Semi-Annual	VOCs + MTBE (EPA 601/602)
GWTS Influent Sampling	Quarterly	VOCs (EPA 624), Pesticides (EPA 608)
GWTS Effluent Sampling	Monthly	Purgeable Halocarbons, Purgeable Aromatics, pH, flow rate
	Quarterly	Metals, Pesticides, Diethyl Phthalate

B. Analytical Monitoring Data

Groundwater sampling from monitoring wells was performed semi-annually throughout the review period in accordance with the schedule and procedures specified in the O&MM (including Appendices E.1 through E.4) and/or in accordance with EPA low-flow monitoring procedures. GWTS sampling was performed in general accordance with Site (O&MM) and current Sewer Use Permit requirements. Samples intended for laboratory analyses were collected and stored in the appropriate polyethylene or glass bottles, preserved in the field, and transferred within allowable hold times to an ELAP-certified laboratory for analysis.

In addition to the routine sampling parameters, and in accordance with NYSDEC's request, a one-time analysis for 1,4-dioxane and perfluoroalkyl substances (PFAS) was conducted upon the groundwater influent to the treatment system and at seven additional monitoring wells. Results from these analyses had not been finalized at time of this report preparation, and will be submitted to NYSDEC separately.

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Summary tables of the most recent monitoring results, including the current reporting period (January through December 2018), are provided in Appendix A, and graphical trend lines and historical well data for select contaminants of concern (1998 through 2018) are included in Appendix B to this report. The upgradient wells MW-6, MW-9, and MW-10 are monitored to establish background groundwater quality. The remaining wells are monitored to establish the downgradient water quality. Refer to Figure 3 for the monitoring well locations.

A full copy of the analytical laboratory reports for analyses completed during the current PRR reporting period are included in Appendix C. A brief evaluation of the data and trends for the three monitored remedial areas is provided below (see Section III.D. for analysis of GWTS analytical data).

NDA: Upgradient well (MW-10I) continues to consistently show MTBE in the 0 to 10 µg/l range. Downgradient well MW-11I has recently exhibited elevated concentrations of vinyl chloride (reported in the range of 245 to 476 µg/l over the past six years, above the historical range of 82 to 273 µg/l observed at this location from 2005 through 2012). MW-11I will continue to be monitored to identify any long-term trends. With the exception of 1,2-dichloroethane (detected in 2008 and 2016 samples, but non-detectable since), no other VOC's have been reported above detectable levels more than once since initiation of monitoring.

TGA: Upgradient well (MW-6I) continues to show vinyl chloride in a fairly consistent range of 0 to 10 µg/l over the past 10-plus years, with a single high level of 14 µg/l reported for 11/30/12. Vinyl chloride at downgradient well MW-8I was consistently reported to be less than 400 µg/l (and usually below 200 µg/l) prior to 2007, after which a singular high result of 850 µg/l was reported. Vinyl chloride concentrations since that time remain slightly elevated compared to prior years, generally in the 150 to 400 µg/l range. No other VOC's have been reported above detectable levels more than once at MW-8I since initiation of monitoring. Benzene at downgradient well MW-15S was detected multiple times at concentrations of up to 291 µg/l in earlier monitoring events (prior to 2006), but benzene concentrations at this location have stabilized, with reported levels consistently below 2 µg/l since that time (non-detectable for the last 7 years).

SDA: Upgradient (MW-9D) and downgradient (MW-7S and MW-7I) wells each experienced increases in one or more of the monitored chlorinated VOC's (TCE, DCE and vinyl chloride) over the period of 2010 to 2013, which directly corresponded to the period of the GWTS shutdown. The elevated VOC concentrations have since predominantly returned to historical, typical ranges following restart of the GWTS in April 2013.

Overall, based upon the analytical results for the current monitoring period, monitoring well concentrations of VOC's in the NDA and TGA were generally observed to remain within their historical stable and consistent ranges, which demonstrates the effectiveness of the cover systems in minimizing contaminant migration. The lone exception to this is an elevated concentration of vinyl chloride observed since 2014 at well MW-11I, located downgradient from the NDA. While vinyl chloride concentrations at MW-11I remain generally consistent and stable over this period, continued monitoring is recommended.

Wells in the SDA were noticeably impacted by the GWTS shutdown period (2010 to 2013); however, the observed and relatively quick restoration of the majority of VOC levels in the SDA wells to pre-shutdown concentration ranges demonstrates the effectiveness of the groundwater intercept trench in providing hydraulic containment, minimizing any migration of the SDA contaminants.

C. GWTS Flow Data

The GWTS is currently specified to be operated continuously (weekends included) to remove contaminants and maintain a depressed groundwater table in the vicinity of the groundwater collection trench. A summary of the annual GWTS flow data (total gallons processed and discharged) over the most recent five year period is as follows:

	Period of Operation				
	2014	2015	2016	2017	2018
Total Flow (gal)	1,313,659	1,163,289	1,068,103	1,455,093	1,212,908
Operating Days	320	349	353	360	332
Avg. Daily Flow (gal)	4,105	3,333	3,026	4,042	3,653

D. Contaminant Removal

Based upon measured flowrates and analytical monitoring of the groundwater treatment system influent concentrations, the mass of contaminants (VOC's) removed from the Site by the GWTS for the most recent five-year period is as follows:

	Period of Operation				
	2014	2015	2016	2017	2018
Total Flow (gal)	1,313,659	1,163,289	1,068,103	1,455,093	1,212,908
Avg. VOC's (µg/l)	12,512	10,562	13,599	9,756	12,219
Net VOC Removal (lb)	137	102	122	112	124

In terms of treatment system effectiveness, effluent data demonstrates that the wastewater treatment system process has proven effective and has generally maintained compliance with the applicable effluent discharge limits since it's time of start-up. The lone exception to this is a single discharge permit exceedance occurring in July of 2009 which was attributed to a faulty flow sensor controlling the operation of the air stripper blower.

E. Air Emissions

Volatile organic compounds (VOCs) liberated from the groundwater are emitted to the outdoor atmosphere in the air discharged from the GWTS air stripper, which has been identified as an air emission point source. The air stripper is exempt from formal permitting requirements; however, monitoring is performed to confirm compliance with NYSDEC-approved air loadings listed in the O&MM. VOC emissions are estimated by mass balance using monitored flow rates, and influent and effluent VOC concentrations. Results are summarized in the chart in Appendix B, which shows that emissions continue to be well within approved levels.

F. Evaluation of Remedy Performance, Effectiveness and Protectiveness

Based upon the results of performance monitoring conducted over the course of time covered by this PRR, the effectiveness of the GWTS and associated Site remedial activities is summarized as follows:

- The GWTS extraction well/trench system is effective at capturing and removing VOC's from the SDA (4,393 pounds removed since startup in 1998).

- The GWTS process is effective and meeting program objectives in treating the extracted groundwater sufficiently to comply with effluent sewer use limits.

- Groundwater depression created by operation of the GWTS appears to be effective and meeting program objectives in providing basic hydraulic containment within the SDA, as evidenced by static water level data and groundwater monitoring results for the wells in this area.

- The Site cap and cover systems appear to be generally effective and meeting program objectives in minimizing the potential for contaminant migration, as evidenced by groundwater monitoring results for the downgradient wells in these areas.

- The long-term efficiency of the remedy (natural attenuation supplemented by VOC removal by the GWTS) in achieving ultimate Site cleanup goals remains undetermined, as long-term trends in groundwater contaminant concentrations remain difficult to discern; however, this is common for natural attenuation, which is a relatively long-term process. The site conditions (including prevalence of vinyl chloride over other chlorinated organic forms) appear to remain amenable to and/or indicative of natural attenuation, and the general stability of the monitoring data demonstrates that the Site activities appear to remain protective of the environment while natural attenuation occurs.

G. Monitoring Deficiencies

Site media monitoring (groundwater and GWTS) was observed to generally comply with the current O&MM monitoring plan and Sewer Discharge Permit requirements. No significant monitoring deficiencies were noted for the 2018 monitoring period.

H. Conclusions and Recommendations for Changes

There are no recommendations for changes or improvements to the current monitoring program.

IV. IC/EC Compliance Report

A. IC/EC Requirements/Compliance

1. A description of source documentation, applicable control, control objective, and how performance of the control is evaluated is provided below:

   Operations and Maintenance Manual (O&MM): The objective of the O&MM is to manage Site contamination that remains above regulatory criteria in a manner that is protective of human health and the environment. The O&MM covers management, operations and monitoring of various Institutional and Engineering Controls. The performance of these controls is evaluated through monitoring and periodic certification.

   Controls on the Site covered under the O&MM include:

   - GWTS Operations (SDA), which are intended to provide for limited removal of VOC's and to provide a degree of hydraulic containment to limit/prevent contaminant migration. The effectiveness of the GWTS is evaluated based on review of static water levels and analytical monitoring data for nearby groundwater monitoring wells and GWTS influent and effluent monitoring data;

   - Cover Systems (NDA and TGA), which are intended to limit and/or prevent stormwater infiltration into contaminated soils, preventing migration of contaminants while the soils undergo the natural attenuation process. The effectiveness of the cover system is evaluated based on review of analytical monitoring data from nearby groundwater monitoring wells;

   - Site Stormwater Collection System, which is intended to direct stormwater away from the Site and limit and/or prevent stormwater infiltration into area soils, preventing migration of contaminants while the soils undergo the natural attenuation process. The effectiveness of the stormwater collection system is evaluated based on review of analytical monitoring data from nearby groundwater monitoring wells;

   - Facility Access System, which is intended to facilitate access to the Site by authorized personnel while limiting unauthorized access to the remedial areas to minimize the potential for vandalism, outside interference with ongoing remedial processes, and potential third-party exposure to contaminants. The effectiveness of the access system is evaluated based on review of the condition of these access facilities, and the apparent occurrence (or non-occurrence) of unauthorized access incidents.

Record of Decision: The Record of Decision includes requirement for a deed restriction and requirement for notification and approval from NYSDEC prior to any physical alteration or construction constituting a substantial change to the use of the Site. This is intended to assist in management of soil and historic fill material during future activities that would penetrate, encounter or disturb remaining contamination; to prevent human exposure to contaminants; and to protect the environment from migration of contaminants. The effectiveness of the deed restriction is evaluated by adherence to the DEC notification and approval requirements prior to any change in Site use, and in meeting the objectives of the deed restriction as defined above.

2. Status

Each control is in place, is being adhered to by the City of Rochester, and appears to remain generally effective as of the date of this report.

Several cracks previously observed in the TGA asphalt and concrete cover system have been adequately repaired to minimize infiltration into this area. Surface sealing of minor cracks is needed on an ongoing basis to maintain the integrity of the TGA cap. An existing open area of excavation at the TGA (see IC/EC Certification attachment, Appendix E) is currently protected from rainfall and infiltration, and the plastic sheeting cover needs to be maintained until construction is completed and a permanent impermeable surface cover is restored to the TGA. For the TGA, Monroe County is responsible for "maintaining the facility consistent with the Site Record of Decision and the New York State approved Operations and Maintenance Manual for the Site".

3. Corrective Measures

None Required

4. Conclusions and Recommendations for Changes

The controls are being effectively implemented as of the date of this report. While no significant changes are deemed necessary, minor recommendations for maintenance and/or improvements to the existing IC/EC's are as described above and in Section VI of this report.

B. Certification

Certification Statement and forms are included as Appendix E to this report.

V. Operation & Maintenance Manual (O&MM) Compliance Report

A. Components of O&MM

Documentation of Site monitoring and inspections completed in accordance with the O&MM requirements are as indicated in the table below. Copies of these logs and inspection forms are included in Appendix D. Media sampling and analytical monitoring activities are as detailed in Section III.A.

Item	Frequency
GWTS Operations Log (Flow, maintenance data)	Daily (when site attended)
Cover System Inspection	Annual
Stormwater Collection System Inspection	Annual

B. O&MM Activities

O&MM activities completed during the current reporting period include general maintenance for the GWTS, general maintenance of the cover system (vegetation and soil cover maintenance), and general maintenance of the Site fencing. Additional details on Site activities and dates of completion are included in the Site logs and inspection forms included in Appendix D.

C. Evaluation of Remedial Systems

The O&MM activities completed over the reporting period were appropriate to maintain operational and treatment efficiencies, and to enable the remedial systems to function as intended and as designed in order to meet the remedial objectives.

D. O&MM Deficiencies

O&MM activities were completed in substantial accordance with the O&MM, and no significant deficiencies were noted.

E. Conclusions and Recommendations for Improvements

The O&MM was recently revised in December 2016 to reflect and document changes to the GWTS and the associated monitoring program that have occurred since the original OM&M was prepared in 1999.

No additional improvements to the O&MM are recommended at this time.

VI. Conclusions and Recommendations

A. Compliance

With exceptions as noted, the requirements of the following plans were met during the reporting period:

- IC/EC requirements.
- Monitoring Plan requirements.
- O&MM requirements.

B. Performance and Effectiveness of Remedy

An evaluation of the components of the O&MM during this reporting period indicates that, as of the end date of this monitoring period:

- the IC/EC controls appear to remain generally protective of human health and the environment;
- the O&MM (December 2016) monitoring plan is sufficient to monitor the performance of the remedy;
- the O&MM (December 2016) is adequate to operate and maintain the GWTS; and
- the remedial program is compliant with, and remains capable of, achieving the remedial objectives for the Site.

C. Recommendations

Since residual contaminants remain at the Site, it is recommended that applicable aspects of the O&MM continue to be implemented at this Site

While the Site continues to be operated in general compliance with the remedial plan requirements, and while it has been determined that the remedy is currently meeting the remedial objectives for the Site, the following recommendation is provided in accordance with O&MM requirements, and/or to improve Site and remedial operations, monitoring, and efficiencies:

- Surface sealing of minor cracks is needed on an ongoing basis to maintain the integrity of the TGA cap. An existing open area of excavation at the TGA (see IC/EC Certification attachment, Appendix E) is currently protected from rainfall and infiltration, and the plastic sheeting cover needs to be maintained until construction is completed and a permanent impermeable surface cover is restored to the TGA. For the TGA, Monroe County is responsible for “maintaining the facility consistent with the Site Record of Decision and the New York State approved Operations and Maintenance Manual for the Site”.

FIGURES

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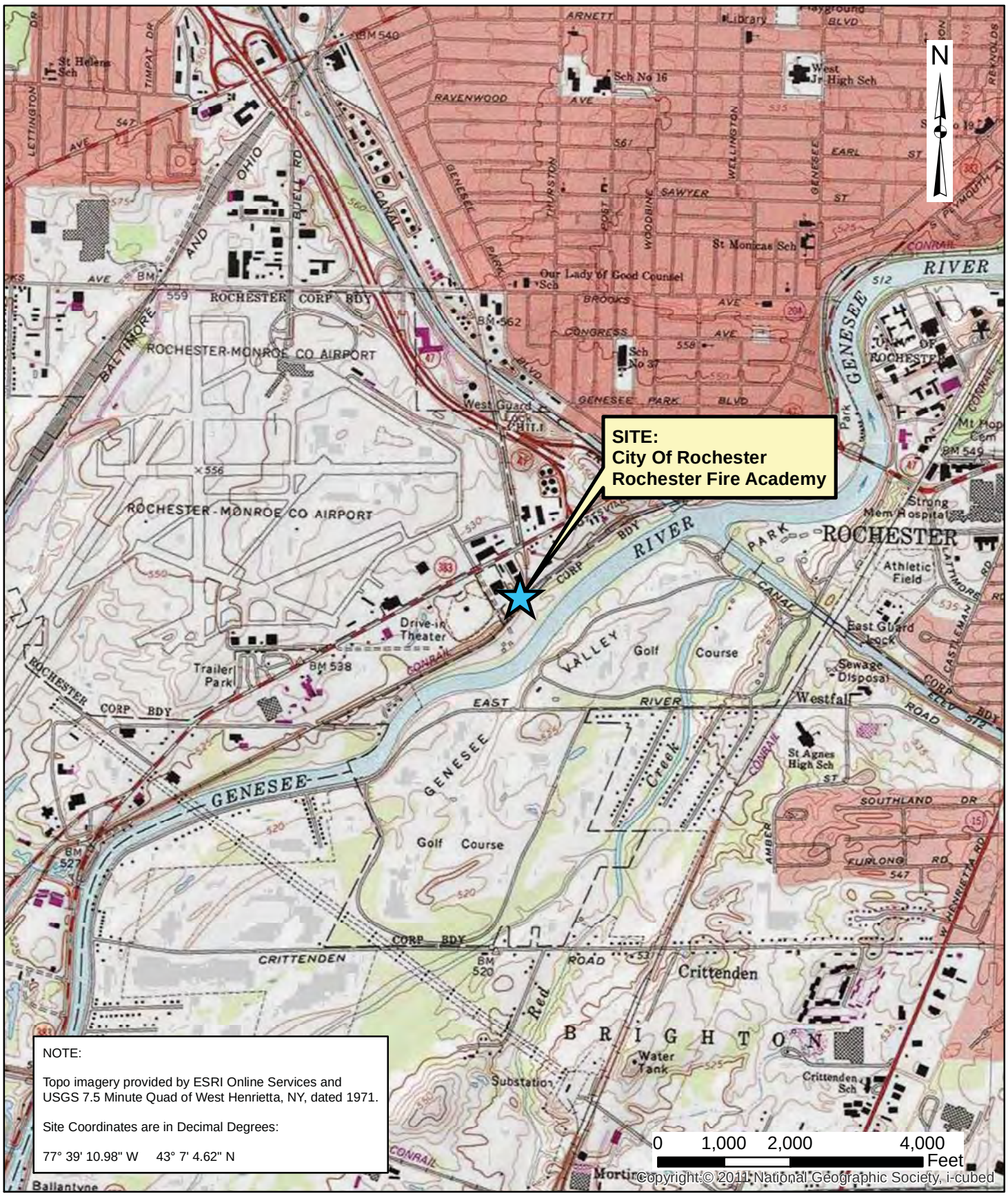


NOTE:

Topo imagery provided by ESRI Online Services and USGS 7.5 Minute Quad of West Henrietta, NY, dated 1971.

Site Coordinates are in Decimal Degrees:

77° 39' 10.98" W 43° 7' 4.62" N

Date: 10-16-2013	day **DAY ENVIRONMENTAL, INC.** Environmental Consultants Rochester, New York 14606 New York, New York 10170	Project Title: CITY OF ROCHESTER ROCHESTER FIRE ACADEMY ROCHESTER, NEW YORK GROUNDWATER TREATMENT SYSTEM RENOVATION	Project No.: 4839C-13
Drawn By: RJM		Drawing Title: Project Locus Map	FIGURE 1
Scale: AS NOTED			

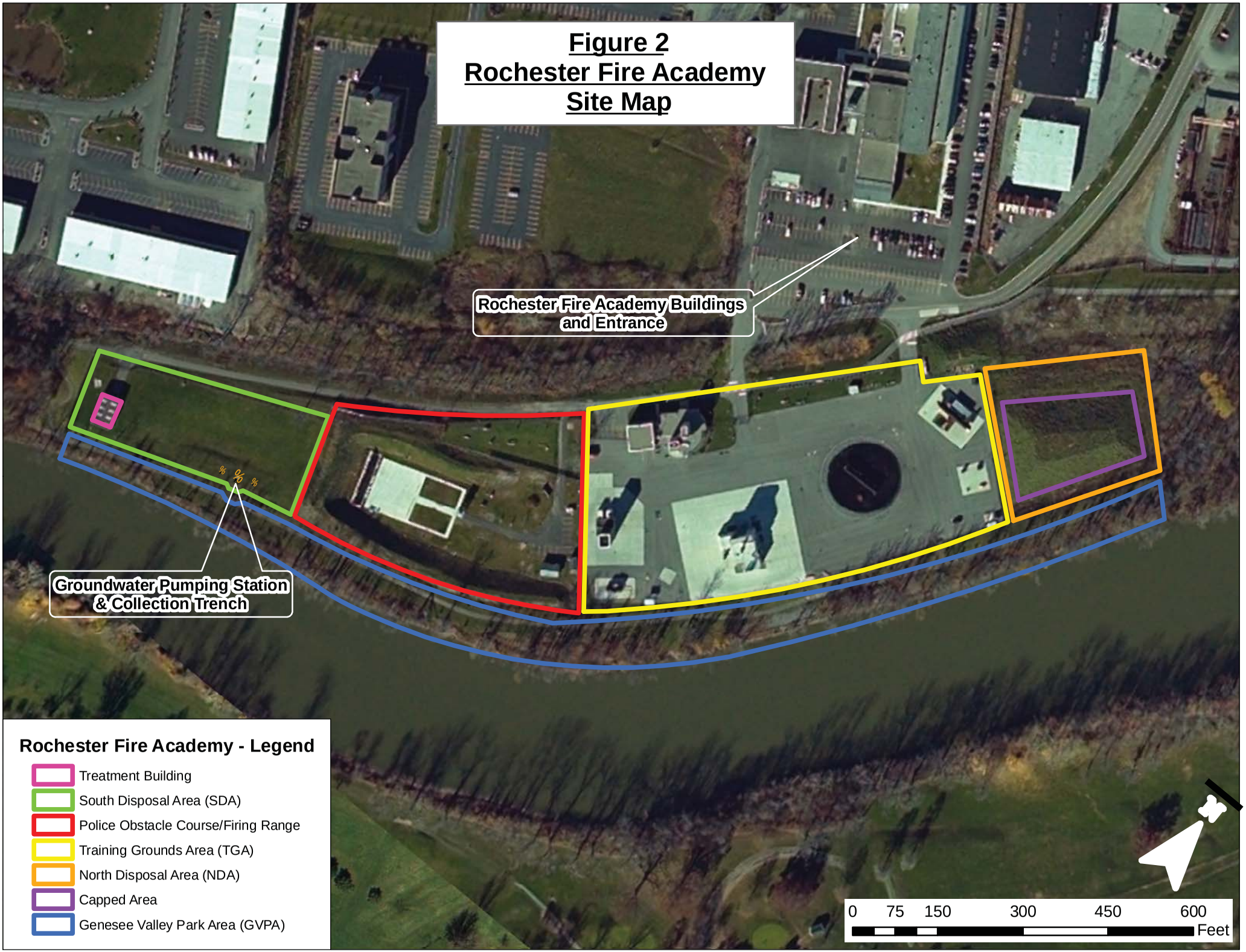
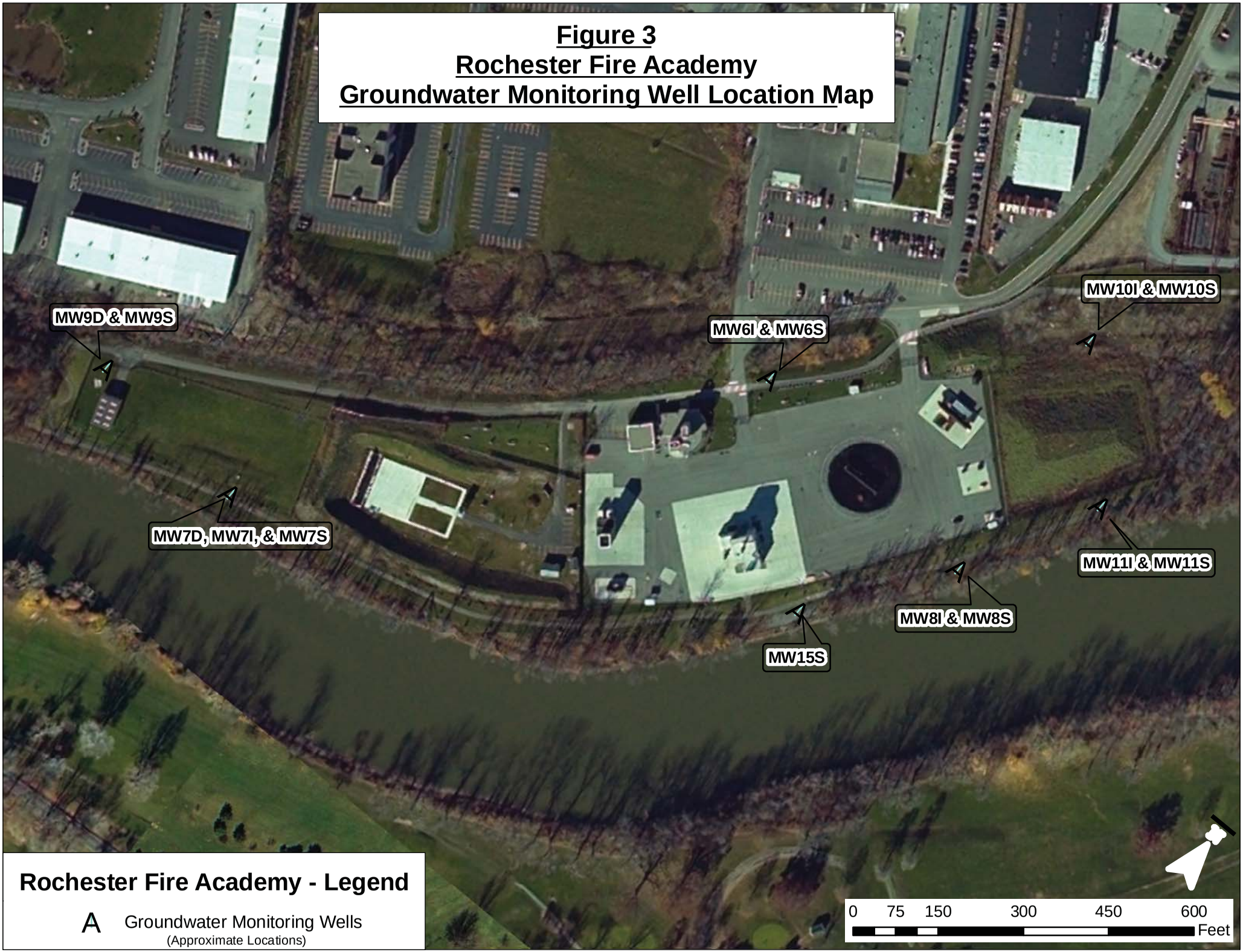


Figure 2
Rochester Fire Academy
Site Map
Rochester Fire Academy Buildings and Entrance
Groundwater Pumping Station & Collection Trench
Rochester Fire Academy - Legend
Treatment Building
South Disposal Area (SDA)
Police Obstacle Course/Firing Range
Training Grounds Area (TGA)
North Disposal Area (NDA)
Capped Area
Genesee Valley Park Area (GVPA)
0 75 150 300 450 600
Feet

Figure 3
Rochester Fire Academy
Groundwater Monitoring Well Location Map



Rochester Fire Academy - Legend

A Groundwater Monitoring Wells
(Approximate Locations)

APPENDIX A

ANALYTICAL DATA SUMMARY TABLES

(January 2018 through December 2018,
With 5-Year Well Summary Data)

Rochester Fire Academy
GWTS Influent
Quarterly Grab Sampling Monitoring Results

Parameter	2/19/2018	5/15/2018	8/20/2018	11/20/2018
Total Volatiles (EPA 624) (ug/L)				
Vinyl Chloride	1240	1440	1520	1250
Chloroethane	297	505	307	290
1,1 - Dichloroethene	238	277	ND	200
1,1 - Dichloroethane	6840	7960	8190	6820
1,1,1 - Trichloroethane	3520	5100	453	1610
Trichloroethene	ND	ND	ND	ND
Toluene	312	305	ND	201
Acetone	ND	ND	ND	ND
Total Pesticides (EPA 608) (ug/L)				
4,4-DDD	ND	ND	ND	ND
4,4-DDE	0.193	ND	ND	0.236
delta-BHC	ND	ND	ND	ND
cis-Chlordane	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND
Endosulfan I	ND	0.143	0.240	ND
Endrin Aldehyde	ND	ND	ND	ND
Aldrin	ND	ND	0.374	ND
Heptachlor	ND	ND	0.213	ND

Rochester Fire Academy
GWTS Effluent VOC
Quarterly Grab Sampling Results

Parameter	2/19/2018	5/15/2018	8/20/2018	11/20/2018
Total Volatiles (EPA 624) (ug/L)				
Vinyl Chloride	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
1,1 - Dichloroethene	ND	ND	ND	ND
1,1 - Dichloroethane	4.58	7.19	3.01	9.42
1,2 - Dichloroethane	ND	ND	ND	ND
1,1,1 - Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Toluene	ND	ND	ND	ND

Rochester Fire Academy
GWTS Effluent
Grab Sampling Results (Metals and Phosphorus)

Parameter	2/19/2018	5/15/2018	8/20/2018	11/20/2018
Total Metals (mg/L)				
Arsenic	0.00590	ND	ND	0.00523
Cadmium	ND	ND	ND	ND
Chromium	ND	ND	ND	ND
Copper	ND	ND	ND	ND
Lead	ND	ND	ND	ND
Nickel	ND	ND	ND	ND
Selenium	ND	ND	ND	ND
Zinc	ND	ND	ND	ND

Rochester Fire Academy
GWTS Effluent
Grab Sampling Results (pH, EPA 608 Pesticides + select organics)

Parameter (ug/l)	2/19/2018	5/15/2018	8/20/2018	11/20/2018
pH(SU)	8.28	8.24	8.32	8.21
4,4-DDE	0.121	ND	ND	ND
Aldrin	ND	ND	0.338	ND
Endosulfan I	ND	0.128	0.193	ND
Heptaclor	ND	0.212	0.202	ND
Diethyl phthalate	ND	14.3	10.9	16.1
Acetone	ND	11.4	ND	ND
2-Butanone	13.8	17.7	10.5	13.4
4-methyl-2-pentanone	ND	ND	ND	ND

Notes

1 All concentrations except pH are reported in parts per billion (ppb).

2 Bis(2-ethylhexyl) phthalate and 4-Methylphenol (p cresol) are no longer required to be analyzed under the sewer discharge permit

Rochester Fire Academy
GWTS Air Stripper Emission Estimates

Total Volatiles (601/602) Parameter	O&MM Allowable (lb/hr)	2/19/2018	5/15/2018	8/20/2018	11/20/2018
Vinyl Chloride	0.004	0.0016	0.0021	0.0013	0.0012
Chloroethane	0.002	0.0004	0.0007	0.0003	0.0003
1,1 - Dichloroethene	0.002	0.0003	0.0004	0.0000	0.0002
1,1 - Dichloroethane	0.02	0.0088	0.0114	0.0069	0.0064
1,1,1 - Trichloroethane	0.158	0.0000	0.0000	0.0000	0.0000
Trichloroethene	0.019	0.0004	0.0004	0.0000	0.0002
Toluene	0.018	0.0000	0.0000	0.0000	0.0000
Acetone	0.032	0.0000	0.0000	0.0011	0.0000

Rochester Fire Academy
Groundwater Monitoring Well Results (2014 - 2018)

Total Volatiles (601/602) (ug/L)	Groundwater Standard or Guidance Value*	MW-6I 5/19/2014	MW-6I 11/13/2014	MW-6I 5/27/2015	MW-6I 11/3/2015	MW-6I 5/13/2016	MW-6I 11/18/2016	MW-6I 5/26/2017	MW-6I 11/16/2017	MW-6I 5/24/2018	MW-6I 12/20/2018
Vinyl Chloride	2	4.5	4.24	4.5	3.2	4.47	4.57	8.60	8.04	6.75	4.57
Chloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1 - Dichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1 - Dichloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,2 - Dichloroethane	0.6	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Tetrachloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1,1 - Trichloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Trichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
MTBE	10	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Benzene	1	ND(0.7)	ND(0.7)	ND(0.7)	ND(1.0)	ND(0.7)	ND(1.0)	ND	ND	ND	ND
Ethylbenzene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Toluene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Methylene Chloride	5	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Chloroform	7	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
trans 1,2-Dichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND

*Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

Rochester Fire Academy
Groundwater Monitoring Well Results (2014 - 2018)

Total Volatiles (601/602) (ug/L)	Groundwater Standard or Guidance Value*	MW-7S 5/19/2014	MW-7S 11/13/2014	MW-7S 5/27/2015	MW-7S 11/3/2015	MW-7S 5/13/2016	MW-7S 11/18/2016	MW-7S 5/26/2017	MW-7S 11/16/2017	MW-7S 5/24/2018	MW-7S 12/20/2018
Vinyl Chloride	2	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	2.28	ND
Chloroethane	5	ND(10.0)	ND(10.0)	19.9	ND(5.0)	ND(5.0)	32.4	ND	ND	ND	5.8
1,1 - Dichloroethene	5	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
1,1 - Dichloroethane	5	86.6	229	129	238	156	421	54.6	280	42.7	206
1,2 - Dichloroethane	0.6	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Tetrachloroethene	5	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	2.65	ND
1,1,1 - Trichloroethane	5	170	146	139	161	29.6	351	132	555	133	279
Trichloroethene	5	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	5.47	11.5	11.5	13.2	6.92
MTBE	10	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Benzene	1	ND(3.5)	ND(3.5)	ND(1.75)	ND(2.50)	ND(1.75)	ND(2.50)	ND	ND	ND	ND
Ethylbenzene	5	ND(10.0)	4.73	ND(5.0)	ND(5.0)	6.85	77	ND	ND	ND	ND
Toluene	5	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	5.26	ND	ND	ND	ND
Methylene Chloride	5	ND(25.0)	ND(25.0)	ND(12.5)	ND(12.5)	ND(12.5)	ND(12.5)	ND	ND	ND	ND
Chloroform	7	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
trans 1,2-Dichloroethene	5	ND(10.0)	ND(10.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND

*Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

Rochester Fire Academy
Groundwater Monitoring Well Results (2014 - 2018)

Total Volatiles (601/602) (ug/L)	Groundwater Standard or Guidance Value*	MW-7I 5/19/2014	MW-7I 11/13/2014	MW-7I 5/27/2015	MW-7I 11/3/2015	MW-7I 5/13/2016	MW-7I 11/18/2016	MW-7I 5/26/2017	MW-7I 11/16/2017	MW-7I 5/24/2018	MW-7I 12/20/2018
Vinyl Chloride	2	96.8	238	182	180	57.7	93.7	114	112	160	96.2
Chloroethane	5	ND(20.0)	ND(20.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
1,1 - Dichloroethene	5	ND(20.0)	35.8	39.5	37.3	14.4	21	17.7	24.1	36.7	15.2
1,1 - Dichloroethane	5	348	856	684	662	291	293	278	319	442	191
1,2 - Dichloroethane	0.6	ND(20.0)	ND(20.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
Tetrachloroethene	5	ND(20.0)	ND(20.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
1,1,1 - Trichloroethane	5	236	454	528	555	214	289	272	326	333	129
Trichloroethene	5	ND(20.0)	ND(20.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	13.7	ND	ND
MTBE	10	ND(20.0)	ND(20.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
Benzene	1	ND(20.0)	ND(20.0)	ND(3.50)	ND(5.0)	ND(3.50)	ND(5.0)	ND	ND	ND	ND
Ethylbenzene	5	ND(20.0)	ND(20.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
Toluene	5	ND(20.0)	ND(20.0)	10.6	11.6	ND(10.0)	ND(10.0)	ND	ND	ND	ND
Methylene Chloride	5	ND(20.0)	ND(20.0)	ND(25.0)	ND(25.0)	ND(25.0)	ND(25.0)	ND	ND	ND	ND
Chloroform	7	ND(20.0)	ND(20.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
trans 1,2-Dichloroethene	5	ND(20.0)	ND(20.0)	ND(10.0)	11	ND(10.0)	ND(10.0)	ND	ND	ND	ND
1,4-Dioxane (8260)	N/A	NT	NT	NT	NT	NT	NT	NT	1.5	NT	NT

*Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

Rochester Fire Academy
Groundwater Monitoring Well Results (2014 - 2018)

Total Volatiles (601/602) (ug/L)	Groundwater Standard or Guidance Value*	MW-8I 5/19/2014	MW-8I 11/13/2014	MW-8I 5/27/2015	MW-8I 11/3/2015	MW-8I 5/13/2016	MW-8I 11/18/2016	MW-8I 5/26/2017	MW-8I 11/16/2017	MW-8I 5/24/2018	MW-8I 12/20/2018
Vinyl Chloride	2	180	234	165	228	252	307	416	173	7.18	581
Chloroethane	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	13.0
1,1 - Dichloroethene	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
1,1 - Dichloroethane	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
1,2 - Dichloroethane	0.6	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Tetrachloroethene	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
1,1,1 - Trichloroethane	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Trichloroethene	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
MTBE	10	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Benzene	1	ND(1.75)	ND(1.4)	ND(1.75)	ND(2.50)	ND(1.75)	ND(2.50)	ND	ND	ND	ND
Ethylbenzene	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Toluene	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Methylene Chloride	5	ND(12.5)	ND(10.0)	ND(12.5)	ND(12.5)	ND(12.5)	ND(12.5)	ND	ND	ND	ND
Chloroform	7	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
trans 1,2-Dichloroethene	5	ND(5.0)	ND(4.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND

*Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

Rochester Fire Academy
Groundwater Monitoring Well Results (2014 - 2018)

Total Volatiles (601/602) (ug/L)	Groundwater Standard or Guidance Value*	MW-9D 5/19/2014	MW-9D 11/13/2014	MW-9D 5/27/2015	MW-9D 11/3/2015	MW-9D 5/13/2016	MW-9D 11/18/2016	MW-9D 5/26/2017	MW-9D 11/16/2017	MW-9D 5/24/2018	MW-9D 12/20/2018
Vinyl Chloride	2	38	21.7	ND(2.0)	15.1	19.6	19.8	61.9	20.4	ND	41.7
Chloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1 - Dichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1 - Dichloroethane	5	ND(2.0)	6.98	ND(2.0)	5.4	ND(2.0)	ND(2.0)	ND	2.07	ND	ND
1,2 - Dichloroethane	0.6	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Tetrachloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1,1 - Trichloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Trichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
MTBE	10	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Benzene	1	ND(0.7)	ND(0.7)	ND(0.7)	ND(1.0)	ND(0.7)	ND(1.0)	ND	ND	ND	ND
Ethylbenzene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Toluene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Methylene Chloride	5	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Chloroform	7	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
trans 1,2-Dichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND

*Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

Rochester Fire Academy
Groundwater Monitoring Well Results (2014 - 2018)

Total Volatiles (601/602) (ug/L)	Groundwater Standard or Guidance Value*	MW-101 5/19/2014	MW-101 11/13/2014	MW-101 5/27/2015	MW-101 11/3/2015	MW-101 5/13/2016	MW-101 11/18/2016	MW-101 5/26/2017	MW-101 11/16/2017	MW-101 5/24/2018	MW-101 12/20/2018
Vinyl Chloride	2	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Chloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1 - Dichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1 - Dichloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,2 - Dichloroethane	0.6	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Tetrachloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1,1 - Trichloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Trichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
MTBE	10	3.36	3.54	4.04	3.38	4.48	3.33	3.48	2.82	ND	5.97
Benzene	1	ND(0.7)	ND(0.7)	ND(0.7)	ND(1.0)	ND(0.7)	ND(1.0)	ND	ND	ND	ND
Ethylbenzene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Toluene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Methylene Chloride	5	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Chloroform	7	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
trans 1,2-Dichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND

*Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

Rochester Fire Academy
Groundwater Monitoring Well Results (2014 - 2018)

