Periodic Review Report (PRR)

December 31, 2014 – October 1, 2020

North Lawrence Oil Dump

McAuslen Road, North Lawrence

St. Lawrence County, New York 12967

Site ID# 645013

Contract# C100614, Call Out# 138020

Prepared for:

New York State Department of Environmental Conservation

Division of Environmental Remediation

625 Broadway

Albany, New York 12233

Prepared by:

Precision Environmental Services, Inc.

831 Route 67, Lot 38A

Ballston Spa, New York 12020

Submitted: December 18, 2020

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EXECUTIVE SUMMARY

An inspection of the engineering controls (EC) (i.e., fence and cap) and review of the institutional controls (ICs) were conducted on July 15, 2020 by a qualified environmental professional (QEP), at the North Lawrence Oil Dump Site (Site) located at McAuslen Road, North Lawrence, St. Lawrence County, New York.

The Site ECs and ICs follow the requirements stated in the Site Management Plan (SMP).

The Site's ICs as specified in the 1993 Record of Decision (ROD) were fully implemented in 2013. A deed restriction on parcel 36.0003-4-11 was filed with the St. Lawrence Count Clerk in 2012 and was recorded on March 1, 2013. On August 8, 2013, instead of an environmental deed restriction, an environmental notice was filed with the St. Lawrence County Clerk by the NYSDEC for the second parcel, 36.0003-4-10, and it was recorded on September 9, 2013. These documents can be found in Appendix A.

Groundwater monitoring at five monitoring well (5) location was conducted on July 15, 2020. A trip blank, field duplicate and MS/MSD was included for analysis. No monitoring deficiencies were noted. Analytical results for volatile organic compounds (VOC) were found at levels meeting groundwater quality standards, except for cis-1,2-Dichloroethene in monitoring well MW-301. The July 15, 2020 sampling event included collection and analysis of per-and polyfluoroalkyl substances (PFAS) and 1,4-Dioxane. The assumed general flow direction around the Site remains to the south.

The Site inspection was completed on July 15, 2020. The disposal cell appears intact and is maintaining separation between high seasonal groundwater and the bottom of the disposal cell. The Long-Term Monitoring Plan (LTMP) is being implemented to conduct monitoring of the site in accordance with the SMP and the ROD. No operations, monitoring and maintenance (OM&M) deficiencies were reported during the period. Historic analysis of organic and inorganic natural attenuation parameter data suggests that both biodegradation and a biotic degradation of parent VOCs are occurring at the Site. Analytical data collected during the previous monitoring event support the natural attenuation conclusion and the analytical results from the site show a stable, decreasing trend.

1.0 INTRODUCTION

The PRR has been prepared to evaluate the overall efficiencies of the remedies chosen, and their implementation at the North Lawrence Oil Dump (hereafter referred to as the Site or NLOD). Precision Environmental Services, Inc. (PES) holds a NYSDEC contract #C100614 and provides this PRR work under Call Out #138020. This document is required as an element of the remedial program at the Site under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by the NYSDEC. The Site was remediated in accordance with the signed ROD, Site #645013, which was executed in March 1993. This report is intended to meet the requirements of the Sites OM&M Plan and SMP as defined in Regulation 6 NYCRR 375-1.2 and in accordance with Technical Guidance for Site Investigation and Remediation (DER-10), dated May 2010.

Disposal cell groundwater monitoring was completed at the Site on July 15, 2020 in accordance with the Site's OM&M Plan to evaluate current groundwater and site conditions. Soil and groundwater cleanup criteria have been established for the site based on site conditions, NYSDEC 6 NYCRR Part 375, and NYSDEC Technical and Operational Guidance Series (TOGS), Ambient Water Quality Standards and Guidance Values, October 1993. PES understands the last groundwater monitoring event occurred on January 6, 2014.

As of June 24, 2020, if not earlier, the NYSDEC project manager assigned to the site is Charles Gregory.

2.0 SITE OVERVIEW

The Site is an inactive hazardous waste disposal site which consists primarily of a disposal cell. The 2+/- acre Site is a former non-regulated municipal dump and gravel pit. The Site is approximately 390 feet above sea level, with the higher terrain south of the Site. The former lagoon area, located south of the disposal cell, was approximately 600 feet long and 75 feet wide and is immediately adjacent to a NYSDEC regulated 150-acre wetland. The Site occupies portions of two private properties, which the access road to the Site also exists on land owned by the Town of Lawrence.

The NLOD reportedly operated as a gravel pit before the disposal of waste oil. The excavation operation apparently shaped the Site into a depression with a mounded perimeter. During the middle to late 1960's the NLOD apparently was used for the disposal of waste oil and oil sludge. Evidence of oil deposits were observed on low laying areas of the perimeter berm at the southwestern end and on vegetation in adjacent wetland areas suggesting the dump was operated as a lagoon. During periods of high water, free-floating oil escaped from the topographically low areas. Contaminants of concern (COC) detected in lagoon sludge and soil included polychlorinated biphenyls (PCB), various VOCs, semi-volatile organic compounds (SVOC) and lead.

Due to historic operations at the Site and sampling conducted during the first, second and third phases of the remedial investigation (RI) at the Site revealed the presence of contaminants in soil, groundwater, lagoon sludge, and lagoon surface water. COCs detected in lagoon sludge and soil included PCBs, various VOCs, SVOCs and lead. Historically, groundwater contamination showed that migration of contaminants through groundwater is limited to the immediate lagoon area.

2.1 Site Description

The Site is an approximately 2-acre area bounded by woodlands and wetlands to the east, south and west, and McAuslen Road to the north (see Figure 1). The boundaries of the Site are fully described in Appendix A – Meets and Bounds.

Topography is generally flat, sloping downward to the north and northwest with an approximate 1% grade. Wetlands occupy much of the surrounding landscape to the south and southeast. Drainage from the Site is directly southwest by surface topography and enters a NYSDEC regulated wetland to the south. Drainage is then directed northward via tributaries of Redwater Brook, which discharges to Deer River approximately 5 miles downstream of the Site. Groundwater is the primary source of drinking water in the area.

The Site remains unimproved with structures. A gated and locked, unpaved access road, oriented in a north by south direction, approximately 0.25 miles long exists connecting the Site to McAuslen Road. The area south of the disposal area, abutting the wetland area is maintained by the adjacent property owners. The surrounding area is undeveloped and characterized by stands of spruce, white pine, and mixed hardwoods. Two (2) houses are located approximately 0.8 and 1.0 miles for the Site, respectively. The only known human uses at the site are reportedly hunting and infrequent trespassing.

2.2 Site History

In 1980 oil stains of vegetation 18 inches above the water in the southeastern end of the lagoon were observed by NYSDEC personnel and upon analysis, elevated concentrations of PCBs were detected in the lagoon sediment samples. Since 1980, numerous inspections of the Site have occurred. A New York State Superfund Phase I Study for the Site was completed in August 1985. The NYSDEC contracted E.C. Jordan Co. in October 1988 to complete a Phased Remedial Investigation and Feasibility Study (RI/FS) to determine the extent of Site contamination and to recommend an appropriate remedial action. The first and second RI/FS, generated in 1989 and 1991 respectively, included a geophysical investigation, installation of eight (8) piezometers (5 shallow and 3 deep) and the installation of 16 overburden monitoring well, completion of 41 test borings in the lagoon, air monitoring, in-situ hydraulic conductivity testing in the 16 monitoring wells, collection of air, groundwater, surface water, surface and subsurface soils, sediment, and biota tissue samples for laboratory analysis.

The Final RI/FS reports were submitted in March 1993. The RI confirmed extensive contamination, primarily with PCBs and lead, in the lagoon and wetlands. Based on the FS, a ROD was issued in March 1993, which required on-site excavation of the lagoon and the adjacent impacted wetland areas and solidification/stabilization of the contaminants.

Between 1996 and 1997 excavation of the top 2 to 4 feet of soils in the lagoon contaminated with oil, PCBs, lead, and VOC, and 1 foot of sediment from selected areas of the adjacent wetland contaminated with PCBs, mercury and lead occurred. Approximately 7,400 cubic yards of contaminated soil and sediment were excavated, solidified, and placed in the on-site disposal cell under an impermeable cap. The approximate 2-acre disposal cell was constructed to maintain at least 2 to 3 feet of separation between high seasonal groundwater elevation and the bottom of the disposal cell. Remediation activities were completed in 1997 and the Site was reclassified by the NYSDEC from a Class 2 to a Class 4 in 1998.

Additionally, twenty (20) groundwater monitoring wells were decommissioned (as per Monitoring Plan), in accordance with the NYSDEC's *Groundwater Monitoring Well Decommissioning Procedures, DER CP-43*. Well abandonment was performed on November 12 and December 14, 2012.

2.2.1 Previous Investigation

A RI was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in the following reports:

- ROD, 1993;
- NLOD Site, Final FS, March 1993 by E.C. Jordon Co.
- NLOD Site, Baseline Ecological and Public Health Risk Assessment, March 1993 by E.C. Jordon Co.
- Stabilization Treatability Study for NLOD Sediment Materials, 1992 by E.C. Jordon Co.
- Plan of Operations prepared by IEM Sealand, August 1996;
- Construction Management Work Plan, July 1996 by ABB Environmental.
- NYSDEC Fact Sheet regarding Remedial Work Completed, December 1997; and
- Long Term Monitoring Plan (LTMP), August 1998 by Harding Lawson Associates.

The Baseline Ecological Risk Assessment, approved by the NYSDEC in 1990, determined that lagoon sludge and soil would need to be remediated for PCB contamination. Since may contaminants within the lagoon are physically contaminated with PCBs, it was determined that removal or treatment of PCB-contaminated lagoon materials would address the cleanup of remaining contaminants in the lagoon.

The LTMP identified tasks to monitor the long-term effectiveness of the remedial actions at the NLOD. Long-term monitoring of the site is assumed to extend for 30 years, or until 2028, and is

to be conducted in accordance with the requirements of the SMP. The LTMP describes: (1) procedures, including visual inspection activities; the collection of groundwater samples; required analytical parameters and laboratory methods; the reporting requirements to be followed to monitor long-term effectiveness of the remedial action; and (2) maintenance activities and corrective measures to be undertaken should monitoring data indicate they are necessary.

2.2.2 Record of Decision

Based on the RI/FS reports completed for the site in 1993, the NYSDEC issued a ROD that required site remediation. Requirements listed in the ROD can be found in Section 1.4 in the SMP. As per the SMP, a PRR will be submitted to the NYSDEC every twelve (12) months. The report will be submitted in accordance with the NYSDEC DER-10 and will be submitted within 45 days of the end of the certification period.

2.2.3 Disposal Cell Closure Activities

Disposal cell closure activities include cover maintenance, erosion control, settlement and subsidence maintenance, maintenance of gas vents, and post closure monitoring.

The vegetative cover on the disposal cell and abutting areas, as well as the area around the access gate for the disposal cell and the main gate will be mowed at least once a year in late summer or fall to prevent the growth of deep rooted, woody species, and to encourage the development of good grass growth.

Erosion of the cover system, identified during Site inspections, shall be repaired as needed in a manner that provides a long-term solution to such damage. The activities required to repair erosive damage to the cover system will depend on the extent of erosion to the cover.

The grades and slopes of the disposal cell are expected to be sufficient to provide positive drainage slopes even after the anticipated subsidence. Should excessive post-closure settlement or damage of the cap, because of settlement be identified during Site inspections, repair of the cap will be implemented as necessary to confirm that the cover system layers remain continuous, that a positive slope is maintained, and that ponding does not occur. Subsidence will typically occur gradually, Therefore, on April 28, 2014 the NYSDEC project manager changed the inspection frequency to a semi-annual inspection schedule, which will be sufficient to identify settlement problems.

As part of the quarterly Post-Closure Inspection Checklist, explosive gas sampling will be performed every six months, concurrent with the disposal cell inspection or the groundwater sampling event. The sample location, method of detection, along with notes on the vent pipes condition will be recorded. A gas meter, a MR-505Sid Portable Gas Detector or similar type

meter will be utilized to collect readings as to the levels, if present, or %O2 (oxygen), %LEL (lower explosive limit), and hydrogen sulfide. Olfactory observations will be noted on the checklist and in the field book at that time. The gas vents will require maintenance consisting of inspection and possibly replacement of damaged vent riser pipe.

3.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

3.1 Remedial Action Objectives

The Site contains contamination not removed during the previous remedial action. Engineering Controls (EC) have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment.

The SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the remedial action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) performance of periodic inspections, certification of results, and submittal of this PRR; and (4) defining criteria for termination of oversight operations.

3.2 Institutional and Engineering Control Plan Compliance

The EC/IC plan describes the procedures for the implementation and management of all EC/ICs at the Site. The plan is described in the February 2012 SMP and is subject to revision by NYSDEC. Please refer to the SMP for a full description of the EC/IC control plan compliance.

3.2.1 Description of Institutional Control

A series of ICs are required by the ROD to: (1) implement, maintain, and monitor EC systems; (2) prevent further exposure to remaining contamination by controlling disturbances of the subsurface contamination; and (3) restrict the use and development of the Site. Adherence to these IC's on the Site is required during the reporting period.