Total Volatiles (601/602) (ug/L)	Groundwater Standard or Guidance Value*	MW-11I 5/19/2014	MW-11I 11/13/2014	MW-11I 5/27/2015	MW-11I 11/3/2015	MW-11I 5/13/2016	MW-11I 11/18/2016	MW-11I 5/26/2017	MW-11I 11/16/2017	MW-11I 5/24/2018	MW-11I 12/20/2018
Vinyl Chloride	2	ND(2.0)	346	476	435	344	317	476	259	262	294
Chloroethane	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
1,1 - Dichloroethene	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
1,1 - Dichloroethane	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
1,2 - Dichloroethane	0.6	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	11.2	18.8	ND	ND	ND	ND
Tetrachloroethene	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
1,1,1 - Trichloroethane	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
Trichloroethene	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
MTBE	10	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
Benzene	1	ND(0.7)	ND(1.75)	ND(3.50)	ND(5.0)	ND(3.50)	ND(5.0)	ND	ND	ND	ND
Ethylbenzene	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
Toluene	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
Methylene Chloride	5	ND(5.0)	ND(5.0)	ND(25.0)	ND(25.0)	ND(25.0)	ND(25.0)	ND	ND	ND	ND
Chloroform	7	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND
trans 1,2-Dichloroethene	5	ND(2.0)	ND(5.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND(10.0)	ND	ND	ND	ND

*Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

Rochester Fire Academy
Groundwater Monitoring Well Results (2014 - 2018)

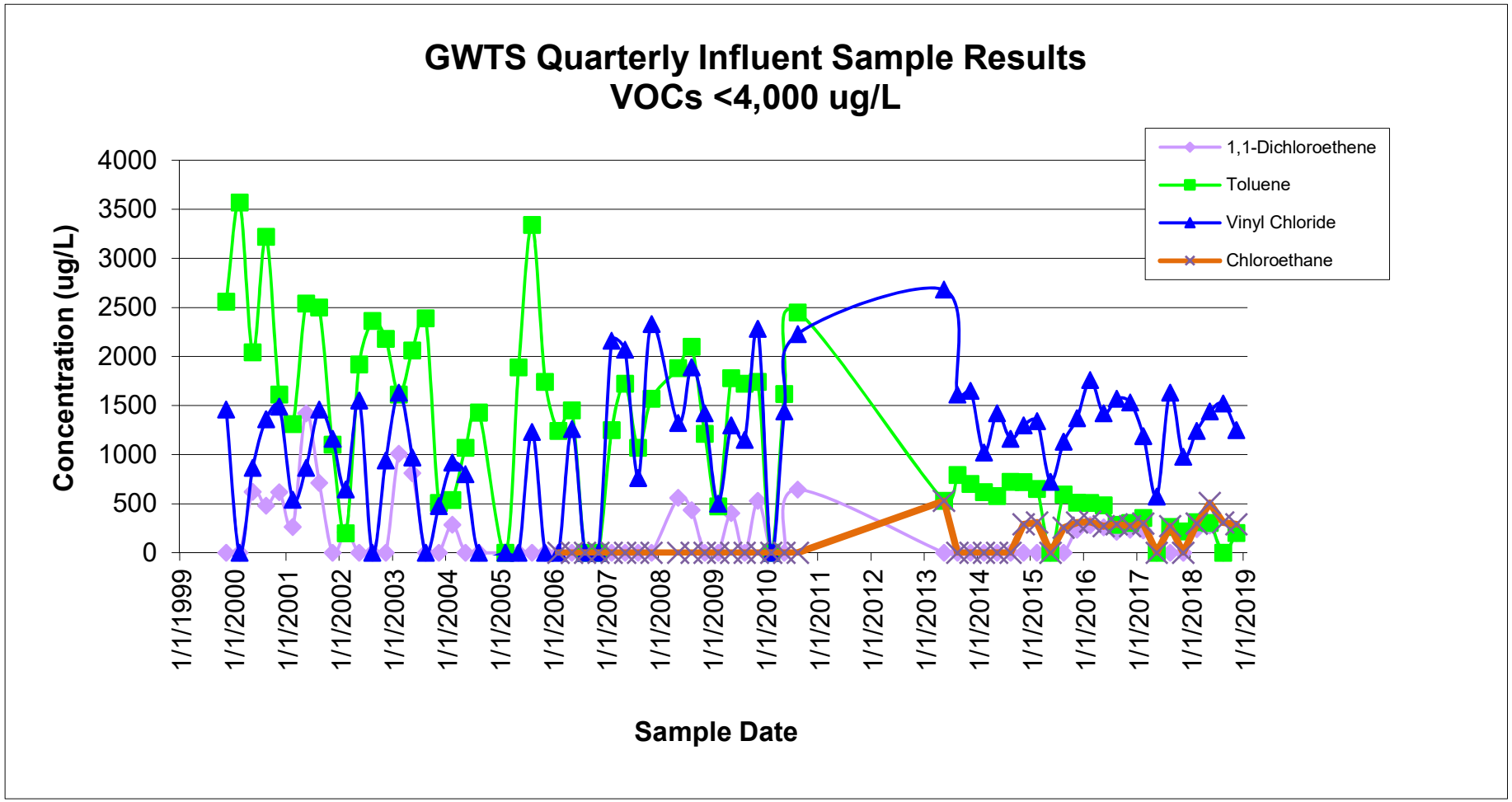
Total Volatiles (601/602) (ug/L)	Groundwater Standard or Guidance Value*	MW-15S 5/19/2014	MW-15S 11/13/2014	MW-15S 5/27/2015	MW-15S 11/3/2015	MW-15S 5/13/2016	MW-15S 11/18/2016	MW-15S 5/26/2017	MW-15S 11/16/2017	MW-15S 5/24/2018	MW-15S 12/20/2018
Vinyl Chloride	2	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Chloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1 - Dichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1 - Dichloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,2 - Dichloroethane	0.6	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Tetrachloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
1,1,1 - Trichloroethane	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Trichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
MTBE	10	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Benzene	1	ND(0.7)	ND(0.7)	ND(0.7)	ND(1.0)	ND(0.7)	ND(1.0)	ND	ND	ND	ND
Ethylbenzene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Toluene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
Methylene Chloride	5	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND	ND	ND	ND
Chloroform	7	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND
trans 1,2-Dichloroethene	5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND	ND	ND	ND

*Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

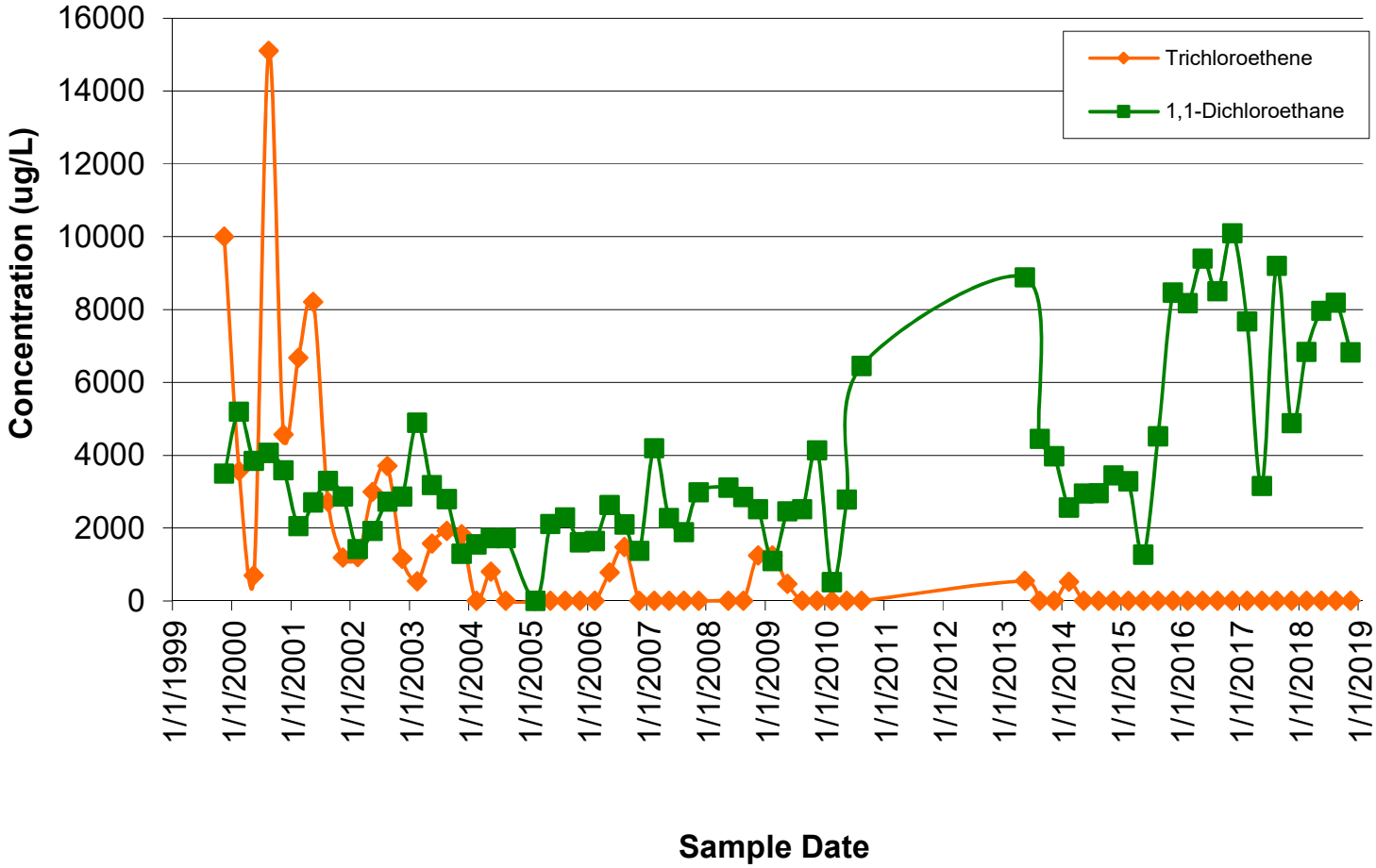
APPENDIX B

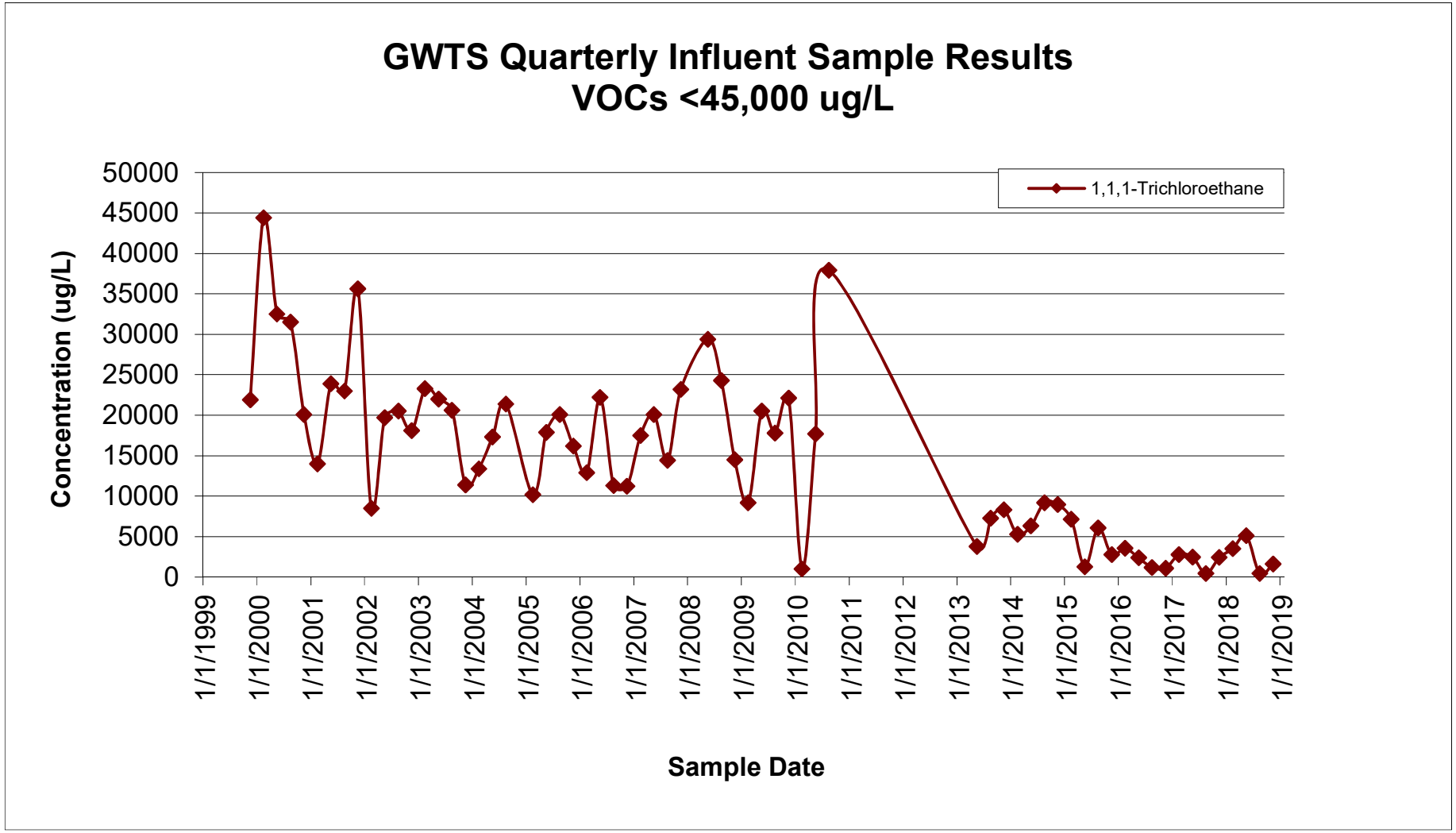
ANALYTICAL DATA
CHARTS AND GRAPHS

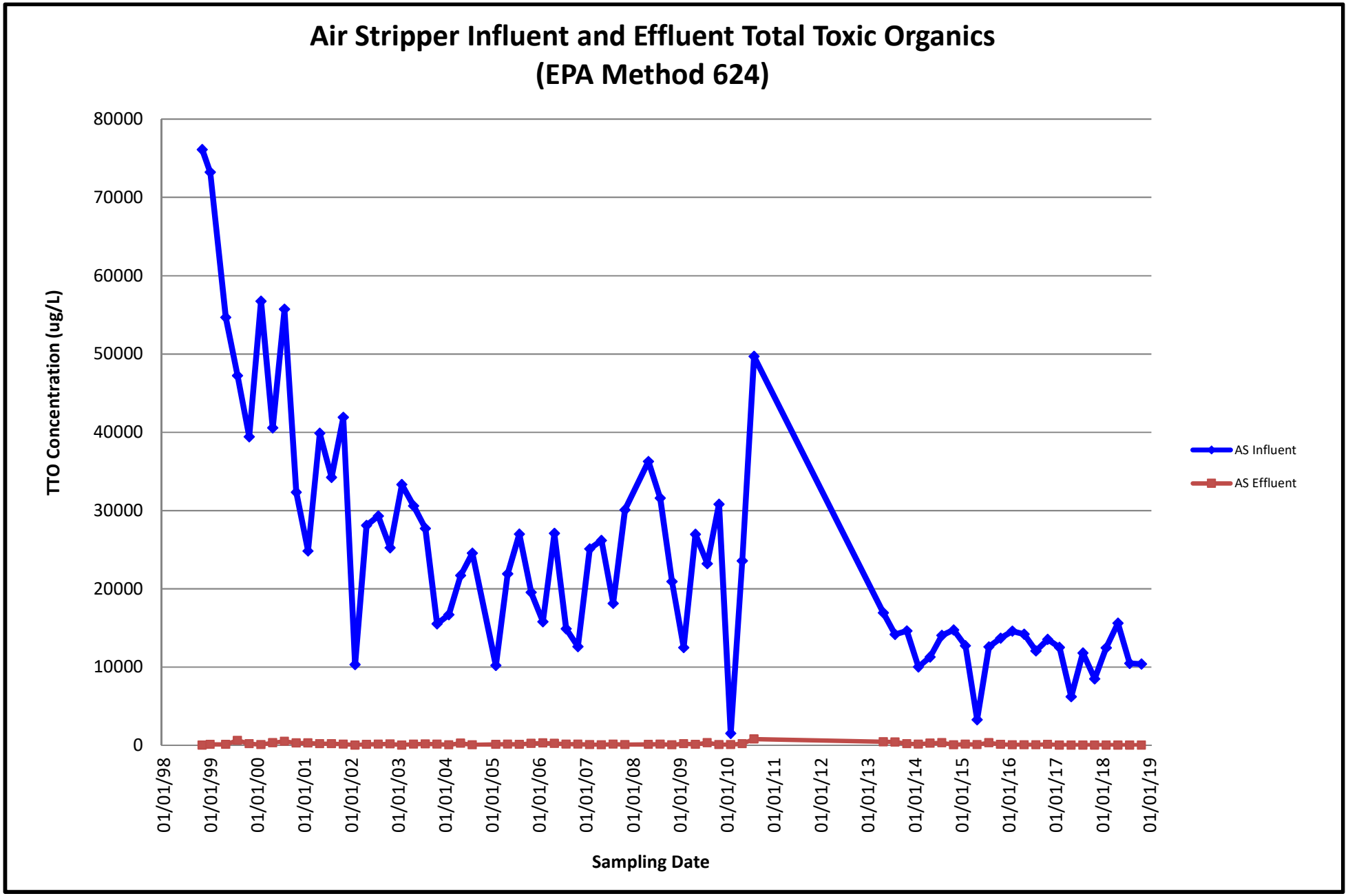
(Parameters of Interest,
1998 through 2018)

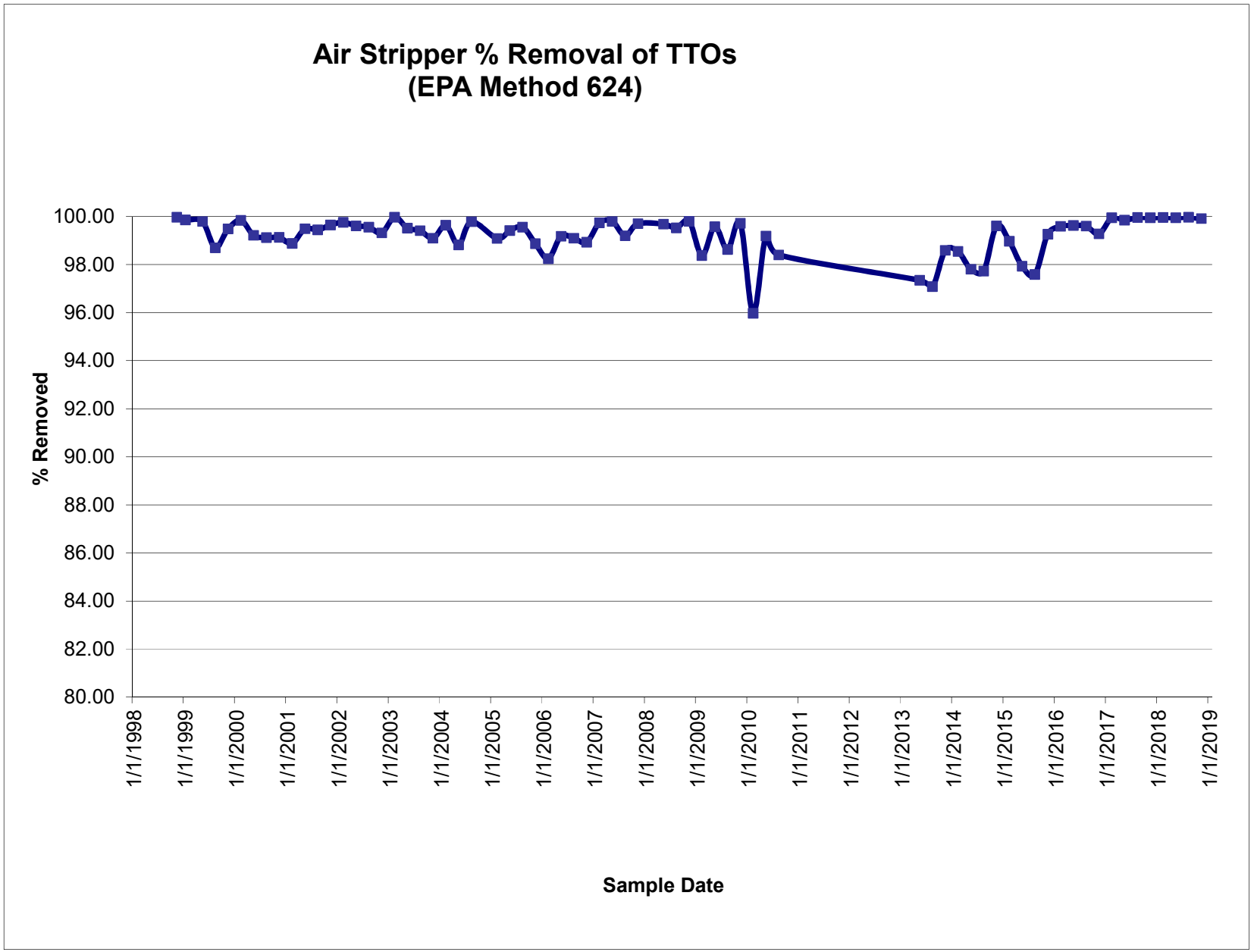

GWTS Quarterly Influent Sample Results
VOCs <4,000 ug/L
Concentration (ug/L)
4000
3500
3000
2500
2000
1500
1000
500
0
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date
1,1-Dichloroethene
Toluene
Vinyl Chloride
Chloroethane

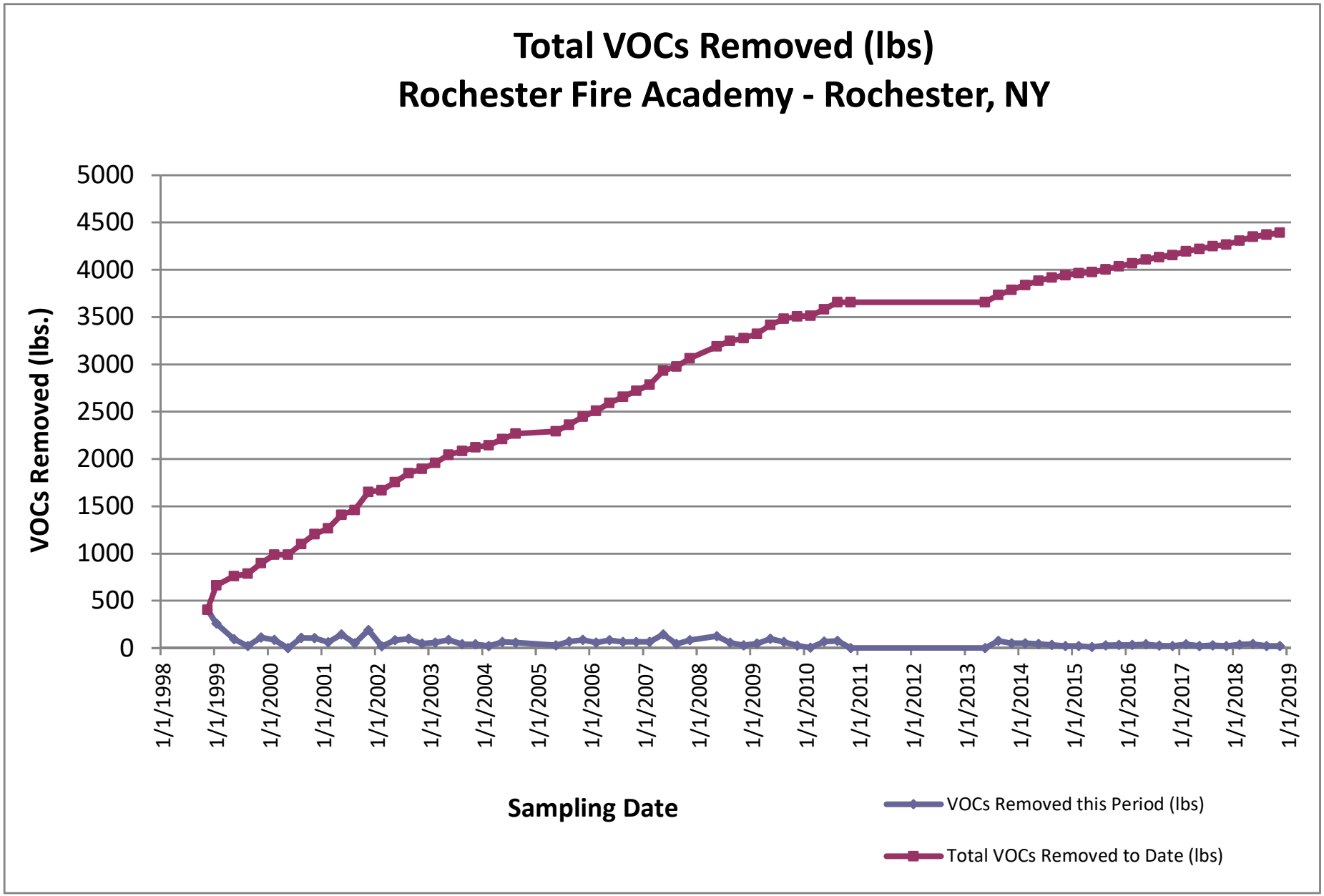
GWTS Quarterly Influent Sample Results
VOCs <16,000 ug/L

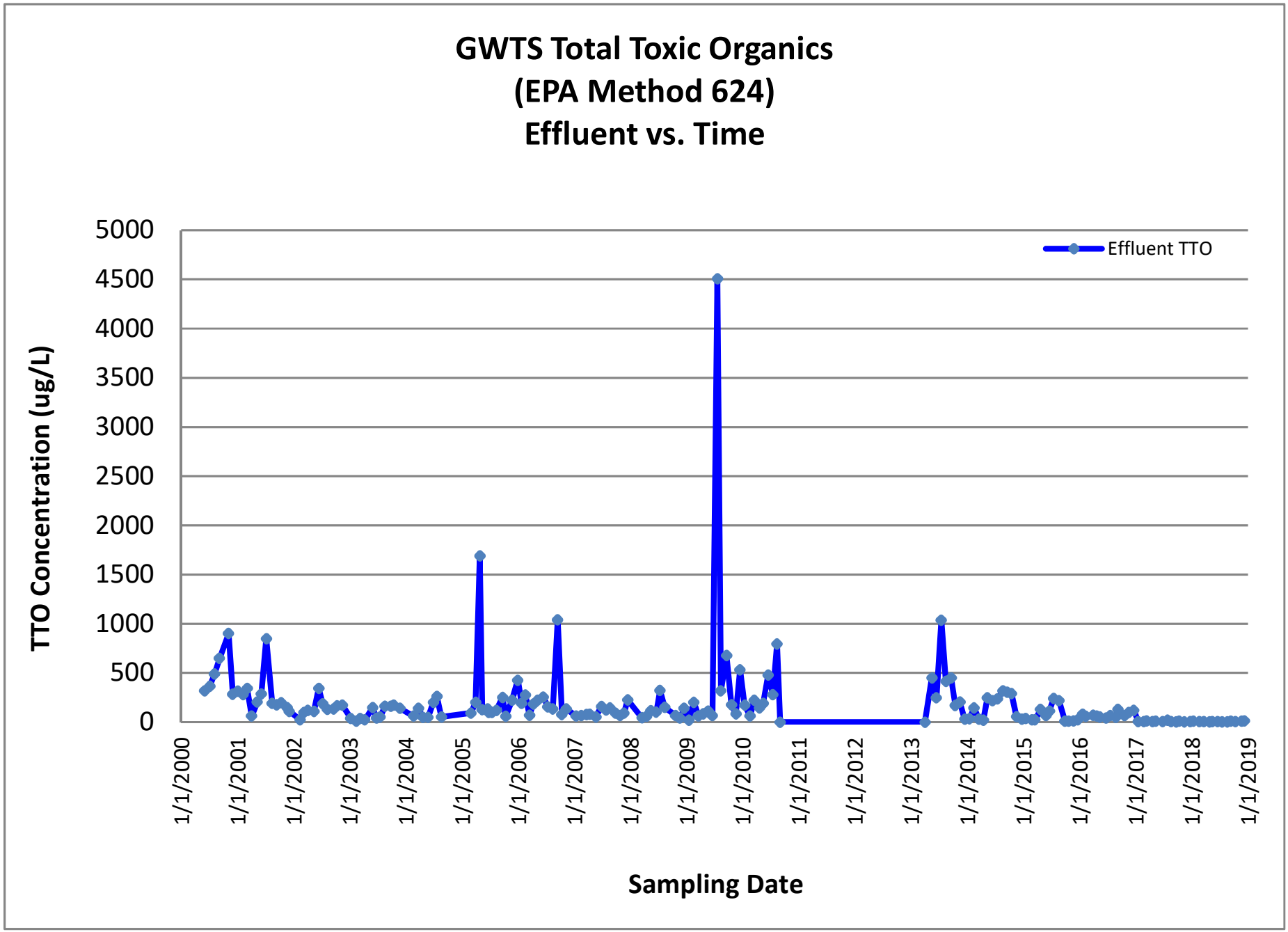



GWTS Quarterly Influent Sample Results
VOCs <45,000 ug/L
Concentration (ug/L)
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
1,1,1-Trichloroethane
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date


Air Stripper Influent and Effluent Total Toxic Organics
(EPA Method 624)
TTO Concentration (ug/L)
80000
70000
60000
50000
40000
30000
20000
10000
0
01/01/98
01/01/99
01/01/00
01/01/01
01/01/02
01/01/03
01/01/04
01/01/05
01/01/06
01/01/07
01/01/08
01/01/09
01/01/10
01/01/11
01/01/12
01/01/13
01/01/14
01/01/15
01/01/16
01/01/17
01/01/18
01/01/19
Sampling Date
AS Influent
AS Effluent

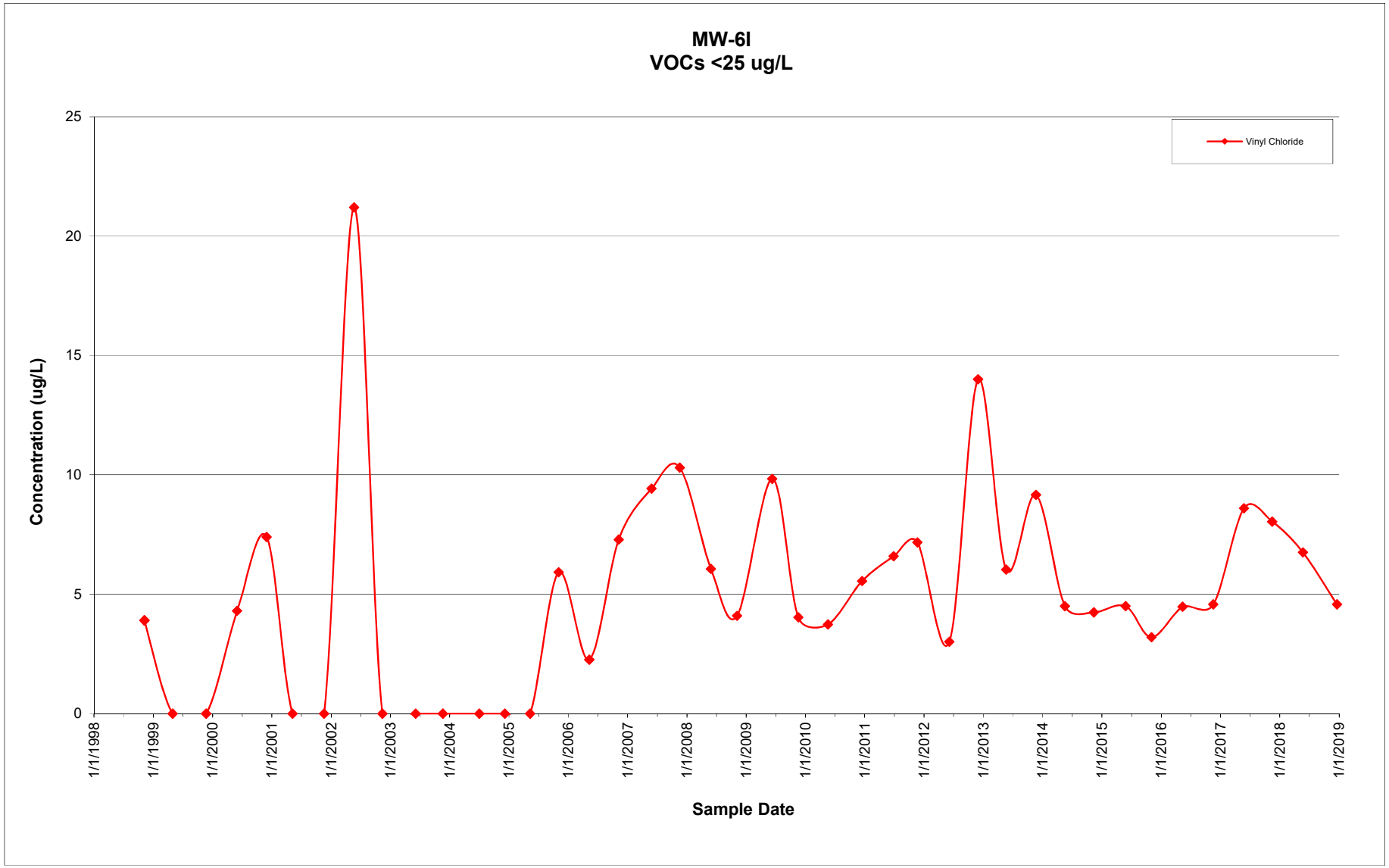

Air Stripper % Removal of TTOs
(EPA Method 624)
% Removed
100.00
98.00
96.00
94.00
92.00
90.00
88.00
86.00
84.00
82.00
80.00
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date


Total VOCs Removed (lbs)
Rochester Fire Academy - Rochester, NY
VOCs Removed (lbs.)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sampling Date
VOCs Removed this Period (lbs)
Total VOCs Removed to Date (lbs)


GWTS Total Toxic Organics
(EPA Method 624)
Effluent vs. Time
TTO Concentration (ug/L)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Effluent TTO
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sampling Date

Rochester Fire Academy
GWTS Air Stripper Emission Estimates

Total Volatiles (601/602) Parameter	O&MM Allowable (lb/hr)	2/19/2018	5/15/2018	8/20/2018	11/20/2018
Vinyl Chloride	0.004	0.0016	0.0021	0.0013	0.0012
Chloroethane	0.002	0.0004	0.0007	0.0003	0.0003
1,1 - Dichloroethene	0.002	0.0003	0.0004	0.0000	0.0002
1,1 - Dichloroethane	0.02	0.0088	0.0114	0.0069	0.0064
1,1,1 - Trichloroethane	0.158	0.0000	0.0000	0.0000	0.0000
Trichloroethene	0.019	0.0004	0.0004	0.0000	0.0002
Toluene	0.018	0.0000	0.0000	0.0000	0.0000
Acetone	0.032	0.0000	0.0000	0.0011	0.0000

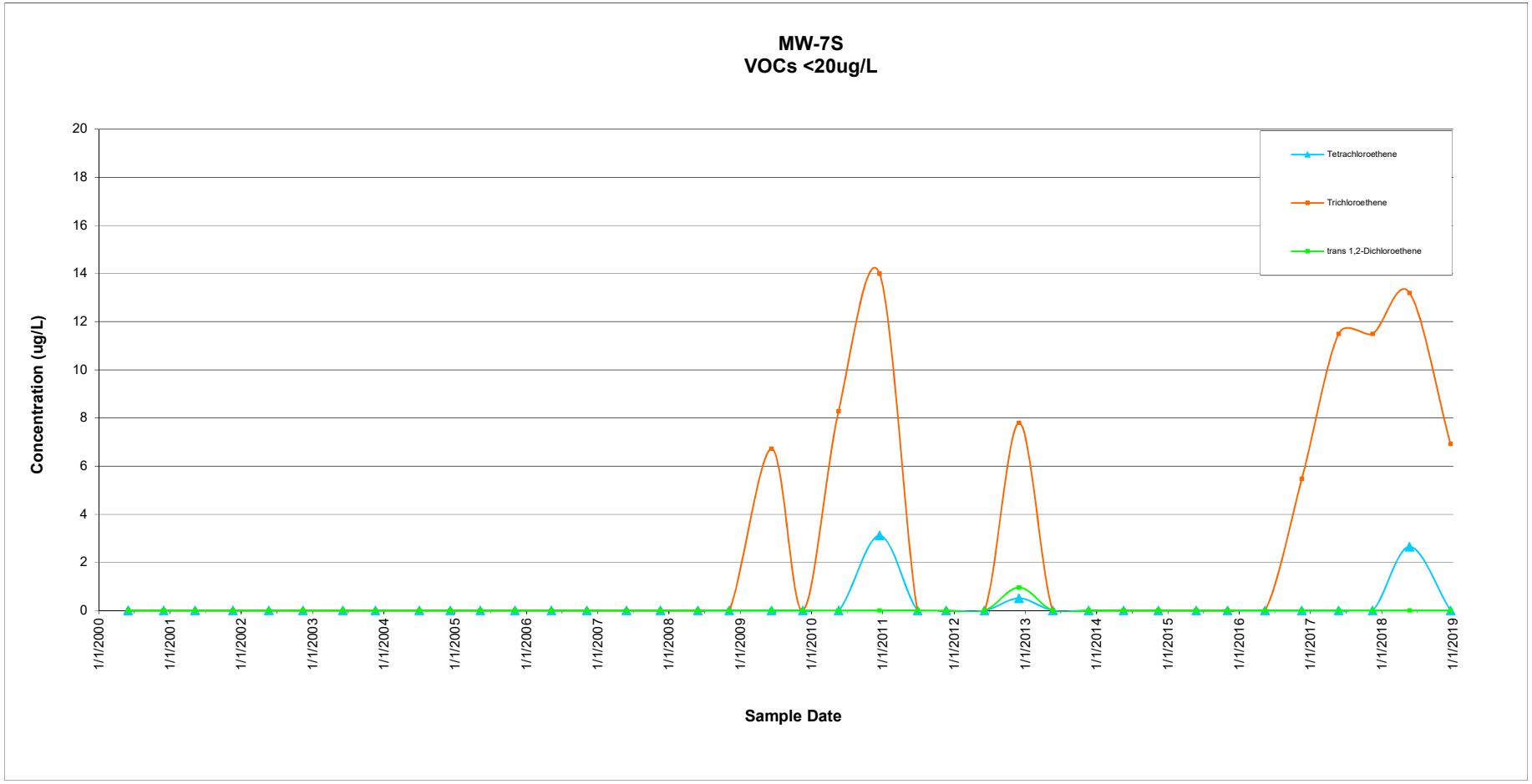

MW-6I
VOCs <25 ug/L
Vinyl Chloride
Concentration (ug/L)
25
20
15
10
5
0
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date

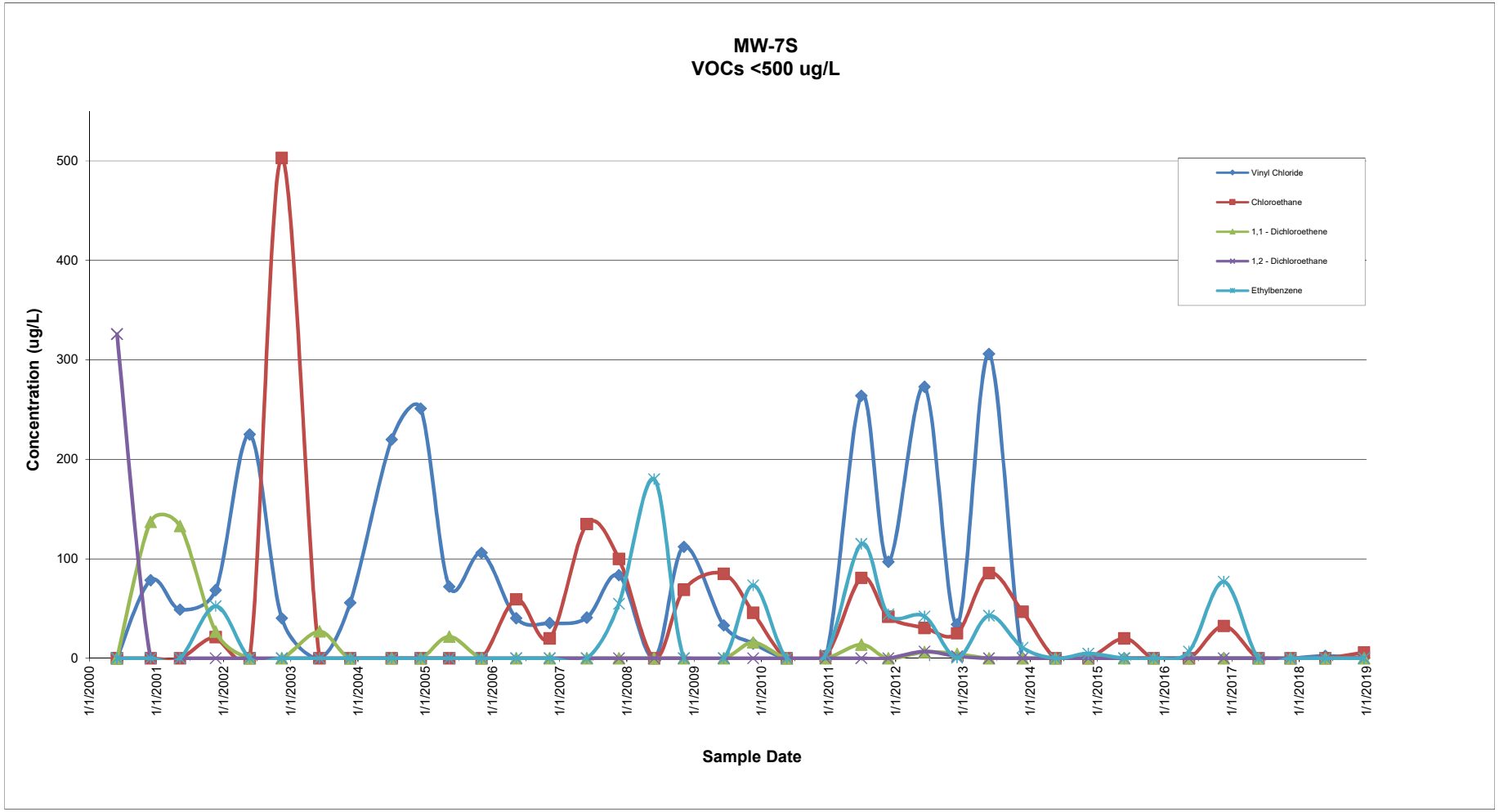
	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I
Total VOC's (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**
Vinyl Chloride	3.90	0.00	0.00	4.30	7.40	0.00	0.00	21.20	0.00	0.00	0.00

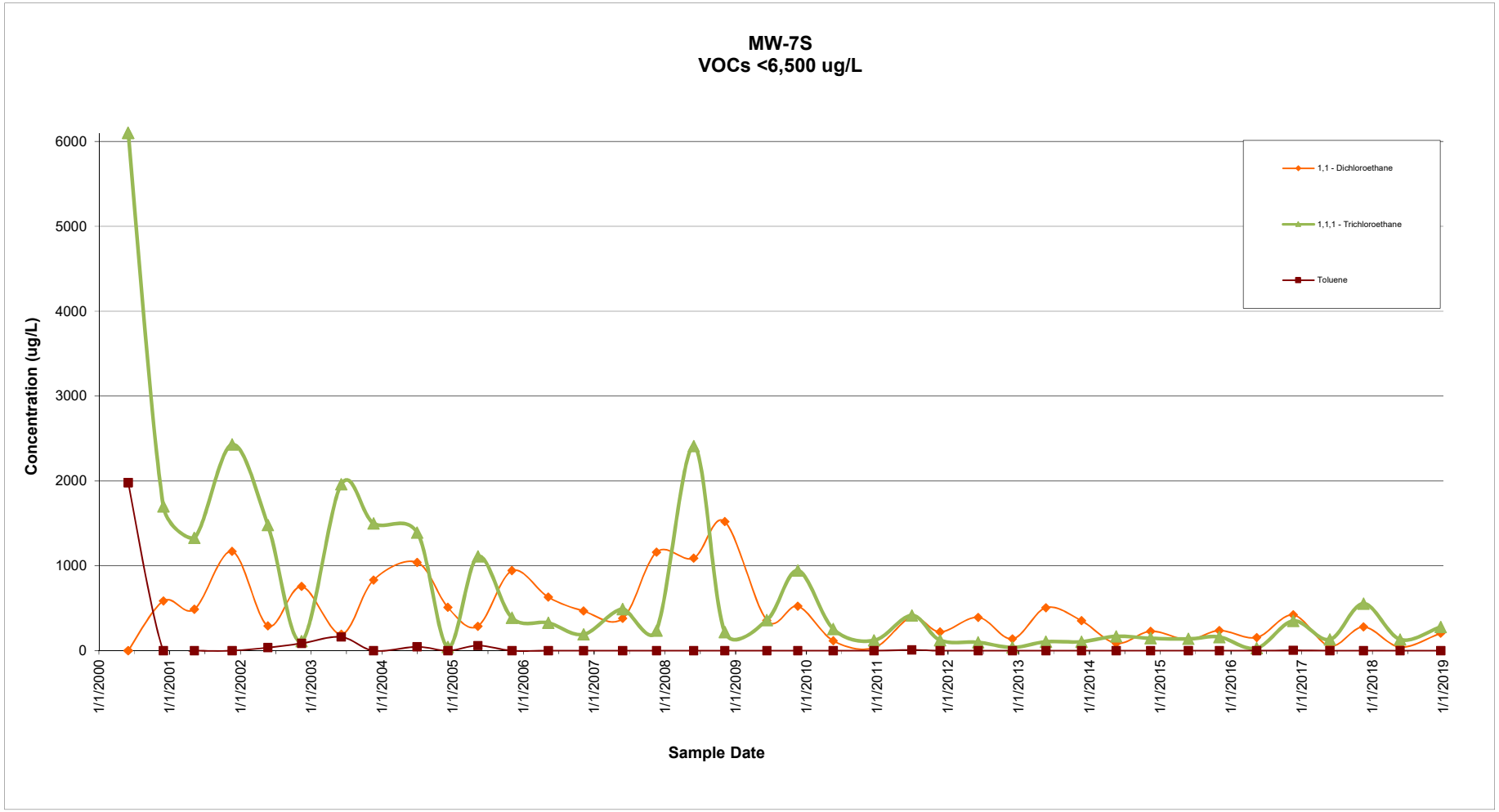
	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I
Total VOC's (601/602) (ug/L)	**7/2/2004**	**12/7/2004**	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**
Vinyl Chloride	0.00	0.00	0.00	5.92	2.26	7.29	9.42	10.30	6.06	4.09	9.83	4.03

	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I
Total VOC's (601/602) (ug/L)	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**
Vinyl Chloride	3.73	5.55	6.59	7.17	3.01	14.00	6.03	9.16	4.5	4.24	4.5	3.2

	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I	MW-6I
Total VOC's (601/602) (ug/L)	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Vinyl Chloride	4.47	4.57	8.60	8.04	6.75	4.57


MW-7S
VOCs <20ug/L
Concentration (ug/L)
20
18
16
14
12
10
8
6
4
2
0
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date
Tetrachloroethene
Trichloroethene
trans 1,2-Dichloroethene


MW-7S
VOCs <500 ug/L
Concentration (ug/L)
0
100
200
300
400
500
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date
Vinyl Chloride
Chloroethane
1,1 - Dichloroethene
1,2 - Dichloroethane
Ethylbenzene


MW-7S
VOCs <6,500 ug/L
Concentration (ug/L)
6000
5000
4000
3000
2000
1000
0
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date
1,1 - Dichloroethane
1,1,1 - Trichloroethane
Toluene

	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
Tetrachloroethene	NS	NS	NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichloroethene	NS	NS	NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
trans 1,2-Dichloroethene	NS	NS	NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
1,1 - Dichloroethane	NS	NS	NS	0.0	587.0	489.0	1170.0	293.0	757.0	195.0	833.0	1040.0	511.0
Toluene	NS	NS	NS	1980.0	0.0	0.0	0.0	36.3	86.6	162.0	0.0	45.7	0.0
1,1,1 - Trichloroethane	NS	NS	NS	6100.0	1700.0	1330.0	2430.0	1480.0	112.0	1960.0	1500.0	1390.0	42.9

	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
Vinyl Chloride	NS	NS	NS	0.0	78.4	48.8	68.4	225.0	40.3	0.0	55.7	220.0	251.0
Chloroethane	NS	NS	NS	0.0	0.0	0.0	21.4	0.0	503.0	0.0	0.0	0.0	0.0
1,1 - Dichloroethene	NS	NS	NS	0.0	137.0	133.0	26.8	0.0	0.0	26.9	0.0	0.0	0.0
1,2 - Dichloroethane	NS	NS	NS	326.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethylbenzene	NS	NS	NS	0.0	0.0	0.0	52.4	0.0	0.0	0.0	0.0	0.0	0.0

	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
Tetrachloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0
Trichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	8.3	14.0	0.0	0.0
trans 1,2-Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

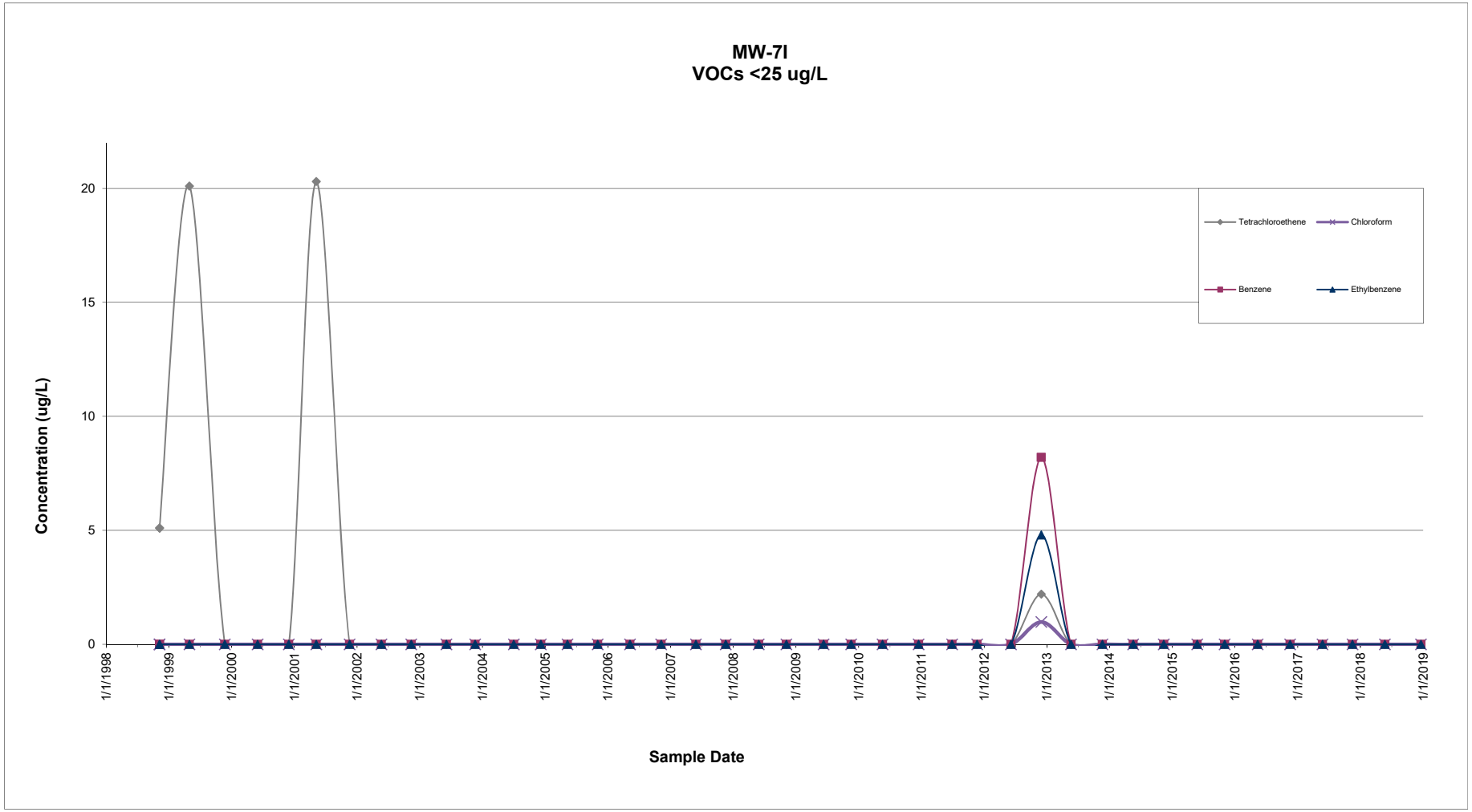
	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
1,1 - Dichloroethane	288.0	943.0	631.0	467.0	380.0	1160.0	1090.0	1520.0	356.0	524.0	117.0	34.8	396.0	222.0
Toluene	60.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0
1,1,1 - Trichloroethane	1110.0	388.0	328.0	193.0	491.0	238.0	2410.0	220.0	360.0	945.0	256.0	121.0	416.0	124.0

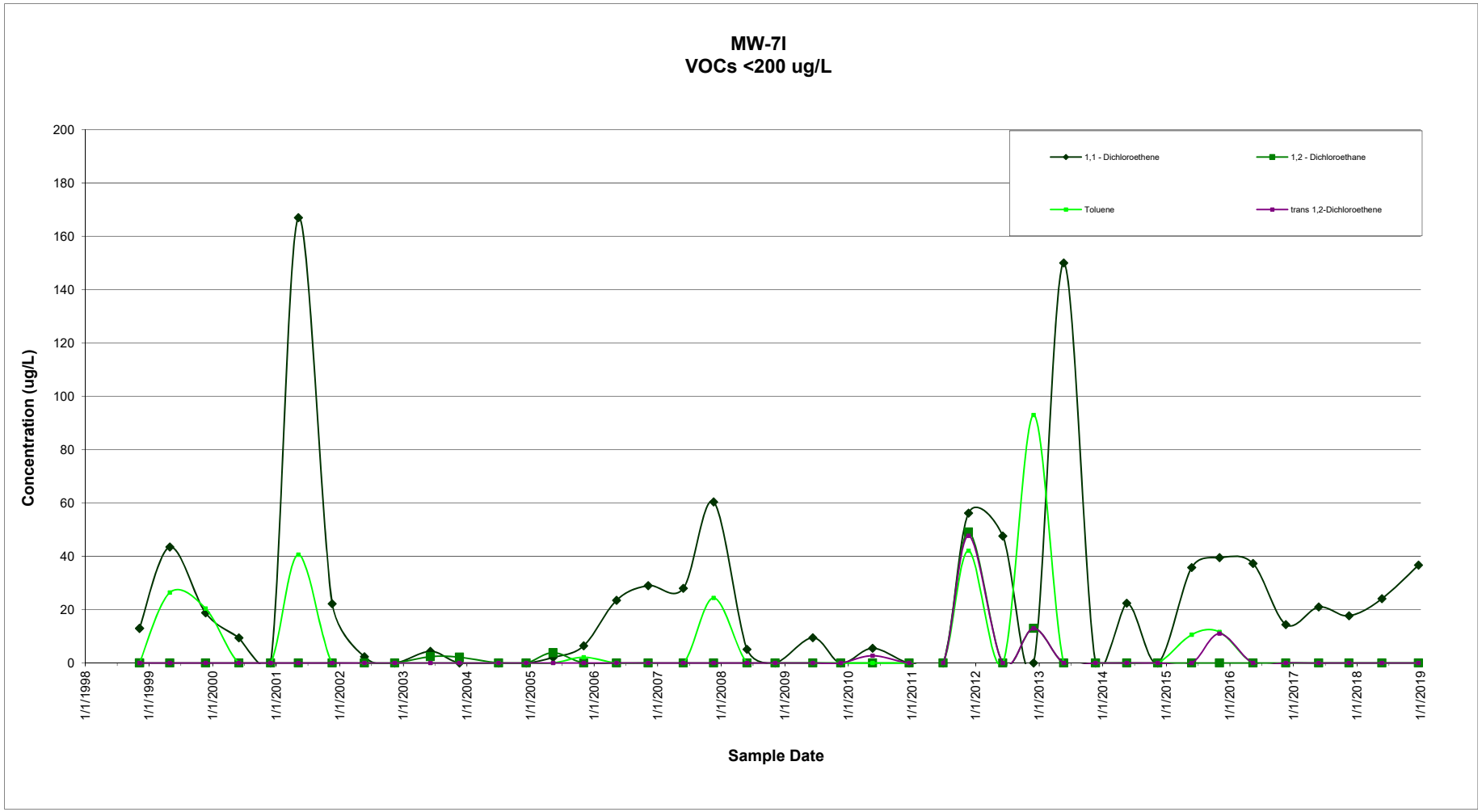
	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
Vinyl Chloride	72.0	106.0	40.3	35.3	40.8	83.4	0.0	112.0	33.0	14.8	0.0	0.0	264.0	97.0
Chloroethane	0.0	0.0	59.2	19.9	135.0	100.0	0.0	68.8	84.8	45.8	0.0	2.0	80.7	41.9
1,1 - Dichloroethene	21.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8	0.0	0.0	13.7	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethylbenzene	0.0	0.0	0.0	0.0	0.0	54.8	180.0	0.0	0.0	73.3	0.0	3.4	115.0	44.1

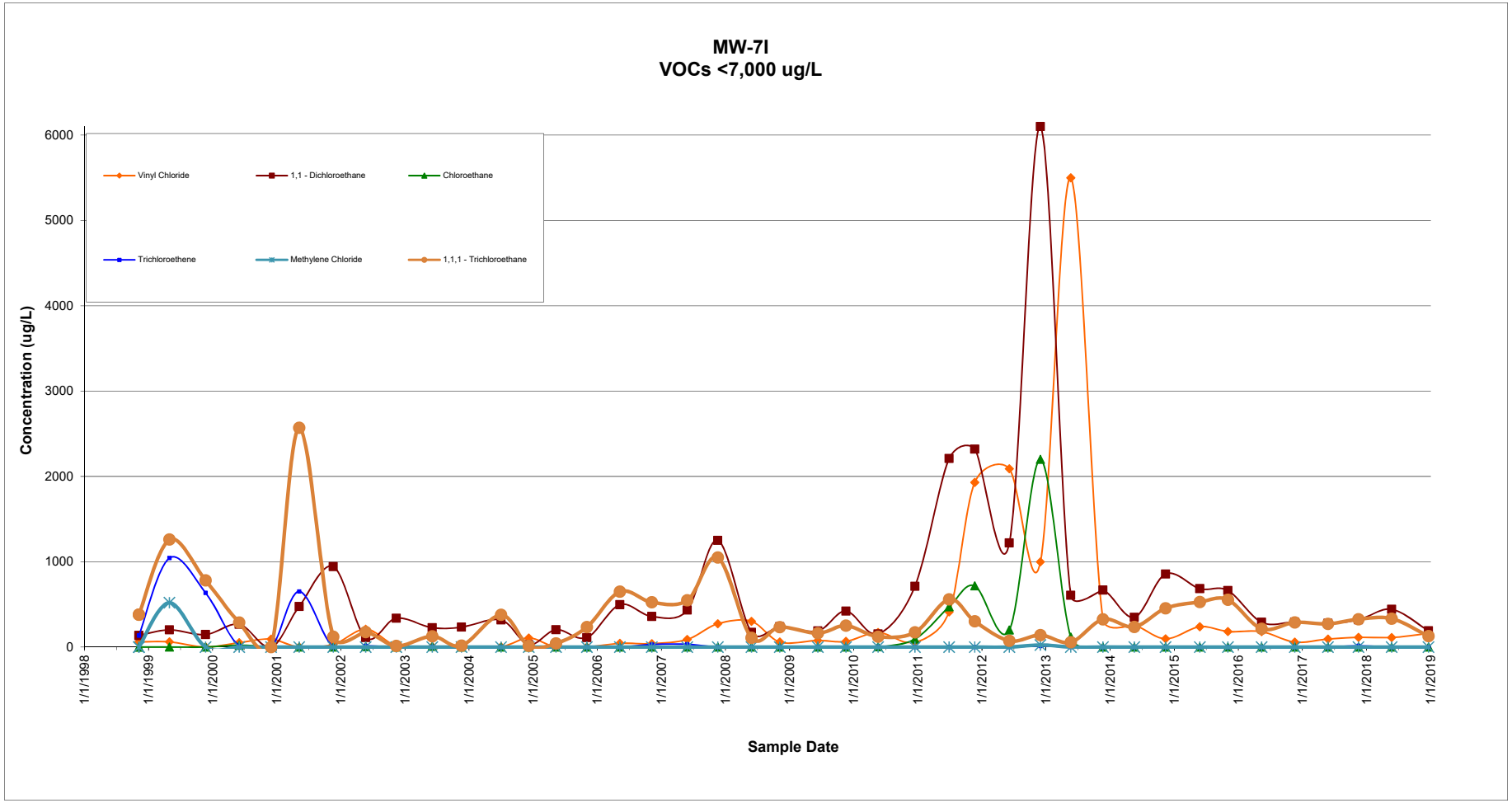
	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Tetrachloroethene	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.65	0.0
Trichloroethene	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.47	11.5	11.5	13.2	6.92
trans 1,2-Dichloroethene	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
1,1 - Dichloroethane	393.0	140.0	507.0	353	86.6	229	129	238	156	421	54.6	280	42.7	206
Toluene	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5.26	0/0	0/0	0/0	0/0
1,1,1 - Trichloroethane	98.8	39.0	106.0	106	170	146	139	161	29.6	351	132	555	133	279

	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Vinyl Chloride	273.0	34.0	306.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0
Chloroethane	30.6	25.0	85.6	46.7	0.0	0.0	19.9	0.0	0.0	32.4	0.0	0.0	0.0	5.82
1,1 - Dichloroethene	6.2	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	6.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethylbenzene	42.1	0.5	42.8	10.6	0.0	4.7	0.0	0.0	6.9	77.0	0.0	0.0	0.0	0.0


MW-7I
VOCs <25 ug/L
Concentration (ug/L)
0
5
10
15
20
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date
Tetrachloroethene
Chloroform
Benzene
Ethylbenzene


MW-7I
VOCs <200 ug/L
Concentration (ug/L)
200
180
160
140
120
100
80
60
40
20
0
1,1 - Dichloroethene
1,2 - Dichloroethane
Toluene
trans 1,2-Dichloroethene
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date


MW-7I
VOCs <7,000 ug/L
Vinyl Chloride
1,1 - Dichloroethane
Chloroethane
Trichloroethene
Methylene Chloride
1,1,1 - Trichloroethane
Concentration (ug/L)
6000
5000
4000
3000
2000
1000
0
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date

	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-71	MW-71	MW-71	MW-71	MW-71
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
Tetrachloroethene	5.1	20.1	0.0	0.0	0.0	20.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chloroform	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-71	MW-71	MW-71	MW-71	MW-71
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
Vinyl Chloride	60.5	0.0	51.5	92.4	0.0	31.7	210	16.7	4.1	0.0	2.7	106	0.0
1,1 - Dichloroethane	135	201	146	266	0	475	943	110	337	227	233	317	28
Chloroethane	0.0	0.0	0.0	21.5	0.0	0.0	0.0	5.1	0.0	7.8	0.0	0.0	0.0
Trichloroethene	136	1044.5	635	9.4	0.0	652.0	0.0	13.0	0.0	3.8	0.0	0.0	0.0
Methylene Chloride	0.0	520.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1,1 - Trichloroethane	380	1260.5	781	288	0.0	2570	121	176	13.1	126	17	378	14.6

	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-71	MW-71	MW-71	MW-71	MW-71
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
1,1 - Dichloroethene	13.0	43.5	18.8	9.41	0.0	167.0	22.2	2.33	0	4.34	0.0	0.0	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	2.37	2.15	0.0	0.0
Toluene	0.0	26.4	20.4	0.0	0.0	40.6	0.0	0.0	0	0.0	0.0	0.0	0.0
trans 1,2-Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0

	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
Tetrachloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chloroform	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

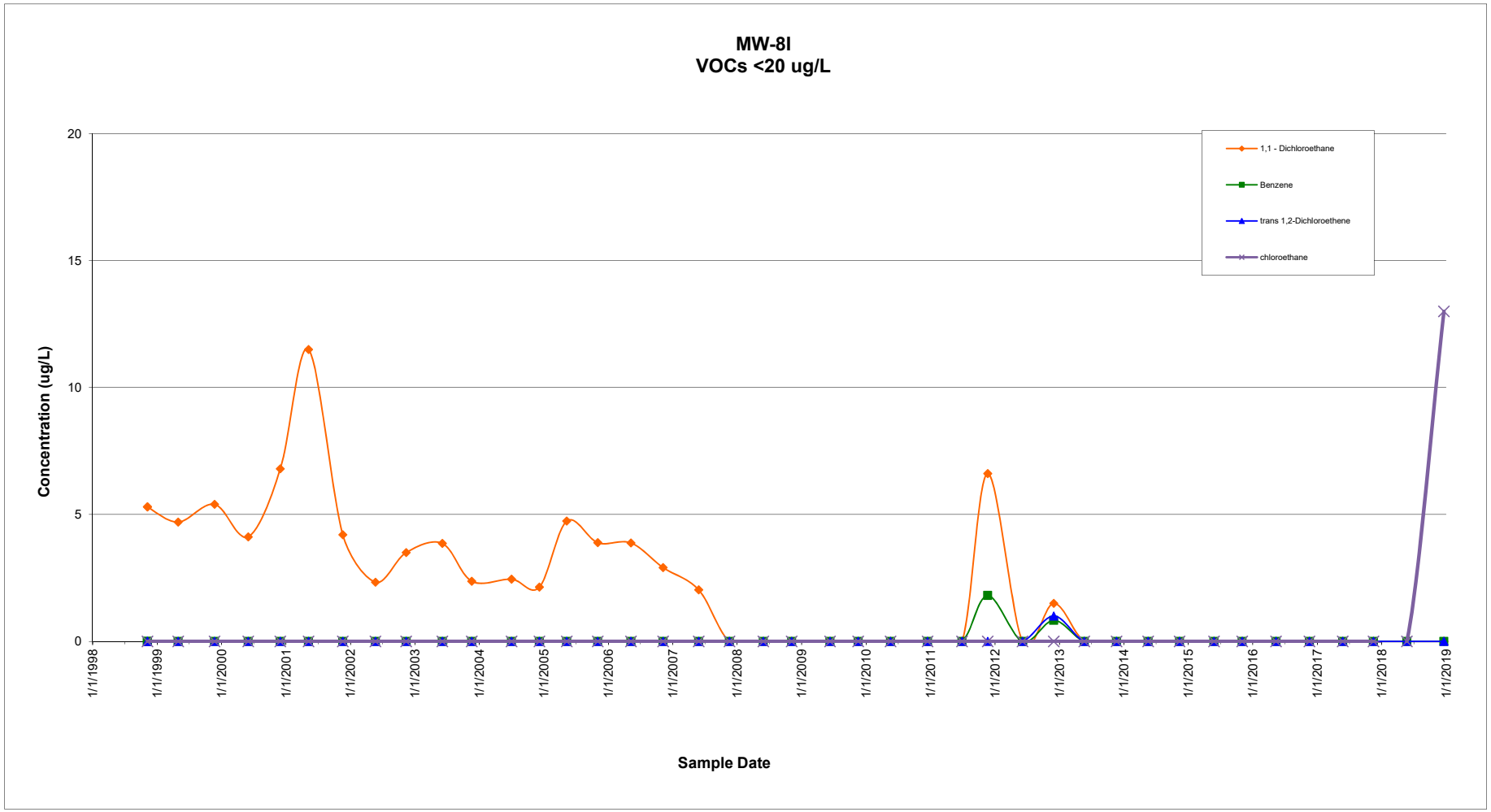
	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
Vinyl Chloride	0.0	43.5	39.5	89.2	273	301	58.6	76.9	66.2	170	56.7	412	1930	2090
1,1 - Dichloroethane	203	111	496	359	433	1250	172	239	189	421	153	712	2210	2320
Chloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.23	93.5	473	717
Trichloroethene	0.0	0.0	0.0	29.8	32.7	0.0	2.25	0.0	2.70	0.0	3.51	0.0	0.0	0.0
Methylene Chloride	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1,1 - Trichloroethane	42.8	234	650	525	548	1050	108	233	162	251	122	173	559	302

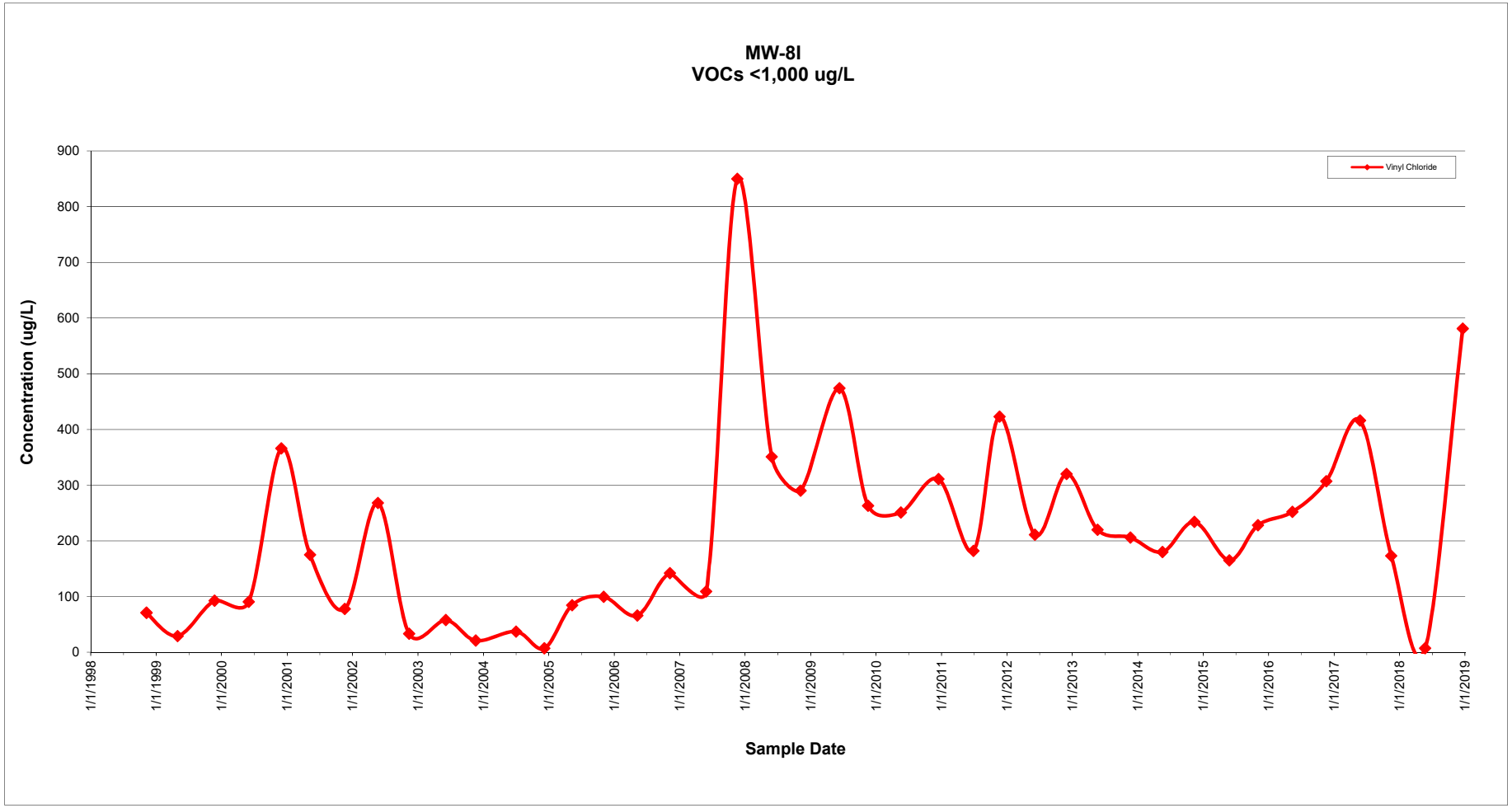
	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
1,1 - Dichloroethene	2.09	6.45	23.5	29.0	28.0	60.4	5.12	0.0	9.46	0.0	5.50	0.0	56.2	47.6
1,2 - Dichloroethane	3.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.1
Toluene	0.0	2.15	0.0	0.0	0.0	24.4	0.0	0.0	0.0	0.0	0.00	0.0	0.0	42.1
trans 1,2-Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.73	0.0	0.0	47.7

	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Tetrachloroethene	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chloroform	0.0	0.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethylbenzene	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Vinyl Chloride	998	5500	328	259	96.8	238	182	180	57.7	93.7	114	112	160	96.2
1,1 - Dichloroethane	1220	6100	607	668	348	856	684	662	291	293	278	319	442	191
Chloroethane	199	2200	117	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichloroethene	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	0.0	0.0
Methylene Chloride	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1,1 - Trichloroethane	73.5	140	56.5	325	236	454	528	555	214	289	272	326	333	129

	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
1,1 - Dichloroethene	0.0	150	0.0	22.4	0.0	35.8	39.5	37.3	14.4	21	17.7	24.1	36.7	15.2
1,2 - Dichloroethane	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Toluene	0.0	93.0	0.0	0.0	0.0	0.0	10.6	11.6	0.0	0.0	0.0	0.0	0.0	0.0
trans 1,2-Dichloroethene	0.0	13.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0


MW-8I
VOCs <20 ug/L
Concentration (ug/L)
20
15
10
5
0
1,1 - Dichloroethane
Benzene
trans 1,2-Dichloroethene
chloroethane
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date


MW-8I
VOCs <1,000 ug/L
Vinyl Chloride
Concentration (ug/L)
0
100
200
300
400
500
600
700
800
900
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date

	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
1,1 - Dichloroethane	5.30	4.70	5.40	4.12	6.80	11.50	4.20	2.33	3.50	3.86	2.37	2.45	2.14
Benzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloroethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
trans 1,2-Dichloroethene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

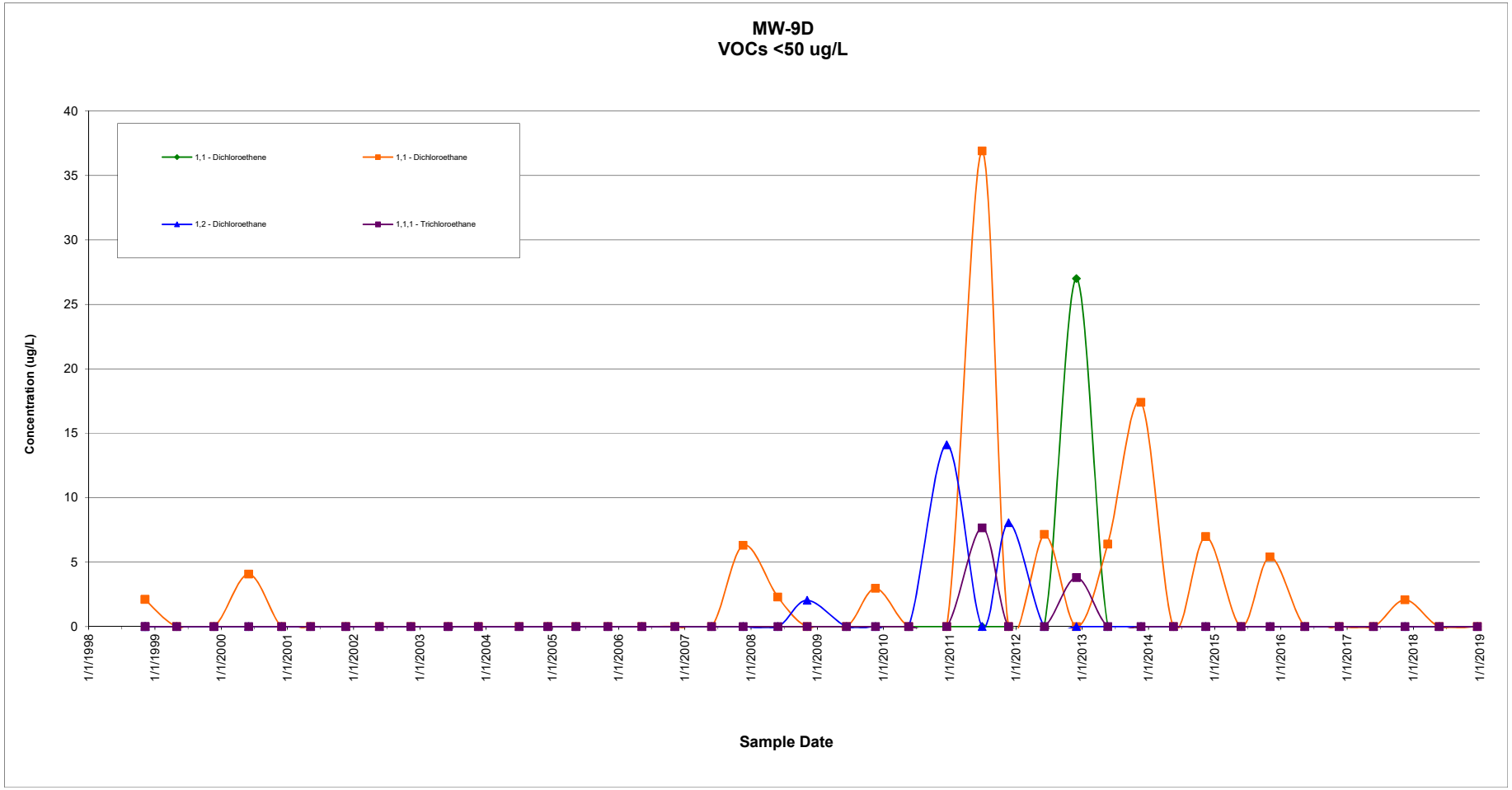
	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
Vinyl Chloride	70.80	29.00	92.50	90.40	366.00	175.00	77.70	268.00	33.20	57.90	21.00	37.10	7.02