3.2.2 Description of Engineering Control

The EC at the Site consists of a soil cover system placed over the Site to prevent exposure to remaining contamination in soil/fill and fencing/access control at the Site. This cover system is comprised of a vegetative, low-permeability cap constructed over the treated material to minimize the effects of rain and snow melt on the treated material and to reduce leachate formation. The cap consists of a 6-inch vegetative soil layer overlying 30 inches of barrier protection made of soils, and polyethylene liner, a geotextile fabric and a 12-inch venting layer. Procedures for the inspection and maintenance of this cover are provided in the SMP.

3.2.3 Institutional and Engineering Control Plan Compliance Status

The site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/soil vapor extraction systems, to protect public health and the environment. Therefore, the EC plan compliance status of such components is not included in this PRR.

The 2.0-acre disposal cell on the Site comprises of portions of two parcels, Douglas E. Gromly (36.003-4-11) and James R. Covell trust (36.003-4-10). The NYSDEC filed a deed restriction for the Gromly parcel on November 28, 2012 with St. Lawrence County, which was recorded by the St. Lawrence County Clerk on March 1, 2013. Completion and implementation of the deed restriction for the Covell parcel was filed by the NYSDEC on August 8, 2013 and recorded by the same Clerks office on September 9, 2013. The deed restriction and the environmental notice restrict the use of groundwater and forbid construction and use or occupancy on the site that results in soil disturbance or excavation at the Site. The notices are in Appendix A of this report and will be included in the final SMP. Current certification that the site ICs are in compliance with the requirements stated in this paragraph.

Inspections of the ECs (soil cap and fencing) currently present at the Site were conducted on July 15, 2020. During the inspection, no deficiencies were observed. The Instructional and Engineering Certifications Form is provided in Appendix B.

Site groundwater monitoring activities to assess natural attenuation will continue. The NYSDEC will decide when the residual groundwater concentrations are found to be consistently below NYSDEC guidelines and standards over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic as a level that is not acceptable to the NYSDEC, additional source material removal, treatment, and control measures will be evaluated.

3.3 Soil Management Plan Compliance

Soil Management Plan compliance is included in the IC's Site restrictions. Site restrictions prohibit the use of the soil underlying the property. Refer to Section 2.1.3, Landfill Closure Activities of the SMP, for additional information on restrictions.

Adherence to these IC's is required by the existing Environmental Deed restriction and Environmental notice.

3.3.1 Excavation Work Plan

To the best of the prepares knowledge no excavations were performed during this review period.

3.3.2 Description of Groundwater Use On-Site

Site restrictions prohibit the use of the groundwater underlying the property. Refer to Section 3.2.1, Description of Institutional Control, for additional information. Human exposure to groundwater is not expected at this Site.

3.4 Site Monitoring Compliance Plan

Site monitoring consists of:

- Visual inspection of the disposal cell and surrounding fenced in areas.
- Visual inspection of the wetlands.
- Groundwater sampling and analysis.
- Gas monitoring.
- Data evaluation; and
- Report preparation.

3.4.1 Description of Site Activities & Inspections

3.4.1.1 Disposal Cell Monitoring

This subsection presents the PRR site inspection checklists for the disposal cell monitoring. The purpose of the PRR is to monitor the performance of the disposal cell cover and appurtenances to confirm they perform as designed and that maintenance issues are identified and responded to appropriately.

On July 15, 2020, a qualified environmental professional completed Post-Closure Site Inspection. The completed Post-Closure Site Inspection Checklist and photo logs are attached in Appendix C.

The disposal cell appears intact and is maintaining a least a 2-foot separation between the high seasonal groundwater and the bottom of the disposal cell. During the disposal cell inspection, erosion channels, depressions, seeps, or animal burrows were not noted. Vegetative stress or rooted species of vegetation were not noted, and the vegetation was healthy, despite dry conditions. Explosive gas monitoring was not performed on July 15, 2020.

The condition of groundwater monitoring wells and gas vents were assessed during the sampling round. Monitoring well identification labels were relabeled as needed, and the general condition of the well and protective casing was noted to be satisfactory. The condition of the gas vents was noted to be satisfactory. No additional potential causes of any damage were noted, and repair and preventative measures were not recommended based on the field inspection observations.

In addition, during the site inspection, the access road was in good condition and was not deteriorated. The fencing system around the site was in good working condition with no holes in the chain link, the warning signs and sign posted at the front gate were noted to be legible, though dated.

3.4.1.2 Groundwater Well Decommissioning

Groundwater monitoring well decommissioning was not performed at the Site.

3.4.2 Performance and Effectiveness Monitoring

3.4.2.1 Leachate Sampling and Analysis

Leachate sampling and analysis were not performed at the Site.

3.4.2.2 Tracking of Leachate Removal and Disposal

Tracking of leachate removal and disposal were not performed at the Site.

3.4.2.3 Water Level Monitoring, MW-1

The network of monitoring wells monitors both up-gradient and down-gradient groundwater conditions at the Site (Figure 2). Based on previous PRR, SMP and DER-10 groundwater monitoring should be performed every 15 months to assess the performance of the remedy. It is Precision Environmental Services understanding that prior to this reporting period sampling event on July 15, 2020 the Site monitoring were last sampled on January 6, 2014.

Five (5) on-site permanent overburden groundwater monitoring wells are currently associated with the Site. Two (2) monitoring wells (MW-102A, MW-102B) were installed in March and April 1989. In July 1997, three (3) monitoring wells (MW-301 through MW-303) were installed up-gradient, side-gradient, and down-gradient of the disposal cell to complete the horizontal profile of the disposal cell area.

All monitoring well sampling activities were recorded on sampling logs presented in Appendix D. Other observations (e.g., well integrity, etc.) were noted on the well sampling logs. The well sampling logs serve as the inspection form for the groundwater monitoring well network.

Prior to collecting the groundwater samples, depth to groundwater was measured. Depth to water measurements was collected to the nearest 0.01 foot from the surveyed points identified on the well risers. Water levels were measured using a water level probe. In addition to measuring the water level, the wells were checked for both light and dense non-aqueous phase liquids (LNAPL and DNAPL).

Historic inferred groundwater flow direction has been determined to be primarily to the south in the unconsolidated saturated zone. These contours are based on sampling and groundwater elevations in previously abandoned monitoring wells.

3.4.2.4 Groundwater Sampling and Analysis

Groundwater monitoring was conducted on July 15, 2020. The water level data, well diameter, and well depth was used to calculate the volume of water in each well. One well or MW-102B was nearly dry with inadequate volume of water for sampling. The remaining four wells were then sampled following USEPA low-flow techniques. Groundwater was monitored in the field

for the presence of LNAPL/DNAPL, pH, temperature, conductivity dissolved oxygen, turbidity, and oxidation-reduction potential. The field data was recorded on field logs. Purge water was discharged to ground surface adjacent to each well. Decontamination of sampling equipment and materials was not necessary since disposal materials were used.

The groundwater samples for this event were analyzed using USEPA Method 8260C for VOCs, 6010C for metals, 7470A for mercury, 8082A for polychlorinated biphenyl's, 8270D SIM for 1,4-dioxane and modified 537 for per-and-polyfluoroalkyl substances. The four monitoring well samples with quality control samples (i.e., trip blank, duplicate, MS/MSD) were submitted under proper preservation and chain of custody to Eurofins for analysis.

3.4.2.5 Surface Water Sampling and Analysis

Surface water sampling and analysis are not performed at the Site.

3.5 Summary of Groundwater Monitoring

Groundwater monitoring was conducted on July 15, 2020 and included the collection of four (4) groundwater samples form monitoring wells MW-102A, MW-301, MW-302 and MW-303. Prior to collecting the samples, depth to groundwater was measured from the notched point on top of the casing of each monitoring well. The water level data, well diameter and total well depth were used to calculate volume of water in each well. The wells were purged until the parameters stabilized in accordance with USEPA low-flow sampling techniques.

Quality control samples collected and submitted for analysis included a trip blank, blind duplicate (at MW-301 location). Groundwater samples were compared to NYSDEC Division of Water Technical and Operations Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values for Water Class GA (groundwater). Table 1 provides a summary of the groundwater results for the July 15, 2020 event.

4.0 COST EVALUATION

Sampling costs, including all technician time, disposal cell inspection and monitoring costs, estimated laboratory costs, DUSR preparation, EDD EQuIS entry and PRR preparation are expected to be approximately $7,000 per the reporting event. PES understands from the previous PRR report that the NYSDEC local office historically completes mowing of grass up to two times per year.

5.0 FINDINGS

5.1 Findings

Based on the PES July 15, 2020 site inspection the disposal cell appears intact. PES does not possess a copy of the SMP; therefore, does not definitively know exact inspection and monitoring well sampling frequency requirements.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The periodic review process is used for determining if a remedy continues to be properly managed, and if the remedy continues to be protective of human health and the environment. The remedial measures in place are effective if the SMP frequency of inspection and monitoring is followed per the SMP and other relative site documents on file.

6.1 Conclusions

The following conclusions discuss the effectiveness of the site's remedial system in comparison to the applicable site remedial goals derived from the SMP and ROD for the Site, in adherence to the overall DER-10 approach.

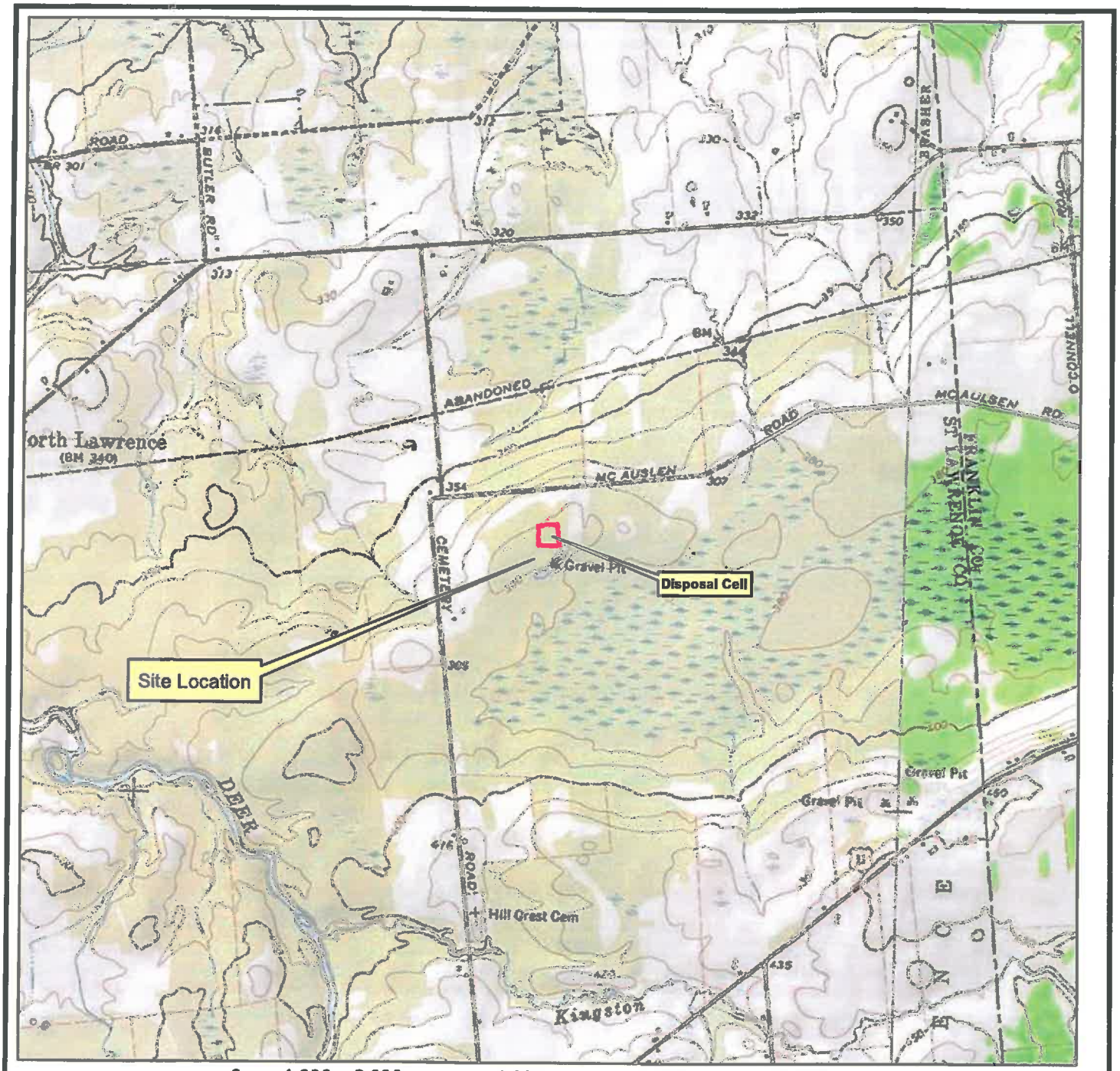
- PES was not provided a SMP for the site, only the ROD and Monitoring Plan dated January 25, 2005. With slight modification, specifically the addition of emerging contaminant sampling for 1,4-dioxane and PFAS the Monitoring Plan requirements were achieved during this PRR event.
- The Engineering Control (EC) at the site consists of a soil cover system placed over the Site to prevent exposure to remaining contamination in soil/fill and fencing/access control at the Site. This soil cover is in place and apparently being maintained as outlined in the SMP. PES should note they were not provided a copy of the SMP.
- According to the previous PRR, dated February 20, 2015, the inspection frequency was changed to semi-annual. PES in unaware of inspections occurring between that timeframe and the July 15, 2020 inspection event completed by PES.
- The Institutional Controls currently in place for the site seem compliant with provisions specified in the ROD.