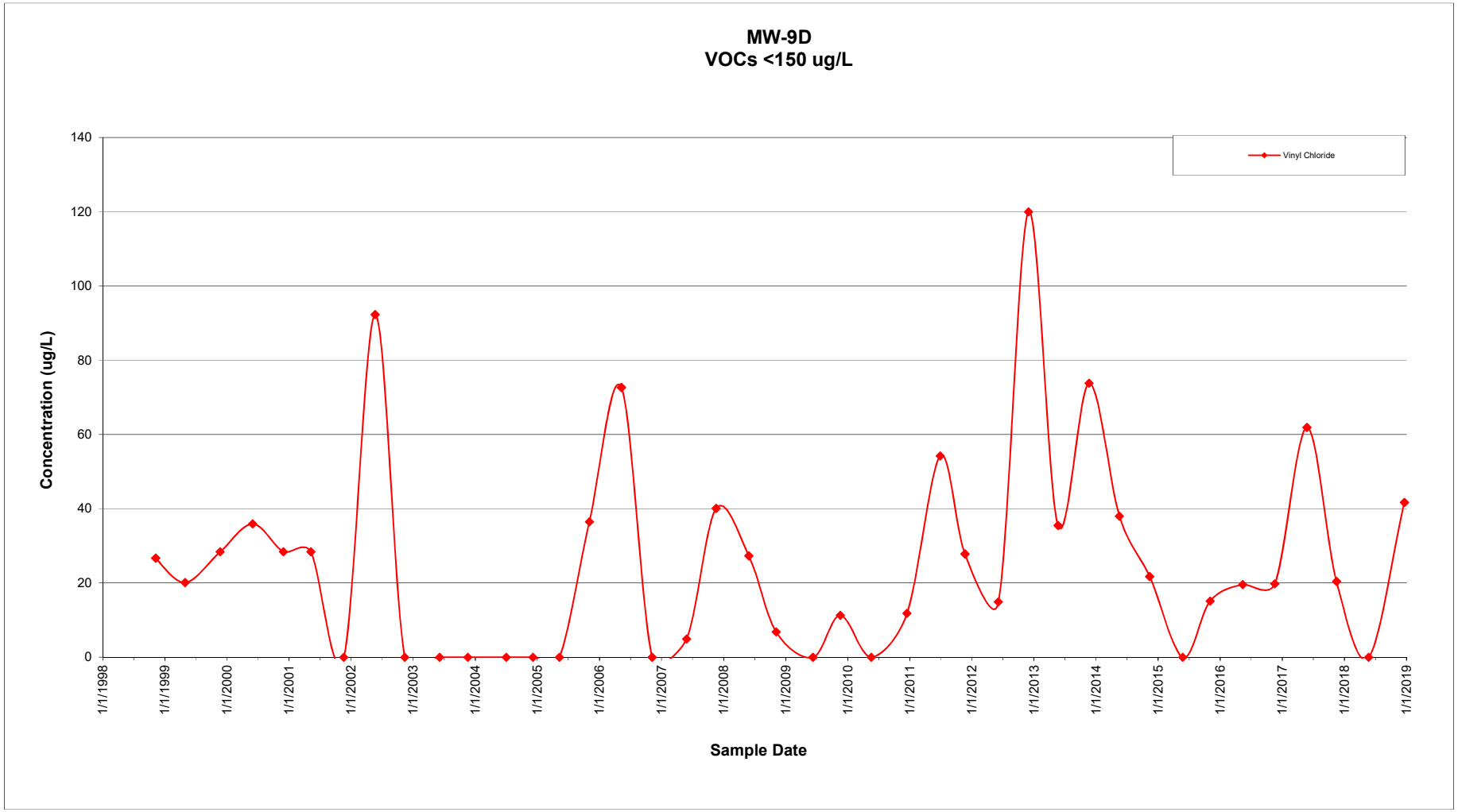
	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
1,1 - Dichloroethane	4.74	3.89	3.88	2.91	2.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
Benzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Chloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
trans 1,2-Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
Vinyl Chloride	84.5	99.5	65.9	142	109	850	351	290	474	263	251	311	182	423

	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
1,1 - Dichloroethane	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
trans 1,2-Dichloroethene	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I	MW-8I
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Vinyl Chloride	211	320	220	206	180	234	165	228	252	307	416	173	7.18	581


MW-9D
VOCs <50 ug/L
1,1 - Dichloroethene
1,1 - Dichloroethane
1,2 - Dichloroethane
1,1,1 - Trichloroethane
Concentration (ug/L)
0
5
10
15
20
25
30
35
40
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date


MW-9D
VOCs <150 ug/L
Vinyl Chloride
Concentration (ug/L)
0
20
40
60
80
100
120
140
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date

	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
1,1 - Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1 - Dichloroethane	2.10	0.0	0.0	4.07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1,1 - Trichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

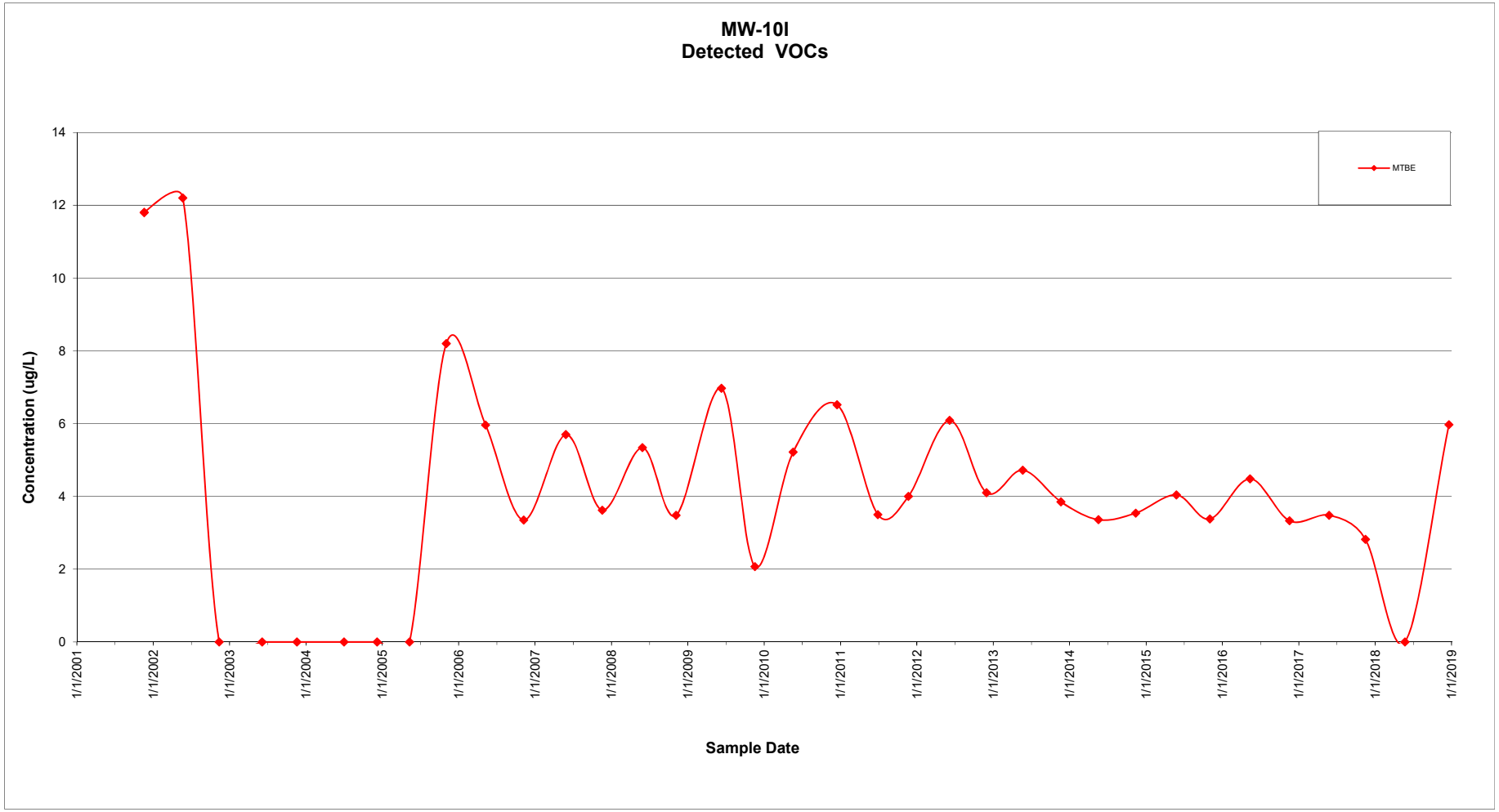
	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**	**7/2/2004**	**12/7/2004**
Vinyl Chloride	26.7	20.1	28.4	35.9	28.4	28.4	0.0	92.3	0.0	0.0	0.0	0.0	0.0

	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
1,1 - Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	6.30	2.29	0.0	0.0	2.96	0.0	0.0	36.9	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.04	0.0	0.0	0.0	14.1	0.0	8.1
1,1,1 - Trichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0

	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Total Volatiles (601/602) (ug/L)	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**
Vinyl Chloride	0.0	36.5	72.7	0.0	4.92	40.1	27.3	6.83	0.0	11.3	0.0	11.8	54.2	27.8

	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
1,1 - Dichloroethene	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1 - Dichloroethane	7.2	0.0	6.4	17.4	0.0	6.98	0.0	5.4	0.0	0.0	0.0	2.07	0.0	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1,1 - Trichloroethane	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Total Volatiles (601/602) (ug/L)	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Vinyl Chloride	14.9	120	35.5	73.8	38.0	21.7	0.0	15.1	19.6	19.8	61.9	20.4	0.0	41.7

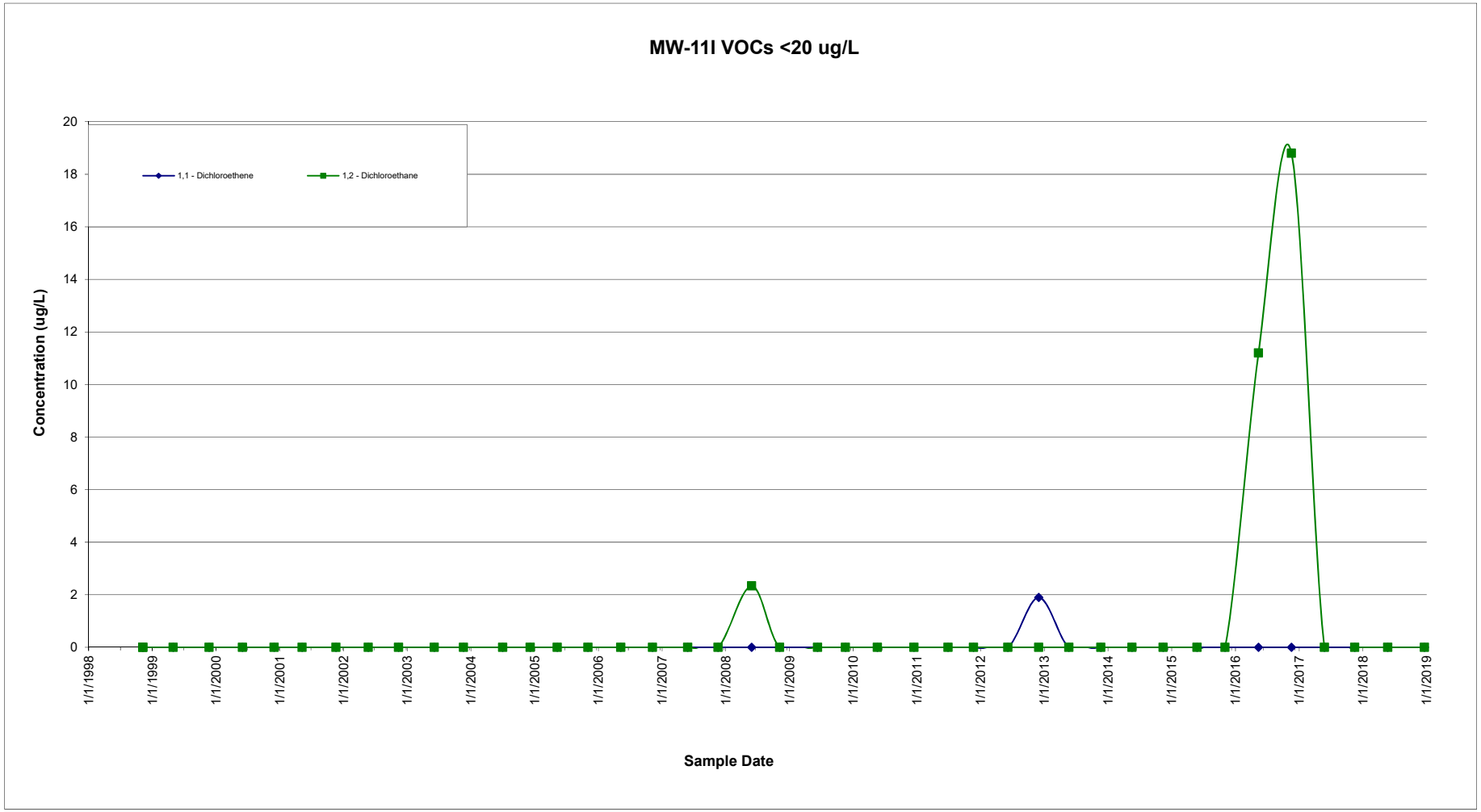

MW-10I
Detected VOCs
MTBE
Concentration (ug/L)
0
2
4
6
8
10
12
14
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date

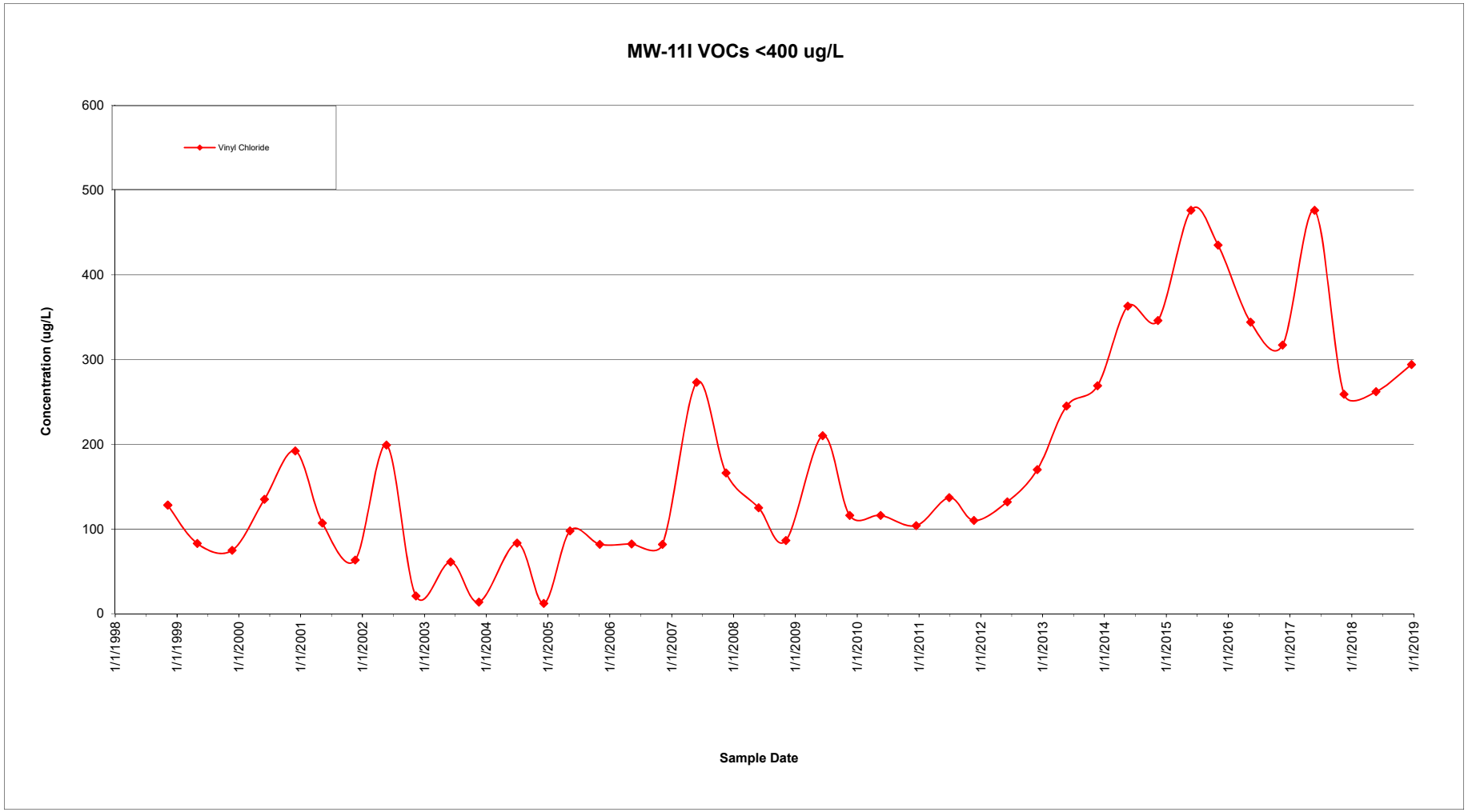
	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**
MTBE	NS	NS	NS	NS	NS	NS	11.80	12.20	0.0	0.0	0.0

	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I
Total Volatiles (601/602) (ug/L)	**7/2/2004**	**12/7/2004**	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**
MTBE	0.0	0.0	0.0	8.20	5.96	3.35	5.70	3.62	5.34	3.48	6.97	2.07

	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I	MW-10I
Total Volatiles (601/602) (ug/L)	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**
MTBE	5.22	6.52	3.50	4.00	6.09	4.10	4.72	3.85	3.36	3.54	4.04	3.38

	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101
Total Volatiles (601/602) (ug/L)	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
MTBE	4.48	3.33	3.48	2.82	0.0	5.97


MW-11I VOCs <20 ug/L
1,1 - Dichloroethene
1,2 - Dichloroethane
Concentration (ug/L)
0
2
4
6
8
10
12
14
16
18
20
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date


MW-11I VOCs <400 ug/L
Vinyl Chloride
Concentration (ug/L)
600
500
400
300
200
100
0
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date

	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**
1,1 - Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**
Vinyl Chloride	128.1	82.9	74.8	135	192	107	63.3	199	20.9	61.1	13.7

	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Total Volatiles (601/602) (ug/L)	**7/2/2004**	**12/7/2004**	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**
1,1 - Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.34	0.0	0.0	0.0

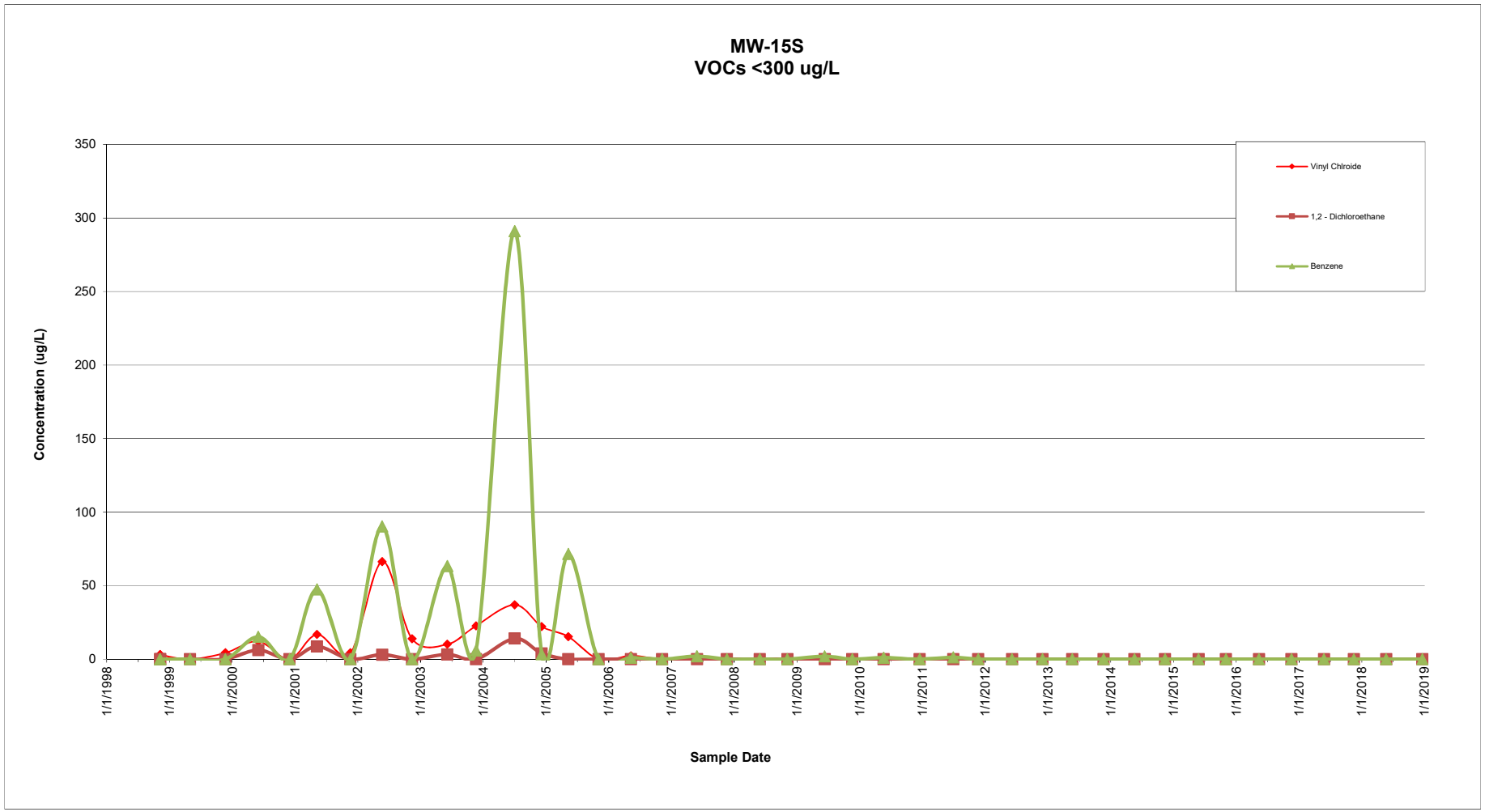
	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Total Volatiles (601/602) (ug/L)	**7/2/2004**	**12/7/2004**	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**
Vinyl Chloride	83.4	12.1	97.8	81.9	82.4	81.8	273	166	125	86.4	210	116

	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Total Volatiles (601/602) (ug/L)	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**
1,1 - Dichloroethene	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Total Volatiles (601/602) (ug/L)	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**
Vinyl Chloride	116	104	137	110	132	170	245	269	363	346	476	435

	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Total Volatiles (601/602) (ug/L)	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
1,1 - Dichloroethene	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	11.2	18.8	0.0	0.0	0.0	0.0

	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Total Volatiles (601/602) (ug/L)	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Vinyl Chloride	344	317	476	259	262	294


MW-15S
VOCs <300 ug/L
Concentration (ug/L)
350
300
250
200
150
100
50
0
1/1/1998
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
Sample Date
Vinyl Chlroide
1,2 - Dichloroethane
Benzene

	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S
Total Volatiles (601/602) (ug/L)	**11/8/1998**	**5/1/1999**	**11/23/1999**	**6/1/2000**	**11/30/2000**	**5/9/2001**	**11/19/2001**	**5/23/2002**	**11/13/2002**	**6/6/2003**	**11/20/2003**
Vinyl Chlroide	3.00	0.0	4.30	12.1	0.0	16.8	4.30	66.3	13.9	10.1	22.6
1,2 - Dichloroethane	0.0	0.0	0.0	6.20	0.0	8.60	0.0	3.10	0.0	3.18	0.0
Benzene	0.0	0.0	0.0	15.2	0.0	47.4	0.0	90.3	0.0	63.4	5.89

	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S
Total Volatiles (601/602) (ug/L)	**7/2/2004**	**12/7/2004**	**5/11/2005**	**11/3/2005**	**5/10/2006**	**11/8/2006**	**5/29/2007**	**11/19/2007**	**5/29/2008**	**11/6/2008**	**6/11/2009**	**11/18/2009**
Vinyl Chlroide	37.0	22.2	15.3	0.0	2.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	14.0	3.98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	291	3.37	71.5	0.0	0.95	0.0	1.98	0.0	0.0	0.0	1.90	0.0

	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S
Total Volatiles (601/602) (ug/L)	**5/20/2010**	**12/16/2010**	**6/29/2011**	**11/22/2011**	**6/6/2012**	**11/30/2012**	**5/22/2013**	**11/21/2013**	**5/19/2014**	**11/13/2014**	**5/27/2015**	**11/3/2015**
Vinyl Chlroide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	1.04	0.0	1.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S
Total Volatiles (601/602) (ug/L)	**5/13/2016**	**11/18/2016**	**5/26/2017**	**11/16/2017**	**5/24/2018**	**12/20/2018**
Vinyl Chlroide	0.0	0.0	0.0	0.0	0.0	0.0
1,2 - Dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX C

ANALYTICAL DATA
LABORATORY REPORTS

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

180112

Referencing

RFA Monthly Sampling DEQ-98045 PO# 18004885

Prepared

Wednesday, January 24, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180112

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045 PO# 18004885

Sample Identifier:	Effluent		
Lab Sample ID:	180112-01	**Date Sampled:**	1/11/2018
Matrix:	Water	**Date Received:**	1/11/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.19 @ 21.5 C	S.U.		1/11/2018 17:18

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		1/11/2018 15:47
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/11/2018 15:47
1,1,2-Trichloroethane	< 2.00	ug/L		1/11/2018 15:47
1,1-Dichloroethane	**7.98**	ug/L		1/11/2018 15:47
1,1-Dichloroethene	< 2.00	ug/L		1/11/2018 15:47
1,2-Dichlorobenzene	< 2.00	ug/L		1/11/2018 15:47
1,2-Dichloroethane	< 2.00	ug/L		1/11/2018 15:47
1,2-Dichloropropane	< 2.00	ug/L		1/11/2018 15:47
1,3-Dichlorobenzene	< 2.00	ug/L		1/11/2018 15:47
1,4-Dichlorobenzene	< 2.00	ug/L		1/11/2018 15:47
2-Butanone	**15.7**	ug/L		1/11/2018 15:47
2-Chloroethyl vinyl Ether	< 10.0	ug/L		1/11/2018 15:47
4-Methyl-2-pentanone	< 5.00	ug/L		1/11/2018 15:47
Acetone	< 10.0	ug/L		1/11/2018 15:47
Benzene	< 1.00	ug/L		1/11/2018 15:47
Bromodichloromethane	< 2.00	ug/L		1/11/2018 15:47
Bromoform	< 5.00	ug/L		1/11/2018 15:47
Bromomethane	< 2.00	ug/L		1/11/2018 15:47
Carbon Tetrachloride	< 2.00	ug/L		1/11/2018 15:47
Chlorobenzene	< 2.00	ug/L		1/11/2018 15:47
Chloroethane	< 2.00	ug/L		1/11/2018 15:47
Chloroform	< 2.00	ug/L		1/11/2018 15:47
Chloromethane	< 2.00	ug/L		1/11/2018 15:47

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180112

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045 PO# 18004885

Sample Identifier: Effluent
Lab Sample ID: 180112-01 **Date Sampled:** 1/11/2018
Matrix: Water **Date Received:** 1/11/2018

cis-1,3-Dichloropropene	< 2.00	ug/L	1/11/2018	15:47
Dibromochloromethane	< 2.00	ug/L	1/11/2018	15:47
Ethylbenzene	< 2.00	ug/L	1/11/2018	15:47
Methylene chloride	< 5.00	ug/L	1/11/2018	15:47
Tetrachloroethene	< 2.00	ug/L	1/11/2018	15:47
Toluene	< 2.00	ug/L	1/11/2018	15:47
trans-1,2-Dichloroethene	< 2.00	ug/L	1/11/2018	15:47
trans-1,3-Dichloropropene	< 2.00	ug/L	1/11/2018	15:47
Trichloroethene	< 2.00	ug/L	1/11/2018	15:47
Vinyl chloride	< 2.00	ug/L	1/11/2018	15:47

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**105**	85.9 - 118		1/11/2018	15:47
4-Bromofluorobenzene	**92.8**	69.4 - 123		1/11/2018	15:47
Pentafluorobenzene	**95.7**	81.6 - 114		1/11/2018	15:47
Toluene-D8	**99.8**	82.7 - 112		1/11/2018	15:47

Method Reference(s): EPA 624
Data File: x48085.D

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT:	City of Rochester	CLIENT:		180112
ADDRESS:	30 Church Street, Room 300B	ADDRESS:		Quotation #: PO 18004885
CITY:	Rochester STATE: NY ZIP 14614	CITY: STATE: ZIP:		
PHONE:	428-6884	PHONE:		Email: peckd@cityofrochester.gov
ATTN:	Dennis Peck	ATTN:		

PROJECT REFERENCE

RFA Monthly Sampling DEQ-98045
PO# 18004885

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	pH	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	1/11/2018	1330		X	Effluent	Water	3	X	X	624 Site Specific =VRFA Test Name	01
2											
3											
4											
5											
6											
7											
8											
9											
10										10°C 1/11/18 1514	

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other	☒	Other	☐	Other EDD	☐
please indicate:	10	please indicate:		please indicate:	

Dennis Peck	1/11/18	Total Cost:
Sampled By	Date/Time	
Dennis Peck	1/11/18 1510	
Relinquished By	Date/Time	
[signature]	1/11/18 1510	P.I.F.
Received By	Date/Time	
[signature]	1/11/18 1514	
Received @ Lab By	Date/Time	

See additional page for sample conditions.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Molly Caid

Lab Project ID: 180112 **Date:** 1/11/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	VOA		V
Comments			
Preservation	VOA		pH
Comments			
Chlorine Absent (<0.10 ppm per test strip)			pH
Comments	VOA neg.		
Holding Time	X	pH	
Comments			
Temperature		X	
Comments	10°C 1/11/18 1514		
Sufficient Sample Quantity	V		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

180600

Referencing

RFA Quarterly Sampling DEQ-98045

Prepared

Monday, March 5, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180600

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 180600-01 **Date Sampled:** 2/19/2018
Matrix: Wastewater **Date Received:** 2/19/2018

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**0.00590**	mg/L		2/23/2018 09:30
Cadmium	< 0.00250	mg/L		2/22/2018 18:29
Chromium	< 0.00500	mg/L		2/22/2018 18:29
Copper	< 0.0100	mg/L		2/22/2018 18:29
Lead	< 0.00500	mg/L		2/22/2018 18:29
Nickel	< 0.0200	mg/L		2/22/2018 18:29
Selenium	< 0.0100	mg/L		2/22/2018 18:29
Zinc	< 0.0300	mg/L		2/22/2018 18:29

Method Reference(s): EPA 200.7
Preparation Date: 2/20/2018
Data File: 180223A

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		2/20/2018 13:57
4,4-DDE	**0.121**	ug/L	P	2/20/2018 13:57
4,4-DDT	< 0.100	ug/L		2/20/2018 13:57
Aldrin	< 0.100	ug/L		2/20/2018 13:57
alpha-BHC	< 0.100	ug/L		2/20/2018 13:57
beta-BHC	< 0.100	ug/L		2/20/2018 13:57
cis-Chlordane	< 0.100	ug/L		2/20/2018 13:57
delta-BHC	< 0.100	ug/L		2/20/2018 13:57
Dieldrin	< 0.100	ug/L		2/20/2018 13:57
Endosulfan I	< 0.100	ug/L		2/20/2018 13:57
Endosulfan II	< 0.100	ug/L		2/20/2018 13:57
Endosulfan Sulfate	< 0.100	ug/L		2/20/2018 13:57
Endrin	< 0.100	ug/L		2/20/2018 13:57
Endrin Aldehyde	< 0.100	ug/L		2/20/2018 13:57
gamma-BHC (Lindane)	< 0.100	ug/L		2/20/2018 13:57
Heptachlor	< 0.100	ug/L		2/20/2018 13:57

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180600

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 180600-01 **Date Sampled:** 2/19/2018
Matrix: Wastewater **Date Received:** 2/19/2018

Heptachlor Epoxide	< 0.100	ug/L		2/20/2018 13:57
Methoxychlor	< 0.100	ug/L		2/20/2018 13:57
Toxaphene	< 1.00	ug/L		2/20/2018 13:57
trans-Chlordane	< 0.100	ug/L		2/20/2018 13:57

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**73.2**	15.9 - 138		2/20/2018 13:57
Tetrachloro-m-xylene (1)	**83.6**	20 - 112		2/20/2018 13:57

Method Reference(s): EPA 608
Preparation Date: 2/20/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.28 @ 23.7 C	S.U.		2/19/2018 16:49

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Semi-Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
Diethyl phthalate	< 10.0	ug/L		2/20/2018 22:55

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2-Fluorobiphenyl	**73.0**	31.2 - 108		2/20/2018 22:55
Nitrobenzene-d5	**71.7**	48.3 - 106		2/20/2018 22:55
Terphenyl-d14	**63.4**	52.2 - 117		2/20/2018 22:55

Method Reference(s): EPA 625
Preparation Date: B25323.D
Data File: 2/20/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		2/20/2018 14:12
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		2/20/2018 14:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180600

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier:	Effluent		
Lab Sample ID:	180600-01	**Date Sampled:**	2/19/2018
Matrix:	Wastewater	**Date Received:**	2/19/2018

1,1,2-Trichloroethane	< 2.00	ug/L	2/20/2018	14:12
1,1-Dichloroethane	**4.58**	ug/L	2/20/2018	14:12
1,1-Dichloroethene	< 2.00	ug/L	2/20/2018	14:12
1,2-Dichlorobenzene	< 2.00	ug/L	2/20/2018	14:12
1,2-Dichloroethane	< 2.00	ug/L	2/20/2018	14:12
1,2-Dichloropropane	< 2.00	ug/L	2/20/2018	14:12
1,3-Dichlorobenzene	< 2.00	ug/L	2/20/2018	14:12
1,4-Dichlorobenzene	< 2.00	ug/L	2/20/2018	14:12
2-Butanone	**13.8**	ug/L	2/20/2018	14:12
2-Chloroethyl vinyl Ether	< 10.0	ug/L	2/20/2018	14:12
4-Methyl-2-pentanone	< 5.00	ug/L	2/20/2018	14:12
Acetone	< 10.0	ug/L	2/20/2018	14:12
Benzene	< 1.00	ug/L	2/20/2018	14:12
Bromodichloromethane	< 2.00	ug/L	2/20/2018	14:12
Bromoform	< 5.00	ug/L	2/20/2018	14:12
Bromomethane	< 2.00	ug/L	2/20/2018	14:12
Carbon Tetrachloride	< 2.00	ug/L	2/20/2018	14:12
Chlorobenzene	< 2.00	ug/L	2/20/2018	14:12
Chloroethane	< 2.00	ug/L	2/20/2018	14:12
Chloroform	< 2.00	ug/L	2/20/2018	14:12
Chloromethane	< 2.00	ug/L	2/20/2018	14:12
cis-1,3-Dichloropropene	< 2.00	ug/L	2/20/2018	14:12
Dibromochloromethane	< 2.00	ug/L	2/20/2018	14:12
Ethylbenzene	< 2.00	ug/L	2/20/2018	14:12
Methylene chloride	< 5.00	ug/L	2/20/2018	14:12
Tetrachloroethene	< 2.00	ug/L	2/20/2018	14:12
Toluene	< 2.00	ug/L	2/20/2018	14:12
trans-1,2-Dichloroethene	< 2.00	ug/L	2/20/2018	14:12
trans-1,3-Dichloropropene	< 2.00	ug/L	2/20/2018	14:12
Trichloroethene	< 2.00	ug/L	2/20/2018	14:12
Vinyl chloride	< 2.00	ug/L	2/20/2018	14:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180600

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 180600-01 **Date Sampled:** 2/19/2018
Matrix: Wastewater **Date Received:** 2/19/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**103**	77.2 - 121		2/20/2018	14:12
4-Bromofluorobenzene	**100**	70 - 123		2/20/2018	14:12
Pentafluorobenzene	**102**	85.4 - 110		2/20/2018	14:12
Toluene-D8	**97.6**	83.8 - 112		2/20/2018	14:12

Method Reference(s): EPA 624
Data File: x48791.D

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180600

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Influent
Lab Sample ID: 180600-02 **Date Sampled:** 2/19/2018
Matrix: Wastewater **Date Received:** 2/19/2018

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		2/20/2018 14:10
4,4-DDE	**0.193**	ug/L	P	2/20/2018 14:10
4,4-DDT	< 0.100	ug/L		2/20/2018 14:10
Aldrin	< 0.100	ug/L		2/20/2018 14:10
alpha-BHC	< 0.100	ug/L		2/20/2018 14:10
beta-BHC	< 0.100	ug/L		2/20/2018 14:10
cis-Chlordane	< 0.100	ug/L		2/20/2018 14:10
delta-BHC	< 0.100	ug/L		2/20/2018 14:10
Dieldrin	< 0.100	ug/L		2/20/2018 14:10
Endosulfan I	< 0.100	ug/L		2/20/2018 14:10
Endosulfan II	< 0.100	ug/L		2/20/2018 14:10
Endosulfan Sulfate	< 0.100	ug/L		2/20/2018 14:10
Endrin	< 0.100	ug/L		2/20/2018 14:10
Endrin Aldehyde	< 0.100	ug/L		2/20/2018 14:10
gamma-BHC (Lindane)	< 0.100	ug/L		2/20/2018 14:10
Heptachlor	< 0.100	ug/L		2/20/2018 14:10
Heptachlor Epoxide	< 0.100	ug/L		2/20/2018 14:10
Methoxychlor	< 0.100	ug/L		2/20/2018 14:10
Toxaphene	< 1.00	ug/L		2/20/2018 14:10
trans-Chlordane	< 0.100	ug/L		2/20/2018 14:10

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**61.8**	15.9 - 138		2/20/2018 14:10
Tetrachloro-m-xylene (1)	**65.3**	20 - 112		2/20/2018 14:10

Method Reference(s): EPA 608
Preparation Date: 2/20/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	**3520**	ug/L		2/20/2018 13:48

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180600

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier:	Influent		
Lab Sample ID:	180600-02	**Date Sampled:**	2/19/2018
Matrix:	Wastewater	**Date Received:**	2/19/2018

1,1,2,2-Tetrachloroethane	< 100	ug/L	2/20/2018	13:48
1,1,2-Trichloroethane	< 100	ug/L	2/20/2018	13:48
1,1-Dichloroethane	**6840**	ug/L	2/20/2018	13:48
1,1-Dichloroethene	**238**	ug/L	2/20/2018	13:48
1,2-Dichlorobenzene	< 100	ug/L	2/20/2018	13:48
1,2-Dichloroethane	< 100	ug/L	2/20/2018	13:48
1,2-Dichloropropane	< 100	ug/L	2/20/2018	13:48
1,3-Dichlorobenzene	< 100	ug/L	2/20/2018	13:48
1,4-Dichlorobenzene	< 100	ug/L	2/20/2018	13:48
2-Butanone	< 500	ug/L	2/20/2018	13:48
2-Chloroethyl vinyl Ether	< 500	ug/L	2/20/2018	13:48
4-Methyl-2-pentanone	< 250	ug/L	2/20/2018	13:48
Acetone	< 500	ug/L	2/20/2018	13:48
Benzene	< 50.0	ug/L	2/20/2018	13:48
Bromodichloromethane	< 100	ug/L	2/20/2018	13:48
Bromoform	< 250	ug/L	2/20/2018	13:48
Bromomethane	< 100	ug/L	2/20/2018	13:48
Carbon Tetrachloride	< 100	ug/L	2/20/2018	13:48
Chlorobenzene	< 100	ug/L	2/20/2018	13:48
Chloroethane	**297**	ug/L	2/20/2018	13:48
Chloroform	< 100	ug/L	2/20/2018	13:48
Chloromethane	< 100	ug/L	2/20/2018	13:48
cis-1,3-Dichloropropene	< 100	ug/L	2/20/2018	13:48
Dibromochloromethane	< 100	ug/L	2/20/2018	13:48
Ethylbenzene	< 100	ug/L	2/20/2018	13:48
Methylene chloride	< 250	ug/L	2/20/2018	13:48
Tetrachloroethene	< 100	ug/L	2/20/2018	13:48
Toluene	**312**	ug/L	2/20/2018	13:48
trans-1,2-Dichloroethene	< 100	ug/L	2/20/2018	13:48
trans-1,3-Dichloropropene	< 100	ug/L	2/20/2018	13:48
Trichloroethene	< 100	ug/L	2/20/2018	13:48
Vinyl chloride	**1240**	ug/L	2/20/2018	13:48

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 180600

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Influent
Lab Sample ID: 180600-02 **Date Sampled:** 2/19/2018
Matrix: Wastewater **Date Received:** 2/19/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**104**	77.2 - 121		2/20/2018 13:48
4-Bromofluorobenzene	**97.8**	70 - 123		2/20/2018 13:48
Pentafluorobenzene	**104**	85.4 - 110		2/20/2018 13:48
Toluene-D8	**101**	83.8 - 112		2/20/2018 13:48

Method Reference(s): EPA 624
Data File: x48790.D

Analytical Report Appendix

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

1 of 2

REPORT TO:		INVOICE TO:		
CLIENT:	City of Rochester	CLIENT:		LAB PROJECT ID: 180600
ADDRESS:	30 Church Street, Room 300B	ADDRESS:		
CITY:	Rochester STATE: NY ZIP 14614	CITY: STATE: ZIP:		Quotation #: PO 18004885
PHONE:	428-6884	PHONE:		Email: peckd@cityofrochester.gov
ATTN:	Dennis Peck	ATTN:		

PROJECT REFERENCE

RFA Quarterly Sampling DEQ-98045

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	625 Site Specific	608 Pesticides	Metals*	pH						REMARKS	PARADIGM LAB SAMPLE NUMBER
1	2/19/2018	11:30		X	Effluent	Water	6	X	X	X	X	X						624 Site Specific =VRFA Test Name	01
2	2/19/2018	11:55		X	Influent	Water	3	X		X								625 Site Specific = SMISC	02
3																		**SVOA List:**	
4																		Diethyl phthalate	
5																			
6																			
7																		**Metals list:**	
8																		As, Cd, Cr, Cu, Pb, Ni, Se, Zn	
9																			
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other	☒	Other	☐	Other EDD	☐
please indicate:	10	please indicate:		please indicate:	

Dennis Peck — Sampled By — 2/19/18 — Date/Time

Dennis M Peck — Relinquished By — 2/19/18 1455 — Date/Time

Received By — 2/19/18 1455 — Date/Time

JR — Received @ Lab By — 2/19/18 15:10 — Date/Time

10 °C 2/19/18 15:08

Total Cost:

P.I.F.