6.2 Recommendations

The following recommendation is made for the North Lawrence Oil Dump Site (ID #645013):

- Though conditions at the site remain protective of public health and the environment, PES recommends the NYSDEC maintain more consistent inspection and monitoring frequency for the Site.

Figures



1 inch = 2,000 feet

Figure 1
Site Location
North Lawrence Oil Dump Site
Lawrence, New York
Site Number 645013
Scale 1"=2,000'

PES
NYS Certified WBE

PRECISION
ENVIRONMENTAL SERVICES, INC.
831 RT. 67, LOT 38A
BALLSTON SPA, NY 12020
TEL. 518.885.4399

Figure 1a
Aerial View
North Lawrence Oil Dump Site
Lawrence, New York
Site #645013
Scale 1"=300'

Aerial Data: (c) 2010 Microsoft Corporation and its data suppliers

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PRECISION
ENVIRONMENTAL SERVICES, INC.
831 RT. 67, LOT 38A
BALLSTON SPA, NY 12020

PRECISION ENVIRONMENTAL SERVICES, INC 831 NYS Route 67, Lot 38A Ballston Spa, NY 12020 518-885-4399	**General Site Map** N. Lawrence Oil Dump McAuslen Road North Lawrence, NY	Date: December - 2020 Scale - See Bar Scale NYS DEC Site No. 645013	LEGEND MW 301 - Monitoring Well. MW 102A - Monitoring Well.
Updated By : JJJ	Figure: 2		

Tables

TABLE 1
Summary of Monitoring Well Data
North Lawrence Oil Dump
NYSDEC Site No. 645013

North Lawrence Oil Dump **McAuslen Road, North Lawrence, NY**		Sample Identification						
		MW-102A	**MW-102B**	**MW-301**	**Duplicate (MW-301)**	**MW-302**	**MW-303**	**NYS MCLs**
Sample Collection Date		**7/15/2020**						
Depth to Water (in ft from top of casing)		11.30	10.98	8.03		8.69	9.45	
Depth to Bottom of Well (in ft from top of casing)		42.10	11.61	17.98		17.80	18.09	
Analyte	**Method**							
1,4-Dioxane (measured in ug/L)	**8270D SIM ID**	ND	ND	ND	ND	ND	ND	*1*
Per-and polyfluoroalkyl substances (measured in ng/L)	**Modified 537**	< MCL	< MCL	<MCL	<MCL	< MCL	< MCL	*10 PFOA, 10 PFOS, 500 Total PFAS*
PCBs (measured in ug/L)	**8082A**	ND	ND	ND	ND	ND	ND	*0.09*
cis-1,2-Dichloroethene (measured in ug/L)	**8260C**	ND	ND	**12**	**11**	ND	ND	*5*
All remaining Method analytes (measured in ug/L)		ND	ND	ND	ND	ND	ND	*Various*
ICP Metals & Mercury	**6010C & 7470A**	< MCL	< MCL	<MCL	<MCL	< MCL	< MCL	*Various*

NOTES:
Sampling performed by Precision Environmental Services, Inc.
Analytical Facility - Eurofins/TestAmerica Laboratories
YELLOW highlight indicates concentration exceeds MCL

Appendix A

North Lawrence Oil Dump
Site No. 645013
McAuslen Road
St. Lawrence County, NY
Tax Map ID: 36.003-4-10

ENVIRONMENTAL NOTICE

THIS ENVIRONMENTAL NOTICE is made the 8th day of August 2013, by the New York State Department of Environmental Conservation (Department), having an office for the transaction of business at 625 Broadway, Albany, New York 12233

WHEREAS, a parcel of real property indentified as North Lawrence Oil Dump (Site 645013), located on McAuslen Road in the Town of Lawrence, County of St. Lawrence, State of New York, which is part of lands conveyed by the County of St. Lawrence to The Family Trust of James R. & Nora Covell by deed dated October 6, 1998 and recorded in the St. Lawrence County Clerk's Office on December 3, 1998 in Book 1112 of Deeds at Page 320 and being more particularly described in Appendix "A", attached to this noticed and made a part hereof, and hereinafter referred to as " the Property" is the subject of a remedial program executed by the Department as part of the Department's State Superfund Program; and

WHEREAS, the Department approved a cleanup to address contamination disposed at the Property and such cleanup was conditioned upon certain limitations.

NOW, THEREFORE, the Department provides notice that:

FIRST, the Property subject to this Environmental Notice is as shown on a map attached to this Notice as Appendix "B" and made a part hereof.

SECOND, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the Sate and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Operation and Maintenance ("O&M"), there shall be no disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results or may result in a significantly increased threat of harm or damage at any site as a result of exposure to soils. A violation of this provision is a violation of 6 NYCRR 375-1.11(b)(2).

THIRD, no person shall disturb, remove, or otherwise interfere with the installation, use, operations, and maintenance of engineering controls required for the Remedy, including but not limited to those engineering controls described in the O&M Plan and listed below, unless in each instance they first obtain a written waiver of such prohibition from the Department or Relevant Agency.

FOURTH, the remedy was designed to be protective for the following uses: Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv) . Therefore, any use for purposes other than Commercial and Industrial without the express written waiver of such prohibition by the Relevant Agency may result in a significantly increased threat of harm or damage at any site.

FIFTH, no person shall use the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency. Use of the groundwater without appropriate treatment may result in a significantly increased threat of harm or damage at any site. groundwater without appropriate treatment may result in a significantly increased threat of harm or damage at any site.

SIXTH, it is a violation of 6 NYCRR 375-1.11(b) to use the Property in a manner inconsistent with this environmental notice.

IN WITNESS WHEREOF, the undersigned, acting by and though the Department of Environmental Conservation as Designee of the Commissioner, has executed this instrument the day written below.

By: _____
Michael J. Ryan, P.E.
Assistant Director
Division of Environmental Remediation

STATE OF NEW YORK)
) ss:
COUNTY OF Albany)

On the 8th day of August, in the year 2013, before me, the undersigned, personally appeared Michael J. Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the individual, or the person upon behalf of which individual acted, executed the instrument.

_____
Notary Public – State of New York

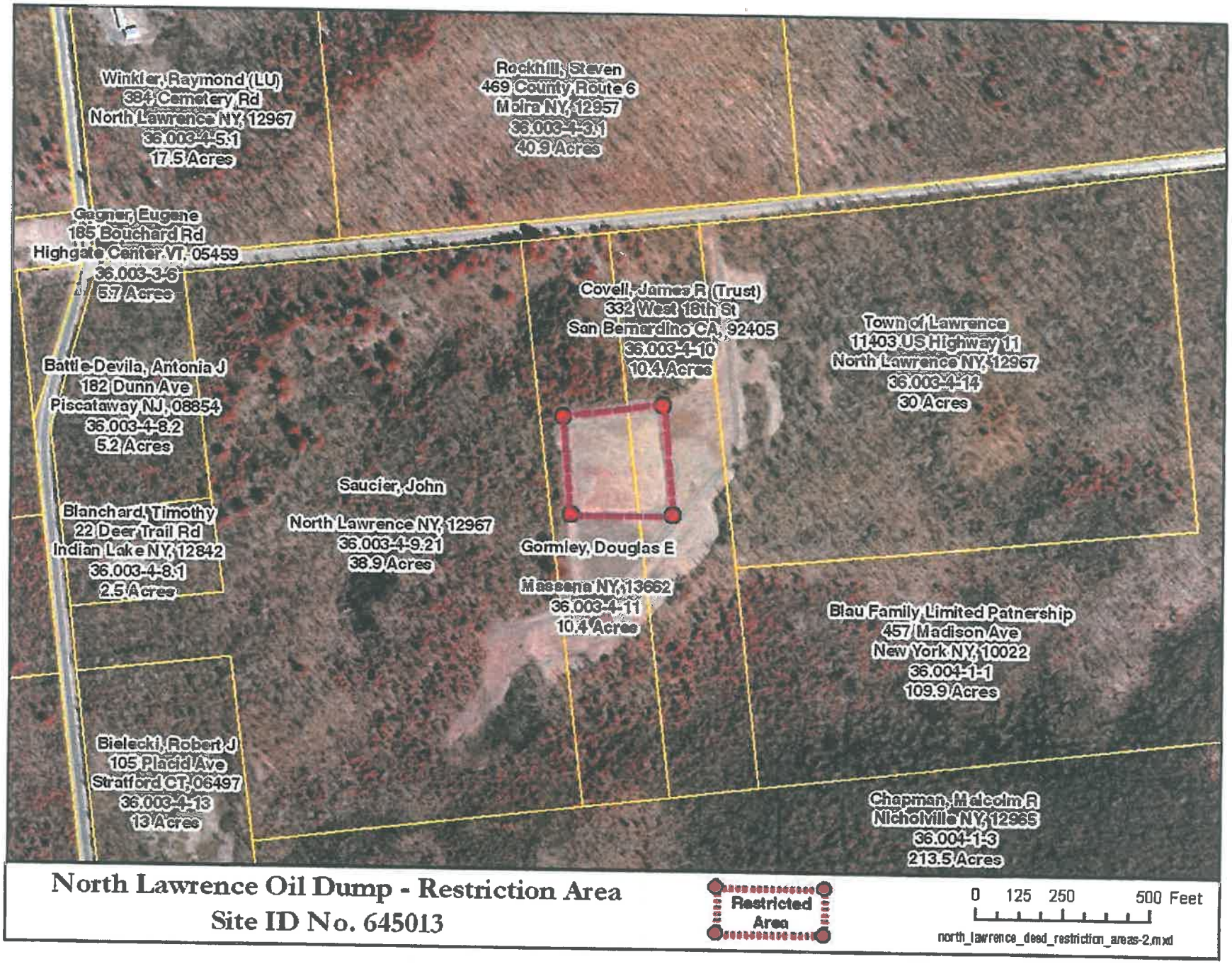
David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2014

Appendix A

Metes and Bounds Description

All that tract or parcel of land situate, lying and being in the Township of Lawrence, County of St. Lawrence, State of New York, bounded and described as follows: McAuslen Rd., SCH 402001, Rural Vacant, 9.7 ac. +/-, Tax Map #404800 #36.003-4-10.

Appendix B
Map


Winkler, Raymond (LU)
384 Cemetery Rd
North Lawrence NY, 12967
36.003-4-5.1
17.5 Acres
Rockhill, Steven
469 County Route 6
Moira NY, 12957
36.003-4-3.1
40.9 Acres
Gagner, Eugene
185 Bouchard Rd
Highgate Center VT, 05459
36.003-3-6
5.7 Acres
Covell, James R (Trust)
332 West 16th St
San Bernardino CA, 92405
36.003-4-10
10.4 Acres
Town of Lawrence
11403 US Highway 11
North Lawrence NY, 12967
36.003-4-14
30 Acres
Battle-Devila, Antonia J
182 Dunn Ave
Piscataway NJ, 08854
36.003-4-8.2
5.2 Acres
Saucier, John
North Lawrence NY, 12967
36.003-4-9.21
38.9 Acres
Blanchard, Timothy
22 Deer Trail Rd
Indian Lake NY, 12842
36.003-4-8.1
2.5 Acres
Gormley, Douglas E
Massena NY, 13662
36.003-4-11
10.4 Acres
Blau Family Limited Patnership
457 Madison Ave
New York NY, 10022
36.004-1-1
109.9 Acres
Bielecki, Robert J
105 Placid Ave
Stratford CT, 06497
36.003-4-13
13 Acres
Chapman, Malcolm R
Nicholville NY, 12965
36.004-1-3
213.5 Acres
North Lawrence Oil Dump - Restriction Area
Site ID No. 645013
Restricted Area
0 125 250 500 Feet
north_lawrence_deed_restriction_areas-2.mxd

13/6-9496

County: St. Lawrence NYSDEC Site No. 645013

RECEIVED AT ST. LAW. CO. CLERKS OFC.

DUPLICATE ORIGINAL FILED

DECLARATION of COVENANTS and RESTRICTIONS

2013 MAR -1 P 3:39

THIS COVENANT is made the 27th day of November 2012 by Douglas E. Gormley, a natural person residing at 7 Brighton Street, Massena, NY and having an address for the transaction of business at P.O. Box 6 Massena, NY 13662.

WHEREAS, North Lawrence Oil Dump is the subject of a remedial program performed by the New York State Department of Environmental Conservation (the "Department") , namely that parcel of real property located on McAuslen Road in the Town of Lawrence, County of St. Lawrence, State of New York, which is part of lands conveyed by County of St. Lawrence to Douglas E. Gormley by deed dated September 23, 1994 and recorded in the St. Lawrence County Clerk's Office in Liber and Page 1083/613, and being more particularly described in Appendix "A," attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW, THEREFORE, Douglas E. Gormley, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is as shown on a map attached to this declaration as Appendix "B" and made a part hereof.

Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Site Management Plan ("SMP"), there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results in unacceptable human exposure to contaminated soils. The SMP may be obtained from the New York State Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233.

Third, the owner of the Property shall not prevent access by the Department or its agents to the property nor disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, which are described in the SMP, unless in each instance the owner first obtains a written waiver of such prohibition from the Department or Relevant Agency.

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MISCELLANEOUS RECORDING
8 Pages
Mary Lou Rupp, St Lawrence County Clerk

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for Commercial or Industrial use and as a maintained and capped landfill without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency.