See additional page for sample conditions.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 180600 **Date:** 2/19/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA metals		X
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X 625 SVOA 608 Pest		X
Comments	624 VOA: Cl⁻ neg.		
Holding Time	X	X pH	
Comments			
Temperature		X	X pH metals
Comments	10 °C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

181039

Referencing

RFA Monthly Sampling DEQ-98045

Prepared

Monday, March 26, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 181039

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier:	Effluent		
Lab Sample ID:	181039-01	**Date Sampled:**	3/21/2018
Matrix:	Water	**Date Received:**	3/21/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.16 @ 22.2 C	S.U.		3/21/2018 15:00

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		3/22/2018 15:52
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		3/22/2018 15:52
1,1,2-Trichloroethane	< 2.00	ug/L		3/22/2018 15:52
1,1-Dichloroethane	**6.03**	ug/L		3/22/2018 15:52
1,1-Dichloroethene	< 2.00	ug/L		3/22/2018 15:52
1,2-Dichlorobenzene	< 2.00	ug/L		3/22/2018 15:52
1,2-Dichloroethane	< 2.00	ug/L		3/22/2018 15:52
1,2-Dichloropropane	< 2.00	ug/L		3/22/2018 15:52
1,3-Dichlorobenzene	< 2.00	ug/L		3/22/2018 15:52
1,4-Dichlorobenzene	< 2.00	ug/L		3/22/2018 15:52
2-Butanone	**17.4**	ug/L		3/22/2018 15:52
2-Chloroethyl vinyl Ether	< 10.0	ug/L		3/22/2018 15:52
4-Methyl-2-pentanone	< 5.00	ug/L		3/22/2018 15:52
Acetone	< 10.0	ug/L		3/22/2018 15:52
Benzene	< 1.00	ug/L		3/22/2018 15:52
Bromodichloromethane	< 2.00	ug/L		3/22/2018 15:52
Bromoform	< 5.00	ug/L		3/22/2018 15:52
Bromomethane	< 2.00	ug/L		3/22/2018 15:52
Carbon Tetrachloride	< 2.00	ug/L		3/22/2018 15:52
Chlorobenzene	< 2.00	ug/L		3/22/2018 15:52
Chloroethane	< 2.00	ug/L		3/22/2018 15:52
Chloroform	< 2.00	ug/L		3/22/2018 15:52
Chloromethane	< 2.00	ug/L		3/22/2018 15:52

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 181039

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 181039-01 **Date Sampled:** 3/21/2018
Matrix: Water **Date Received:** 3/21/2018

cis-1,3-Dichloropropene	< 2.00	ug/L		3/22/2018 15:52
Dibromochloromethane	< 2.00	ug/L		3/22/2018 15:52
Ethylbenzene	< 2.00	ug/L		3/22/2018 15:52
Methylene chloride	< 5.00	ug/L		3/22/2018 15:52
Tetrachloroethene	< 2.00	ug/L		3/22/2018 15:52
Toluene	< 2.00	ug/L		3/22/2018 15:52
trans-1,2-Dichloroethene	< 2.00	ug/L		3/22/2018 15:52
trans-1,3-Dichloropropene	< 2.00	ug/L		3/22/2018 15:52
Trichloroethene	< 2.00	ug/L		3/22/2018 15:52
Vinyl chloride	< 2.00	ug/L		3/22/2018 15:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
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Toluene-D8	**100**	83.8 - 112		3/22/2018 15:52

Method Reference(s): EPA 624
Data File: x49352.D

Analytical Report Appendix

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Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

1 of 2

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT: City of Rochester		CLIENT:		LAB PROJECT ID: 181039
ADDRESS: 30 Church Street, Room 300B		ADDRESS:		
CITY: Rochester	STATE: NY ZIP 14614	CITY:	STATE: ZIP:	Quotation #: PO 18004885
PHONE: 428-6884		PHONE:		Email: peckd@cityofrochester.gov
ATTN: Dennis Peck		ATTN:		

PROJECT REFERENCE

RFA Monthly Sampling DEQ-98045
PO# 18004885

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	pH									REMARKS	PARADIGM LAB SAMPLE NUMBER
1	3/21/2018	1330		X	Effluent	Water	3	X	X									624 Site Specific =VRFA Test Name	01
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other	☒	Other	☐	Other EDD	☐
please indicate:	10	please indicate:		please indicate:	

Dennis Peck 3/21/18
Sampled By — Date/Time

Relinquished By — Date/Time: 3/21/18 1420

Received By — Date/Time: 3/21/18 1420

Received @ Lab By — Date/Time: 3/21/18 14:20

10°C 3/21/18 14:20

Total Cost:

P.I.F.

See additional page for sample conditions.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 18 1039 **Date:** 3/21/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	☒	☐	☐
Comments			
Transferred to method-compliant container	☐	☐	☒
Headspace (<1 mL)	☒ VOA	☐	☒
Comments			
Preservation	☒ VOA	☐	☒
Comments			
Chlorine Absent (<0.10 ppm per test strip)	☒	☐	☒
Comments	VOA 624: Cl⁻ neg.		
Holding Time	☒	☒ pH	☐
Comments			
Temperature	☐	☒	☒ pH
Comments	10°C		
Sufficient Sample Quantity	☒	☐	☐
Comments			

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

181702

Referencing

RFA Monthly Sampling DEQ-98045

Prepared

Thursday, May 10, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

K R Hansen

Certifies that this report has been approved by the Technical Director or Designee

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

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 181702

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier:	Effluent		
Lab Sample ID:	181702-01	**Date Sampled:**	4/26/2018
Matrix:	Water	**Date Received:**	4/27/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.19 @ 20.2 C	S.U.		4/26/2018 15:10

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		5/9/2018 17:18
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		5/9/2018 17:18
1,1,2-Trichloroethane	< 2.00	ug/L		5/9/2018 17:18
1,1-Dichloroethane	**2.10**	ug/L		5/9/2018 17:18
1,1-Dichloroethene	< 2.00	ug/L		5/9/2018 17:18
1,2-Dichlorobenzene	< 2.00	ug/L		5/9/2018 17:18
1,2-Dichloroethane	< 2.00	ug/L		5/9/2018 17:18
1,2-Dichloropropane	< 2.00	ug/L		5/9/2018 17:18
1,3-Dichlorobenzene	< 2.00	ug/L		5/9/2018 17:18
1,4-Dichlorobenzene	< 2.00	ug/L		5/9/2018 17:18
2-Butanone	< 10.0	ug/L		5/9/2018 17:18
2-Chloroethyl vinyl Ether	< 10.0	ug/L		5/9/2018 17:18
4-Methyl-2-pentanone	< 5.00	ug/L		5/9/2018 17:18
Acetone	< 10.0	ug/L		5/9/2018 17:18
Benzene	< 1.00	ug/L		5/9/2018 17:18
Bromodichloromethane	< 2.00	ug/L		5/9/2018 17:18
Bromoform	< 5.00	ug/L		5/9/2018 17:18
Bromomethane	< 2.00	ug/L		5/9/2018 17:18
Carbon Tetrachloride	< 2.00	ug/L		5/9/2018 17:18
Chlorobenzene	< 2.00	ug/L		5/9/2018 17:18
Chloroethane	< 2.00	ug/L		5/9/2018 17:18
Chloroform	< 2.00	ug/L		5/9/2018 17:18
Chloromethane	< 2.00	ug/L		5/9/2018 17:18

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 181702

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 181702-01 **Date Sampled:** 4/26/2018
Matrix: Water **Date Received:** 4/27/2018

cis-1,3-Dichloropropene	< 2.00	ug/L	5/9/2018	17:18
Dibromochloromethane	< 2.00	ug/L	5/9/2018	17:18
Ethylbenzene	< 2.00	ug/L	5/9/2018	17:18
Methylene chloride	< 5.00	ug/L	5/9/2018	17:18
Tetrachloroethene	< 2.00	ug/L	5/9/2018	17:18
Toluene	< 2.00	ug/L	5/9/2018	17:18
trans-1,2-Dichloroethene	< 2.00	ug/L	5/9/2018	17:18
trans-1,3-Dichloropropene	< 2.00	ug/L	5/9/2018	17:18
Trichloroethene	< 2.00	ug/L	5/9/2018	17:18
Vinyl chloride	< 2.00	ug/L	5/9/2018	17:18

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**110**	77.2 - 121		5/9/2018	17:18
4-Bromofluorobenzene	**88.7**	70 - 123		5/9/2018	17:18
Pentafluorobenzene	**96.7**	85.4 - 110		5/9/2018	17:18
Toluene-D8	**95.0**	83.8 - 112		5/9/2018	17:18

Method Reference(s): EPA 624.1
Data File: x50509.D

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

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

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

1 of 2

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT: City of Rochester		CLIENT:		181702
ADDRESS: 30 Church Street, Room 300B		ADDRESS:		
CITY: Rochester	STATE: NY ZIP 14614	CITY:	STATE: ZIP:	Quotation #: PO 18004885
PHONE: 428-6884		PHONE:		Email:
ATTN: Dennis Peck		ATTN:		peckd@cityofrochester.gov

PROJECT REFERENCE

RFA Monthly Sampling DEQ-98045
PO# 18004885

Matrix Codes:

AQ - Aqueous Liquid, NQ - Non-Aqueous Liquid, WA - Water, WG - Groundwater, DW - Drinking Water, WW - Wastewater, SO - Soil, SL - Sludge, SD - Solid, PT - Paint, WP - Wipe, CK - Caulk, OL - Oil, AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	pH	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	4/26/2018	1300		X	Effluent	Water	3	X	X	624 Site Specific =VRFA Test Name	01
2											
3											
4											
5											
6											
7											
8											
9											
10											

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other, please indicate: 10	☒	Other, please indicate:	☐	Other EDD, please indicate:	☐

	Date/Time
Sampled By: Dennis Peck	4/26/18
Relinquished By: Dennis M Peck	4/26/18 1500
Received By: [illegible]	4/26/18 1500
Received @ Lab By: [illegible]	4/26/18 15:03

17 °C 4/26/18 15:00

Total Cost: ☐

P.I.F. ☐

See additional page for sample conditions.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 181702 **Date:** 4/27/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA		X
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X		X
Comments	VOA 624: Cl⁻ neg.		
Holding Time	X	X pH	
Comments			
Temperature		X	X pH
Comments	17 °C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

182098

Referencing

RFA Quarterly Sampling DEQ-98045

Prepared

Wednesday, May 30, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182098

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 182098-01 **Date Sampled:** 5/15/2018
Matrix: Water **Date Received:** 5/15/2018

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	< 0.0100	mg/L		5/18/2018 16:30
Cadmium	< 0.00500	mg/L		5/18/2018 16:30
Chromium	< 0.0100	mg/L		5/18/2018 16:30
Copper	< 0.0200	mg/L		5/18/2018 16:30
Lead	< 0.0100	mg/L		5/18/2018 16:30
Nickel	< 0.0400	mg/L		5/18/2018 16:30
Selenium	< 0.0200	mg/L		5/18/2018 16:30
Zinc	< 0.0600	mg/L		5/18/2018 16:30

Method Reference(s): EPA 6010C
EPA 3005A
Preparation Date: 5/17/2018
Data File: 180518B

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		5/21/2018 15:54
4,4-DDE	< 0.100	ug/L		5/21/2018 15:54
4,4-DDT	< 0.100	ug/L		5/21/2018 15:54
Aldrin	< 0.100	ug/L		5/21/2018 15:54
alpha-BHC	< 0.100	ug/L		5/21/2018 15:54
beta-BHC	< 0.100	ug/L		5/21/2018 15:54
cis-Chlordane	< 0.100	ug/L		5/21/2018 15:54
delta-BHC	< 0.100	ug/L		5/21/2018 15:54
Dieldrin	< 0.100	ug/L		5/21/2018 15:54
Endosulfan I	**0.128**	ug/L		5/21/2018 15:54
Endosulfan II	< 0.100	ug/L		5/21/2018 15:54
Endosulfan Sulfate	< 0.100	ug/L		5/21/2018 15:54
Endrin	< 0.100	ug/L		5/21/2018 15:54
Endrin Aldehyde	< 0.100	ug/L		5/21/2018 15:54
gamma-BHC (Lindane)	< 0.100	ug/L		5/21/2018 15:54

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182098

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 182098-01 **Date Sampled:** 5/15/2018
Matrix: Water **Date Received:** 5/15/2018

Heptachlor	**0.212**	ug/L		5/21/2018 15:54
Heptachlor Epoxide	< 0.100	ug/L		5/21/2018 15:54
Methoxychlor	< 0.100	ug/L		5/21/2018 15:54
Toxaphene	< 1.00	ug/L		5/21/2018 15:54
trans-Chlordane	< 0.100	ug/L		5/21/2018 15:54

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**80.7**	15.9 - 138		5/21/2018 15:54
Tetrachloro-m-xylene (1)	**97.9**	20 - 112		5/21/2018 15:54

Method Reference(s): EPA 608.3
Preparation Date: 5/18/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.24 @ 18.1 C	S.U.		5/15/2018 16:10

Method Reference(s): SM22 4500 H+ B
ELAP does not offer this test for approval as part of their laboratory certification program.

Semi-Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
Diethyl phthalate	**14.3**	ug/L		5/20/2018 04:42

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2-Fluorobiphenyl	**67.0**	31.2 - 108		5/20/2018 04:42
Nitrobenzene-d5	**76.3**	48.3 - 106		5/20/2018 04:42
Terphenyl-d14	**82.6**	52.2 - 117		5/20/2018 04:42

Method Reference(s): EPA 625.1
EPA 3510C
Preparation Date: 5/17/2018
Data File: B27532.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		5/25/2018 14:12
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		5/25/2018 14:12
1,1,2-Trichloroethane	< 2.00	ug/L		5/25/2018 14:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182098

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier:	Effluent		
Lab Sample ID:	182098-01	**Date Sampled:**	5/15/2018
Matrix:	Water	**Date Received:**	5/15/2018

1,1-Dichloroethane	**7.19**	ug/L	5/25/2018	14:12
1,1-Dichloroethene	< 2.00	ug/L	5/25/2018	14:12
1,2-Dichlorobenzene	< 2.00	ug/L	5/25/2018	14:12
1,2-Dichloroethane	< 2.00	ug/L	5/25/2018	14:12
1,2-Dichloropropane	< 2.00	ug/L	5/25/2018	14:12
1,3-Dichlorobenzene	< 2.00	ug/L	5/25/2018	14:12
1,4-Dichlorobenzene	< 2.00	ug/L	5/25/2018	14:12
2-Butanone	**17.7**	ug/L	5/25/2018	14:12
2-Chloroethyl vinyl Ether	< 10.0	ug/L	5/25/2018	14:12
4-Methyl-2-pentanone	< 5.00	ug/L	5/25/2018	14:12
Acetone	**11.4**	ug/L	5/25/2018	14:12
Benzene	< 1.00	ug/L	5/25/2018	14:12
Bromodichloromethane	< 2.00	ug/L	5/25/2018	14:12
Bromoform	< 5.00	ug/L	5/25/2018	14:12
Bromomethane	< 2.00	ug/L	5/25/2018	14:12
Carbon Tetrachloride	< 2.00	ug/L	5/25/2018	14:12
Chlorobenzene	< 2.00	ug/L	5/25/2018	14:12
Chloroethane	< 2.00	ug/L	5/25/2018	14:12
Chloroform	< 2.00	ug/L	5/25/2018	14:12
Chloromethane	< 2.00	ug/L	5/25/2018	14:12
cis-1,3-Dichloropropene	< 2.00	ug/L	5/25/2018	14:12
Dibromochloromethane	< 2.00	ug/L	5/25/2018	14:12
Ethylbenzene	< 2.00	ug/L	5/25/2018	14:12
Methylene chloride	< 5.00	ug/L	5/25/2018	14:12
Tetrachloroethene	< 2.00	ug/L	5/25/2018	14:12
Toluene	< 2.00	ug/L	5/25/2018	14:12
trans-1,2-Dichloroethene	< 2.00	ug/L	5/25/2018	14:12
trans-1,3-Dichloropropene	< 2.00	ug/L	5/25/2018	14:12
Trichloroethene	< 2.00	ug/L	5/25/2018	14:12
Vinyl chloride	< 2.00	ug/L	5/25/2018	14:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182098

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 182098-01 **Date Sampled:** 5/15/2018
Matrix: Water **Date Received:** 5/15/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**109**	77.2 - 121		5/25/2018 14:12
4-Bromofluorobenzene	**87.1**	70 - 123		5/25/2018 14:12
Pentafluorobenzene	**95.7**	85.4 - 110		5/25/2018 14:12
Toluene-D8	**95.7**	83.8 - 112		5/25/2018 14:12

Method Reference(s): EPA 624.1
Data File: x51099.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182098

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Influent
Lab Sample ID: 182098-02 **Date Sampled:** 5/15/2018
Matrix: Water **Date Received:** 5/15/2018

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		5/21/2018 16:09
4,4-DDE	< 0.100	ug/L		5/21/2018 16:09
4,4-DDT	< 0.100	ug/L		5/21/2018 16:09
Aldrin	< 0.100	ug/L		5/21/2018 16:09
alpha-BHC	< 0.100	ug/L		5/21/2018 16:09
beta-BHC	< 0.100	ug/L		5/21/2018 16:09
cis-Chlordane	< 0.100	ug/L		5/21/2018 16:09
delta-BHC	< 0.100	ug/L		5/21/2018 16:09
Dieldrin	< 0.100	ug/L		5/21/2018 16:09
Endosulfan I	**0.143**	ug/L		5/21/2018 16:09
Endosulfan II	< 0.100	ug/L		5/21/2018 16:09
Endosulfan Sulfate	< 0.100	ug/L		5/21/2018 16:09
Endrin	< 0.100	ug/L		5/21/2018 16:09
Endrin Aldehyde	< 0.100	ug/L		5/21/2018 16:09
gamma-BHC (Lindane)	< 0.100	ug/L		5/21/2018 16:09
Heptachlor	< 0.100	ug/L		5/21/2018 16:09
Heptachlor Epoxide	< 0.100	ug/L		5/21/2018 16:09
Methoxychlor	< 0.100	ug/L		5/21/2018 16:09
Toxaphene	< 1.00	ug/L		5/21/2018 16:09
trans-Chlordane	< 0.100	ug/L		5/21/2018 16:09

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**69.5**	15.9 - 138		5/21/2018 16:09
Tetrachloro-m-xylene (1)	**107**	20 - 112		5/21/2018 16:09

Method Reference(s): EPA 608.3
Preparation Date: 5/18/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	**5100**	ug/L		5/25/2018 14:36

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182098

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier:	Influent		
Lab Sample ID:	182098-02	**Date Sampled:**	5/15/2018
Matrix:	Water	**Date Received:**	5/15/2018

1,1,2,2-Tetrachloroethane	< 200	ug/L	5/25/2018	14:36
1,1,2-Trichloroethane	< 200	ug/L	5/25/2018	14:36
1,1-Dichloroethane	**7960**	ug/L	5/25/2018	14:36
1,1-Dichloroethene	**277**	ug/L	5/25/2018	14:36
1,2-Dichlorobenzene	< 200	ug/L	5/25/2018	14:36
1,2-Dichloroethane	< 200	ug/L	5/25/2018	14:36
1,2-Dichloropropane	< 200	ug/L	5/25/2018	14:36
1,3-Dichlorobenzene	< 200	ug/L	5/25/2018	14:36
1,4-Dichlorobenzene	< 200	ug/L	5/25/2018	14:36
2-Butanone	< 1000	ug/L	5/25/2018	14:36
2-Chloroethyl vinyl Ether	< 1000	ug/L	5/25/2018	14:36
4-Methyl-2-pentanone	< 500	ug/L	5/25/2018	14:36
Acetone	< 1000	ug/L	5/25/2018	14:36
Benzene	< 100	ug/L	5/25/2018	14:36
Bromodichloromethane	< 200	ug/L	5/25/2018	14:36
Bromoform	< 500	ug/L	5/25/2018	14:36
Bromomethane	< 200	ug/L	5/25/2018	14:36
Carbon Tetrachloride	< 200	ug/L	5/25/2018	14:36
Chlorobenzene	< 200	ug/L	5/25/2018	14:36
Chloroethane	**505**	ug/L	5/25/2018	14:36
Chloroform	< 200	ug/L	5/25/2018	14:36
Chloromethane	< 200	ug/L	5/25/2018	14:36
cis-1,3-Dichloropropene	< 200	ug/L	5/25/2018	14:36
Dibromochloromethane	< 200	ug/L	5/25/2018	14:36
Ethylbenzene	< 200	ug/L	5/25/2018	14:36
Methylene chloride	< 500	ug/L	5/25/2018	14:36
Tetrachloroethene	< 200	ug/L	5/25/2018	14:36
Toluene	**305**	ug/L	5/25/2018	14:36
trans-1,2-Dichloroethene	< 200	ug/L	5/25/2018	14:36
trans-1,3-Dichloropropene	< 200	ug/L	5/25/2018	14:36
Trichloroethene	< 200	ug/L	5/25/2018	14:36
Vinyl chloride	**1440**	ug/L	5/25/2018	14:36

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182098

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling DEQ-98045

Sample Identifier: Influent
Lab Sample ID: 182098-02 **Date Sampled:** 5/15/2018
Matrix: Water **Date Received:** 5/15/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**116**	77.2 - 121		5/25/2018 14:36
4-Bromofluorobenzene	**87.5**	70 - 123		5/25/2018 14:36
Pentafluorobenzene	**98.9**	85.4 - 110		5/25/2018 14:36
Toluene-D8	**91.2**	83.8 - 112		5/25/2018 14:36

Method Reference(s): EPA 624.1
Data File: x51100.D

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

1 of 2

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT: City of Rochester		CLIENT:		LAB PROJECT ID: 182098
ADDRESS: 30 Church Street, Room 300B		ADDRESS:		
CITY: Rochester	STATE: NY ZIP 14614	CITY:	STATE: ZIP:	Quotation #: PO 18004885
PHONE: 428-6884		PHONE:		Email: peckd@cityofrochester.gov
ATTN: Dennis Peck		ATTN:		

PROJECT REFERENCE

RFA Quarterly Sampling DEQ-98045

Matrix Codes:

AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	625 Site Specific	608 Pesticides	Metals* HWB	pH						REMARKS	PARADIGM LAB SAMPLE NUMBER
1	5/15/2018	1415		X	Effluent	Water	6	X	X	X	X	X						624 Site Specific =VRFA Test Name	01
2	5/15/2018	1440		X	Influent	Water	3	X		X								625 Site Specific = SMISC	02
3																		**SVOA List:**	
4																		Diethyl phthalate	
5																			
6																			
7																		**Metals list:**	
8																		As, Cd, Cr, Cu, Pb, Ni, Se, Zn	
9																			
10																			

Turnaround Time		Report Supplements		
Availability contingent upon lab approval; additional fees may apply.				
Standard 5 day	☐	Batch QC	☐	Basic EDD ☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD ☐
Rush 2 day	☐	Category B	☐	
Rush 1 day	☐			
Other	☒	Other	☐	Other EDD ☐
please indicate:	10	please indicate:		please indicate:

Sampled By: Dennis Peck — Date/Time: 5/15/18

Relinquished By: [signature] — Date/Time: 5/15/18 1535

Received By: [signature] — Date/Time: 5/15/18 1535

Received @ Lab By: [signature] — Date/Time: 5/15/18 15:40

10 °C 5/15/18 15:36

Total Cost:

P.I.F.

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 182098 **Date:** 5/15/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X		
Comments			\
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA metals		
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X SVOA 625 Pest 608		X
Comments	VOA 624 : Cl⁻ neg.		
Holding Time	X	X pH	
Comments			
Temperature		X	X pH metals
Comments	10 °C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

182320

Referencing

RFA Semi-Annual GW Sampling DEQ-98045

Prepared

Friday, June 8, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 6I
Lab Sample ID: 182320-01 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		6/6/2018 18:01
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		6/6/2018 18:01
1,1,2-Trichloroethane	< 2.00	ug/L		6/6/2018 18:01
1,1-Dichloroethane	< 2.00	ug/L		6/6/2018 18:01
1,1-Dichloroethene	< 2.00	ug/L		6/6/2018 18:01
1,2-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:01
1,2-Dichloroethane	< 2.00	ug/L		6/6/2018 18:01
1,2-Dichloropropane	< 2.00	ug/L		6/6/2018 18:01
1,3-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:01
1,4-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:01
2-Chloroethyl vinyl Ether	< 10.0	ug/L		6/6/2018 18:01
Benzene	< 1.00	ug/L		6/6/2018 18:01
Bromodichloromethane	< 2.00	ug/L		6/6/2018 18:01
Bromoform	< 5.00	ug/L		6/6/2018 18:01
Bromomethane	< 2.00	ug/L		6/6/2018 18:01
Carbon Tetrachloride	< 2.00	ug/L		6/6/2018 18:01
Chlorobenzene	< 2.00	ug/L		6/6/2018 18:01
Chloroethane	< 2.00	ug/L		6/6/2018 18:01
Chloroform	< 2.00	ug/L		6/6/2018 18:01
Chloromethane	< 2.00	ug/L		6/6/2018 18:01
cis-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 18:01
Dibromochloromethane	< 2.00	ug/L		6/6/2018 18:01
Ethylbenzene	< 2.00	ug/L		6/6/2018 18:01
Methyl tert-butyl Ether	< 2.00	ug/L		6/6/2018 18:01
Methylene chloride	< 5.00	ug/L		6/6/2018 18:01
Tetrachloroethene	< 2.00	ug/L		6/6/2018 18:01
Toluene	< 2.00	ug/L		6/6/2018 18:01
trans-1,2-Dichloroethene	< 2.00	ug/L		6/6/2018 18:01
trans-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 18:01

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 6I
Lab Sample ID: 182320-01 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Trichloroethene	< 2.00	ug/L	6/6/2018	18:01
Trichlorofluoromethane	< 2.00	ug/L	6/6/2018	18:01
Vinyl chloride	**6.75**	ug/L	6/6/2018	18:01

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**99.7**	77.2 - 121		6/6/2018	18:01
4-Bromofluorobenzene	**85.5**	70 - 123		6/6/2018	18:01
Pentafluorobenzene	**92.6**	85.4 - 110		6/6/2018	18:01
Toluene-D8	**93.8**	83.8 - 112		6/6/2018	18:01

Method Reference(s): EPA 624.1
Data File: x51431.D

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 7I
Lab Sample ID: 182320-02 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	**333**	ug/L		6/6/2018 16:05
1,1,2,2-Tetrachloroethane	< 10.0	ug/L		6/6/2018 16:05
1,1,2-Trichloroethane	< 10.0	ug/L		6/6/2018 16:05
1,1-Dichloroethane	**442**	ug/L		6/6/2018 16:05
1,1-Dichloroethene	**36.7**	ug/L		6/6/2018 16:05
1,2-Dichlorobenzene	< 10.0	ug/L		6/6/2018 16:05
1,2-Dichloroethane	< 10.0	ug/L		6/6/2018 16:05
1,2-Dichloropropane	< 10.0	ug/L		6/6/2018 16:05
1,3-Dichlorobenzene	< 10.0	ug/L		6/6/2018 16:05
1,4-Dichlorobenzene	< 10.0	ug/L		6/6/2018 16:05
2-Chloroethyl vinyl Ether	< 50.0	ug/L		6/6/2018 16:05
Benzene	< 5.00	ug/L		6/6/2018 16:05
Bromodichloromethane	< 10.0	ug/L		6/6/2018 16:05
Bromoform	< 25.0	ug/L		6/6/2018 16:05
Bromomethane	< 10.0	ug/L		6/6/2018 16:05
Carbon Tetrachloride	< 10.0	ug/L		6/6/2018 16:05
Chlorobenzene	< 10.0	ug/L		6/6/2018 16:05
Chloroethane	< 10.0	ug/L		6/6/2018 16:05
Chloroform	< 10.0	ug/L		6/6/2018 16:05
Chloromethane	< 10.0	ug/L		6/6/2018 16:05
cis-1,3-Dichloropropene	< 10.0	ug/L		6/6/2018 16:05
Dibromochloromethane	< 10.0	ug/L		6/6/2018 16:05
Ethylbenzene	< 10.0	ug/L		6/6/2018 16:05
Methyl tert-butyl Ether	< 10.0	ug/L		6/6/2018 16:05
Methylene chloride	< 25.0	ug/L		6/6/2018 16:05
Tetrachloroethene	< 10.0	ug/L		6/6/2018 16:05
Toluene	< 10.0	ug/L		6/6/2018 16:05
trans-1,2-Dichloroethene	< 10.0	ug/L		6/6/2018 16:05
trans-1,3-Dichloropropene	< 10.0	ug/L		6/6/2018 16:05

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 7I
Lab Sample ID: 182320-02 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Trichloroethene	< 10.0	ug/L	6/6/2018	16:05
Trichlorofluoromethane	< 10.0	ug/L	6/6/2018	16:05
Vinyl chloride	**160**	ug/L	6/6/2018	16:05

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**97.8**	77.2 - 121		6/6/2018	16:05
4-Bromofluorobenzene	**92.7**	70 - 123		6/6/2018	16:05
Pentafluorobenzene	**99.2**	85.4 - 110		6/6/2018	16:05
Toluene-D8	**99.6**	83.8 - 112		6/6/2018	16:05

Method Reference(s): EPA 624.1
Data File: x51426.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier:	MW 7S		
Lab Sample ID:	182320-03	**Date Sampled:**	5/24/2018
Matrix:	Water	**Date Received:**	5/24/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	**133**	ug/L		6/6/2018 23:57
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		6/6/2018 23:57
1,1,2-Trichloroethane	< 2.00	ug/L		6/6/2018 23:57
1,1-Dichloroethane	**42.7**	ug/L		6/6/2018 23:57
1,1-Dichloroethene	< 2.00	ug/L		6/6/2018 23:57
1,2-Dichlorobenzene	< 2.00	ug/L		6/6/2018 23:57
1,2-Dichloroethane	< 2.00	ug/L		6/6/2018 23:57
1,2-Dichloropropane	< 2.00	ug/L		6/6/2018 23:57
1,3-Dichlorobenzene	< 2.00	ug/L		6/6/2018 23:57
1,4-Dichlorobenzene	< 2.00	ug/L		6/6/2018 23:57
2-Chloroethyl vinyl Ether	< 10.0	ug/L		6/6/2018 23:57
Benzene	< 1.00	ug/L		6/6/2018 23:57
Bromodichloromethane	< 2.00	ug/L		6/6/2018 23:57
Bromoform	< 5.00	ug/L		6/6/2018 23:57
Bromomethane	< 2.00	ug/L		6/6/2018 23:57
Carbon Tetrachloride	< 2.00	ug/L		6/6/2018 23:57
Chlorobenzene	< 2.00	ug/L		6/6/2018 23:57
Chloroethane	< 2.00	ug/L		6/6/2018 23:57
Chloroform	< 2.00	ug/L		6/6/2018 23:57
Chloromethane	< 2.00	ug/L		6/6/2018 23:57
cis-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 23:57
Dibromochloromethane	< 2.00	ug/L		6/6/2018 23:57
Ethylbenzene	< 2.00	ug/L		6/6/2018 23:57
Methyl tert-butyl Ether	< 2.00	ug/L		6/6/2018 23:57
Methylene chloride	< 5.00	ug/L		6/6/2018 23:57
Tetrachloroethene	**2.65**	ug/L		6/6/2018 23:57
Toluene	< 2.00	ug/L		6/6/2018 23:57
trans-1,2-Dichloroethene	< 2.00	ug/L		6/6/2018 23:57
trans-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 23:57

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 7S
Lab Sample ID: 182320-03 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Trichloroethene	**13.2**	ug/L		6/6/2018	23:57
Trichlorofluoromethane	< 2.00	ug/L		6/6/2018	23:57
Vinyl chloride	**2.28**	ug/L		6/6/2018	23:57

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**96.4**	77.2 - 121		6/6/2018	23:57
4-Bromofluorobenzene	**102**	70 - 123		6/6/2018	23:57
Pentafluorobenzene	**97.9**	85.4 - 110		6/6/2018	23:57
Toluene-D8	**99.7**	83.8 - 112		6/6/2018	23:57

Method Reference(s): EPA 624.1
Data File: x51446.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 8I
Lab Sample ID: 182320-04 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		6/7/2018 00:21
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		6/7/2018 00:21
1,1,2-Trichloroethane	< 2.00	ug/L		6/7/2018 00:21
1,1-Dichloroethane	< 2.00	ug/L		6/7/2018 00:21
1,1-Dichloroethene	< 2.00	ug/L		6/7/2018 00:21
1,2-Dichlorobenzene	< 2.00	ug/L		6/7/2018 00:21
1,2-Dichloroethane	< 2.00	ug/L		6/7/2018 00:21
1,2-Dichloropropane	< 2.00	ug/L		6/7/2018 00:21
1,3-Dichlorobenzene	< 2.00	ug/L		6/7/2018 00:21
1,4-Dichlorobenzene	< 2.00	ug/L		6/7/2018 00:21
2-Chloroethyl vinyl Ether	< 10.0	ug/L		6/7/2018 00:21
Benzene	< 1.00	ug/L		6/7/2018 00:21
Bromodichloromethane	< 2.00	ug/L		6/7/2018 00:21
Bromoform	< 5.00	ug/L		6/7/2018 00:21
Bromomethane	< 2.00	ug/L		6/7/2018 00:21
Carbon Tetrachloride	< 2.00	ug/L		6/7/2018 00:21
Chlorobenzene	< 2.00	ug/L		6/7/2018 00:21
Chloroethane	< 2.00	ug/L		6/7/2018 00:21
Chloroform	< 2.00	ug/L		6/7/2018 00:21
Chloromethane	< 2.00	ug/L		6/7/2018 00:21
cis-1,3-Dichloropropene	< 2.00	ug/L		6/7/2018 00:21
Dibromochloromethane	< 2.00	ug/L		6/7/2018 00:21
Ethylbenzene	< 2.00	ug/L		6/7/2018 00:21
Methyl tert-butyl Ether	< 2.00	ug/L		6/7/2018 00:21
Methylene chloride	< 5.00	ug/L		6/7/2018 00:21
Tetrachloroethene	< 2.00	ug/L		6/7/2018 00:21
Toluene	< 2.00	ug/L		6/7/2018 00:21
trans-1,2-Dichloroethene	< 2.00	ug/L		6/7/2018 00:21
trans-1,3-Dichloropropene	< 2.00	ug/L		6/7/2018 00:21

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 8I
Lab Sample ID: 182320-04 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Trichloroethene	< 2.00	ug/L	6/7/2018	00:21
Trichlorofluoromethane	< 2.00	ug/L	6/7/2018	00:21
Vinyl chloride	**7.18**	ug/L	6/7/2018	00:21

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**97.5**	77.2 - 121		6/7/2018	00:21
4-Bromofluorobenzene	**98.5**	70 - 123		6/7/2018	00:21
Pentafluorobenzene	**98.0**	85.4 - 110		6/7/2018	00:21
Toluene-D8	**98.5**	83.8 - 112		6/7/2018	00:21

Method Reference(s): EPA 624.1
Data File: x51447.D

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier:	MW 9D		
Lab Sample ID:	182320-05	**Date Sampled:**	5/24/2018
Matrix:	Water	**Date Received:**	5/24/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		6/6/2018 18:24
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		6/6/2018 18:24
1,1,2-Trichloroethane	< 2.00	ug/L		6/6/2018 18:24
1,1-Dichloroethane	< 2.00	ug/L		6/6/2018 18:24
1,1-Dichloroethene	< 2.00	ug/L		6/6/2018 18:24
1,2-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:24
1,2-Dichloroethane	< 2.00	ug/L		6/6/2018 18:24
1,2-Dichloropropane	< 2.00	ug/L		6/6/2018 18:24
1,3-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:24
1,4-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:24
2-Chloroethyl vinyl Ether	< 10.0	ug/L		6/6/2018 18:24
Benzene	< 1.00	ug/L		6/6/2018 18:24
Bromodichloromethane	< 2.00	ug/L		6/6/2018 18:24
Bromoform	< 5.00	ug/L		6/6/2018 18:24
Bromomethane	< 2.00	ug/L		6/6/2018 18:24
Carbon Tetrachloride	< 2.00	ug/L		6/6/2018 18:24
Chlorobenzene	< 2.00	ug/L		6/6/2018 18:24
Chloroethane	< 2.00	ug/L		6/6/2018 18:24
Chloroform	< 2.00	ug/L		6/6/2018 18:24
Chloromethane	< 2.00	ug/L		6/6/2018 18:24
cis-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 18:24
Dibromochloromethane	< 2.00	ug/L		6/6/2018 18:24
Ethylbenzene	< 2.00	ug/L		6/6/2018 18:24
Methyl tert-butyl Ether	< 2.00	ug/L		6/6/2018 18:24
Methylene chloride	< 5.00	ug/L		6/6/2018 18:24
Tetrachloroethene	< 2.00	ug/L		6/6/2018 18:24
Toluene	< 2.00	ug/L		6/6/2018 18:24
trans-1,2-Dichloroethene	< 2.00	ug/L		6/6/2018 18:24
trans-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 18:24