Sixth, the owner of the Property, upon request, shall provide a periodic certification, to the Department or Relevant Agency, which will certify that: the institutional controls put in place are unchanged from the previous certification, that the owner has complied with the provisions of this restrictive covenant, including compliance with the SMP, that there has been no change in use of the property, unless the Department has been properly notified, and that the engineering controls have not been impaired.

Seventh, the owner of the Property shall continue in full force and effect any institutional controls required for the Remedy and maintain such controls, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the approved SMP, which is incorporated and made enforceable hereto, subject to modifications as approved by the Department or Relevant Agency.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that the Department or Relevant Agency requires to be recorded, and the owner and its successors and assigns hereby covenant not to contest the authority of the Department or Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

By: _____

Print Name: Doug Gormley

Title: Owner Date: 11/28/12

STATE OF NEW YORK)

) s.s.:

COUNTY OF ST-LAW)

On the 28 day of NOV, in the year 2012, before me, the undersigned, personally appeared Douglas Gourley, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public State of New York
MARK F. SNIDER
Notary Public, State Of New York
St. Lawrence County #4805754
Commission Expires 01/31/14

McAuslen Rd. (North Lawrence Oil Dump)
Site No. 645013
McAuslen Road
St. Lawrence County, NY
Tax Map: 36.003-4-11

APPENDIX A
Metes and Bounds

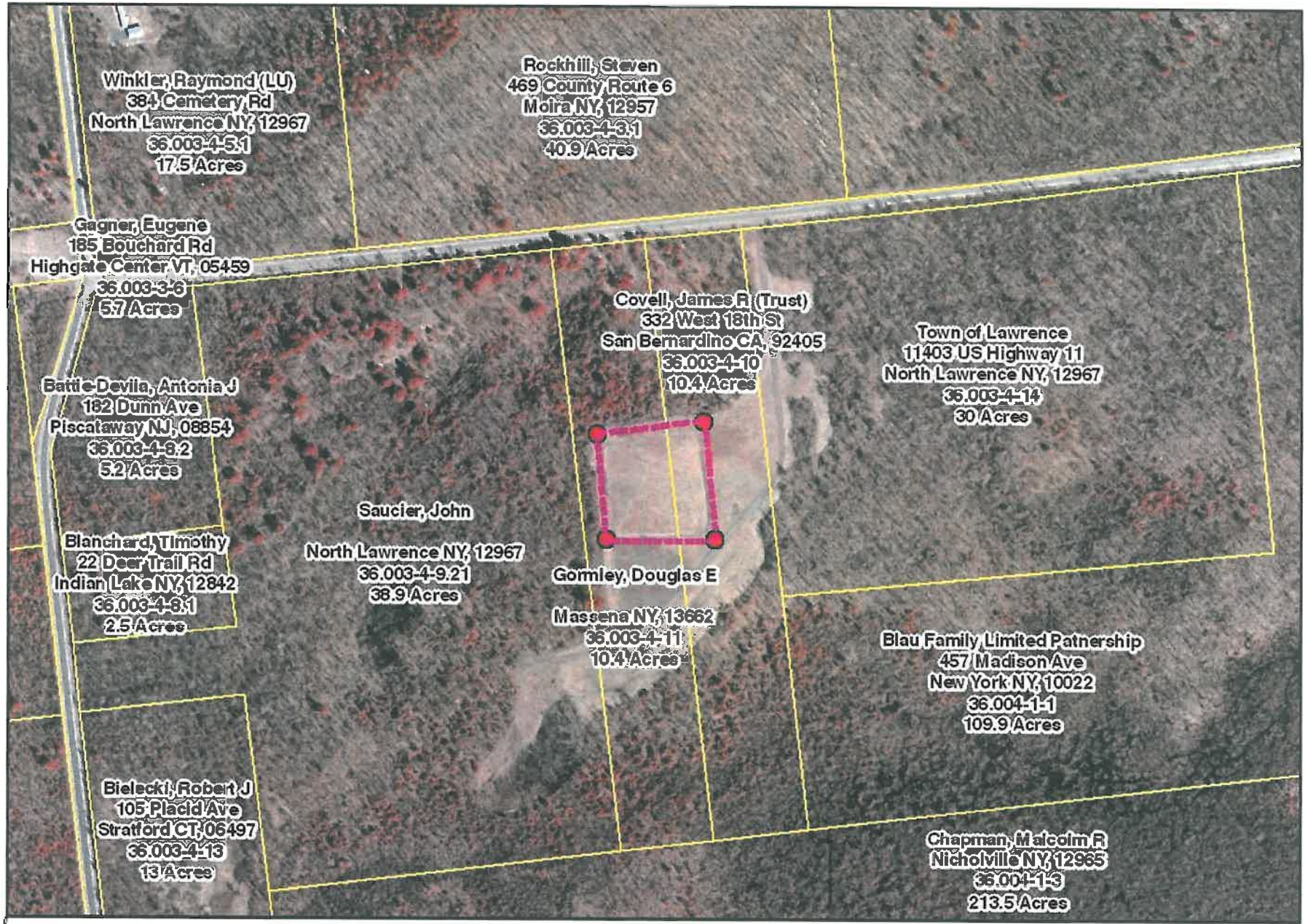
McAuslen Rd. (North Lawrence Oil Dump)
Site No. 645013
McAuslen Road
St. Lawrence County, NY
Tax Map: 36.003-4-11

METES and BOUNDS Description

All that tract or parcel of land situate, lying and being in the Township of Lawrence, County of St. Lawrence, State of New York, bounded and described as follows: Cheney Rd., SCH-402001, Vacant Land, 10.40 +/-, TM #36.003-4-11, Formerly Carey, Anthony A.

McAuslen Rd. (North Lawrence Oil Dump)
Site No. 645013
McAuslen Road
St. Lawrence County, NY
Tax Map: 36.003-4-11

APPENDIX B



North Lawrence Oil Dump - Restriction Area
Site ID No. 645013

Restricted Area

0 125 250 500 Feet

north_lawrence_deed_restriction_areas-2.mxd

Appendix B

Enclosure 1
Engineering Controls - Standby Consultant/Contractor Certification Form

Site Details **Box 1**

Site No. **645013**

Site Name North Lawrence Oil Dump

Site Address: McAuslen Road (a.k.a. McCauslin Road) Zip Code: 12967
City/Town: North Lawrence
County: St Lawrence
Site Acreage: 2.0

Reporting Period: December 31, 2014 to October 01, 2020

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. To your knowledge 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. To your knowledge is the site currently undergoing development?	☐	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 contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Signature of Standby Consultant/Contractor

Date

SITE NO. 645013 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
36.003-4-10	Covell, James R (Trust)	Ground Water Use Restriction Landuse Restriction Site Management Plan Soil Management Plan Monitoring Plan O&M Plan IC/EC Plan

The parcel is governed by a Site Management Plan (SMP). An environmental notice (EN)for this parce was recorded on 9/9/2013 with the St. Lawrence County Clerk's office. The EN specifies the following:

FIRST, the Property subject to this Environmental Notice is as shown on the map titled, "North Lawrence Oil Dump - Restriction Area, Site ID No. 645013," located in the Site Management Plan (SMP).

SECOND, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the Sate and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained where contamination remains at the Property subject to the provisions of the Operation and Maintenance ("O&M"), there shall be no disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results or may result in a significantly increased threat of harm or damage at any site as a result of exposure to soils. A violation of this provision is a violation o 6 NYCRR 375-1.11(b)(2).

THIRD, no person shall disturb, remove, or otherwise interfere with the installation, use, operations, a maintenance of engineering controls required for the Remedy, including but not limited to those engineering controls described in the O&M Plan and listed below, unless in each instance they first obtain a written waiver of such prohibition from the Department or Relevant Agency.

FOURTH, the remedy was designed to be protective for the following uses: Commercial as described 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv). Theref any use for purposes other than Commercial and Industrial without the express written waiver of such prohibition by the Relevant Agency may result in a significantly increased threat of harm or damage at any site.

FIFTH, no person shall use the groundwater underlying the Property without treatment rendering it sa for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency. Use of the groundwater without appropriate treatment m. result in a significantly increased threat of harm or damage at any site.

SIXTH, it is a violation of 6 NYCRR 375-1.11(b) to use the Property in a manner inconsistent with this environmental notice.The EN specifies restrictions on landuse and groundwater use. In addition, the parcel is regulated by a site management plan (SMP) which includes an IC/EC plan, a soil management plan, a monitoring plan and an O&M plan. No one can interfere with the engineering controls or prohibit access to the property by the Department.

36.003-4-11	Douglas E. Gormley	Site Management Plan Ground Water Use Restriction Landuse Restriction Building Use Restriction

November 28, 2012, the deed restriction for a State Superfund site was signed. Deed restriction was

filed on 3/1/2013 with St. Lawrence County. Includes abiding by the SMP, landuse restriction and groundwater use restriction

Box 4

Description of Engineering Controls

Parcel	Engineering Control
36.003-4-10	
	Cover System
	Fencing/Access Control

Cover System (cap) comprised of a vegetative, low-permeability cap, a monitoring well network and a locked gate and secure chain-link fence which surrounds the mounded landfill cover (cap).

Monitoring well network

36.003-4-11	
	Cover System
	Fencing/Access Control

Fencing: A locked gate and secure chain-link fence surround the mounded landfill cover.
Cover system: A covers the stabilized portion of the site.
Monitoring Well network

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, including data and material prepared by previous contractors for the current certifying period, if any;

   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;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) nothing has occurred that would constitute a failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Signature of Standby Consultant/Contractor

Date

Box 6

IC/EC CERTIFICATIONS

Qualified Environmental Professional Signature

I certify that all information in Boxes 2 through 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 Brian L. Neumann at Precision Environmental Services, Inc.
print name

831 Route 67, Lot 38A

Ballston Spa, NY 12020,
(print business address)

am certifying as a Qualified Environmental Professional.

Signature of Qualified Environmental Professional

Stamp
(Required for PE)

Date
9/25/20

Appendix C

Post-Closure Site Inspection Checklist
North Lawrence Oil Dump Site

Date: 7/15/20
Weather: clear/sunny, 75°F, dry, lt. wind
Personnel (Organization): Brian and Elijah Neumann (PES)
Instructions: Complete the checklist of visual evaluation items and then complete specific data items. Field measurements should be made with a cloth tape and noted on a site plan. Estimated measurements should be so noted. Attach hand sketches or photographs to the site plan to further define conditions or problems.

I. VISUAL EVALAUTION ITEMS

	CONDITION: (Check)				
		Not	Action Required?		
	Acceptable	Acceptable	Yes	No	REMARKS
1) Vegetative Cover					
a) Disposal Cell	✓				
b) Lagoon	✓				
c) Wetland	✓				
2) Site Drainage					
a) Sediment Build-Up	✓				
b) Pooling or Ponding	✓				
c) Slope Integrity	✓				
d) Erosion Protection (Riprap, grout, vegetation)	✓				
e) Obstruction of Culverts	✓				
3) Condition of Access					
a) Road Condition	✓				
b) Gates/Locks/Signs	✓				
4) Integrity of Ground Water Monitoring Wells	✓				
5) Integrity of Cap					
a) Erosion Damage	✓				
b) Leachate Break-through	✓				
c) Settlement	✓				
6) Gas Venting System					
a) Vents free of obstructions	✓				
b) Gas readings (measure)	✓				
7) Other (e.g., Litter, Unauthorized Dumping, etc.)	✓				

II. SPECIFIC DATA ITEMS (Write N.A. if not applicable)

A. Erosion and Settlement:

1) Approximate size in feet of eroded cap area(s). (List Separately)

a. _____ feet by _____ feet
b. _____ feet by _____ feet N.A.
c. _____ feet by _____ feet

2) How deep is the most extreme point of erosion when measured from the adjacent surface. (List Separately)

a. _____ feet
b. _____ feet N.A.
c. _____ feet

Post-Closure Site Inspection Checklist
North Lawrence Oil Dump Site
(continued)

3) Approximate size in feet of eroded areas outside the soil cap area such as drainage ditches, roads or slopes. _____ N.A.
4) Attach a hand sketch or photograph to be attached to this report, showing location(s) of the eroded area(s). Identify each area by using the letter a, b, c, etc. from Question 1. N.A.
5) Approximate size in feet of leachate breakout(s). (List Separately)
a. _____ feet by _____ feet
b. _____ feet by _____ feet
c. _____ feet by _____ feet
N.A.
6) Approximate size in feet of any settlement area within the soil cap area. (List Separately)
a. _____ feet by _____ feet
b. _____ feet by _____ feet
c. _____ feet by _____ feet
N.A.
7) Approximate depth of each settlement area when measured from the adjacent surface. (List Separately)
a. _____ feet
b. _____ feet
c. _____ feet
N.A.
8) Attach a hand sketch or photograph to the attached site plan showing the location of the settlement area(s). Identify each area by using letter a, b, or c, etc. from Question 6. N.A.

Brian Neumann
_____
Signature of Inspector(s)

Attachments

✓ Yes _____ No

Photo log

N Lawrence Oil Dump (NLOD) Entry Gate Signage

NLOD Secured Entrance Gate

MW-102A Protective Casing and Monitoring Well

MW-102B Protective Casing and Monitoring Well

View to the South

Wetlands to the South

MW-303 Protective Casing

MW-303 Protective Casing

MW-301 Protective Casing

MW-301 Monitoring Well

MW-302 Protective Casing

Disposal Cell VentV-1

Disposal Cell VentV-2

Disposal Cell VentV-3

Disposal Cell VentV-4

North Line Disposal Cell Along Exterior Fence

East Line Disposal Cell Along Exterior Fence

West Line Disposal Cell Along Exterior Fence

South Line Disposal Cell Along Exterior Fence

Fenced Disposal Cell Area Looking North

Appendix D

LOW-FLOW SAMPLING LOG

PAGE 1 OF 5

SAMPLE DATE: 7/15/20

TOTAL # WELLS: 5 (4 sampled)

Client Name: NYSDEC

Project Location: North Lawrence Oil Dump

Sampler(s): Brian + Elijah Nevmann

Sample Pump: Peristaltic

Tubing Type: HDPE & Silicon

Monitoring Equipment: YSI

D

Well I.D. MW-102A

Well Diameter (inches): 2 inch

Total Depth (ft btoc): 42.10 Hard bottom

Depth to Water (ft btoc): 11.30

Screen Setting (ft btoc): _____ to _____

Tubing Intake (ft btoc): _____

Comments: In thicket needs trimming

1.9 gal purged

Well Condition: _____

Time (hours)	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	Water Quality Monitoring Parameters: pH	Conductivity ms/cm ~~µs/cm~~	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
13:11	11.30							
13:13			7.72	.287	0.0	6.87	16.91	156
13:16			7.74	.295	6.0	6.55	15.59	155
13:18			7.84	.294	0.0	6.10	15.10	163
13:20			7.84	.293	0.0	6.04	15.08	162
13:22			7.81	.294	0.0	5.89	15.08	172
13:24			7.91	.292	0.04	5.81	14.93	170
13:26			7.99	.291	0.8	5.52	15.23	166
13:28			8.03	.290	2.0	5.49	15.57	163
13:30			8.05	.292	2.3	5.55	16.62	163
13:32			8.06	.284	1.0	5.36	16.47	161
13:35			8.07	.287	1.1	5.29	16.81	161

Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time FROM	Time TO	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: 1345

Reviewed by: _____

ft btoc feet below top of casing; NTU Nephelometric Turbidity Units; °C degrees Celsius

ml/min milliliters per minute; mg/l milligrams per liter; mv millivolts

µs/cm microsiemons per centimeter

(cont.)

13:37			8.07	.284	0.4	5.31	16.61	160
13:39			8.08	.281	0.3	5.21	17.20	159
13:41			8.07	.282	1.0	5.08	17.34	159
14:10	13.94							

SAMPLE DATE: 7/15/20

TOTAL # WELLS: 2 OF 5

LOW-FLOW SAMPLING LOG

Client Name:	NYSDEC	Sample Pump:	N/A
Project Location:	North Lawrence Oil Dump	Tubing Type:	N/A
Sampler(s):	Brian + Elijah Neumann	Monitoring Equipment:	N/A
Well I.D.	MW-102B	Screen Setting (ft btoc):	to
Well Diameter (inches):	2 inch	Tubing Intake (ft btoc):	
Total Depth (ft btoc):	11.61 soft bottom	Comments:	in thicket needs trimming obst growth in casing couldn't pump too little water
Depth to Water (ft btoc):	10.98		
Well Condition:			

5

Time (hours)	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity us/cm	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
TOO LITTLE WELL WATER TO SAMPLE								

Water Quality Monitoring Parameters

Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time FROM	Time TO	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: N/A

Reviewed by:

ft btoc	feet below top of casing	NTU	Nephelometric Turbidity Units	°C	degrees Celsius
ml/min	milliliters per minute	mg/l	milligrams per liter	mv	millivolts
µs/cm	microseimons per centimeter				

LOW-FLOW SAMPLING LOG

PAGE 3 OF 5

SAMPLE DATE: 7/15/20

TOTAL # WELLS: 3 OF 5

Client Name: NYSDEC

Project Location: North Lawrence Oil Dump

Sampler(s): Brian + Elijah Neumann

Sample Pump: Peristaltic

Tubing Type: HDPE + Silicone

Monitoring Equipment: YSI

Well I.D. MW-302

Well Diameter (inches): 2-inch

Total Depth (ft btoc): 17.80 hard bottom

Depth to Water (ft btoc): ~~8.63~~ 8.69

Screen Setting (ft btoc): _____ to _____

Tubing Intake (ft btoc): _____

Comments: 1.8 gallons purged

Well Condition: _____

Time (hours)	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	Water Quality Monitoring Parameters: pH	Conductivity ms/cm µs/cm	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
~~14:38~~	~~8.69~~							
14:40			7.30	.313	96.7	0.82	33.56	127
14:42			7.17	.300	83.7	0.55	33.22	126
14:44			7.11	.289	83.7	0.54	32.80	127
14:46			7.06	.281	86.1	0.60	32.27	126
14:48			7.02	0.285	~~80~~ 78.7	0.58	32.26	77
14:50			2.01	.290	70.2	0.59	31.92	83
14:53			6.97	0.303	64.3	0.63	31.17	3
14:55			6.94	0.311	63.6	0.67	30.84	-8
14:57			6.99	0.314	64.4	0.70	30.50	4
14:59			7.01	0.321	61.5	0.74	30.16	-6
15:01			7.03	0.325	61.7	0.85	29.81	-5

Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time FROM	Time TO	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: 1520

Reviewed by: _____

ft btoc feet below top of casing; NTU Nephelometric Turbidity Units; °C degrees Celsius

ml/min milliliters per minute; mg/l milligrams per liter; mv millivolts

µs/cm microseimons per centimeter

(CONT.)

15:03			7.04	0.328	59.4	1.09	29.59	0
15:05			7.06	.333	57.8	1.22	29.32	-1
15:07			7.08	.338	56.0	1.42	29.09	0
15:09			7.10	0.342	51.2	1.46	28.89	4
15:11			7.11	0.345	52.1	1.56	28.67	6

LOW-FLOW SAMPLING LOG

PAGE 4 OF 5

SAMPLE DATE: 7/15/20

TOTAL # WELLS: 4 of 5

Client Name: NYSDEC

Project Location: North Lawrence Oil Dump

Sampler(s): Brian + Elijah Neumann

Well I.D. MW ~~30R~~ 301

Well Diameter (inches): 2-inch

Total Depth (ft btoc): 17.98 ~~17.80~~ hard bottom

Depth to Water (ft btoc): ~~8.09~~ 8.03

Sample Pump: Peristaltic

Tubing Type: HDPE + Silicone

Monitoring Equipment: YSI

Screen Setting (ft btoc): _____ to _____

Tubing Intake (ft btoc): _____

Comments: DUP A From 301

1/2 gallon purged

Well Condition: _____

Time (hours)	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	Water Quality Monitoring Parameters: pH	Conductivity ~~µs/cm~~ ms/cm	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
16:37	8.03							
16:50			7.30	.427	23.1	8.65	23.83	87
16:52			7.29	.416	30.9	8.40	21.50	31
16:54			7.27	.418	4.4	7.88	19.72	0
16:55			7.24	.404	7.17.0	7.11	19.90	-9
16:56			7.23	.407	6.0	6.84	20.20	-15
16:57			7.24	.413	6.0	6.84	18.97	-23
16:58			7.26	.417	0.0	6.77	18.88	-25

Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time FROM	Time TO	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: 1705

Reviewed by: _____

ft btoc	feet below top of casing	NTU	Nephelometric Turbidity Units	°C	degrees Celsius
ml/min	milliliters per minute	mg/l	milligrams per liter	mv	millivolts
µs/cm	microseimons per centimeter				

LOW-FLOW SAMPLING LOG

PAGE 5 OF 5

SAMPLE DATE: 7/15/20

TOTAL # WELLS: 5 OF 5

Client Name: NYSDEC

Project Location: North Lawrence Oil Dump

Sampler(s): Briant Elijah Neumann

Well I.D. MW 303

Well Diameter (inches): 2-inch

Total Depth (ft btoc): 18.09 had to bail

Depth to Water (ft btoc): 9.45

Sample Pump: HDPE Bailer

Tubing Type: N/A

Monitoring Equipment: YSI

Screen Setting (ft btoc): _____ to _____

Tubing Intake (ft btoc): _____

Comments: Bailer : pump didn't work water is turbid brown bailed 1 gal needs new cap

Well Condition: _____

Time (hours)	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	Water Quality Monitoring Parameters: pH	Conductivity ~~µs/cm~~ ms/cm	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
18:21	9.45							
18:21			7.28	.362	980	2.62	20.40	98
18:23			7.29	.361	2.0964	9.01	18.31	102
Depth to water that was turbid combined with drying of well during pumping didn't allow for water removal - thus bailed.								

Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time FROM	Time TO	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: 1830

Reviewed by: _____

ft btoc	feet below top of casing	NTU	Nephelometric Turbidity Units	°C	degrees Celsius
ml/min	milliliters per minute	mg/l	milligrams per liter	mv	millivolts
µs/cm	microseimons per centimeter				

Appendix E

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-172508-1
Client Project/Site: North Lawrence Oil Dump #645013

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Charles Gregory

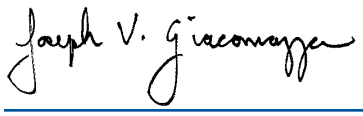
Joseph V. Giacomazza

Authorized for release by:
7/30/2020 1:31:07 PM
Joe Giacomazza, Project Manager I
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Manager I
7/30/2020 1:31:07 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job ID: 480-172508-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-172508-1

Comments
No additional comments.

Receipt
The samples were received on 7/17/2020 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4º C and 2.9º C.

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

GC/MS Semi VOA
Method 8270D SIM ID: The breakdown of 4,4'-DDT in the tuning evaluation exceeded 20%. Breakdown is not a criteria of the method but rather an internal check performed by the laboratory to evaluate the peak shape of 1,4-Dioxane and 1,4-Dioxane-d8. No adverse performance was observed and QC recoveries were in control. The data have been reported.

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

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

Metals
Method 6010C: The interference check standard solution (ICSA) associated with the following samples showed results for Barium at a level greater than 2 times the limit of detection (LOD). It is believed that the solution contains trace impurities of this element / these elements and the results are not due to matrix interference. These results are consistent with those found by the manufacturer of the ICSA solution. MW-102A (480-172508-1), MW-302 (480-172508-2), MW-302 (480-172508-2[MS]), MW-302 (480-172508-2[MSD]), MW-301 (480-172508-3), DUPA (480-172508-4), MW-303 (480-172508-5), (LCS 480-541026/2-A) and (MB 480-541026/1-A)

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

LCMS
Method 537 (modified): The “I” qualifier means the transition mass ratio for the indicated analytes was outside of the established ratio limits. The qualitative identification of the analytes have some degree of uncertainty. However, analyst judgement was used to positively identify the analytes for the following samples: MW-301 (480-172508-3) and DUPA (480-172508-4).

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

Organic Prep
Method 3535: The following samples are yellow and contain floating particulates at the bottom of the bottle prior to extraction: MW-302 (480-172508-2), MW-302 (480-172508-2[MS]), MW-302 (480-172508-2[MSD]), MW-301 (480-172508-3), DUPA (480-172508-4) and MW-303 (480-172508-5).

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

Detection Summary

Client: New York State D.E.C.
Project/Site: North Lawrence Oil Dump #645013

Job ID: 480-172508-1

Client Sample ID: MW-102A — Lab Sample ID: 480-172508-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.57	J	1.8	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.43	J	1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.32	J B	1.8	0.15	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.85	J	1.8	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.46	J B	1.8	0.31	ng/L	1		537 (modified)	Total/NA
6:2 FTS	22		18	1.8	ng/L	1		537 (modified)	Total/NA
Barium	0.13	^	0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.00051	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	69.6		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.72	B	0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	34.1		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.033	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	1.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	2.8	B	1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0052	J B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: MW-302 — Lab Sample ID: 480-172508-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.0	J	1.8	0.31	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.35	J	1.8	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.28	J	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.35	J B	1.8	0.15	ng/L	1		537 (modified)	Total/NA
Barium	0.68	^	0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	105		0.50	0.10	mg/L	1		6010C	Total/NA
Cobalt	0.0026	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Iron	0.23	B	0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	22.6		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.6	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	0.63		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	1.4	B	1.0	0.32	mg/L	1		6010C	Total/NA