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 9D
Lab Sample ID: 182320-05 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Trichloroethene	< 2.00	ug/L	6/6/2018	18:24
Trichlorofluoromethane	< 2.00	ug/L	6/6/2018	18:24
Vinyl chloride	< 2.00	ug/L	6/6/2018	18:24

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**103**	77.2 - 121		6/6/2018	18:24
4-Bromofluorobenzene	**82.7**	70 - 123		6/6/2018	18:24
Pentafluorobenzene	**92.0**	85.4 - 110		6/6/2018	18:24
Toluene-D8	**93.2**	83.8 - 112		6/6/2018	18:24

Method Reference(s): EPA 624.1
Data File: x51432.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 10I
Lab Sample ID: 182320-06 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		6/6/2018 18:48
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		6/6/2018 18:48
1,1,2-Trichloroethane	< 2.00	ug/L		6/6/2018 18:48
1,1-Dichloroethane	< 2.00	ug/L		6/6/2018 18:48
1,1-Dichloroethene	< 2.00	ug/L		6/6/2018 18:48
1,2-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:48
1,2-Dichloroethane	< 2.00	ug/L		6/6/2018 18:48
1,2-Dichloropropane	< 2.00	ug/L		6/6/2018 18:48
1,3-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:48
1,4-Dichlorobenzene	< 2.00	ug/L		6/6/2018 18:48
2-Chloroethyl vinyl Ether	< 10.0	ug/L		6/6/2018 18:48
Benzene	< 1.00	ug/L		6/6/2018 18:48
Bromodichloromethane	< 2.00	ug/L		6/6/2018 18:48
Bromoform	< 5.00	ug/L		6/6/2018 18:48
Bromomethane	< 2.00	ug/L		6/6/2018 18:48
Carbon Tetrachloride	< 2.00	ug/L		6/6/2018 18:48
Chlorobenzene	< 2.00	ug/L		6/6/2018 18:48
Chloroethane	< 2.00	ug/L		6/6/2018 18:48
Chloroform	< 2.00	ug/L		6/6/2018 18:48
Chloromethane	< 2.00	ug/L		6/6/2018 18:48
cis-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 18:48
Dibromochloromethane	< 2.00	ug/L		6/6/2018 18:48
Ethylbenzene	< 2.00	ug/L		6/6/2018 18:48
Methyl tert-butyl Ether	< 2.00	ug/L		6/6/2018 18:48
Methylene chloride	< 5.00	ug/L		6/6/2018 18:48
Tetrachloroethene	< 2.00	ug/L		6/6/2018 18:48
Toluene	< 2.00	ug/L		6/6/2018 18:48
trans-1,2-Dichloroethene	< 2.00	ug/L		6/6/2018 18:48
trans-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 18:48

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier:	MW 10I		
Lab Sample ID:	182320-06	**Date Sampled:**	5/24/2018
Matrix:	Water	**Date Received:**	5/24/2018

Trichloroethene	< 2.00	ug/L	6/6/2018	18:48
Trichlorofluoromethane	< 2.00	ug/L	6/6/2018	18:48
Vinyl chloride	< 2.00	ug/L	6/6/2018	18:48

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**104**	77.2 - 121		6/6/2018	18:48
4-Bromofluorobenzene	**84.4**	70 - 123		6/6/2018	18:48
Pentafluorobenzene	**91.8**	85.4 - 110		6/6/2018	18:48
Toluene-D8	**93.5**	83.8 - 112		6/6/2018	18:48

Method Reference(s): EPA 624.1
Data File: x51433.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 11I
Lab Sample ID: 182320-07 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 10.0	ug/L		6/6/2018 17:38
1,1,2,2-Tetrachloroethane	< 10.0	ug/L		6/6/2018 17:38
1,1,2-Trichloroethane	< 10.0	ug/L		6/6/2018 17:38
1,1-Dichloroethane	< 10.0	ug/L		6/6/2018 17:38
1,1-Dichloroethene	< 10.0	ug/L		6/6/2018 17:38
1,2-Dichlorobenzene	< 10.0	ug/L		6/6/2018 17:38
1,2-Dichloroethane	< 10.0	ug/L		6/6/2018 17:38
1,2-Dichloropropane	< 10.0	ug/L		6/6/2018 17:38
1,3-Dichlorobenzene	< 10.0	ug/L		6/6/2018 17:38
1,4-Dichlorobenzene	< 10.0	ug/L		6/6/2018 17:38
2-Chloroethyl vinyl Ether	< 50.0	ug/L		6/6/2018 17:38
Benzene	< 5.00	ug/L		6/6/2018 17:38
Bromodichloromethane	< 10.0	ug/L		6/6/2018 17:38
Bromoform	< 25.0	ug/L		6/6/2018 17:38
Bromomethane	< 10.0	ug/L		6/6/2018 17:38
Carbon Tetrachloride	< 10.0	ug/L		6/6/2018 17:38
Chlorobenzene	< 10.0	ug/L		6/6/2018 17:38
Chloroethane	< 10.0	ug/L		6/6/2018 17:38
Chloroform	< 10.0	ug/L		6/6/2018 17:38
Chloromethane	< 10.0	ug/L		6/6/2018 17:38
cis-1,3-Dichloropropene	< 10.0	ug/L		6/6/2018 17:38
Dibromochloromethane	< 10.0	ug/L		6/6/2018 17:38
Ethylbenzene	< 10.0	ug/L		6/6/2018 17:38
Methyl tert-butyl Ether	< 10.0	ug/L		6/6/2018 17:38
Methylene chloride	< 25.0	ug/L		6/6/2018 17:38
Tetrachloroethene	< 10.0	ug/L		6/6/2018 17:38
Toluene	< 10.0	ug/L		6/6/2018 17:38
trans-1,2-Dichloroethene	< 10.0	ug/L		6/6/2018 17:38
trans-1,3-Dichloropropene	< 10.0	ug/L		6/6/2018 17:38

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 11I
Lab Sample ID: 182320-07 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Trichloroethene	< 10.0	ug/L	6/6/2018	17:38
Trichlorofluoromethane	< 10.0	ug/L	6/6/2018	17:38
Vinyl chloride	**262**	ug/L	6/6/2018	17:38

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**101**	77.2 - 121		6/6/2018	17:38
4-Bromofluorobenzene	**82.2**	70 - 123		6/6/2018	17:38
Pentafluorobenzene	**99.6**	85.4 - 110		6/6/2018	17:38
Toluene-D8	**98.3**	83.8 - 112		6/6/2018	17:38

Method Reference(s): EPA 624.1
Data File: x51430.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 15S
Lab Sample ID: 182320-08 **Date Sampled:** 5/24/2018
Matrix: Water **Date Received:** 5/24/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		6/6/2018 19:11
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		6/6/2018 19:11
1,1,2-Trichloroethane	< 2.00	ug/L		6/6/2018 19:11
1,1-Dichloroethane	< 2.00	ug/L		6/6/2018 19:11
1,1-Dichloroethene	< 2.00	ug/L		6/6/2018 19:11
1,2-Dichlorobenzene	< 2.00	ug/L		6/6/2018 19:11
1,2-Dichloroethane	< 2.00	ug/L		6/6/2018 19:11
1,2-Dichloropropane	< 2.00	ug/L		6/6/2018 19:11
1,3-Dichlorobenzene	< 2.00	ug/L		6/6/2018 19:11
1,4-Dichlorobenzene	< 2.00	ug/L		6/6/2018 19:11
2-Chloroethyl vinyl Ether	< 10.0	ug/L		6/6/2018 19:11
Benzene	< 1.00	ug/L		6/6/2018 19:11
Bromodichloromethane	< 2.00	ug/L		6/6/2018 19:11
Bromoform	< 5.00	ug/L		6/6/2018 19:11
Bromomethane	< 2.00	ug/L		6/6/2018 19:11
Carbon Tetrachloride	< 2.00	ug/L		6/6/2018 19:11
Chlorobenzene	< 2.00	ug/L		6/6/2018 19:11
Chloroethane	< 2.00	ug/L		6/6/2018 19:11
Chloroform	< 2.00	ug/L		6/6/2018 19:11
Chloromethane	< 2.00	ug/L		6/6/2018 19:11
cis-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 19:11
Dibromochloromethane	< 2.00	ug/L		6/6/2018 19:11
Ethylbenzene	< 2.00	ug/L		6/6/2018 19:11
Methyl tert-butyl Ether	< 2.00	ug/L		6/6/2018 19:11
Methylene chloride	< 5.00	ug/L		6/6/2018 19:11
Tetrachloroethene	< 2.00	ug/L		6/6/2018 19:11
Toluene	< 2.00	ug/L		6/6/2018 19:11
trans-1,2-Dichloroethene	< 2.00	ug/L		6/6/2018 19:11
trans-1,3-Dichloropropene	< 2.00	ug/L		6/6/2018 19:11

Lab Project ID: 182320

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier:	MW 15S		
Lab Sample ID:	182320-08	**Date Sampled:**	5/24/2018
Matrix:	Water	**Date Received:**	5/24/2018

Trichloroethene	< 2.00	ug/L	6/6/2018	19:11
Trichlorofluoromethane	< 2.00	ug/L	6/6/2018	19:11
Vinyl chloride	< 2.00	ug/L	6/6/2018	19:11

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**104**	77.2 - 121		6/6/2018	19:11
4-Bromofluorobenzene	**85.5**	70 - 123		6/6/2018	19:11
Pentafluorobenzene	**91.0**	85.4 - 110		6/6/2018	19:11
Toluene-D8	**94.0**	83.8 - 112		6/6/2018	19:11

Method Reference(s): EPA 624.1
Data File: x51434.D

Analytical Report Appendix

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

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

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"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

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

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

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

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 * (800) 724-1997

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:	
COMPANY: CITY OF ROCHESTER	COMPANY:	LAB PROJECT #: 182320 / CLIENT PROJECT #: PO 18004885
ADDRESS: 30 CHURCH STREET, ROOM 300B	ADDRESS:	
CITY: ROCHESTER STATE: NY ZIP: 14614	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS) STD: 10 OTHER: X (1 2 3 5)
PHONE: 585-428-6884 FAX: 585-428-6010	PHONE: FAX:	
ATTN: DENNIS PECK	ATTN:	
PROJECT NAME/SITE NAME: RFA semi-annual GW sampli DEQ-98045	COMMENTS: email results to peckd@cityofrochester.gov	

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	601/602 + MTBE	8260 SIMS ~~Dup 5/24/18~~	1,4 dioxane only	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	5/24/18	1500		X	MW 6I	Water	2	X				01
2		1355		X	MW 7I	Water ~~2~~	X	~~X~~				02
3		1350		X	MW 7S	Water	2	X				03
4		1430		X	MW 8I	Water	2	X				04
5		1340		X	MW 9D	Water	2	X				05
6		1450		X	MW 10I	Water	2	X				06
7		1440		X	MW 11I	Water	2	X				07
8		1415		X	MW 15S	Water	2	X				08

LAB USE ONLY

SAMPLE CONDITION: Check box if acceptable or note deviation: CONTAINER TYPE: ☐ PRESERVATIONS: ☐ HOLDING TIME: ☐ TEMPERATURE: ☐

Sampled By: Dennis Peck Date/Time: 5/24/18

Relinquished By: Dennis Peck Date/Time: 5/24/18 1540

Received By: Jane J Dabri Date/Time: 5/24/18 1540

Relinquished By: Date/Time:

Received By: Date/Time:

Received @ Lab By: Emily Jackson Date/Time: 5/24/18 16:33

10°C iced 5/24/18 16:13

Total Cost:

P.I.F.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Emily Jackson

Lab Project ID: 182320 **Date:** 5/24/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X		
Comments			
Preservation	X		
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X		X
Comments	VOA: Cl⁻ neg.		
Holding Time	X		
Comments			
Temperature		X	
Comments	10°C iced		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

182733

Referencing

RFA Monthly Sampling DEQ-98045

Prepared

Monday, July 2, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182733

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier:	Effluent		
Lab Sample ID:	182733-01	**Date Sampled:**	6/18/2018
Matrix:	Water	**Date Received:**	6/18/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.25 @ 25.0 C	S.U.		6/18/2018 13:38

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		6/28/2018 16:57
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		6/28/2018 16:57
1,1,2-Trichloroethane	< 2.00	ug/L		6/28/2018 16:57
1,1-Dichloroethane	**5.08**	ug/L		6/28/2018 16:57
1,1-Dichloroethene	< 2.00	ug/L		6/28/2018 16:57
1,2-Dichlorobenzene	< 2.00	ug/L		6/28/2018 16:57
1,2-Dichloroethane	< 2.00	ug/L		6/28/2018 16:57
1,2-Dichloropropane	< 2.00	ug/L		6/28/2018 16:57
1,3-Dichlorobenzene	< 2.00	ug/L		6/28/2018 16:57
1,4-Dichlorobenzene	< 2.00	ug/L		6/28/2018 16:57
2-Butanone	**13.9**	ug/L		6/28/2018 16:57
2-Chloroethyl vinyl Ether	< 10.0	ug/L		6/28/2018 16:57
4-Methyl-2-pentanone	< 5.00	ug/L		6/28/2018 16:57
Acetone	< 10.0	ug/L		6/28/2018 16:57
Benzene	< 1.00	ug/L		6/28/2018 16:57
Bromodichloromethane	< 2.00	ug/L		6/28/2018 16:57
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Carbon Tetrachloride	< 2.00	ug/L		6/28/2018 16:57
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Sample Identifier: Effluent
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Matrix: Water **Date Received:** 6/18/2018

cis-1,3-Dichloropropene	< 2.00	ug/L	6/28/2018	16:57
Dibromochloromethane	< 2.00	ug/L	6/28/2018	16:57
Ethylbenzene	< 2.00	ug/L	6/28/2018	16:57
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Tetrachloroethene	< 2.00	ug/L	6/28/2018	16:57
Toluene	< 2.00	ug/L	6/28/2018	16:57
trans-1,2-Dichloroethene	< 2.00	ug/L	6/28/2018	16:57
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Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
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Method Reference(s): EPA 624.1
Data File: x51978.D
The analyte 2-Chloroethyl vinyl Ether does not recover from acid preserved VOA vials

Analytical Report Appendix

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

1 of 2

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT: City of Rochester		CLIENT:		LAB PROJECT ID: 182733
ADDRESS: 30 Church Street, Room 300B		ADDRESS:		
CITY: Rochester	STATE: NY ZIP 14614	CITY:	STATE: ZIP:	Quotation #: PO 18004885
PHONE: 428-6884		PHONE:		Email: peckd@cityofrochester.gov
ATTN: Dennis Peck		ATTN:		

PROJECT REFERENCE

RFA Monthly Sampling DEQ-98045
PO# 18004885

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	pH									REMARKS	PARADIGM LAB SAMPLE NUMBER
1	6/18/2018	1000		X	Effluent	Water	3	X	X									624 Site Specific =VRFA Test Name	01
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other	☒	Other	☐	Other EDD	☐
please indicate:	10	please indicate:		please indicate:	

Dennis Peck	6/18/18	Total Cost:	
Sampled By	Date/Time		
Dennis Peck	6/18/18 1145		
Relinquished By	Date/Time		
[illegible]	6/18/18 1145	P.I.F.	
Received By	Date/Time		
[illegible]	6/18/18 13:16		
Received @ Lab By	Date/Time		

23°C 6/18/18 12:25

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 182733 **Date:** 6/18/18

Sample Condition Requirements

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

Condition	*NELAC compliance with the sample condition requirements upon receipt* Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA		X
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X		X
Comments	VOA 624: Cl⁻ neg.		
Holding Time	X	X pH	
Comments			
Temperature		X	X pH
Comments	23°C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

183209

Referencing

RFA Monthly Sampling DEQ-98045

Prepared

Tuesday, July 24, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

K R Hansen

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 183209

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 183209-01 **Date Sampled:** 7/17/2018
Matrix: Water **Date Received:** 7/17/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.28 @ 24.7 C	S.U.		7/17/2018 15:12

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/18/2018 16:35
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/18/2018 16:35
1,1,2-Trichloroethane	< 2.00	ug/L		7/18/2018 16:35
1,1-Dichloroethane	**3.13**	ug/L		7/18/2018 16:35
1,1-Dichloroethene	< 2.00	ug/L		7/18/2018 16:35
1,2-Dichlorobenzene	< 2.00	ug/L		7/18/2018 16:35
1,2-Dichloroethane	< 2.00	ug/L		7/18/2018 16:35
1,2-Dichloropropane	< 2.00	ug/L		7/18/2018 16:35
1,3-Dichlorobenzene	< 2.00	ug/L		7/18/2018 16:35
1,4-Dichlorobenzene	< 2.00	ug/L		7/18/2018 16:35
2-Butanone	< 10.0	ug/L		7/18/2018 16:35
2-Chloroethyl vinyl Ether	< 10.0	ug/L		7/18/2018 16:35
4-Methyl-2-pentanone	< 5.00	ug/L		7/18/2018 16:35
Acetone	< 10.0	ug/L		7/18/2018 16:35
Benzene	< 1.00	ug/L		7/18/2018 16:35
Bromodichloromethane	< 2.00	ug/L		7/18/2018 16:35
Bromoform	< 5.00	ug/L		7/18/2018 16:35
Bromomethane	< 2.00	ug/L		7/18/2018 16:35
Carbon Tetrachloride	< 2.00	ug/L		7/18/2018 16:35
Chlorobenzene	< 2.00	ug/L		7/18/2018 16:35
Chloroethane	< 2.00	ug/L		7/18/2018 16:35
Chloroform	< 2.00	ug/L		7/18/2018 16:35
Chloromethane	< 2.00	ug/L		7/18/2018 16:35

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 183209

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 183209-01 **Date Sampled:** 7/17/2018
Matrix: Water **Date Received:** 7/17/2018

cis-1,3-Dichloropropene	< 2.00	ug/L	7/18/2018	16:35
Dibromochloromethane	< 2.00	ug/L	7/18/2018	16:35
Ethylbenzene	< 2.00	ug/L	7/18/2018	16:35
Methylene chloride	< 5.00	ug/L	7/18/2018	16:35
Tetrachloroethene	< 2.00	ug/L	7/18/2018	16:35
Toluene	< 2.00	ug/L	7/18/2018	16:35
trans-1,2-Dichloroethene	< 2.00	ug/L	7/18/2018	16:35
trans-1,3-Dichloropropene	< 2.00	ug/L	7/18/2018	16:35
Trichloroethene	< 2.00	ug/L	7/18/2018	16:35
Vinyl chloride	< 2.00	ug/L	7/18/2018	16:35

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**101**	80.7 - 121		7/18/2018	16:35
4-Bromofluorobenzene	**90.0**	74.3 - 121		7/18/2018	16:35
Pentafluorobenzene	**100**	86.2 - 111		7/18/2018	16:35
Toluene-D8	**96.5**	86.2 - 112		7/18/2018	16:35

Method Reference(s): EPA 624.1
Data File: x52568.D

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

1 of 2

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT:	City of Rochester	CLIENT:		LAB PROJECT ID: 183209
ADDRESS:	30 Church Street, Room 300B	ADDRESS:		
CITY:	Rochester STATE: NY ZIP 14614	CITY: STATE: ZIP:		Quotation #: PO 18004885
PHONE:	428-6884	PHONE:		Email: peckd@cityofrochester.gov
ATTN:	Dennis Peck	ATTN:		

PROJECT REFERENCE

RFA Monthly Sampling DEQ-98045
PO# 18004885

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	pH									REMARKS	PARADIGM LAB SAMPLE NUMBER
1	7/17/2018	1300		X	Effluent	Water	3	X	X									624 Site Specific =VRFA Test Name	01
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other	☒	Other	☐	Other EDD	☐
please indicate:	10	please indicate:		please indicate:	

Dennis Peck 7/17/18
Sampled By — Date/Time

Dennis M Peck 7/17/18 1453
Relinquished By — Date/Time

Jane J Dolski 7/17/18 1453
Received By — Date/Time

7/17/18 15:05
Received @ Lab By — Date/Time

24°C 7/17/18 15:01

Total Cost:

P.I.F.

See additional page for sample conditions.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzullo

Lab Project ID: 183209 **Date:** 7/17/18

Sample Condition Requirements

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

Condition	*NELAC compliance with the sample condition requirements upon receipt* Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA		X
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X		X
Comments	VOA 624: C/Neg.		
Holding Time	X	X pH	
Comments			
Temperature		X	X pH
Comments	24°C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

183801

Referencing

RFA Quarterly Sampling

Prepared

Tuesday, September 4, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 183801

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier: Effluent
Lab Sample ID: 183801-01 **Date Sampled:** 8/20/2018
Matrix: Water **Date Received:** 8/20/2018

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	< 0.00500	mg/L		8/22/2018 17:06
Cadmium	< 0.00250	mg/L		8/22/2018 17:06
Chromium	< 0.00500	mg/L		8/22/2018 17:06
Copper	< 0.0100	mg/L		8/22/2018 17:06
Lead	< 0.00500	mg/L		8/22/2018 17:06
Nickel	< 0.0200	mg/L		8/22/2018 17:06
Selenium	< 0.0100	mg/L		8/22/2018 17:06
Zinc	< 0.0300	mg/L		8/22/2018 17:06

Method Reference(s): EPA 200.7
Preparation Date: 8/21/2018
Data File: 180822B

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		8/28/2018 15:33
4,4-DDE	< 0.100	ug/L		8/28/2018 15:33
4,4-DDT	< 0.100	ug/L		8/28/2018 15:33
Aldrin	**0.338**	ug/L		8/28/2018 15:33
alpha-BHC	< 0.100	ug/L		8/28/2018 15:33
beta-BHC	< 0.100	ug/L		8/28/2018 15:33
cis-Chlordane	< 0.100	ug/L		8/28/2018 15:33
delta-BHC	< 0.100	ug/L		8/28/2018 15:33
Dieldrin	< 0.100	ug/L		8/28/2018 15:33
Endosulfan I	**0.193**	ug/L		8/28/2018 15:33
Endosulfan II	< 0.100	ug/L		8/28/2018 15:33
Endosulfan Sulfate	< 0.100	ug/L		8/28/2018 15:33
Endrin	< 0.100	ug/L		8/28/2018 15:33
Endrin Aldehyde	< 0.100	ug/L		8/28/2018 15:33
gamma-BHC (Lindane)	< 0.100	ug/L		8/28/2018 15:33
Heptachlor	**0.202**	ug/L	P	8/28/2018 15:33

Sample Identifier: Effluent
Lab Sample ID: 183801-01 **Date Sampled:** 8/20/2018
Matrix: Water **Date Received:** 8/20/2018

Heptachlor Epoxide	< 0.100	ug/L			8/28/2018 15:33
Methoxychlor	< 0.100	ug/L			8/28/2018 15:33
Toxaphene	< 1.00	ug/L			8/28/2018 15:33
trans-Chlordane	< 0.100	ug/L			8/28/2018 15:33

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**89.0**	23.1 - 153		8/28/2018 15:33
Tetrachloro-m-xylene (1)	**133**	35.1 - 106	*	8/28/2018 15:33

Method Reference(s): EPA 608.3
Preparation Date: 8/21/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.32 @ 21.6 C	S.U.		8/20/2018 16:30

Method Reference(s): SM22 4500 H+ B
ELAP does not offer this test for approval as part of their laboratory certification program.

Semi-Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
Diethyl phthalate	**10.9**	ug/L		8/24/2018 00:54

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2-Fluorobiphenyl	**55.6**	28.7 - 98.8		8/24/2018 00:54
Nitrobenzene-d5	**77.3**	47.4 - 94.5		8/24/2018 00:54
Terphenyl-d14	**84.7**	56.7 - 107		8/24/2018 00:54

Method Reference(s): EPA 625.1
EPA 3510C
Preparation Date: 8/22/2018
Data File: B30719.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		8/31/2018 12:39
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		8/31/2018 12:39
1,1,2-Trichloroethane	< 2.00	ug/L		8/31/2018 12:39
1,1-Dichloroethane	**3.01**	ug/L		8/31/2018 12:39

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 183801

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier:	Effluent		
Lab Sample ID:	183801-01	**Date Sampled:**	8/20/2018
Matrix:	Water	**Date Received:**	8/20/2018

1,1-Dichloroethene	< 2.00	ug/L	8/31/2018	12:39
1,2-Dichlorobenzene	< 2.00	ug/L	8/31/2018	12:39
1,2-Dichloroethane	< 2.00	ug/L	8/31/2018	12:39
1,2-Dichloropropane	< 2.00	ug/L	8/31/2018	12:39
1,3-Dichlorobenzene	< 2.00	ug/L	8/31/2018	12:39
1,4-Dichlorobenzene	< 2.00	ug/L	8/31/2018	12:39
2-Butanone	**10.5**	ug/L	8/31/2018	12:39
2-Chloroethyl vinyl Ether	< 10.0	ug/L	8/31/2018	12:39
4-Methyl-2-pentanone	< 5.00	ug/L	8/31/2018	12:39
Acetone	< 10.0	ug/L	8/31/2018	12:39
Benzene	< 1.00	ug/L	8/31/2018	12:39
Bromodichloromethane	< 2.00	ug/L	8/31/2018	12:39
Bromoform	< 5.00	ug/L	8/31/2018	12:39
Bromomethane	< 2.00	ug/L	8/31/2018	12:39
Carbon Tetrachloride	< 2.00	ug/L	8/31/2018	12:39
Chlorobenzene	< 2.00	ug/L	8/31/2018	12:39
Chloroethane	< 2.00	ug/L	8/31/2018	12:39
Chloroform	< 2.00	ug/L	8/31/2018	12:39
Chloromethane	< 2.00	ug/L	8/31/2018	12:39
cis-1,3-Dichloropropene	< 2.00	ug/L	8/31/2018	12:39
Dibromochloromethane	< 2.00	ug/L	8/31/2018	12:39
Ethylbenzene	< 2.00	ug/L	8/31/2018	12:39
Methylene chloride	< 5.00	ug/L	8/31/2018	12:39
Tetrachloroethene	< 2.00	ug/L	8/31/2018	12:39
Toluene	< 2.00	ug/L	8/31/2018	12:39
trans-1,2-Dichloroethene	< 2.00	ug/L	8/31/2018	12:39
trans-1,3-Dichloropropene	< 2.00	ug/L	8/31/2018	12:39
Trichloroethene	< 2.00	ug/L	8/31/2018	12:39
Vinyl chloride	< 2.00	ug/L	8/31/2018	12:39

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 183801

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier: Effluent
Lab Sample ID: 183801-01 **Date Sampled:** 8/20/2018
Matrix: Water **Date Received:** 8/20/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**107**	80.7 - 121		8/31/2018	12:39
4-Bromofluorobenzene	**89.6**	74.3 - 121		8/31/2018	12:39
Pentafluorobenzene	**101**	86.2 - 111		8/31/2018	12:39
Toluene-D8	**95.3**	86.2 - 112		8/31/2018	12:39

Method Reference(s): EPA 624.1
Data File: x53709.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 183801

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier: Influent
Lab Sample ID: 183801-02 **Date Sampled:** 8/20/2018
Matrix: Water **Date Received:** 8/20/2018

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		8/28/2018 15:49
4,4-DDE	< 0.100	ug/L		8/28/2018 15:49
4,4-DDT	< 0.100	ug/L		8/28/2018 15:49
Aldrin	**0.374**	ug/L	P	8/28/2018 15:49
alpha-BHC	< 0.100	ug/L		8/28/2018 15:49
beta-BHC	< 0.100	ug/L		8/28/2018 15:49
cis-Chlordane	< 0.100	ug/L		8/28/2018 15:49
delta-BHC	< 0.100	ug/L		8/28/2018 15:49
Dieldrin	< 0.100	ug/L		8/28/2018 15:49
Endosulfan I	**0.240**	ug/L		8/28/2018 15:49
Endosulfan II	< 0.100	ug/L		8/28/2018 15:49
Endosulfan Sulfate	< 0.100	ug/L		8/28/2018 15:49
Endrin	< 0.100	ug/L		8/28/2018 15:49
Endrin Aldehyde	< 0.100	ug/L		8/28/2018 15:49
gamma-BHC (Lindane)	< 0.100	ug/L		8/28/2018 15:49
Heptachlor	**0.213**	ug/L	P	8/28/2018 15:49
Heptachlor Epoxide	< 0.100	ug/L		8/28/2018 15:49
Methoxychlor	< 0.100	ug/L		8/28/2018 15:49
Toxaphene	< 1.00	ug/L		8/28/2018 15:49
trans-Chlordane	< 0.100	ug/L		8/28/2018 15:49

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**109**	23.1 - 153		8/28/2018 15:49
Tetrachloro-m-xylene (1)	**146**	35.1 - 106	*	8/28/2018 15:49

Method Reference(s): EPA 608.3
Preparation Date: 8/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	**453**	ug/L		8/31/2018 12:16

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 183801

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier:	Influent		
Lab Sample ID:	183801-02	**Date Sampled:**	8/20/2018
Matrix:	Water	**Date Received:**	8/20/2018

1,1,2,2-Tetrachloroethane	< 200	ug/L	8/31/2018	12:16
1,1,2-Trichloroethane	< 200	ug/L	8/31/2018	12:16
1,1-Dichloroethane	**8190**	ug/L	8/31/2018	12:16
1,1-Dichloroethene	< 200	ug/L	8/31/2018	12:16
1,2-Dichlorobenzene	< 200	ug/L	8/31/2018	12:16
1,2-Dichloroethane	< 200	ug/L	8/31/2018	12:16
1,2-Dichloropropane	< 200	ug/L	8/31/2018	12:16
1,3-Dichlorobenzene	< 200	ug/L	8/31/2018	12:16
1,4-Dichlorobenzene	< 200	ug/L	8/31/2018	12:16
2-Butanone	< 1000	ug/L	8/31/2018	12:16
2-Chloroethyl vinyl Ether	< 1000	ug/L	8/31/2018	12:16
4-Methyl-2-pentanone	< 500	ug/L	8/31/2018	12:16
Acetone	< 1000	ug/L	8/31/2018	12:16
Benzene	< 100	ug/L	8/31/2018	12:16
Bromodichloromethane	< 200	ug/L	8/31/2018	12:16
Bromoform	< 500	ug/L	8/31/2018	12:16
Bromomethane	< 200	ug/L	8/31/2018	12:16
Carbon Tetrachloride	< 200	ug/L	8/31/2018	12:16
Chlorobenzene	< 200	ug/L	8/31/2018	12:16
Chloroethane	**307**	ug/L	8/31/2018	12:16
Chloroform	< 200	ug/L	8/31/2018	12:16
Chloromethane	< 200	ug/L	8/31/2018	12:16
cis-1,3-Dichloropropene	< 200	ug/L	8/31/2018	12:16
Dibromochloromethane	< 200	ug/L	8/31/2018	12:16
Ethylbenzene	< 200	ug/L	8/31/2018	12:16
Methylene chloride	< 500	ug/L	8/31/2018	12:16
Tetrachloroethene	< 200	ug/L	8/31/2018	12:16
Toluene	< 200	ug/L	8/31/2018	12:16
trans-1,2-Dichloroethene	< 200	ug/L	8/31/2018	12:16
trans-1,3-Dichloropropene	< 200	ug/L	8/31/2018	12:16
Trichloroethene	< 200	ug/L	8/31/2018	12:16
Vinyl chloride	**1520**	ug/L	8/31/2018	12:16

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 183801

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier: Influent
Lab Sample ID: 183801-02 **Date Sampled:** 8/20/2018
Matrix: Water **Date Received:** 8/20/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**108**	80.7 - 121		8/31/2018 12:16
4-Bromofluorobenzene	**88.9**	74.3 - 121		8/31/2018 12:16
Pentafluorobenzene	**102**	86.2 - 111		8/31/2018 12:16
Toluene-D8	**94.3**	86.2 - 112		8/31/2018 12:16

Method Reference(s): EPA 624.1
Data File: x53708.D

Analytical Report Appendix

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

1 of 2

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT:	City of Rochester	CLIENT:		LAB PROJECT ID: 183801
ADDRESS:	30 Church Street, Room 300B	ADDRESS:		
CITY:	Rochester STATE: NY ZIP 14614	CITY:	STATE: ZIP:	Quotation #: PO 18004885
PHONE:	428-6884	PHONE:		Email: peckd@cityofrochester.gov
ATTN:	Dennis Peck	ATTN:		

PROJECT REFERENCE

RFA Quarterly Sampling
PO# 19001204

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	625 Site Specific	608 Pesticides	Metals*	pH						REMARKS	PARADIGM LAB SAMPLE NUMBER
1	8/20/2018	1500		X	Effluent	Water	6	X	X	X	X	X						624 Site Specific =VRFA Test Name	01
2	8/20/2018	1450		X	Influent	Water	3	X		X								625 Site Specific = SMISC	02
3																		**SVOA List:**	
4																		Diethyl phthalate	
5																			
6																			
7																		**Metals list:**	
8																		As, Cd, Cr, Cu, Pb, Ni, Se, Zn	
9																			
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other please indicate: 10	☒	Other please indicate:	☐	Other EDD please indicate:	☐

Dennis Peck	8/20/18	Total Cost:
Sampled By	Date/Time	
Dennis Peck	8/20/18 1605	
Relinquished By	Date/Time	
Jane J Dacosta	8/20/18 1605	P.I.F.
Received By	Date/Time	
	8/20/18 16:29	
Received @ Lab By	Date/Time	

17 °C 8/20/18 16:25

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 183801 **Date:** 8/20/18

Sample Condition Requirements

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

Condition	*NELAC compliance with the sample condition requirements upon receipt* Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA Metals		X
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X 625 SVOA 608 Pest		X
Comments	624 VOA: Cl⁻ neg.		
Holding Time	X	X pH	
Comments			
Temperature		X	X pH Metals
Comments	17°C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

184183

Referencing

RFA Monthly Sampling DEQ-98045

Prepared

Wednesday, September 26, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 184183

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier:	Effluent		
Lab Sample ID:	184183-01	**Date Sampled:**	9/12/2018
Matrix:	Water	**Date Received:**	9/12/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.25 @ 24.1 C	S.U.		9/12/2018 14:20

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		9/26/2018 12:32
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		9/26/2018 12:32
1,1,2-Trichloroethane	< 2.00	ug/L		9/26/2018 12:32
1,1-Dichloroethane	**8.09**	ug/L		9/26/2018 12:32
1,1-Dichloroethene	< 2.00	ug/L		9/26/2018 12:32
1,2-Dichlorobenzene	< 2.00	ug/L		9/26/2018 12:32
1,2-Dichloroethane	< 2.00	ug/L		9/26/2018 12:32
1,2-Dichloropropane	< 2.00	ug/L		9/26/2018 12:32
1,3-Dichlorobenzene	< 2.00	ug/L		9/26/2018 12:32
1,4-Dichlorobenzene	< 2.00	ug/L		9/26/2018 12:32
2-Butanone	**13.6**	ug/L		9/26/2018 12:32
2-Chloroethyl vinyl Ether	< 10.0	ug/L		9/26/2018 12:32
4-Methyl-2-pentanone	< 5.00	ug/L		9/26/2018 12:32
Acetone	**10.9**	ug/L		9/26/2018 12:32
Benzene	< 1.00	ug/L		9/26/2018 12:32
Bromodichloromethane	< 2.00	ug/L		9/26/2018 12:32
Bromoform	< 5.00	ug/L		9/26/2018 12:32
Bromomethane	< 2.00	ug/L		9/26/2018 12:32
Carbon Tetrachloride	< 2.00	ug/L		9/26/2018 12:32
Chlorobenzene	< 2.00	ug/L		9/26/2018 12:32
Chloroethane	< 2.00	ug/L		9/26/2018 12:32
Chloroform	< 2.00	ug/L		9/26/2018 12:32
Chloromethane	< 2.00	ug/L		9/26/2018 12:32

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 184183

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 184183-01 **Date Sampled:** 9/12/2018
Matrix: Water **Date Received:** 9/12/2018

cis-1,3-Dichloropropene	< 2.00	ug/L	9/26/2018	12:32
Dibromochloromethane	< 2.00	ug/L	9/26/2018	12:32
Ethylbenzene	< 2.00	ug/L	9/26/2018	12:32
Methylene chloride	< 5.00	ug/L	9/26/2018	12:32
Tetrachloroethene	< 2.00	ug/L	9/26/2018	12:32
Toluene	< 2.00	ug/L	9/26/2018	12:32
trans-1,2-Dichloroethene	< 2.00	ug/L	9/26/2018	12:32
trans-1,3-Dichloropropene	< 2.00	ug/L	9/26/2018	12:32
Trichloroethene	< 2.00	ug/L	9/26/2018	12:32
Vinyl chloride	< 2.00	ug/L	9/26/2018	12:32

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
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4-Bromofluorobenzene	**76.1**	74.3 - 121		9/26/2018	12:32
Pentafluorobenzene	**90.1**	86.2 - 111		9/26/2018	12:32
Toluene-D8	**89.7**	86.2 - 112		9/26/2018	12:32

Method Reference(s): EPA 624.1
Data File: x54515.D

Analytical Report Appendix

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"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
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Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

1 of 2

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT:	City of Rochester	CLIENT:		LAB PROJECT ID: 184183
ADDRESS:	30 Church Street, Room 300B	ADDRESS:		
CITY:	Rochester STATE: NY ZIP 14614	CITY:	STATE: ZIP:	Quotation #: PO 18004885
PHONE:	428-6884	PHONE:		Email: peckd@cityofrochester.gov
ATTN:	Dennis Peck	ATTN:		

PROJECT REFERENCE

RFA Monthly Sampling DEQ-98045
PO# 19001204

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	pH								REMARKS	PARADIGM LAB SAMPLE NUMBER
1	9/12/2018	0900		X	Effluent	Water	3	X	X								624 Site Specific =VRFA Test Name	01
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																	19°C 9/12/18 11:00	

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other please indicate: 10	☒	Other please indicate:	☐	Other EDD please indicate:	☐

Dennis Peck	9/12/18	Total Cost:
Sampled By	Date/Time	
Dennis Peck	9/12/18 1030	
Relinquished By	Date/Time	
Jane J Alberia	9/12/18 1030	P.I.F.
Received By	Date/Time	
	9/12/18 11:04	
Received @ Lab By	Date/Time	

See additional page for sample conditions.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 184183 **Date:** 9/12/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA		X
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X		X
Comments	VOA 624: Cl⁻ky		
Holding Time	X	X	
Comments			
Temperature		X	X pH
Comments	19°C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