Client Sample ID: MW-301 — Lab Sample ID: 480-172508-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12		1.0	0.81	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	1.6	J	1.8	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2	J	1.8	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.68	J	1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.3		1.8	0.79	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.58	J	1.8	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.50	J B	1.8	0.16	ng/L	1		537 (modified)	Total/NA
6:2 FTS	4.5	J	18	1.8	ng/L	1		537 (modified)	Total/NA
Aluminum	0.093	J B	0.20	0.060	mg/L	1		6010C	Total/NA
Barium	0.65	^	0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	80.1		0.50	0.10	mg/L	1		6010C	Total/NA
Cobalt	0.0027	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Iron	1.4	B	0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	31.9		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.5	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0032	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	0.75		0.50	0.10	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-301 (Continued)
Lab Sample ID: 480-172508-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	7.2	B	1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0059	J B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: DUPA
Lab Sample ID: 480-172508-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11		1.0	0.81	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	1.8		1.8	0.32	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.49	J	1.8	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.72	J	1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.68	J	1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.2		1.8	0.77	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.58	J I B	1.8	0.15	ng/L	1		537 (modified)	Total/NA
Aluminum	0.13	J B	0.20	0.060	mg/L	1		6010C	Total/NA
Barium	0.66	^	0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.00050	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	83.2		0.50	0.10	mg/L	1		6010C	Total/NA
Cobalt	0.0032	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Iron	1.6	B	0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	32.7		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.7	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0034	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	0.70		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	7.5	B	1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0089	J B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: MW-303
Lab Sample ID: 480-172508-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.3		1.6	0.29	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.42	J	1.6	0.40	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.61	J	1.6	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.3	J	1.6	0.70	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.56	J	1.6	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.34	J B	1.6	0.14	ng/L	1		537 (modified)	Total/NA
6:2 FTS	1.6	J	16	1.6	ng/L	1		537 (modified)	Total/NA
Aluminum	5.4	B	0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.0062	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.42	^	0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.00036	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Calcium	109		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0061		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.018		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.0072	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	10.4	B	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0083	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	25.1		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	4.8	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.016		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	2.9		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	1.3	B	1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.011		0.0050	0.0015	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: New York State D.E.C.
Project/Site: North Lawrence Oil Dump #645013

Job ID: 480-172508-1

Client Sample ID: MW-303 (Continued)

Lab Sample ID: 480-172508-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.014	B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-172508-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-102A
Lab Sample ID: 480-172508-1
Date Collected: 07/15/20 13:45
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 02:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 02:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 02:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 02:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 02:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 02:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 02:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 02:59	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 02:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 02:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 02:59	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 02:59	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 02:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 02:59	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 02:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 02:59	1
Acetone	ND		10	3.0	ug/L			07/25/20 02:59	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 02:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 02:59	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 02:59	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 02:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 02:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 02:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 02:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 02:59	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 02:59	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 02:59	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 02:59	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 02:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 02:59	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 02:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 02:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 02:59	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 02:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 02:59	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 02:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 02:59	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 02:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 02:59	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 02:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 02:59	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 02:59	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 02:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 02:59	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 02:59	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 02:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 02:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 02:59	1

Client Sample ID: MW-102A
Lab Sample ID: 480-172508-1
Date Collected: 07/15/20 13:45
Matrix: Water
Date Received: 07/17/20 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/25/20 02:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*07/25/20 02:59*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*07/25/20 02:59*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*07/25/20 02:59*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 04:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*21*		*15 - 110*	*07/20/20 15:09*	*07/23/20 04:52*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:20*	*1*
Tetrachloro-m-xylene	*65*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:20*	*1*
DCB Decachlorobiphenyl	*43*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:20*	*1*
DCB Decachlorobiphenyl	*51*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:20*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.57**	**J**	1.8	0.31	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.43	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.51	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.22	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorooctanoic acid (PFOA)	ND		1.8	0.75	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.24	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.27	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.97	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.48	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.1	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorotetradecanoic acid (PFTeA)	**0.43**	**J**	1.8	0.25	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.18	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorohexanesulfonic acid (PFHxS)	**0.32**	**J B**	1.8	0.15	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.17	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorooctanesulfonic acid (PFOS)	**0.85**	**J**	1.8	0.47	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.28	ng/L		07/21/20 18:38	07/23/20 20:00	1

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-102A
Lab Sample ID: 480-172508-1
Date Collected: 07/15/20 13:45
Matrix: Water
Date Received: 07/17/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (FOSA)	**0.46**	**J B**	1.8	0.31	ng/L		07/21/20 18:38	07/23/20 20:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.7	ng/L		07/21/20 18:38	07/23/20 20:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.7	ng/L		07/21/20 18:38	07/23/20 20:00	1
6:2 FTS	**22**		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:00	1
8:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*84*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C5 PFPeA	*88*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFHxA	*92*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C4 PFHpA	*93*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C4 PFOA	*95*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C5 PFNA	*98*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFDA	*93*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFUnA	*96*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFDoA	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFTeDA	*81*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
18O2 PFHxS	*95*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C4 PFOS	*92*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C8 FOSA	*94*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
d3-NMeFOSAA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
d5-NEtFOSAA	*84*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
M2-6:2 FTS	*100*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
M2-8:2 FTS	*110*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C3 PFBS	*91*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/18/20 16:45	07/20/20 19:50	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 19:50	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 19:50	1
Barium	**0.13**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 19:50	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 19:50	1
Cadmium	**0.00051**	**J**	0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 19:50	1
Calcium	**69.6**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:50	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:13	1
Cobalt	ND		0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 19:50	1
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 19:50	1
Iron	**0.72**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 19:50	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 19:50	1
Magnesium	**34.1**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 19:50	1
Manganese	**0.033**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 19:50	1
Nickel	ND		0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 19:50	1
Potassium	**1.5**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:50	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 19:50	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 19:50	1
Sodium	**2.8**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:13	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 19:50	1

Client Sample ID: MW-102A

Lab Sample ID: 480-172508-1

Date Collected: 07/15/20 13:45

Matrix: Water

Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 19:50	1
Zinc	**0.0052**	**J B**	0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:00	1

Client Sample ID: MW-302

Lab Sample ID: 480-172508-2

Date Collected: 07/15/20 15:20

Matrix: Water

Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 03:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 03:23	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 03:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 03:23	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 03:23	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 03:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 03:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 03:23	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 03:23	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 03:23	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 03:23	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 03:23	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 03:23	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 03:23	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 03:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 03:23	1
Acetone	ND		10	3.0	ug/L			07/25/20 03:23	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 03:23	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 03:23	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 03:23	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 03:23	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 03:23	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 03:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 03:23	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 03:23	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 03:23	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 03:23	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 03:23	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 03:23	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 03:23	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 03:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 03:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 03:23	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 03:23	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 03:23	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 03:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 03:23	1

Client Sample ID: MW-302
Lab Sample ID: 480-172508-2
Date Collected: 07/15/20 15:20
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 03:23	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 03:23	1
Styrene	ND	F1	1.0	0.73	ug/L			07/25/20 03:23	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 03:23	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 03:23	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 03:23	1
trans-1,3-Dichloropropene	ND	F1	1.0	0.37	ug/L			07/25/20 03:23	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 03:23	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 03:23	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 03:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/25/20 03:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*07/25/20 03:23*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*07/25/20 03:23*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*07/25/20 03:23*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 02:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*23*		*15 - 110*	*07/20/20 15:09*	*07/23/20 02:35*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*39 - 121*	*07/23/20 15:09*	*07/24/20 18:53*	*1*
Tetrachloro-m-xylene	*64*		*39 - 121*	*07/23/20 15:09*	*07/24/20 18:53*	*1*
DCB Decachlorobiphenyl	*35*		*19 - 120*	*07/23/20 15:09*	*07/24/20 18:53*	*1*
DCB Decachlorobiphenyl	*41*		*19 - 120*	*07/23/20 15:09*	*07/24/20 18:53*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.0**	**J**	1.8	0.31	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.43	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.51	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluoroheptanoic acid (PFHpA)	**0.35**	**J**	1.8	0.22	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorooctanoic acid (PFOA)	ND		1.8	0.75	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.24	ng/L		07/21/20 18:38	07/23/20 20:09	1

Client: New York State D.E.C.
Project/Site: North Lawrence Oil Dump #645013

Job ID: 480-172508-1

Client Sample ID: MW-302
Date Collected: 07/15/20 15:20
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-2
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	ND		1.8	0.27	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.97	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.48	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.1	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.26	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorobutanesulfonic acid (PFBS)	**0.28**	**J**	1.8	0.18	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorohexanesulfonic acid (PFHxS)	**0.35**	**J B**	1.8	0.15	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.17	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.48	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.28	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	0.31	ng/L		07/21/20 18:38	07/23/20 20:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.7	ng/L		07/21/20 18:38	07/23/20 20:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.7	ng/L		07/21/20 18:38	07/23/20 20:09	1
6:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:09	1
8:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*60*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C5 PFPeA	*69*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFHxA	*76*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C4 PFHpA	*78*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C4 PFOA	*76*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C5 PFNA	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFDA	*75*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFUnA	*70*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFDoA	*69*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFTeDA	*64*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
18O2 PFHxS	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C4 PFOS	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C8 FOSA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
d3-NMeFOSAA	*62*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
d5-NEtFOSAA	*64*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
M2-6:2 FTS	*98*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
M2-8:2 FTS	*90*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C3 PFBS	*79*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/18/20 16:45	07/20/20 19:54	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 19:54	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 19:54	1
Barium	**0.68**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 19:54	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 19:54	1
Cadmium	ND		0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 19:54	1
Calcium	**105**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:54	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:17	1
Cobalt	**0.0026**	**J**	0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 19:54	1

Client Sample ID: MW-302
Lab Sample ID: 480-172508-2

Date Collected: 07/15/20 15:20
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 19:54	1
Iron	**0.23**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 19:54	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 19:54	1
Magnesium	**22.6**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 19:54	1
Manganese	**1.6**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 19:54	1
Nickel	ND		0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 19:54	1
Potassium	**0.63**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:54	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 19:54	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 19:54	1
Sodium	**1.4**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:17	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 19:54	1
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 19:54	1
Zinc	ND		0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:01	1

Client Sample ID: MW-301
Lab Sample ID: 480-172508-3

Date Collected: 07/15/20 17:05
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 03:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 03:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 03:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 03:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 03:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 03:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 03:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 03:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 03:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 03:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 03:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 03:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 03:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 03:48	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 03:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 03:48	1
Acetone	ND		10	3.0	ug/L			07/25/20 03:48	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 03:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 03:48	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 03:48	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 03:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 03:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 03:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 03:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 03:48	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 03:48	1

Client Sample ID: MW-301
Lab Sample ID: 480-172508-3
Date Collected: 07/15/20 17:05
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.34	ug/L			07/25/20 03:48	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 03:48	1
cis-1,2-Dichloroethene	**12**		1.0	0.81	ug/L			07/25/20 03:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 03:48	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 03:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 03:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 03:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 03:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 03:48	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 03:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 03:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 03:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 03:48	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 03:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 03:48	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 03:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 03:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 03:48	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 03:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 03:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 03:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/25/20 03:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*07/25/20 03:48*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*07/25/20 03:48*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*07/25/20 03:48*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 05:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*24*		*15 - 110*	*07/20/20 15:09*	*07/23/20 05:14*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:32*	*1*
Tetrachloro-m-xylene	*63*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:32*	*1*

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-301
Lab Sample ID: 480-172508-3
Date Collected: 07/15/20 17:05
Matrix: Water
Date Received: 07/17/20 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	45		19 - 120	07/23/20 15:09	07/24/20 20:32	1
DCB Decachlorobiphenyl	51		19 - 120	07/23/20 15:09	07/24/20 20:32	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.6**	**J**	1.8	0.32	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.45	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorohexanoic acid (PFHxA)	**1.2**	**J**	1.8	0.54	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluoroheptanoic acid (PFHpA)	**0.68**	**J**	1.8	0.23	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorooctanoic acid (PFOA)	**2.3**		1.8	0.79	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.25	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.29	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorododecanoic acid (PFDoA)	**0.58**	**J**	1.8	0.51	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.27	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorobutanesulfonic acid (PFBS)	ND	G	1.8	1.8	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorohexanesulfonic acid (PFHxS)	**0.50**	**J B**	1.8	0.16	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.18	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.50	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.30	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	0.32	ng/L		07/21/20 18:38	07/23/20 20:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.9	ng/L		07/21/20 18:38	07/23/20 20:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:36	1
6:2 FTS	**4.5**	**J**	18	1.8	ng/L		07/21/20 18:38	07/23/20 20:36	1
8:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	50		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C5 PFPeA	67		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C2 PFHxA	79		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C4 PFHpA	80		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C4 PFOA	82		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C5 PFNA	87		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C2 PFDA	83		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C2 PFUnA	80		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C2 PFDoA	75		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C2 PFTeDA	74		25 - 150	07/21/20 18:38	07/23/20 20:36	1
18O2 PFHxS	83		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C4 PFOS	87		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C8 FOSA	82		25 - 150	07/21/20 18:38	07/23/20 20:36	1
d3-NMeFOSAA	53		25 - 150	07/21/20 18:38	07/23/20 20:36	1
d5-NEtFOSAA	79		25 - 150	07/21/20 18:38	07/23/20 20:36	1
M2-6:2 FTS	115		25 - 150	07/21/20 18:38	07/23/20 20:36	1
M2-8:2 FTS	104		25 - 150	07/21/20 18:38	07/23/20 20:36	1
13C3 PFBS	79		25 - 150	07/21/20 18:38	07/23/20 20:36	1

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-301
Lab Sample ID: 480-172508-3
Date Collected: 07/15/20 17:05
Matrix: Water
Date Received: 07/17/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.093**	**J B**	0.20	0.060	mg/L		07/18/20 16:45	07/20/20 20:05	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 20:05	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 20:05	1
Barium	**0.65**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 20:05	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 20:05	1
Cadmium	ND		0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 20:05	1
Calcium	**80.1**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:05	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:39	1
Cobalt	**0.0027**	**J**	0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 20:05	1
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 20:05	1
Iron	**1.4**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 20:05	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 20:05	1
Magnesium	**31.9**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 20:05	1
Manganese	**1.5**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 20:05	1
Nickel	**0.0032**	**J**	0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 20:05	1
Potassium	**0.75**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:05	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 20:05	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 20:05	1
Sodium	**7.2**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:39	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 20:05	1
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 20:05	1
Zinc	**0.0059**	**J B**	0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:07	1

Client Sample ID: DUPA
Lab Sample ID: 480-172508-4
Date Collected: 07/15/20 16:00
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 04:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 04:12	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 04:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 04:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 04:12	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 04:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 04:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 04:12	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 04:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 04:12	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 04:12	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 04:12	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 04:12	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 04:12	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 04:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 04:12	1
Acetone	ND		10	3.0	ug/L			07/25/20 04:12	1

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: DUPA
Lab Sample ID: 480-172508-4
Date Collected: 07/15/20 16:00
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			07/25/20 04:12	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 04:12	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 04:12	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 04:12	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 04:12	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 04:12	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 04:12	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 04:12	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 04:12	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 04:12	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 04:12	1
cis-1,2-Dichloroethene	**11**		1.0	0.81	ug/L			07/25/20 04:12	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 04:12	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 04:12	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 04:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 04:12	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 04:12	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 04:12	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 04:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 04:12	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 04:12	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 04:12	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 04:12	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 04:12	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 04:12	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 04:12	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 04:12	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 04:12	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 04:12	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 04:12	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/25/20 04:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*07/25/20 04:12*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*07/25/20 04:12*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*07/25/20 04:12*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 05:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*24*		*15 - 110*	*07/20/20 15:09*	*07/23/20 05:37*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1

Client Sample ID: DUPA
Lab Sample ID: 480-172508-4
Date Collected: 07/15/20 16:00
Matrix: Water
Date Received: 07/17/20 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*83*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:44*	*1*
Tetrachloro-m-xylene	*73*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:44*	*1*
DCB Decachlorobiphenyl	*50*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:44*	*1*
DCB Decachlorobiphenyl	*58*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:44*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.8**		1.8	0.32	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluoropentanoic acid (PFPeA)	**0.49**	**J**	1.8	0.45	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorohexanoic acid (PFHxA)	**0.72**	**J**	1.8	0.53	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluoroheptanoic acid (PFHpA)	**0.68**	**J**	1.8	0.23	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorooctanoic acid (PFOA)	**2.2**		1.8	0.77	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.25	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.28	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.50	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.26	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorobutanesulfonic acid (PFBS)	ND	G	1.7	1.7	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorohexanesulfonic acid (PFHxS)	**0.58**	**J I B**	1.8	0.15	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.17	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.49	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.29	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	0.32	ng/L		07/21/20 18:38	07/23/20 20:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.8	ng/L		07/21/20 18:38	07/23/20 20:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.7	ng/L		07/21/20 18:38	07/23/20 20:45	1
6:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:45	1
8:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*53*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C5 PFPeA	*67*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFHxA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C4 PFHpA	*79*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C4 PFOA	*80*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C5 PFNA	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFDA	*81*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFUnA	*80*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFDoA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFTeDA	*76*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
18O2 PFHxS	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*

Client Sample ID: DUPA
Lab Sample ID: 480-172508-4

Date Collected: 07/15/20 16:00
Matrix: Water
Date Received: 07/17/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*81*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C8 FOSA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
d3-NMeFOSAA	*65*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
d5-NEtFOSAA	*73*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
M2-6:2 FTS	*115*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
M2-8:2 FTS	*94*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C3 PFBS	*74*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.13**	**J B**	0.20	0.060	mg/L		07/18/20 16:45	07/20/20 20:09	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 20:09	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 20:09	1
Barium	**0.66**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 20:09	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 20:09	1
Cadmium	**0.00050**	**J**	0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 20:09	1
Calcium	**83.2**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:09	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:43	1
Cobalt	**0.0032**	**J**	0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 20:09	1
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 20:09	1
Iron	**1.6**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 20:09	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 20:09	1
Magnesium	**32.7**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 20:09	1
Manganese	**1.7**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 20:09	1
Nickel	**0.0034**	**J**	0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 20:09	1
Potassium	**0.70**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:09	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 20:09	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 20:09	1
Sodium	**7.5**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:43	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 20:09	1
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 20:09	1
Zinc	**0.0089**	**J B**	0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:09	1

Client Sample ID: MW-303
Lab Sample ID: 480-172508-5

Date Collected: 07/15/20 18:30
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 04:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 04:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 04:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 04:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 04:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 04:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 04:36	1

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-303
Lab Sample ID: 480-172508-5
Date Collected: 07/15/20 18:30
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 04:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 04:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 04:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 04:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 04:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 04:36	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 04:36	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 04:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 04:36	1
Acetone	ND		10	3.0	ug/L			07/25/20 04:36	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 04:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 04:36	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 04:36	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 04:36	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 04:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 04:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 04:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 04:36	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 04:36	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 04:36	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 04:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 04:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 04:36	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 04:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 04:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 04:36	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 04:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 04:36	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 04:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 04:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 04:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 04:36	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 04:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 04:36	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 04:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 04:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 04:36	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 04:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 04:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 04:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/25/20 04:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*07/25/20 04:36*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*07/25/20 04:36*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*07/25/20 04:36*	*1*

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-303
Lab Sample ID: 480-172508-5
Date Collected: 07/15/20 18:30
Matrix: Water
Date Received: 07/17/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 06:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*26*		*15 - 110*	*07/20/20 15:09*	*07/23/20 06:00*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*39 - 121*	*07/23/20 15:09*	*07/24/20 21:21*	*1*
Tetrachloro-m-xylene	*69*		*39 - 121*	*07/23/20 15:09*	*07/24/20 21:21*	*1*
DCB Decachlorobiphenyl	*33*		*19 - 120*	*07/23/20 15:09*	*07/24/20 21:21*	*1*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*07/23/20 15:09*	*07/24/20 21:21*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.3**		1.6	0.29	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluoropentanoic acid (PFPeA)	**0.42**	**J**	1.6	0.40	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.48	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluoroheptanoic acid (PFHpA)	**0.61**	**J**	1.6	0.21	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorooctanoic acid (PFOA)	**1.3**	**J**	1.6	0.70	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.26	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.91	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.45	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	1.1	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.24	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorobutanesulfonic acid (PFBS)	**0.56**	**J**	1.6	0.16	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorohexanesulfonic acid (PFHxS)	**0.34**	**J B**	1.6	0.14	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.16	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.45	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.26	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6	0.29	ng/L		07/21/20 18:38	07/23/20 20:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	2.6	ng/L		07/21/20 18:38	07/23/20 20:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.6	ng/L		07/21/20 18:38	07/23/20 20:55	1
6:2 FTS	**1.6**	**J**	16	1.6	ng/L		07/21/20 18:38	07/23/20 20:55	1
8:2 FTS	ND		16	1.6	ng/L		07/21/20 18:38	07/23/20 20:55	1

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-303
Lab Sample ID: 480-172508-5
Date Collected: 07/15/20 18:30
Matrix: Water
Date Received: 07/17/20 08:00

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C5 PFPeA	79		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C2 PFHxA	83		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C4 PFHpA	88		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C4 PFOA	86		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C5 PFNA	93		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C2 PFDA	83		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C2 PFUnA	76		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C2 PFDoA	71		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C2 PFTeDA	71		25 - 150	07/21/20 18:38	07/23/20 20:55	1
18O2 PFHxS	86		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C4 PFOS	81		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C8 FOSA	82		25 - 150	07/21/20 18:38	07/23/20 20:55	1
d3-NMeFOSAA	78		25 - 150	07/21/20 18:38	07/23/20 20:55	1
d5-NEtFOSAA	74		25 - 150	07/21/20 18:38	07/23/20 20:55	1
M2-6:2 FTS	124		25 - 150	07/21/20 18:38	07/23/20 20:55	1
M2-8:2 FTS	116		25 - 150	07/21/20 18:38	07/23/20 20:55	1
13C3 PFBS	85		25 - 150	07/21/20 18:38	07/23/20 20:55	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5.4**	**B**	0.20	0.060	mg/L		07/18/20 16:45	07/20/20 20:13	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 20:13	1
Arsenic	**0.0062**	**J**	0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 20:13	1
Barium	**0.42**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 20:13	1
Beryllium	**0.00036**	**J**	0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 20:13	1
Cadmium	ND		0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 20:13	1
Calcium	**109**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:13	1
Chromium	**0.0061**		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:47	1
Cobalt	**0.018**		0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 20:13	1
Copper	**0.0072**	**J**	0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 20:13	1
Iron	**10.4**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 20:13	1
Lead	**0.0083**	**J**	0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 20:13	1
Magnesium	**25.1**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 20:13	1
Manganese	**4.8**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 20:13	1
Nickel	**0.016**		0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 20:13	1
Potassium	**2.9**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:13	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 20:13	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 20:13	1
Sodium	**1.3**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:47	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 20:13	1
Vanadium	**0.011**		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 20:13	1
Zinc	**0.014**	**B**	0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:10	1

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-172508-6
Date Collected: 07/15/20 00:00
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 05:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 05:00	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 05:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 05:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 05:00	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 05:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 05:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 05:00	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 05:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 05:00	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 05:00	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 05:00	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 05:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 05:00	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 05:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 05:00	1
Acetone	ND		10	3.0	ug/L			07/25/20 05:00	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 05:00	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 05:00	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 05:00	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 05:00	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 05:00	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 05:00	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 05:00	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 05:00	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 05:00	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 05:00	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 05:00	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 05:00	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 05:00	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 05:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 05:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 05:00	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 05:00	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 05:00	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 05:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 05:00	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 05:00	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 05:00	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 05:00	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 05:00	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 05:00	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 05:00	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 05:00	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 05:00	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 05:00	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 05:00	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 05:00	1

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-172508-6
Date Collected: 07/15/20 00:00
Matrix: Water
Date Received: 07/17/20 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		07/25/20 05:00	1
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		07/25/20 05:00	1
4-Bromofluorobenzene (Surr)	108		73 - 120		07/25/20 05:00	1
Dibromofluoromethane (Surr)	101		75 - 123		07/25/20 05:00	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: North Lawrence Oil Dump #645013

Job ID: 480-172508-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-172508-1	MW-102A	103	105	110	101
480-172508-2	MW-302	101	107	106	104
480-172508-2 MS	MW-302	105	104	104	100
480-172508-2 MSD	MW-302	104	102	105	100
480-172508-3	MW-301	99	108	105	102
480-172508-4	DUPA	100	104	105	99
480-172508-5	MW-303	103	104	106	103
480-172508-6	TRIP BLANK	99	105	108	101
LCS 480-542071/6	Lab Control Sample	101	101	101	99
MB 480-542071/8	Method Blank	101	106	106	101

Surrogate Legend

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

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(39-121)	(39-121)	(19-120)	(19-120)
480-172508-1	MW-102A	65	67	51	43
480-172508-2	MW-302	64	73	41	35
480-172508-2 MS	MW-302	61	74	34	29
480-172508-2 MSD	MW-302	60	70	35	30
480-172508-3	MW-301	63	73	51	45
480-172508-4	DUPA	73	83	58	50
480-172508-5	MW-303	69	77	40	33
LCS 480-541858/2-A	Lab Control Sample	61	74	33	28
MB 480-541858/1-A	Method Blank	63	69	34	29

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(15-110)
480-172508-1	MW-102A	21
480-172508-2	MW-302	23
480-172508-2 MS	MW-302	23
480-172508-2 MSD	MW-302	23
480-172508-3	MW-301	24
480-172508-4	DUPA	24
480-172508-5	MW-303	26
LCS 480-541207/2-A	Lab Control Sample	27
MB 480-541207/1-A	Method Blank	25

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
480-172508-1	MW-102A	84	88	92	93	95	98	93	96
480-172508-2	MW-302	60	69	76	78	76	82	75	70
480-172508-2 MS	MW-302	59	68	73	76	72	77	75	66
480-172508-2 MSD	MW-302	58	67	75	74	78	78	72	71
480-172508-3	MW-301	50	67	79	80	82	87	83	80
480-172508-4	DUPA	53	67	77	79	80	82	81	80
480-172508-5	MW-303	81	79	83	88	86	93	83	76
LCS 320-396911/2-A	Lab Control Sample	94	95	96	98	96	104	99	94
MB 320-396911/1-A	Method Blank	90	91	93	94	92	97	95	91

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	PFHxS	PFOS	PFOSA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
480-172508-1	MW-102A	83	81	95	92	94	77	84	100
480-172508-2	MW-302	69	64	83	83	77	62	64	98
480-172508-2 MS	MW-302	66	65	80	74	75	62	62	92
480-172508-2 MSD	MW-302	62	63	81	77	75	57	61	93
480-172508-3	MW-301	75	74	83	87	82	53	79	115
480-172508-4	DUPA	77	76	82	81	77	65	73	115
480-172508-5	MW-303	71	71	86	81	82	78	74	124
LCS 320-396911/2-A	Lab Control Sample	101	94	97	97	93	87	88	101
MB 320-396911/1-A	Method Blank	88	86	91	90	88	78	83	97

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M282FTS	C3PFBS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)
480-172508-1	MW-102A	110	91
480-172508-2	MW-302	90	79
480-172508-2 MS	MW-302	85	73
480-172508-2 MSD	MW-302	77	77
480-172508-3	MW-301	104	79
480-172508-4	DUPA	94	74
480-172508-5	MW-303	116	85