184709

Referencing

RFA Monthly Sampling DEQ-98045

Prepared

Wednesday, October 24, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 184709

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 184709-01 **Date Sampled:** 10/11/2018
Matrix: Water **Date Received:** 10/11/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.33 @ 22.9 C	S.U.		10/11/2018 14:40

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/23/2018 16:35
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/23/2018 16:35
1,1,2-Trichloroethane	< 2.00	ug/L		10/23/2018 16:35
1,1-Dichloroethane	**4.77**	ug/L		10/23/2018 16:35
1,1-Dichloroethene	< 2.00	ug/L		10/23/2018 16:35
1,2-Dichlorobenzene	< 2.00	ug/L		10/23/2018 16:35
1,2-Dichloroethane	< 2.00	ug/L		10/23/2018 16:35
1,2-Dichloropropane	< 2.00	ug/L		10/23/2018 16:35
1,3-Dichlorobenzene	< 2.00	ug/L		10/23/2018 16:35
1,4-Dichlorobenzene	< 2.00	ug/L		10/23/2018 16:35
2-Butanone	< 10.0	ug/L		10/23/2018 16:35
2-Chloroethyl vinyl Ether	< 10.0	ug/L		10/23/2018 16:35
4-Methyl-2-pentanone	< 5.00	ug/L		10/23/2018 16:35
Acetone	< 10.0	ug/L		10/23/2018 16:35
Benzene	< 1.00	ug/L		10/23/2018 16:35
Bromodichloromethane	< 2.00	ug/L		10/23/2018 16:35
Bromoform	< 5.00	ug/L		10/23/2018 16:35
Bromomethane	< 2.00	ug/L		10/23/2018 16:35
Carbon Tetrachloride	< 2.00	ug/L		10/23/2018 16:35
Chlorobenzene	< 2.00	ug/L		10/23/2018 16:35
Chloroethane	< 2.00	ug/L		10/23/2018 16:35
Chloroform	< 2.00	ug/L		10/23/2018 16:35
Chloromethane	< 2.00	ug/L		10/23/2018 16:35

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 184709

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ-98045

Sample Identifier: Effluent
Lab Sample ID: 184709-01 **Date Sampled:** 10/11/2018
Matrix: Water **Date Received:** 10/11/2018

cis-1,3-Dichloropropene	< 2.00	ug/L		10/23/2018 16:35
Dibromochloromethane	< 2.00	ug/L		10/23/2018 16:35
Ethylbenzene	< 2.00	ug/L		10/23/2018 16:35
Methylene chloride	< 5.00	ug/L		10/23/2018 16:35
Tetrachloroethene	< 2.00	ug/L		10/23/2018 16:35
Toluene	< 2.00	ug/L		10/23/2018 16:35
trans-1,2-Dichloroethene	< 2.00	ug/L		10/23/2018 16:35
trans-1,3-Dichloropropene	< 2.00	ug/L		10/23/2018 16:35
Trichloroethene	< 2.00	ug/L		10/23/2018 16:35
Vinyl chloride	< 2.00	ug/L		10/23/2018 16:35

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**87.5**	86.4 - 119		10/23/2018 16:35
4-Bromofluorobenzene	**92.7**	76 - 118		10/23/2018 16:35
Pentafluorobenzene	**102**	87 - 112		10/23/2018 16:35
Toluene-D8	**94.7**	88.4 - 111		10/23/2018 16:35

Method Reference(s): EPA 624.1
Data File: x55911.D

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
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Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

1 of 2

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT:	City of Rochester	CLIENT:		LAB PROJECT ID: 184709
ADDRESS:	30 Church Street, Room 300B	ADDRESS:		
CITY:	Rochester STATE: NY ZIP 14614	CITY:	STATE: ZIP:	Quotation #: PO 18004885
PHONE:	428-6884	PHONE:		Email: Cc: Alexandra.Zobel@cityofrochester.gov peckd@cityofrochester.gov
ATTN:	Dennis Peck	ATTN:		

PROJECT REFERENCE

RFA Monthly Sampling DEQ-98045
PO# 19001204

Matrix Codes:

AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	pH									REMARKS	PARADIGM LAB SAMPLE NUMBER
1	10/11/2018	1310		X	Effluent	Water	3	X	X									624 Site Specific =VRFA Test Name	01
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time		Report Supplements		
Availability contingent upon lab approval; additional fees may apply.				
Standard 5 day	☐	Batch QC	☐	Basic EDD ☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD ☐
Rush 2 day	☐	Category B	☐	
Rush 1 day	☐			
Other	☒	Other	☐	Other EDD ☐
please indicate:	10	please indicate:		please indicate:

Alexandra Z. Martino — Sampled By — 10/11/2018 @ 1310 — Date/Time

H. Z. Martins — Relinquished By — 10/11/2018 @ 1350 — Date/Time

Jane J. DeBois — Received By — 10/11/2018 1350 — Date/Time

Received @ Lab By — 10/11/18 14:03 — Date/Time

18°C 10/11/18 13:155

Total Cost: ☐

P.I.F. ☐

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 184709 **Date:** 10/11/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA		X
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X		X
Comments	VOA 624: Cl⁻ neg.		
Holding Time	X	X pH	
Comments			
Temperature		X	X pH
Comments	18°C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

185444

Referencing

RFA Quarterly Sampling

Prepared

Thursday, December 6, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185444

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier: Effluent
Lab Sample ID: 185444-01 **Date Sampled:** 11/20/2018
Matrix: Water **Date Received:** 11/20/2018

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**0.00523**	mg/L		11/26/2018 11:58
Cadmium	< 0.00250	mg/L		11/26/2018 11:58
Chromium	< 0.00500	mg/L		11/26/2018 11:58
Copper	< 0.0100	mg/L		11/26/2018 11:58
Lead	< 0.00500	mg/L		11/26/2018 11:58
Nickel	< 0.0200	mg/L		11/26/2018 11:58
Selenium	< 0.0100	mg/L		11/26/2018 11:58
Zinc	< 0.0300	mg/L		11/26/2018 11:58

Method Reference(s): EPA 200.7 Rev 4.4 (1994)
Preparation Date: 11/21/2018
Data File: 181126A

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.200	ug/L		12/3/2018 16:01
4,4-DDE	< 0.200	ug/L		12/3/2018 16:01
4,4-DDT	< 0.300	ug/L		12/3/2018 16:01
Aldrin	< 0.200	ug/L		12/3/2018 16:01
alpha-BHC	< 0.200	ug/L		12/3/2018 16:01
beta-BHC	< 0.200	ug/L		12/3/2018 16:01
cis-Chlordane	< 0.200	ug/L		12/3/2018 16:01
delta-BHC	< 0.200	ug/L		12/3/2018 16:01
Dieldrin	< 0.200	ug/L		12/3/2018 16:01
Endosulfan I	< 0.200	ug/L		12/3/2018 16:01
Endosulfan II	< 0.200	ug/L		12/3/2018 16:01
Endosulfan Sulfate	< 0.200	ug/L		12/3/2018 16:01
Endrin	< 0.200	ug/L		12/3/2018 16:01
Endrin Aldehyde	< 0.300	ug/L		12/3/2018 16:01
gamma-BHC (Lindane)	< 0.200	ug/L		12/3/2018 16:01
Heptachlor	< 0.200	ug/L		12/3/2018 16:01

Sample Identifier: Effluent
Lab Sample ID: 185444-01 **Date Sampled:** 11/20/2018
Matrix: Water **Date Received:** 11/20/2018

Heptachlor Epoxide	< 0.200	ug/L		12/3/2018 16:01
Methoxychlor	< 0.200	ug/L		12/3/2018 16:01
Toxaphene	< 2.00	ug/L		12/3/2018 16:01
trans-Chlordane	< 0.200	ug/L		12/3/2018 16:01

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**88.6**	16 - 171		12/3/2018 16:01
Tetrachloro-m-xylene (1)	**164**	42.6 - 114	*	12/3/2018 16:01

Method Reference(s): EPA 608.3
Preparation Date: 11/26/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.21 @ 17.9 C	S.U.		11/20/2018 14:17

Method Reference(s): SM22 4500 H+ B
ELAP does not offer this test for approval as part of their laboratory certification program.

Semi-Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
Diethyl phthalate	**16.1**	ug/L		11/22/2018 04:27

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2-Fluorobiphenyl	**52.8**	34.3 - 96.8		11/22/2018 04:27
Nitrobenzene-d5	**64.1**	47.8 - 101		11/22/2018 04:27
Terphenyl-d14	**73.8**	51.9 - 117		11/22/2018 04:27

Method Reference(s): EPA 625.1
EPA 3510C
Preparation Date: 11/21/2018
Data File: B33617.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		12/3/2018 19:10
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		12/3/2018 19:10
1,1,2-Trichloroethane	< 2.00	ug/L		12/3/2018 19:10
1,1-Dichloroethane	**9.42**	ug/L		12/3/2018 19:10

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185444

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier:	Effluent		
Lab Sample ID:	185444-01	**Date Sampled:**	11/20/2018
Matrix:	Water	**Date Received:**	11/20/2018

1,1-Dichloroethene	< 2.00	ug/L	12/3/2018 19:10
1,2-Dichlorobenzene	< 2.00	ug/L	12/3/2018 19:10
1,2-Dichloroethane	< 2.00	ug/L	12/3/2018 19:10
1,2-Dichloropropane	< 2.00	ug/L	12/3/2018 19:10
1,3-Dichlorobenzene	< 2.00	ug/L	12/3/2018 19:10
1,4-Dichlorobenzene	< 2.00	ug/L	12/3/2018 19:10
2-Butanone	**13.4**	ug/L	12/3/2018 19:10
2-Chloroethyl vinyl Ether	< 10.0	ug/L	12/3/2018 19:10
4-Methyl-2-pentanone	< 5.00	ug/L	12/3/2018 19:10
Acetone	< 10.0	ug/L	12/3/2018 19:10
Benzene	< 1.00	ug/L	12/3/2018 19:10
Bromodichloromethane	< 2.00	ug/L	12/3/2018 19:10
Bromoform	< 5.00	ug/L	12/3/2018 19:10
Bromomethane	< 2.00	ug/L	12/3/2018 19:10
Carbon Tetrachloride	< 2.00	ug/L	12/3/2018 19:10
Chlorobenzene	< 2.00	ug/L	12/3/2018 19:10
Chloroethane	< 2.00	ug/L	12/3/2018 19:10
Chloroform	< 2.00	ug/L	12/3/2018 19:10
Chloromethane	< 2.00	ug/L	12/3/2018 19:10
cis-1,3-Dichloropropene	< 2.00	ug/L	12/3/2018 19:10
Dibromochloromethane	< 2.00	ug/L	12/3/2018 19:10
Ethylbenzene	< 2.00	ug/L	12/3/2018 19:10
Methylene chloride	< 5.00	ug/L	12/3/2018 19:10
Tetrachloroethene	< 2.00	ug/L	12/3/2018 19:10
Toluene	< 2.00	ug/L	12/3/2018 19:10
trans-1,2-Dichloroethene	< 2.00	ug/L	12/3/2018 19:10
trans-1,3-Dichloropropene	< 2.00	ug/L	12/3/2018 19:10
Trichloroethene	< 2.00	ug/L	12/3/2018 19:10
Vinyl chloride	< 2.00	ug/L	12/3/2018 19:10

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185444

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier: Effluent
Lab Sample ID: 185444-01 **Date Sampled:** 11/20/2018
Matrix: Water **Date Received:** 11/20/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**79.1**	86.4 - 119	*	12/3/2018 19:10
4-Bromofluorobenzene	**90.5**	76 - 118		12/3/2018 19:10
Pentafluorobenzene	**101**	87 - 112		12/3/2018 19:10
Toluene-D8	**98.1**	88.4 - 111		12/3/2018 19:10

Method Reference(s): EPA 624.1
Data File: x57145.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185444

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier: Influent
Lab Sample ID: 185444-02 **Date Sampled:** 11/20/2018
Matrix: Water **Date Received:** 11/20/2018

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.200	ug/L		12/3/2018 16:16
4,4-DDE	**0.236**	ug/L		12/3/2018 16:16
4,4-DDT	< 0.300	ug/L		12/3/2018 16:16
Aldrin	< 0.200	ug/L		12/3/2018 16:16
alpha-BHC	< 0.200	ug/L		12/3/2018 16:16
beta-BHC	< 0.200	ug/L		12/3/2018 16:16
cis-Chlordane	< 0.200	ug/L		12/3/2018 16:16
delta-BHC	< 0.200	ug/L		12/3/2018 16:16
Dieldrin	< 0.200	ug/L		12/3/2018 16:16
Endosulfan I	< 0.200	ug/L		12/3/2018 16:16
Endosulfan II	< 0.200	ug/L		12/3/2018 16:16
Endosulfan Sulfate	< 0.200	ug/L		12/3/2018 16:16
Endrin	< 0.200	ug/L		12/3/2018 16:16
Endrin Aldehyde	< 0.300	ug/L		12/3/2018 16:16
gamma-BHC (Lindane)	< 0.200	ug/L		12/3/2018 16:16
Heptachlor	< 0.200	ug/L		12/3/2018 16:16
Heptachlor Epoxide	< 0.200	ug/L		12/3/2018 16:16
Methoxychlor	< 0.200	ug/L		12/3/2018 16:16
Toxaphene	< 2.00	ug/L		12/3/2018 16:16
trans-Chlordane	< 0.200	ug/L		12/3/2018 16:16

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**51.2**	16 - 171		12/3/2018 16:16
Tetrachloro-m-xylene (1)	**134**	42.6 - 114	*	12/3/2018 16:16

Method Reference(s): EPA 608.3
Preparation Date: 11/26/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	**1610**	ug/L		12/3/2018 19:32

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185444

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier:	Influent		
Lab Sample ID:	185444-02	**Date Sampled:**	11/20/2018
Matrix:	Water	**Date Received:**	11/20/2018

1,1,2,2-Tetrachloroethane	< 200	ug/L	12/3/2018 19:32
1,1,2-Trichloroethane	< 200	ug/L	12/3/2018 19:32
1,1-Dichloroethane	**6820**	ug/L	12/3/2018 19:32
1,1-Dichloroethene	**200**	ug/L	12/3/2018 19:32
1,2-Dichlorobenzene	< 200	ug/L	12/3/2018 19:32
1,2-Dichloroethane	< 200	ug/L	12/3/2018 19:32
1,2-Dichloropropane	< 200	ug/L	12/3/2018 19:32
1,3-Dichlorobenzene	< 200	ug/L	12/3/2018 19:32
1,4-Dichlorobenzene	< 200	ug/L	12/3/2018 19:32
2-Butanone	< 1000	ug/L	12/3/2018 19:32
2-Chloroethyl vinyl Ether	< 1000	ug/L	12/3/2018 19:32
4-Methyl-2-pentanone	< 500	ug/L	12/3/2018 19:32
Acetone	< 1000	ug/L	12/3/2018 19:32
Benzene	< 100	ug/L	12/3/2018 19:32
Bromodichloromethane	< 200	ug/L	12/3/2018 19:32
Bromoform	< 500	ug/L	12/3/2018 19:32
Bromomethane	< 200	ug/L	12/3/2018 19:32
Carbon Tetrachloride	< 200	ug/L	12/3/2018 19:32
Chlorobenzene	< 200	ug/L	12/3/2018 19:32
Chloroethane	**290**	ug/L	12/3/2018 19:32
Chloroform	< 200	ug/L	12/3/2018 19:32
Chloromethane	< 200	ug/L	12/3/2018 19:32
cis-1,3-Dichloropropene	< 200	ug/L	12/3/2018 19:32
Dibromochloromethane	< 200	ug/L	12/3/2018 19:32
Ethylbenzene	< 200	ug/L	12/3/2018 19:32
Methylene chloride	< 500	ug/L	12/3/2018 19:32
Tetrachloroethene	< 200	ug/L	12/3/2018 19:32
Toluene	**201**	ug/L	12/3/2018 19:32
trans-1,2-Dichloroethene	< 200	ug/L	12/3/2018 19:32
trans-1,3-Dichloropropene	< 200	ug/L	12/3/2018 19:32
Trichloroethene	< 200	ug/L	12/3/2018 19:32
Vinyl chloride	**1250**	ug/L	12/3/2018 19:32

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185444

Client: **City of Rochester**

Project Reference: RFA Quarterly Sampling

Sample Identifier: Influent
Lab Sample ID: 185444-02 **Date Sampled:** 11/20/2018
Matrix: Water **Date Received:** 11/20/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**77.2**	86.4 - 119	*	12/3/2018 19:32
4-Bromofluorobenzene	**87.6**	76 - 118		12/3/2018 19:32
Pentafluorobenzene	**101**	87 - 112		12/3/2018 19:32
Toluene-D8	**95.5**	88.4 - 111		12/3/2018 19:32

Method Reference(s): EPA 624.1
Data File: x57146.D

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

1 of 2

PARADIGM ENVIRONMENTAL SERVICES, INC

REPORT TO:	INVOICE TO:	LAB PROJECT ID
CLIENT: City of Rochester	CLIENT:	185444
ADDRESS: 30 Church Street, Room 300B	ADDRESS:	
CITY: Rochester STATE: NY ZIP 14614	CITY: STATE: ZIP:	Quotation #: PO 18004885
PHONE: 428-6884	PHONE:	Email: peckd@cityofrochester.gov
ATTN: Dennis Peck	ATTN:	Cc: Alexandra.Zobel@cityofrochester.gov

PROJECT REFERENCE

RFA Quarterly Sampling
PO# 19001204

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	625 Site Specific	608 Pesticides	Metals* HNO3	pH						REMARKS	PARADIGM LAB SAMPLE NUMBER
1	11/20/2018	1150		X	Effluent	Water	6	X	X	X	X	X						624 Site Specific =VRFA Test Name	01
2	11/20/2018	1130		X	Influent	Water	3	X		X								625 Site Specific = SMISC	02
3																		**SVOA List:**	
4																		Diethyl phthalate	
5																			
6																			
7																		**Metals list:**	
8																		As, Cd, Cr, Cu, Pb, Ni, Se, Zn	
9																		Preserved w/ HNO_3	
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other	☒	Other	☐	Other EDD	☐
please indicate:	10	please indicate:		please indicate:	

Alexandra Z. Martino 11/20/18 @1130, 1150
Sampled By — Date/Time

A.Z. Martino 11/20/18 @1235
Relinquished By — Date/Time

Jane J. Palasia 11/20/18 1235
Received By — Date/Time

2 of 2 11/20/18 13:44
Received @ Lab By — Date/Time

7°C iced started in field 11/20/18 13:05

Total Cost:

P.I.F.

See additional page for sample conditions.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 185444 **Date:** 11/20/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA	X metals	X
Comments	HNO_3 added to metals sample in lab to pH < 2.		
Chlorine Absent (<0.10 ppm per test strip)	X 625 SVOA 608 Pest		X
Comments	624 VOA: Cl^- neg.		
Holding Time	X	X pH	
Comments			
Temperature	X		X pH metals
Comments	7°C iced started in field		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

185702

Referencing

RFA Monthly Sampling DEQ - 98045

Prepared

Monday, December 17, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185702

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ - 98045

Sample Identifier:	Effluent		
Lab Sample ID:	185702-01	**Date Sampled:**	12/10/2018
Matrix:	Water	**Date Received:**	12/10/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.22 @ 20.6 C	S.U.		12/10/2018 15:21

Method Reference(s): SM22 4500 H+ B

ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		12/11/2018 17:17
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		12/11/2018 17:17
1,1,2-Trichloroethane	< 2.00	ug/L		12/11/2018 17:17
1,1-Dichloroethane	**13.1**	ug/L		12/11/2018 17:17
1,1-Dichloroethene	< 2.00	ug/L		12/11/2018 17:17
1,2-Dichlorobenzene	< 2.00	ug/L		12/11/2018 17:17
1,2-Dichloroethane	< 2.00	ug/L		12/11/2018 17:17
1,2-Dichloropropane	< 2.00	ug/L		12/11/2018 17:17
1,3-Dichlorobenzene	< 2.00	ug/L		12/11/2018 17:17
1,4-Dichlorobenzene	< 2.00	ug/L		12/11/2018 17:17
2-Butanone	**14.8**	ug/L		12/11/2018 17:17
2-Chloroethyl vinyl Ether	< 10.0	ug/L		12/11/2018 17:17
4-Methyl-2-pentanone	< 5.00	ug/L		12/11/2018 17:17
Acetone	< 10.0	ug/L		12/11/2018 17:17
Benzene	< 1.00	ug/L		12/11/2018 17:17
Bromodichloromethane	< 2.00	ug/L		12/11/2018 17:17
Bromoform	< 5.00	ug/L		12/11/2018 17:17
Bromomethane	< 2.00	ug/L		12/11/2018 17:17
Carbon Tetrachloride	< 2.00	ug/L		12/11/2018 17:17
Chlorobenzene	< 2.00	ug/L		12/11/2018 17:17
Chloroethane	< 2.00	ug/L		12/11/2018 17:17
Chloroform	< 2.00	ug/L		12/11/2018 17:17
Chloromethane	< 2.00	ug/L		12/11/2018 17:17

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185702

Client: **City of Rochester**

Project Reference: RFA Monthly Sampling DEQ - 98045

Sample Identifier: Effluent
Lab Sample ID: 185702-01 **Date Sampled:** 12/10/2018
Matrix: Water **Date Received:** 12/10/2018

cis-1,3-Dichloropropene	< 2.00	ug/L		12/11/2018 17:17
Dibromochloromethane	< 2.00	ug/L		12/11/2018 17:17
Ethylbenzene	< 2.00	ug/L		12/11/2018 17:17
Methylene chloride	< 5.00	ug/L		12/11/2018 17:17
Tetrachloroethene	< 2.00	ug/L		12/11/2018 17:17
Toluene	< 2.00	ug/L		12/11/2018 17:17
trans-1,2-Dichloroethene	< 2.00	ug/L		12/11/2018 17:17
trans-1,3-Dichloropropene	< 2.00	ug/L		12/11/2018 17:17
Trichloroethene	< 2.00	ug/L		12/11/2018 17:17
Vinyl chloride	< 2.00	ug/L		12/11/2018 17:17

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**104**	86.4 - 119		12/11/2018 17:17
4-Bromofluorobenzene	**82.3**	76 - 118		12/11/2018 17:17
Pentafluorobenzene	**103**	87 - 112		12/11/2018 17:17
Toluene-D8	**95.0**	88.4 - 111		12/11/2018 17:17

Method Reference(s): EPA 624.1
Data File: x57404.D

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

1 of 2

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT:	City of Rochester	CLIENT:		LAB PROJECT ID: 185702
ADDRESS:	30 Church Street, Room 300B	ADDRESS:		
CITY:	Rochester STATE: NY ZIP 14614	CITY:	STATE: ZIP:	Quotation #: PO 18004885
PHONE:	428-6884	PHONE:		Email: peckd@cityofrochester.gov
ATTN:	Dennis Peck	ATTN:		

PROJECT REFERENCE

RFA Monthly Sampling DEQ-98045
PO# 19001204

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	624 Site Specific	pH									REMARKS	PARADIGM LAB SAMPLE NUMBER
1	12/10/2018	1345		X	Effluent	Water	3	X	X									624 Site Specific =VRFA Test Name	01
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☒	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☐
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Other	☒	Other	☐	Other EDD	☐
please indicate:	~~10~~ DP 12/10/18	please indicate:		please indicate:	

Sampled By: Dennis Peck — Date/Time: 12/10/18

Relinquished By: Dennis Peck — Date/Time: 12/10/18 1418

Received By: [signature] — Date/Time: 12/10/18 1418

Received @ Lab By: [signature] — Date/Time: 12/10/18 15:03

15°C 12/10/18 15:00

Total Cost:

P.I.F.

See additional page for sample conditions.

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 185702 **Date:** 12/10/18

Sample Condition Requirements

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

Condition	*NELAC compliance with the sample condition requirements upon receipt* Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X VOA		X
Comments			
Preservation	X VOA		X
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X		X
Comments	VOA 624: Cl⁻ 1mg.		
Holding Time	X	X pH	
Comments			
Temperature		X	X pH
Comments	15°C		
Sufficient Sample Quantity	X		
Comments			

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

City of Rochester

For Lab Project ID

185900

Referencing

RFA Semi-Annual GW Sampling DEQ-98045

Prepared

Wednesday, January 2, 2019

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 6I
Lab Sample ID: 185900-01 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		12/27/2018 17:27
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		12/27/2018 17:27
1,1,2-Trichloroethane	< 2.00	ug/L		12/27/2018 17:27
1,1-Dichloroethane	< 2.00	ug/L		12/27/2018 17:27
1,1-Dichloroethene	< 2.00	ug/L		12/27/2018 17:27
1,2-Dichlorobenzene	< 2.00	ug/L		12/27/2018 17:27
1,2-Dichloroethane	< 2.00	ug/L		12/27/2018 17:27
1,2-Dichloropropane	< 2.00	ug/L		12/27/2018 17:27
1,3-Dichlorobenzene	< 2.00	ug/L		12/27/2018 17:27
1,4-Dichlorobenzene	< 2.00	ug/L		12/27/2018 17:27
2-Chloroethyl vinyl Ether	< 10.0	ug/L		12/27/2018 17:27
Benzene	< 1.00	ug/L		12/27/2018 17:27
Bromodichloromethane	< 2.00	ug/L		12/27/2018 17:27
Bromoform	< 5.00	ug/L		12/27/2018 17:27
Bromomethane	< 2.00	ug/L		12/27/2018 17:27
Carbon Tetrachloride	< 2.00	ug/L		12/27/2018 17:27
Chlorobenzene	< 2.00	ug/L		12/27/2018 17:27
Chloroethane	< 2.00	ug/L		12/27/2018 17:27
Chloroform	< 2.00	ug/L		12/27/2018 17:27
Chloromethane	< 2.00	ug/L		12/27/2018 17:27
cis-1,3-Dichloropropene	< 2.00	ug/L		12/27/2018 17:27
Dibromochloromethane	< 2.00	ug/L		12/27/2018 17:27
Ethylbenzene	< 2.00	ug/L		12/27/2018 17:27
Methyl tert-butyl Ether	< 2.00	ug/L		12/27/2018 17:27
Methylene chloride	< 5.00	ug/L		12/27/2018 17:27
Tetrachloroethene	< 2.00	ug/L		12/27/2018 17:27
Toluene	< 2.00	ug/L		12/27/2018 17:27
trans-1,2-Dichloroethene	< 2.00	ug/L		12/27/2018 17:27
trans-1,3-Dichloropropene	< 2.00	ug/L		12/27/2018 17:27

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 6I

Lab Sample ID: 185900-01 **Date Sampled:** 12/20/2018

Matrix: Water **Date Received:** 12/21/2018

Trichloroethene	< 2.00	ug/L			12/27/2018 17:27
Trichlorofluoromethane	< 2.00	ug/L			12/27/2018 17:27
Vinyl chloride	**4.57**	ug/L			12/27/2018 17:27

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**95.1**	86.4 - 119		12/27/2018 17:27
4-Bromofluorobenzene	**80.4**	76 - 118		12/27/2018 17:27
Pentafluorobenzene	**94.7**	87 - 112		12/27/2018 17:27
Toluene-D8	**89.8**	88.4 - 111		12/27/2018 17:27

Method Reference(s): EPA 624.1

Data File: x57752.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 7I
Lab Sample ID: 185900-02 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	**129**	ug/L		12/27/2018 16:42
1,1,2,2-Tetrachloroethane	< 10.0	ug/L		12/27/2018 16:42
1,1,2-Trichloroethane	< 10.0	ug/L		12/27/2018 16:42
1,1-Dichloroethane	**191**	ug/L		12/27/2018 16:42
1,1-Dichloroethene	**15.2**	ug/L		12/27/2018 16:42
1,2-Dichlorobenzene	< 10.0	ug/L		12/27/2018 16:42
1,2-Dichloroethane	< 10.0	ug/L		12/27/2018 16:42
1,2-Dichloropropane	< 10.0	ug/L		12/27/2018 16:42
1,3-Dichlorobenzene	< 10.0	ug/L		12/27/2018 16:42
1,4-Dichlorobenzene	< 10.0	ug/L		12/27/2018 16:42
2-Chloroethyl vinyl Ether	< 50.0	ug/L		12/27/2018 16:42
Benzene	< 5.00	ug/L		12/27/2018 16:42
Bromodichloromethane	< 10.0	ug/L		12/27/2018 16:42
Bromoform	< 25.0	ug/L		12/27/2018 16:42
Bromomethane	< 10.0	ug/L		12/27/2018 16:42
Carbon Tetrachloride	< 10.0	ug/L		12/27/2018 16:42
Chlorobenzene	< 10.0	ug/L		12/27/2018 16:42
Chloroethane	< 10.0	ug/L		12/27/2018 16:42
Chloroform	< 10.0	ug/L		12/27/2018 16:42
Chloromethane	< 10.0	ug/L		12/27/2018 16:42
cis-1,3-Dichloropropene	< 10.0	ug/L		12/27/2018 16:42
Dibromochloromethane	< 10.0	ug/L		12/27/2018 16:42
Ethylbenzene	< 10.0	ug/L		12/27/2018 16:42
Methyl tert-butyl Ether	< 10.0	ug/L		12/27/2018 16:42
Methylene chloride	< 25.0	ug/L		12/27/2018 16:42
Tetrachloroethene	< 10.0	ug/L		12/27/2018 16:42
Toluene	< 10.0	ug/L		12/27/2018 16:42
trans-1,2-Dichloroethene	< 10.0	ug/L		12/27/2018 16:42
trans-1,3-Dichloropropene	< 10.0	ug/L		12/27/2018 16:42

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 7I
Lab Sample ID: 185900-02 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Trichloroethene	< 10.0	ug/L			12/27/2018 16:42
Trichlorofluoromethane	< 10.0	ug/L			12/27/2018 16:42
Vinyl chloride	**96.2**	ug/L			12/27/2018 16:42

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**90.7**	86.4 - 119		12/27/2018 16:42
4-Bromofluorobenzene	**84.5**	76 - 118		12/27/2018 16:42
Pentafluorobenzene	**102**	87 - 112		12/27/2018 16:42
Toluene-D8	**90.6**	88.4 - 111		12/27/2018 16:42

Method Reference(s): EPA 624.1
Data File: x57750.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 7S
Lab Sample ID: 185900-03 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	**279**	ug/L		12/28/2018 14:27
1,1,2,2-Tetrachloroethane	< 4.00	ug/L		12/28/2018 14:27
1,1,2-Trichloroethane	< 4.00	ug/L		12/28/2018 14:27
1,1-Dichloroethane	**206**	ug/L		12/28/2018 14:27
1,1-Dichloroethene	< 4.00	ug/L		12/28/2018 14:27
1,2-Dichlorobenzene	< 4.00	ug/L		12/28/2018 14:27
1,2-Dichloroethane	< 4.00	ug/L		12/28/2018 14:27
1,2-Dichloropropane	< 4.00	ug/L		12/28/2018 14:27
1,3-Dichlorobenzene	< 4.00	ug/L		12/28/2018 14:27
1,4-Dichlorobenzene	< 4.00	ug/L		12/28/2018 14:27
2-Chloroethyl vinyl Ether	< 20.0	ug/L		12/28/2018 14:27
Benzene	< 2.00	ug/L		12/28/2018 14:27
Bromodichloromethane	< 4.00	ug/L		12/28/2018 14:27
Bromoform	< 10.0	ug/L		12/28/2018 14:27
Bromomethane	< 4.00	ug/L		12/28/2018 14:27
Carbon Tetrachloride	< 4.00	ug/L		12/28/2018 14:27
Chlorobenzene	< 4.00	ug/L		12/28/2018 14:27
Chloroethane	**5.82**	ug/L		12/28/2018 14:27
Chloroform	< 4.00	ug/L		12/28/2018 14:27
Chloromethane	< 4.00	ug/L		12/28/2018 14:27
cis-1,3-Dichloropropene	< 4.00	ug/L		12/28/2018 14:27
Dibromochloromethane	< 4.00	ug/L		12/28/2018 14:27
Ethylbenzene	< 4.00	ug/L		12/28/2018 14:27
Methyl tert-butyl Ether	< 4.00	ug/L		12/28/2018 14:27
Methylene chloride	< 10.0	ug/L		12/28/2018 14:27
Tetrachloroethene	< 4.00	ug/L		12/28/2018 14:27
Toluene	< 4.00	ug/L		12/28/2018 14:27
trans-1,2-Dichloroethene	< 4.00	ug/L		12/28/2018 14:27
trans-1,3-Dichloropropene	< 4.00	ug/L		12/28/2018 14:27

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 7S
Lab Sample ID: 185900-03 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Trichloroethene	**6.92**	ug/L			12/28/2018 14:27
Trichlorofluoromethane	< 4.00	ug/L			12/28/2018 14:27
Vinyl chloride	< 4.00	ug/L			12/28/2018 14:27

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**104**	86.4 - 119		12/28/2018 14:27
4-Bromofluorobenzene	**80.5**	76 - 118		12/28/2018 14:27
Pentafluorobenzene	**100**	87 - 112		12/28/2018 14:27
Toluene-D8	**88.9**	88.4 - 111		12/28/2018 14:27

Method Reference(s): EPA 624.1
Data File: x57778.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 8I
Lab Sample ID: 185900-04 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 10.0	ug/L		12/28/2018 14:50
1,1,2,2-Tetrachloroethane	< 10.0	ug/L		12/28/2018 14:50
1,1,2-Trichloroethane	< 10.0	ug/L		12/28/2018 14:50
1,1-Dichloroethane	< 10.0	ug/L		12/28/2018 14:50
1,1-Dichloroethene	< 10.0	ug/L		12/28/2018 14:50
1,2-Dichlorobenzene	< 10.0	ug/L		12/28/2018 14:50
1,2-Dichloroethane	< 10.0	ug/L		12/28/2018 14:50
1,2-Dichloropropane	< 10.0	ug/L		12/28/2018 14:50
1,3-Dichlorobenzene	< 10.0	ug/L		12/28/2018 14:50
1,4-Dichlorobenzene	< 10.0	ug/L		12/28/2018 14:50
2-Chloroethyl vinyl Ether	< 50.0	ug/L		12/28/2018 14:50
Benzene	< 5.00	ug/L		12/28/2018 14:50
Bromodichloromethane	< 10.0	ug/L		12/28/2018 14:50
Bromoform	< 25.0	ug/L		12/28/2018 14:50
Bromomethane	< 10.0	ug/L		12/28/2018 14:50
Carbon Tetrachloride	< 10.0	ug/L		12/28/2018 14:50
Chlorobenzene	< 10.0	ug/L		12/28/2018 14:50
Chloroethane	**13.0**	ug/L		12/28/2018 14:50
Chloroform	< 10.0	ug/L		12/28/2018 14:50
Chloromethane	< 10.0	ug/L		12/28/2018 14:50
cis-1,3-Dichloropropene	< 10.0	ug/L		12/28/2018 14:50
Dibromochloromethane	< 10.0	ug/L		12/28/2018 14:50
Ethylbenzene	< 10.0	ug/L		12/28/2018 14:50
Methyl tert-butyl Ether	< 10.0	ug/L		12/28/2018 14:50
Methylene chloride	< 25.0	ug/L		12/28/2018 14:50
Tetrachloroethene	< 10.0	ug/L		12/28/2018 14:50
Toluene	< 10.0	ug/L		12/28/2018 14:50
trans-1,2-Dichloroethene	< 10.0	ug/L		12/28/2018 14:50
trans-1,3-Dichloropropene	< 10.0	ug/L		12/28/2018 14:50

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 8I
Lab Sample ID: 185900-04 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Trichloroethene	< 10.0	ug/L			12/28/2018 14:50
Trichlorofluoromethane	< 10.0	ug/L			12/28/2018 14:50
Vinyl chloride	**581**	ug/L			12/28/2018 14:50

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**110**	86.4 - 119		12/28/2018 14:50
4-Bromofluorobenzene	**77.1**	76 - 118		12/28/2018 14:50
Pentafluorobenzene	**100**	87 - 112		12/28/2018 14:50
Toluene-D8	**86.1**	88.4 - 111	*	12/28/2018 14:50

Method Reference(s): EPA 624.1
Data File: x57779.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 9D
Lab Sample ID: 185900-05 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		12/27/2018 18:35
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		12/27/2018 18:35
1,1,2-Trichloroethane	< 2.00	ug/L		12/27/2018 18:35
1,1-Dichloroethane	< 2.00	ug/L		12/27/2018 18:35
1,1-Dichloroethene	< 2.00	ug/L		12/27/2018 18:35
1,2-Dichlorobenzene	< 2.00	ug/L		12/27/2018 18:35
1,2-Dichloroethane	< 2.00	ug/L		12/27/2018 18:35
1,2-Dichloropropane	< 2.00	ug/L		12/27/2018 18:35
1,3-Dichlorobenzene	< 2.00	ug/L		12/27/2018 18:35
1,4-Dichlorobenzene	< 2.00	ug/L		12/27/2018 18:35
2-Chloroethyl vinyl Ether	< 10.0	ug/L		12/27/2018 18:35
Benzene	< 1.00	ug/L		12/27/2018 18:35
Bromodichloromethane	< 2.00	ug/L		12/27/2018 18:35
Bromoform	< 5.00	ug/L		12/27/2018 18:35
Bromomethane	< 2.00	ug/L		12/27/2018 18:35
Carbon Tetrachloride	< 2.00	ug/L		12/27/2018 18:35
Chlorobenzene	< 2.00	ug/L		12/27/2018 18:35
Chloroethane	< 2.00	ug/L		12/27/2018 18:35
Chloroform	< 2.00	ug/L		12/27/2018 18:35
Chloromethane	< 2.00	ug/L		12/27/2018 18:35
cis-1,3-Dichloropropene	< 2.00	ug/L		12/27/2018 18:35
Dibromochloromethane	< 2.00	ug/L		12/27/2018 18:35
Ethylbenzene	< 2.00	ug/L		12/27/2018 18:35
Methyl tert-butyl Ether	< 2.00	ug/L		12/27/2018 18:35
Methylene chloride	< 5.00	ug/L		12/27/2018 18:35
Tetrachloroethene	< 2.00	ug/L		12/27/2018 18:35
Toluene	< 2.00	ug/L		12/27/2018 18:35
trans-1,2-Dichloroethene	< 2.00	ug/L		12/27/2018 18:35
trans-1,3-Dichloropropene	< 2.00	ug/L		12/27/2018 18:35

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 9D
Lab Sample ID: 185900-05 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Trichloroethene	< 2.00	ug/L		12/27/2018 18:35
Trichlorofluoromethane	< 2.00	ug/L		12/27/2018 18:35
Vinyl chloride	**41.7**	ug/L		12/27/2018 18:35

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**105**	86.4 - 119		12/27/2018 18:35
4-Bromofluorobenzene	**84.3**	76 - 118		12/27/2018 18:35
Pentafluorobenzene	**93.5**	87 - 112		12/27/2018 18:35
Toluene-D8	**90.2**	88.4 - 111		12/27/2018 18:35

Method Reference(s): EPA 624.1
Data File: x57755.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 10I
Lab Sample ID: 185900-06 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		12/27/2018 18:58
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		12/27/2018 18:58
1,1,2-Trichloroethane	< 2.00	ug/L		12/27/2018 18:58
1,1-Dichloroethane	< 2.00	ug/L		12/27/2018 18:58
1,1-Dichloroethene	< 2.00	ug/L		12/27/2018 18:58
1,2-Dichlorobenzene	< 2.00	ug/L		12/27/2018 18:58
1,2-Dichloroethane	< 2.00	ug/L		12/27/2018 18:58
1,2-Dichloropropane	< 2.00	ug/L		12/27/2018 18:58
1,3-Dichlorobenzene	< 2.00	ug/L		12/27/2018 18:58
1,4-Dichlorobenzene	< 2.00	ug/L		12/27/2018 18:58
2-Chloroethyl vinyl Ether	< 10.0	ug/L		12/27/2018 18:58
Benzene	< 1.00	ug/L		12/27/2018 18:58
Bromodichloromethane	< 2.00	ug/L		12/27/2018 18:58
Bromoform	< 5.00	ug/L		12/27/2018 18:58
Bromomethane	< 2.00	ug/L		12/27/2018 18:58
Carbon Tetrachloride	< 2.00	ug/L		12/27/2018 18:58
Chlorobenzene	< 2.00	ug/L		12/27/2018 18:58
Chloroethane	< 2.00	ug/L		12/27/2018 18:58
Chloroform	< 2.00	ug/L		12/27/2018 18:58
Chloromethane	< 2.00	ug/L		12/27/2018 18:58
cis-1,3-Dichloropropene	< 2.00	ug/L		12/27/2018 18:58
Dibromochloromethane	< 2.00	ug/L		12/27/2018 18:58
Ethylbenzene	< 2.00	ug/L		12/27/2018 18:58
Methyl tert-butyl Ether	**5.97**	ug/L		12/27/2018 18:58
Methylene chloride	< 5.00	ug/L		12/27/2018 18:58
Tetrachloroethene	< 2.00	ug/L		12/27/2018 18:58
Toluene	< 2.00	ug/L		12/27/2018 18:58
trans-1,2-Dichloroethene	< 2.00	ug/L		12/27/2018 18:58
trans-1,3-Dichloropropene	< 2.00	ug/L		12/27/2018 18:58

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 10I

Lab Sample ID: 185900-06 **Date Sampled:** 12/20/2018

Matrix: Water **Date Received:** 12/21/2018

Trichloroethene	< 2.00	ug/L			12/27/2018 18:58
Trichlorofluoromethane	< 2.00	ug/L			12/27/2018 18:58
Vinyl chloride	< 2.00	ug/L			12/27/2018 18:58

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**101**	86.4 - 119		12/27/2018 18:58
4-Bromofluorobenzene	**83.2**	76 - 118		12/27/2018 18:58
Pentafluorobenzene	**93.5**	87 - 112		12/27/2018 18:58
Toluene-D8	**90.8**	88.4 - 111		12/27/2018 18:58

Method Reference(s): EPA 624.1

Data File: x57756.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 11I
Lab Sample ID: 185900-07 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 10.0	ug/L		12/27/2018 17:04
1,1,2,2-Tetrachloroethane	< 10.0	ug/L		12/27/2018 17:04
1,1,2-Trichloroethane	< 10.0	ug/L		12/27/2018 17:04
1,1-Dichloroethane	< 10.0	ug/L		12/27/2018 17:04
1,1-Dichloroethene	< 10.0	ug/L		12/27/2018 17:04
1,2-Dichlorobenzene	< 10.0	ug/L		12/27/2018 17:04
1,2-Dichloroethane	< 10.0	ug/L		12/27/2018 17:04
1,2-Dichloropropane	< 10.0	ug/L		12/27/2018 17:04
1,3-Dichlorobenzene	< 10.0	ug/L		12/27/2018 17:04
1,4-Dichlorobenzene	< 10.0	ug/L		12/27/2018 17:04
2-Chloroethyl vinyl Ether	< 50.0	ug/L		12/27/2018 17:04
Benzene	< 5.00	ug/L		12/27/2018 17:04
Bromodichloromethane	< 10.0	ug/L		12/27/2018 17:04
Bromoform	< 25.0	ug/L		12/27/2018 17:04
Bromomethane	< 10.0	ug/L		12/27/2018 17:04
Carbon Tetrachloride	< 10.0	ug/L		12/27/2018 17:04
Chlorobenzene	< 10.0	ug/L		12/27/2018 17:04
Chloroethane	< 10.0	ug/L		12/27/2018 17:04
Chloroform	< 10.0	ug/L		12/27/2018 17:04
Chloromethane	< 10.0	ug/L		12/27/2018 17:04
cis-1,3-Dichloropropene	< 10.0	ug/L		12/27/2018 17:04
Dibromochloromethane	< 10.0	ug/L		12/27/2018 17:04
Ethylbenzene	< 10.0	ug/L		12/27/2018 17:04
Methyl tert-butyl Ether	< 10.0	ug/L		12/27/2018 17:04
Methylene chloride	< 25.0	ug/L		12/27/2018 17:04
Tetrachloroethene	< 10.0	ug/L		12/27/2018 17:04
Toluene	< 10.0	ug/L		12/27/2018 17:04
trans-1,2-Dichloroethene	< 10.0	ug/L		12/27/2018 17:04
trans-1,3-Dichloropropene	< 10.0	ug/L		12/27/2018 17:04

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 11I

Lab Sample ID: 185900-07 **Date Sampled:** 12/20/2018

Matrix: Water **Date Received:** 12/21/2018

Trichloroethene	< 10.0	ug/L			12/27/2018 17:04
Trichlorofluoromethane	< 10.0	ug/L			12/27/2018 17:04
Vinyl chloride	**294**	ug/L			12/27/2018 17:04

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**93.5**	86.4 - 119		12/27/2018 17:04
4-Bromofluorobenzene	**82.6**	76 - 118		12/27/2018 17:04
Pentafluorobenzene	**99.5**	87 - 112		12/27/2018 17:04
Toluene-D8	**91.6**	88.4 - 111		12/27/2018 17:04

Method Reference(s): EPA 624.1

Data File: x57751.D

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier: MW 15S
Lab Sample ID: 185900-08 **Date Sampled:** 12/20/2018
Matrix: Water **Date Received:** 12/21/2018

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		12/27/2018 19:21
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		12/27/2018 19:21
1,1,2-Trichloroethane	< 2.00	ug/L		12/27/2018 19:21
1,1-Dichloroethane	< 2.00	ug/L		12/27/2018 19:21
1,1-Dichloroethene	< 2.00	ug/L		12/27/2018 19:21
1,2-Dichlorobenzene	< 2.00	ug/L		12/27/2018 19:21
1,2-Dichloroethane	< 2.00	ug/L		12/27/2018 19:21
1,2-Dichloropropane	< 2.00	ug/L		12/27/2018 19:21
1,3-Dichlorobenzene	< 2.00	ug/L		12/27/2018 19:21
1,4-Dichlorobenzene	< 2.00	ug/L		12/27/2018 19:21
2-Chloroethyl vinyl Ether	< 10.0	ug/L		12/27/2018 19:21
Benzene	< 1.00	ug/L		12/27/2018 19:21
Bromodichloromethane	< 2.00	ug/L		12/27/2018 19:21
Bromoform	< 5.00	ug/L		12/27/2018 19:21
Bromomethane	< 2.00	ug/L		12/27/2018 19:21
Carbon Tetrachloride	< 2.00	ug/L		12/27/2018 19:21
Chlorobenzene	< 2.00	ug/L		12/27/2018 19:21
Chloroethane	< 2.00	ug/L		12/27/2018 19:21
Chloroform	< 2.00	ug/L		12/27/2018 19:21
Chloromethane	< 2.00	ug/L		12/27/2018 19:21
cis-1,3-Dichloropropene	< 2.00	ug/L		12/27/2018 19:21
Dibromochloromethane	< 2.00	ug/L		12/27/2018 19:21
Ethylbenzene	< 2.00	ug/L		12/27/2018 19:21
Methyl tert-butyl Ether	< 2.00	ug/L		12/27/2018 19:21
Methylene chloride	< 5.00	ug/L		12/27/2018 19:21
Tetrachloroethene	< 2.00	ug/L		12/27/2018 19:21
Toluene	< 2.00	ug/L		12/27/2018 19:21
trans-1,2-Dichloroethene	< 2.00	ug/L		12/27/2018 19:21
trans-1,3-Dichloropropene	< 2.00	ug/L		12/27/2018 19:21

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185900

Client: **City of Rochester**

Project Reference: RFA Semi-Annual GW Sampling DEQ-98045

Sample Identifier:	MW 15S		
Lab Sample ID:	185900-08	**Date Sampled:**	12/20/2018
Matrix:	Water	**Date Received:**	12/21/2018

Trichloroethene	< 2.00	ug/L		12/27/2018 19:21
Trichlorofluoromethane	< 2.00	ug/L		12/27/2018 19:21
Vinyl chloride	< 2.00	ug/L		12/27/2018 19:21

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**101**	86.4 - 119		12/27/2018 19:21
4-Bromofluorobenzene	**80.9**	76 - 118		12/27/2018 19:21
Pentafluorobenzene	**95.3**	87 - 112		12/27/2018 19:21
Toluene-D8	**91.8**	88.4 - 111		12/27/2018 19:21

Method Reference(s): EPA 624.1
Data File: x57757.D

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

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

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

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

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

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

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 * (800) 724-1997

CHAIN OF CUSTODY

1 of 2

REPORT TO:	INVOICE TO:		
COMPANY: CITY OF ROCHESTER	COMPANY:	LAB PROJECT #: 185900	CLIENT PROJECT #: PO 19001204
ADDRESS: 30 CHURCH STREET, ROOM 300B	ADDRESS:		
CITY: ROCHESTER STATE: NY ZIP: 14614	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE: 585-428-6884 FAX: 585-428-6010	PHONE: FAX:	STD A2M OTHER	
PROJECT NAME/SITE NAME:	ATTN: DENNIS PECK	☐ 1 ☐ 2 ☐ 3 ☒ 5	☒
RFA semi-annual GW samplir DEQ-98045	COMMENTS: email results to peckd@cityofrochester.gov Cc: Alexandra.Zobel@cityofrochester.gov alexandra.zobel@cityofrochester.gov		

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	601/602 + MTBE	~~8260 SIMS~~ A2M	1,4 dioxane only A2M								REMARKS	PARADIGM LAB SAMPLE NUMBER
1 12/20/18	15 42		X	MW 6I	Water	2	X											01
2	11 54		X	MW 7I	Water	2 4 A2M	X											02
3	12 00		X	MW 7S	Water	2	X											03
4	14 50		X	MW 8I	Water	2	X											04
5	10 24		X	MW 9D	Water	2	X											05
6	16 03		X	MW 10I	Water	2	X											06
7	14 28		X	MW 11I	Water	2	X											07
8 ↓	14 40		X	MW 15S	Water	2	X											08

LAB USE ONLY

SAMPLE CONDITION: Check box if acceptable or note deviation: CONTAINER TYPE: ☐ PRESERVATIONS: ☐ HOLDING TIME: ☐ TEMPERATURE: ☐ 9°C 12/21/18 10:50

Sampled By: Dennis Peck	Date/Time: 12/20/18	Relinquished By:	Date/Time:
Relinquished By: Dennis Peck	Date/Time: 12/21/18 1035	Received By:	Date/Time:
Received By: Jane J Cabot	Date/Time: 12/21/18 1035	Received @ Lab By:	Date/Time: 12/21/18 10:55

Total Cost:

P.I.F.

PARADIGM

Chain of Custody Supplement

Client: City of Rochester **Completed by:** Glenn Pezzulo

Lab Project ID: 185900 **Date:** 12/21/18

Sample Condition Requirements

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

Condition	NELAC compliance with the sample condition requirements upon receipt Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X		
Comments			
Preservation	X		
Comments			
Chlorine Absent (<0.10 ppm per test strip)	X		
Comments	VOA 624 : Cl⁻ neg.		
Holding Time	X		
Comments			
Temperature		X	
Comments	9°C		
Sufficient Sample Quantity	X		
Comments			

APPENDIX D

INSPECTION FORMS AND OPERATOR LOGS

ROCHESTER FIRE ACADEMY

STORM WATER COLLECTION SYSTEM INSPECTION CHECKLIST

Date: 10/15/18

Inspected By: B. J. Kline

VISUAL EVALUATION ITEMS	CONDITION (Check) Present	Not Present	Remarks
1. Drainage Channels			
a. Sediment build-up		✓	
b. Pooling/ponding		✓	
c. Severe cracking		✓	
d. Erosion		✓	
e. Slope loss		✓	
2. Storm Sewers / Grates			
a. Sediment build-up		✓	
b. Pooling / ponding		✓	
c. Broken pipe		✓	
d. Slope loss		✓	
e. Grate clogging		✓	
3. Drainage Structures #1, #2, #3			
a. Flapper valve functioning	✓		- OUTFALL BY FIRING RANGE GETTING CONGESTED (DRAINS FIRING RANGE ONLY, NOT CRITICAL TO OTHER AREAS OR SIGNIFICANT CONCERN).
b. Broken / cracked pipe		✓	
c. Cracked headwall structure		✓	
Other Comments / Problems:			

ROCHESTER FIRE ACADEMY

COVER SYSTEM INSPECTION CHECKLIST

Date: 10/15/18

Inspected By: B. J. Kleine

VISUAL EVALUATION ITEMS	CONDITION (Check)				Remarks
	Acceptable	Not Acceptable	Present	Not Present	
1. North Disposal Area					
a. Vegetative Cover Integrity	✓				
b. Erosion				✓	
c. Settling				✓	
d. Slope Loss				✓	
e. Pooling / ponding				✓	
f. Undesirable species				✓	
2. South Disposal Area					
a. Vegetative Cover Integrity	✓				
b. Erosion				✓	
c. Settling				✓	
d. Slope Loss				✓	
e. Pooling / ponding				✓	
f. Undesirable species				✓	
3. Training Grounds Area					- ASPHALT RECENTLY CRACK-SEALED. - RECOMMEND CONCRETE JOINTS BE SEALED OVER NEXT 12 MONTHS, TEX (COUNTY) AGREED TO PURSUE.
a. Surface Coarse Integrity	✓*				
b. Cracking			✓		
c. Potholes				✓	
d. Pooling / ponding				✓	
e. Undesirable species				✓	
4. Other Comments / Problems:	* POLE BARN CONSTRUCTION IS ON HOLD, PLASTIC COVER IS BEING MAINTAINED, DRAINS TO SOUTH EDGE OF TGA/OFF PROPERTY TO MINIMIZE INFILTRATION.				

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

January 2018

WEEK OF: _____

Daily Log Info:

Date:	1/1/18	1/2	1/3	1/4	1/5	1/6	1/7
Daily Discharge (gal)	0	0	0	4850	3860	2760	2820
Total Flow Year-To-Date (gal)	0	0	0	4786	8568	11,348	14,107
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	1/8	1/9	1/10	1/11	1/12	1/13	1/14
Daily Discharge (gal)	2930	2500	210	10,420	0	0	0
Total Flow Year-To-Date (gal)	16,985	19,414	19,628	29,930	29,950	29,930	29,930
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

1/11/18 Sample effluent

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	1/15	1/16 13.48	1/17	1/18	1/19	1/20	1/21
Daily Discharge (gal)	0	2140	3130	2600	0	0	0
Total Flow Year-To-Date (gal)	29,930	32,017	35,075	37,637	37,637	37,637	37,637
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	43
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	32.8 /
GW Trench Pump Setpoints (On/Off)	4.5 / 4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	1/22	1/23	1/24	1/25	1/26	1/27	1/28
Daily Discharge (gal)	0	0	12,760	25,880	24,480	4950	4280
Total Flow Year-To-Date (gal)	37,637	37,637	50,270	75,879	100,142	105,040	109,256
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	1/29	1/30	1/31				
Daily Discharge (gal)	4190	4140	3600				
Total Flow Year-To-Date (gal)	113,398	117,521	121,077				
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	2/1/18	2/2	2/3	2/4	2/5	2/6	2/7
Daily Discharge (gal)	4480	3920	4040	3630	3300	3480	3130
Total Flow Year-To-Date (gal)	125,507	129,372	133,376	136,967	140,160	143,639	146,750
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	2/8	2/9	2/10	2/11	2/12	2/13	2/14
Daily Discharge (gal)	3200	3090	3700	2990	2580	3040	3850
Total Flow Year-To-Date (gal)	149,919	152,938	156,579	159,561	162,513	165,528	169,341
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	2/15	2/16	2/17	2/18	2/19	2/20	2/21
Daily Discharge (gal)	7600	6780	4530	4230	4610	7420	4920
Total Flow Year-To-Date (gal)	176,843	183,490	188,056	192,247	196,825	204,198	209,027
Alarms							

Weekly Log Info:

Site Check Date	2/19/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	34 P1
Flow Rate Out, GPM (P1 or P2)	42 P1
Bag Filter PSI (In/Out)	15/3 9/0
Sequestering Agent Level, in.	30.8 add
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

2/19/18 Quarterly In/Eff Sampling

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	2/22	2/23	2/24	2/25	2/26	2/27	2/28/17
Daily Discharge (gal)	4860	4640	4600	6200	4750	4110	3560
Total Flow Year-To-Date (gal)	213,830	218,433	222,943	229,099	233,734	237,783	241,307
Alarms							

Weekly Log Info:

Site Check Date	2/23
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	35.5 2/23 34.6 3/1
GW Trench Pump Setpoints (On/Off)	4.5/4.2

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	3/1/18	3/2	3/3	3/4	3/5	3/6	3/7
Daily Discharge (gal)	4090	3230	3930	3880	4240	4190	5180
Total Flow Year-To-Date (gal)	245,305	248,542	252,456	256,272	260,477	264,637	269,801
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)		
Flow Rate Out, GPM (P1 or P2)		
Bag Filter PSI (In/Out)		
Sequestering Agent Level, in.	34.0 3/6	34.6 3/11/18
GW Trench Pump Setpoints (On/Off)		

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	3/8	3/9	3/10	3/11	3/12	3/13	3/14
Daily Discharge (gal)	5090	4960	4430	4460	4400	3930	4020
Total Flow Year-To-Date (gal)	274,862	279,712	284,078	288,519	292,875	296,737	300,642
Alarms							

Weekly Log Info:

Site Check Date	3/11/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	—

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	32.9 3/12
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	3/15	3/16	3/17	3/18	3/19	3/20	3/21
Daily Discharge (gal)	4100	4190	4400	4660	5220	4780	4540
Total Flow Year-To-Date (gal)	304,642	308,768	313,103	317,705	322,861	327,584	332,045
Alarms							

Weekly Log Info:

Site Check Date	3/21/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	37 3/21/18
Flow Rate Out, GPM (P1 or P2)	Both 43
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	3/21 31.5/35.5
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	3/22	3/23	3/24	3/25	3/26	3/27	3/28
Daily Discharge (gal)	6290	7080	6320	5600	5220	5780	5600
Total Flow Year-To-Date (gal)	338,268	345,289	351,572	357,134	362,279	367,985	373,507
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	3/29	3/30	3/31				
Daily Discharge (gal)	5790	8840	1160				
Total Flow Year-To-Date (gal)	379,223	387,946	389,085				
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	33.2 3/31
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	4/1/18	4/2	4/3	4/4	4/5	4/6	4/7
Daily Discharge (gal)	0	1390	0	0	7760	21,600	2190
Total Flow Year-To-Date (gal)	389,085	390,471	390,471	390,471	398,180	419,657	421,832
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	33.1 4/4 Add 63.5
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	4/8	4/9	4/10	4/11	4/12	4/13	4/14
Daily Discharge (gal)	0	1460	0	0	0	11,550	14430
Total Flow Year-To-Date (gal)	421,832	423,270	423,270	423,270	423,270	434,779	
Alarms							

Weekly Log Info:

Site Check Date	4/13/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

	4/13	4/14
Flow Rate In, GPM (P1 or P2)	36 P2	P1 35
Flow Rate Out, GPM (P1 or P2)	44 P2	P1 41
Bag Filter PSI (In/Out)		
Sequestering Agent Level, in.	62.1	61.2 4/14
GW Trench Pump Setpoints (On/Off)	4.5/4.0	

Site Notes:

4/13 Work on floats for air stripper w/ Tom Raszak working OK after cleaning

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	15	16	17	18	19	20	21
Daily Discharge (gal)	4,740	3,410	0	0	0	0	0
Total Flow Year-To-Date (gal)	453,716	457,075	457,075		SAME		
Alarms							

Weekly Log Info:

Site Check Date	4/16/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: 4/17/18 TGA pump station alarm - informed MCC/Monroe County + they are trouble shooting. I told them their pumps are running but not moving water. They suspect something has been sucked into their pumps - walnuts, wood, etc.

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	4/22	4/23	4/24	4/25	4/26	4/27	4/28
Daily Discharge (gal)	0	0	0	0	200	0	0
Total Flow Year-To-Date (gal)	457,075	—	—	457,075	457,273	—	—
Alarms							

Weekly Log Info:

Site Check Date	4/26/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes:

4/26/17 Sample effluent
TGA pump station still not functioning, expect MCPW to pump out on 5/1/18

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	4/29	4/30	~~31~~				
Daily Discharge (gal)	0	0					
Total Flow Year-To-Date (gal)	—	457,273					
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	5/1/18	5/2	5/3	5/4	5/5	5/6	5/7
Daily Discharge (gal)	0	11,990	25,480	16,390	3,900	3560	3680
Total Flow Year-To-Date (gal)	457,273	469,135	494,253	510,491	514,325	517,846	521,438
Alarms							

Weekly Log Info:

Site Check Date	5/3/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	41 P2 5/3
Flow Rate Out, GPM (P1 or P2)	44 5/3 P2
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	59.9 5/3
GW Trench Pump Setpoints (On/Off)	4.5/4.0

5/4 P1 36
5/4 P1 42

Site Notes:

5/2 12:00 17.80
5/3 8:15 11.55
5/4 8:00 5.78

5/2/18 TGA pump station issues fixed and Treatment Plant is back online.

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	5/8	5/9	5/10	5/11	5/12	5/13	5/14
Daily Discharge (gal)	3280	3570	3260	3510	3220	2970	2940
Total Flow Year-To-Date (gal)	524,660	528,144	531,354	534,860	538,055	541,000	543,915
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	36 P1
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	5/15	5/16	5/17	5/18	5/19	5/20	5/21
Daily Discharge (gal)	3340	2530	3100	2890	3330	2590	2770
Total Flow Year-To-Date (gal)	547,181	549,701	552,757	555,620	558,913	561,467	564,200
Alarms							

Weekly Log Info:

Site Check Date	5/15/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	36 P2
Flow Rate Out, GPM (P1 or P2)	44 P2
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	57.5 5/15
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

5/15 Sample influent + effluent

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	5/22	5/23	5/24	5/25	5/26	5/27	5/28
Daily Discharge (gal)	2990	2850	2980	2670	2960	2570	2930
Total Flow Year-To-Date (gal)	567,167	569,975	572,892	575,507	578,464	581,000	583,588
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	5/29	5/30	5/31				
Daily Discharge (gal)	2750	2410	2790				
Total Flow Year-To-Date (gal)	586,556	588,789	591,720				
Alarms							

Weekly Log Info:

Site Check Date	5/31/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	41 P2
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	56 5/31
GW Trench Pump Setpoints (On/Off)	45/40

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	6/1/18	6/2	6/3	6/4	6/5	6/6	6/7
Daily Discharge (gal)	2940	2640	2780	2540	3000	2600	2670
Total Flow Year-To-Date (gal)	594,628	597,230	599,958	602,504	605,502	608,050	610,687
Alarms							

Weekly Log Info:

Site Check Date	6/6/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	56.0 5/31 55.5 6/4
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	6/8	6/9	6/10	6/11	6/12	6/13	6/14
Daily Discharge (gal)	2570	2480	2660	2450	2700	2410	2690
Total Flow Year-To-Date (gal)	613,202	615,670	615,253	620,671	623,353	625,741	628,399
Alarms							

Weekly Log Info:

Site Check Date	6/12/15
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	41 P2
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	6/15	6/16	6/17	6/18	6/19	6/20	6/21
Daily Discharge (gal)	2430	2610	2390	2720	2330	2620	2420
Total Flow Year-To-Date (gal)	630,812	633,388	635,745	638,436	640,736	643,324	645,729
Alarms							

Weekly Log Info:

Site Check Date	6/15/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	40 P1
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	54.2 6/20
GW Trench Pump Setpoints (On/Off)	

Site Notes:

6/18/18 Sample effluent
June has been dry so far

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	6/22	6/23	6/24	6/25	6/26	6/27	6/28
Daily Discharge (gal)	2200	2500	2630	2390	2200	2580	2220
Total Flow Year-To-Date (gal)	647,916	650,400	653,022	655,314	657,477	660,290	662,470
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	40 P1
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	6/29	6/30	~~31~~				
Daily Discharge (gal)	2350	1970					
Total Flow Year-To-Date (gal)	664,790	666,760					
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

July 2018

WEEK OF: _____

Daily Log Info:

Date:	7/1/18	7/2	7/3	7/4	7/5	7/6	7/7
Daily Discharge (gal)	2530	2660	2290	2420	2390	2410	2340
Total Flow Year-To-Date (gal)	669,213	671,873	674,089	676,479	678,844	681,203	683,531
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	7/8	7/9	7/10	7/11	7/12	7/13	7/14
Daily Discharge (gal)	2210	2350	2380	2340	2140	2330	2100
Total Flow Year-To-Date (gal)	685,787	688,051	690,436	692,744	694,836	697,170	699,249
Alarms							

Weekly Log Info:

Site Check Date	7/12/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	52.4 7/12
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

7/16 Hot Dry July so far

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	7/15	7/16	7/17	7/18	7/19	7/20	7/21
Daily Discharge (gal)	2350	2090	2600	2050	2410	2060	1880
Total Flow Year-To-Date (gal)	701,570	703,644	706,209	708,239	710,643	712,688	714,525
Alarms							

Weekly Log Info:

Site Check Date	7/17/15
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	39 P1
Flow Rate Out, GPM (P1 or P2)	31 P1
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	5 1/2 7/17
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

7/17 Sample effluent

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	7/22	7/23	7/24	7/25	7/26	7/27	7/28
Daily Discharge (gal)	2270	2390	2450	2280	2390	2300	2250
Total Flow Year-To-Date (gal)	716,785	719,154	721,581	723,843	726,212	728,492	730,718
Alarms							

Weekly Log Info:

Site Check Date	7/24/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	43 P2 7/24 (39 P1 7/28)
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

7/25 Heavy Rain

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	7/29	7/30	7/31				
Daily Discharge (gal)	2450	1880	2180				
Total Flow Year-To-Date (gal)	733,148	735,484	737,645				
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	8/1/18	8/2	8/3	8/4	8/5	8/6	8/7
Daily Discharge (gal)	2550	1920	2660	1910	2290	2410	2100
Total Flow Year-To-Date (gal)	740,145	742,054	744,669	746,557	748,817	751,195	753,269
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	8/8	8/9	8/10	8/11	8/12	8/13	8/14
Daily Discharge (gal)	2410	2300	2420	2040	2430	2360	2530
Total Flow Year-To-Date (gal)	755,651	757,920	760,314	762,300	764,652	767,036	769,551
Alarms							

Weekly Log Info:

Site Check Date	8/14/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	49.7 8/14
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	8/15	8/16	8/17	8/18	8/19	8/20	8/21
Daily Discharge (gal)	2040	2520	2250	2550	2280	2360	2550
Total Flow Year-To-Date (gal)	771,536	774,043	776,274	778,798	781,026	783,389	785,901
Alarms							

Weekly Log Info:

Site Check Date	8/16/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	39 P1
Flow Rate Out, GPM (P1 or P2)	43 P2
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	49.5 8/16
GW Trench Pump Setpoints (On/Off)	

Site Notes:

8/20 Quarterly In/Eff. Sampling

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	8/22	8/23	8/24	8/25	8/26	8/27	8/28
Daily Discharge (gal)	2520	2010	2520	2140	2380	2430	1990
Total Flow Year-To-Date (gal)	788,377	790,370	792,869	794,977	797,334	799,736	801,709
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	8/29	8/30	8/31				
Daily Discharge (gal)	2740	2530	2290				
Total Flow Year-To-Date (gal)	804,057	806,562	808,848				
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	48.3 8/30
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	9/1/18	9/2	9/3	9/4	9/5	9/6	9/7
Daily Discharge (gal)	2110	2330	1950	2350	2000	2430	2250
Total Flow Year-To-Date (gal)	810,931	813,222	815,152	817,484	819,443	821,840	824,055
Alarms							

Weekly Log Info:

Site Check Date	9/6
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	48.0 9/4
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	9/8	9/9	9/10	9/11	9/12	9/13	9/14
Daily Discharge (gal)	2160	2590	2340	2110	2050	2560	2000
Total Flow Year-To-Date (gal)	826,213	828,794	831,116	833,206	835,237	837,797	839,769
Alarms							

Weekly Log Info:

Site Check Date	9/12/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	47.2 9/12
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

9/12 MCPW on site to sample effluent. Also City samples effluent

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	15	16	17	18	19	20	21
Daily Discharge (gal)	2020	2160	2340	2400	2540	1970	2410
Total Flow Year-To-Date (gal)	841,766	843,881	846,201	848,570	851,064	853,038	855,427
Alarms							

Weekly Log Info:

Site Check Date	9/17/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	37 P1 9/25
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	46.9 9/17
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	22	23	24	25	26	27	28
Daily Discharge (gal)	1990	2600	2160	2080	2460	2130	2460
Total Flow Year-To-Date (gal)	857,409	859,952	862,071	864,121	866,570	868,679	871,065
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	29	30	31				
Daily Discharge (gal)	2290	2610					
Total Flow Year-To-Date (gal)	873,333	875,928					
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	10/1/18	10/2	10/3	10/4	10/5	10/6	10/7
Daily Discharge (gal)	2100	2620	2090	2420	2690	2220	2650
Total Flow Year-To-Date (gal)	878,006	880,604	882,676	885,021	887,661	889,865	892,468
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	37 P1
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	10/5/18 45.5
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	10/8	10/9	10/10	10/11	10/12	10/13	10/14
Daily Discharge (gal)	2760	2550	2330	2840	2620	2630	2720
Total Flow Year-To-Date (gal)	895,173 ~~847,701~~	897,701	899,985	902,748	905,332	907,953	910,634
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	37 P2 10/11/18
Flow Rate Out, GPM (P1 or P2)	31 P2 10/11
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	44.7 10/11
GW Trench Pump Setpoints (On/Off)	

Site Notes:

10/11/18 Sample effluent

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	10/15	10/16	10/17	10/18	10/19	10/20	10/21
Daily Discharge (gal)	2660	2220	2670	2280	2680	2400	2630
Total Flow Year-To-Date (gal)	913,259	915,450	918,073	920,320	922,964	925,344	927,957
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	10/22	10/23	10/24	10/25	10/26	10/27	10/28
Daily Discharge (gal)	2350	2570	2000	2610	2330	2550	2520
Total Flow Year-To-Date (gal)	930,271	932,827	934,801	937,391	939,717	942,260	944,612
Alarms							

Weekly Log Info:

Site Check Date	10/25/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	43.5 (as measured on 10/25/18)
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	10/29	10/30	10/31				
Daily Discharge (gal)	2640	2390	3780				
Total Flow Year-To-Date (gal)	947,183	949,567	952,427				
Alarms							

Weekly Log Info:

Site Check Date	10/30/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	11/1/18	11/2	11/3	11/4	11/5	11/6	11/7
Daily Discharge (gal)	3780	8970	5030	4130	3630	3660	3320
Total Flow Year-To-Date (gal)	956,134	965,032	970,012	974,096	977,708	981,336	984,634
Alarms							

Weekly Log Info:

Site Check Date	11/5/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	11/2/18 P1 38
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	42.7 11/2/18
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

11/1 +2 Rain

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	11/8	11/9	11/10	11/11	11/12	11/13	11/14
Daily Discharge (gal)	3670	3340	5140	4040	3840	3240	3610
Total Flow Year-To-Date (gal)	988,263	991,560	996,632	1,000,619	1,004,414	1,007,644	1,011,151
Alarms							

Weekly Log Info:

Site Check Date	11/14/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes:

11/15 NYSDEC Site visit

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	11/15	11/16	11/17	11/18	11/19	11/20	11/21
Daily Discharge (gal)	3310	3030	3170	4170	4240	4050	4070
Total Flow Year-To-Date (gal)	1,014,426	1,017,410	1,020,577	1,024,662	1,028,842	1,032,862	1,036,910
Alarms							

Weekly Log Info:

Site Check Date	11/20/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	36.0
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	40.0 11/20/18
GW Trench Pump Setpoints (On/Off)	

Site Notes:

11/15 NYSDEC Site visit Payson Long, Jerry Pate?

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	11/22	11/23	11/24	11/25	11/26	11/27	11/28
Daily Discharge (gal)	3810	3510	3680	5990	7860	7840	5390
Total Flow Year-To-Date (gal)	1,040,664	1,044,111	1,047,774	1,053,708	1,061,462	1,069,252	1,074,582
Alarms							

Weekly Log Info:

Site Check Date	11/27/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	38.8
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	11/29	11/30	37				
Daily Discharge (gal)	4740	5120					
Total Flow Year-To-Date (gal)	1,079,269	1,084,367					
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	12/1/18	12/2	12/3	12/4	12/5	12/6	12/7
Daily Discharge (gal)	5230	7980	6020	4490	4160	4340	3360
Total Flow Year-To-Date (gal)	1,089,516	1,097,395	1,103,358	1,107,764	1,111,893	1,116,172	1,119,521
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	37.6 12/3
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	12/8	12/9	12/10	12/11	12/12	12/13	12/14
Daily Discharge (gal)	3800	3310	3350	3500	3150	3010	3220
Total Flow Year-To-Date (gal)	1,123,241	1,126,545	1,129,881	1,133,364	1,136,480	1,139,476	1,142,641
Alarms							

Weekly Log Info:

Site Check Date	12/10
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	P1 35
Flow Rate Out, GPM (P1 or P2)	33
Bag Filter PSI (In/Out)	
Sequestering Agent Level, In.	36.6
GW Trench Pump Setpoints (On/Off)	4.5/4.0

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	15	16	17	18	19	20	21
Daily Discharge (gal)	3180	3260	2970	3240	3200	2900	9470
Total Flow Year-To-Date (gal)	1145794	1,149,045	1,152,007	1,155,207	1,158,327	1,161,24[illegible]	1,170,642
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	33 P1
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	35.5 12/20
GW Trench Pump Setpoints (On/Off)	

Site Notes: _____

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	12/22	12/23	12/24	12/25	12/26	12/27	12/28
Daily Discharge (gal)	7740	4750	4400	3930	3760	3230	4060
Total Flow Year-To-Date (gal)	1,178,285	1,183,000	1,187,354	1,191,248	1,194,970	1,198,149	1,202,151
Alarms							

Weekly Log Info:

Site Check Date	12/26/18
NDA Grounds Check	✓
TGA Grounds Check	✓
SDA Grounds Check	✓
SDA Plant Check	✓

Flow Rate In, GPM (P1 or P2)	43 P1
Flow Rate Out, GPM (P1 or P2)	29 P1
Bag Filter PSI (In/Out)	
Sequestering Agent Level, in.	34.0/62.6 gal
GW Trench Pump Setpoints (On/Off)	

Site Notes: Cleaned bag filters + mixed (1) drum of sequestering agent on 12/28

ROCHESTER FIRE TRAINING ACADEMY
GROUNDWATER TREATMENT OPERATORS LOG

WEEK OF: _____

Daily Log Info:

Date:	12/29	12/30	12/31/18				
Daily Discharge (gal)	3,630	3,580	3,605				
Total Flow Year-To-Date (gal)	1,205,753	1,209,303	1,212,908				
Alarms							

Weekly Log Info:

Site Check Date	
NDA Grounds Check	
TGA Grounds Check	
SDA Grounds Check	
SDA Plant Check	

Flow Rate In, GPM (P1 or P2)	
Flow Rate Out, GPM (P1 or P2)	
Bag Filter PSI (in/Out)	
Sequestering Agent Level, in.	
GW Trench Pump Setpoints (On/Off)	

Site Notes: Reset system on 12/31/2018

APPENDIX E

IC/EC CERTIFICATION

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **828015**

Site Name Rochester Fire Academy

Site Address: 1190 Scottsville Road Zip Code: 14624
City/Town: Rochester
County: Monroe
Site Acreage: 11.0

Reporting Period: December 31, 2017 to December 31, 2018

	YES	NO
1. Is the information above correct?	X	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development? (see attachment)		X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	X	
7. Are all ICs/ECs in place and functioning as designed?	X	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 828015

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
135.180-0001-001.000	CITY OF ROCHESTER	Landuse Restriction Monitoring Plan O&M Plan

1998-03 approved OM&M plan to monitor pump and treat system and insure cap and fencing are maintained.
Deed restriction filed March 1998 whcih required the City of Rochester (or successors and assigns) to maintain the remedial system.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
135.180-0001-001.000	Groundwater Treatment System Fencing/Access Control Cover System

Asphalt cover over stabilized soil Training Grounds Area
Cap over the North Disposal Area
Groundwater pump and treat system
Monitoring wells

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department; (see attachment and Section IV.A.2. of Periodic Review Report)

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 828015

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Joseph Biondolillo (print name) at 30 Church Street, Room 300B, Rochester, NY 14614 (print business address)

Associate Environmental Specialist

am certifying as City of Rochester, Division of Environmental Quality (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Joseph Biondolillo

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

1-24-2019
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Barton F. Kline (print name) at Day Environmental, Inc., 1563 Lyell Ave, Rochester, NY 14606 (print business address)

am certifying as a Professional Engineer for the City of Rochester, New York (Owner or Remedial Party)

B. F. Kline — Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

1/24/19 — Date

Site Management Periodic Review Report Notice

Institutional and Engineering Controls Certification Form Attachment

Note: No new permits have been issued for the Site over the current reporting period (12/31/17 – 12/31/18); however, as noted in the 2017 Periodic Review Report (PRR), the City of Rochester issued a permit (#1177364) on 12/1/17 to Monroe County for site preparation for a future storage building at the TGA site. While no further site work was conducted in 2018, this permit remained in effect as of 12/31/18.

Monroe County (lessee of the TGA portion of site) is considering constructing an approximate 50' x 90' pole barn on the TGA for the storage of fire trucks. In anticipation of the project Monroe County started site preparation activities (removing a portion of the concrete slab) in November 2017. The City met with Monroe County on November 29, 2017 to discuss the County's construction plans. The City issued a permit (#1177364) to Monroe County for site preparation for a future storage building at the TGA on 12/1/17. An existing excavation by Monroe County for the planned pole barn (approximately 6-12 inches deep) is protected from rainfall and infiltration via plastic sheeting cover that is to be maintained until construction is completed and a permanent impermeable surface cover is restored to the TGA. For the TGA portion of the site, Monroe County is responsible for "maintaining the facility consistent with the Site Record of Decision and the New York State approved Operations and Maintenance Manual for the Site". No further work has taken place with regard to this portion of the TGA since December 2017. Monroe County has not informed the City of how the County will proceed with this project as of the date of this PRR. Monroe County will be responsible for performing the work in compliance with the existing Record of Decision, Soils Management Plan, Institutional Controls/Engineering Controls for the Site, and other regulatory requirements, as applicable.