Isotope Dilution Summary

Client: New York State D.E.C. Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)									
		M282FTS	C3PFBS								
Lab Sample ID	Client Sample ID	(25-150)	(25-150)								
LCS 320-396911/2-A	Lab Control Sample	102	94								
MB 320-396911/1-A	Method Blank	103	87								

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

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

Lab Sample ID: MB 480-542071/8
Matrix: Water
Analysis Batch: 542071

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 00:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 00:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 00:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 00:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 00:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 00:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 00:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 00:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 00:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 00:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 00:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 00:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 00:58	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 00:58	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 00:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 00:58	1
Acetone	ND		10	3.0	ug/L			07/25/20 00:58	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 00:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 00:58	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 00:58	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 00:58	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 00:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 00:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 00:58	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 00:58	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 00:58	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 00:58	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 00:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 00:58	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 00:58	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 00:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 00:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 00:58	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 00:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 00:58	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 00:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 00:58	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 00:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 00:58	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 00:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 00:58	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 00:58	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 00:58	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 00:58	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 00:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 00:58	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 00:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 00:58	1

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

Lab Sample ID: MB 480-542071/8
Matrix: Water
Analysis Batch: 542071

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/25/20 00:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*07/25/20 00:58*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*07/25/20 00:58*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*07/25/20 00:58*	*1*

Lab Sample ID: LCS 480-542071/6
Matrix: Water
Analysis Batch: 542071

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	22.4		ug/L		90	73 - 126
1,1,2,2-Tetrachloroethane	25.0	23.4		ug/L		94	76 - 120
1,1,2-Trichloroethane	25.0	23.3		ug/L		93	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.2		ug/L		89	61 - 148
1,1-Dichloroethane	25.0	24.4		ug/L		97	77 - 120
1,1-Dichloroethene	25.0	22.6		ug/L		91	66 - 127
1,2,4-Trichlorobenzene	25.0	24.0		ug/L		96	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.0		ug/L		92	56 - 134
1,2-Dichlorobenzene	25.0	23.5		ug/L		94	80 - 124
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120
1,3-Dichlorobenzene	25.0	23.8		ug/L		95	77 - 120
1,4-Dichlorobenzene	25.0	23.4		ug/L		94	80 - 120
2-Butanone (MEK)	125	132		ug/L		105	57 - 140
2-Hexanone	125	126		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	71 - 125
Acetone	125	132		ug/L		106	56 - 142
Benzene	25.0	22.9		ug/L		92	71 - 124
Bromodichloromethane	25.0	23.4		ug/L		94	80 - 122
Bromoform	25.0	24.2		ug/L		97	61 - 132
Bromomethane	25.0	23.5		ug/L		94	55 - 144
Carbon disulfide	25.0	22.8		ug/L		91	59 - 134
Carbon tetrachloride	25.0	22.2		ug/L		89	72 - 134
Chlorobenzene	25.0	23.1		ug/L		92	80 - 120
Dibromochloromethane	25.0	24.3		ug/L		97	75 - 125
Chloroethane	25.0	22.4		ug/L		90	69 - 136
Chloroform	25.0	22.8		ug/L		91	73 - 127
Chloromethane	25.0	23.0		ug/L		92	68 - 124
cis-1,2-Dichloroethene	25.0	23.0		ug/L		92	74 - 124
cis-1,3-Dichloropropene	25.0	22.6		ug/L		90	74 - 124
Cyclohexane	25.0	22.8		ug/L		91	59 - 135
Dichlorodifluoromethane	25.0	18.3		ug/L		73	59 - 135
Ethylbenzene	25.0	22.9		ug/L		92	77 - 123
1,2-Dibromoethane	25.0	23.9		ug/L		96	77 - 120
Isopropylbenzene	25.0	23.8		ug/L		95	77 - 122
Methyl acetate	50.0	50.8		ug/L		102	74 - 133
Methyl tert-butyl ether	25.0	24.2		ug/L		97	77 - 120
Methylcyclohexane	25.0	20.6		ug/L		82	68 - 134

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

Lab Sample ID: LCS 480-542071/6
Matrix: Water
Analysis Batch: 542071

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	25.0	22.6		ug/L		91	75 - 124
Styrene	25.0	23.7		ug/L		95	80 - 120
Tetrachloroethene	25.0	23.0		ug/L		92	74 - 122
Toluene	25.0	23.3		ug/L		93	80 - 122
trans-1,2-Dichloroethene	25.0	22.7		ug/L		91	73 - 127
trans-1,3-Dichloropropene	25.0	23.4		ug/L		94	80 - 120
Trichloroethene	25.0	22.8		ug/L		91	74 - 123
Trichlorofluoromethane	25.0	21.8		ug/L		87	62 - 150
Vinyl chloride	25.0	22.2		ug/L		89	65 - 133

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

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 542071

Client Sample ID: MW-302
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	21.8		ug/L		87	73 - 126
1,1,2,2-Tetrachloroethane	ND		25.0	21.3		ug/L		85	76 - 120
1,1,2-Trichloroethane	ND		25.0	22.9		ug/L		91	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	21.6		ug/L		86	61 - 148
1,1-Dichloroethane	ND		25.0	23.4		ug/L		94	77 - 120
1,1-Dichloroethene	ND		25.0	22.1		ug/L		88	66 - 127
1,2,4-Trichlorobenzene	ND		25.0	22.8		ug/L		91	79 - 122
1,2-Dibromo-3-Chloropropane	ND		25.0	22.9		ug/L		92	56 - 134
1,2-Dichlorobenzene	ND		25.0	21.7		ug/L		87	80 - 124
1,2-Dichloroethane	ND		25.0	23.1		ug/L		92	75 - 120
1,2-Dichloropropane	ND		25.0	22.8		ug/L		91	76 - 120
1,3-Dichlorobenzene	ND		25.0	21.9		ug/L		88	77 - 120
1,4-Dichlorobenzene	ND		25.0	22.0		ug/L		88	78 - 124
2-Butanone (MEK)	ND		125	126		ug/L		101	57 - 140
2-Hexanone	ND		125	124		ug/L		99	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		125	126		ug/L		101	71 - 125
Acetone	ND		125	129		ug/L		103	56 - 142
Benzene	ND		25.0	21.7		ug/L		87	71 - 124
Bromodichloromethane	ND		25.0	22.5		ug/L		90	80 - 122
Bromoform	ND		25.0	21.0		ug/L		84	61 - 132
Bromomethane	ND		25.0	22.6		ug/L		90	55 - 144
Carbon disulfide	ND		25.0	20.4		ug/L		82	59 - 134
Carbon tetrachloride	ND		25.0	22.5		ug/L		90	72 - 134
Chlorobenzene	ND		25.0	22.3		ug/L		89	80 - 120
Dibromochloromethane	ND		25.0	22.4		ug/L		90	75 - 125
Chloroethane	ND		25.0	21.4		ug/L		85	69 - 136
Chloroform	ND		25.0	21.7		ug/L		87	73 - 127

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

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 542071

Client Sample ID: MW-302
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	ND		25.0	23.0		ug/L		92	68 - 124
cis-1,2-Dichloroethene	ND		25.0	22.0		ug/L		88	74 - 124
cis-1,3-Dichloropropene	ND		25.0	20.4		ug/L		82	74 - 124
Cyclohexane	ND		25.0	23.5		ug/L		94	59 - 135
Dichlorodifluoromethane	ND		25.0	19.5		ug/L		78	59 - 135
Ethylbenzene	ND		25.0	22.2		ug/L		89	77 - 123
1,2-Dibromoethane	ND		25.0	23.0		ug/L		92	77 - 120
Isopropylbenzene	ND		25.0	22.8		ug/L		91	77 - 122
Methyl acetate	ND		50.0	44.6		ug/L		89	74 - 133
Methyl tert-butyl ether	ND		25.0	22.8		ug/L		91	77 - 120
Methylcyclohexane	ND		25.0	21.8		ug/L		87	68 - 134
Methylene Chloride	ND		25.0	21.2		ug/L		85	75 - 124
Styrene	ND	F1	25.0	22.2		ug/L		89	80 - 120
Tetrachloroethene	ND		25.0	23.3		ug/L		93	74 - 122
Toluene	ND		25.0	22.4		ug/L		90	80 - 122
trans-1,2-Dichloroethene	ND		25.0	21.2		ug/L		85	73 - 127
trans-1,3-Dichloropropene	ND	F1	25.0	21.5		ug/L		86	80 - 120
Trichloroethene	ND		25.0	21.1		ug/L		84	74 - 123
Trichlorofluoromethane	ND		25.0	22.1		ug/L		89	62 - 150
Vinyl chloride	ND		25.0	22.7		ug/L		91	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*105*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

Lab Sample ID: 480-172508-2 MSD
Matrix: Water
Analysis Batch: 542071

Client Sample ID: MW-302
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	20.4		ug/L		82	73 - 126	7	15
1,1,2,2-Tetrachloroethane	ND		25.0	20.5		ug/L		82	76 - 120	4	15
1,1,2-Trichloroethane	ND		25.0	20.9		ug/L		84	76 - 122	9	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	20.2		ug/L		81	61 - 148	7	20
1,1-Dichloroethane	ND		25.0	21.2		ug/L		85	77 - 120	10	20
1,1-Dichloroethene	ND		25.0	20.2		ug/L		81	66 - 127	9	16
1,2,4-Trichlorobenzene	ND		25.0	22.8		ug/L		91	79 - 122	0	20
1,2-Dibromo-3-Chloropropane	ND		25.0	22.8		ug/L		91	56 - 134	0	15
1,2-Dichlorobenzene	ND		25.0	20.7		ug/L		83	80 - 124	4	20
1,2-Dichloroethane	ND		25.0	21.4		ug/L		86	75 - 120	7	20
1,2-Dichloropropane	ND		25.0	20.5		ug/L		82	76 - 120	11	20
1,3-Dichlorobenzene	ND		25.0	19.8		ug/L		79	77 - 120	10	20
1,4-Dichlorobenzene	ND		25.0	20.0		ug/L		80	78 - 124	10	20
2-Butanone (MEK)	ND		125	124		ug/L		99	57 - 140	2	20
2-Hexanone	ND		125	117		ug/L		94	65 - 127	6	15
4-Methyl-2-pentanone (MIBK)	ND		125	122		ug/L		98	71 - 125	3	35

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

Lab Sample ID: 480-172508-2 MSD
Matrix: Water
Analysis Batch: 542071

Client Sample ID: MW-302
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		125	128		ug/L		103	56 - 142	0	15
Benzene	ND		25.0	19.5		ug/L		78	71 - 124	10	13
Bromodichloromethane	ND		25.0	20.3		ug/L		81	80 - 122	11	15
Bromoform	ND		25.0	19.1		ug/L		76	61 - 132	10	15
Bromomethane	ND		25.0	21.0		ug/L		84	55 - 144	7	15
Carbon disulfide	ND		25.0	18.5		ug/L		74	59 - 134	10	15
Carbon tetrachloride	ND		25.0	20.3		ug/L		81	72 - 134	10	15
Chlorobenzene	ND		25.0	20.1		ug/L		81	80 - 120	10	25
Dibromochloromethane	ND		25.0	19.9		ug/L		80	75 - 125	12	15
Chloroethane	ND		25.0	21.1		ug/L		84	69 - 136	1	15
Chloroform	ND		25.0	19.4		ug/L		78	73 - 127	11	20
Chloromethane	ND		25.0	22.5		ug/L		90	68 - 124	2	15
cis-1,2-Dichloroethene	ND		25.0	19.3		ug/L		77	74 - 124	13	15
cis-1,3-Dichloropropene	ND		25.0	18.4		ug/L		74	74 - 124	10	15
Cyclohexane	ND		25.0	21.8		ug/L		87	59 - 135	8	20
Dichlorodifluoromethane	ND		25.0	18.6		ug/L		74	59 - 135	5	20
Ethylbenzene	ND		25.0	20.4		ug/L		82	77 - 123	8	15
1,2-Dibromoethane	ND		25.0	21.0		ug/L		84	77 - 120	9	15
Isopropylbenzene	ND		25.0	21.1		ug/L		84	77 - 122	8	20
Methyl acetate	ND		50.0	42.1		ug/L		84	74 - 133	6	20
Methyl tert-butyl ether	ND		25.0	21.5		ug/L		86	77 - 120	6	37
Methylcyclohexane	ND		25.0	19.8		ug/L		79	68 - 134	9	20
Methylene Chloride	ND		25.0	19.6		ug/L		78	75 - 124	8	15
Styrene	ND	F1	25.0	19.8	F1	ug/L		79	80 - 120	12	20
Tetrachloroethene	ND		25.0	21.2		ug/L		85	74 - 122	10	20
Toluene	ND		25.0	20.6		ug/L		82	80 - 122	9	15
trans-1,2-Dichloroethene	ND		25.0	19.1		ug/L		76	73 - 127	10	20
trans-1,3-Dichloropropene	ND	F1	25.0	19.3	F1	ug/L		77	80 - 120	10	15
Trichloroethene	ND		25.0	19.5		ug/L		78	74 - 123	7	16
Trichlorofluoromethane	ND		25.0	21.6		ug/L		87	62 - 150	2	20
Vinyl chloride	ND		25.0	22.1		ug/L		88	65 - 133	3	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-541207/1-A
Matrix: Water
Analysis Batch: 541589

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 541207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 00:19	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*25*		*15 - 110*	*07/20/20 15:09*	*07/23/20 00:19*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: LCS 480-541207/2-A
Matrix: Water
Analysis Batch: 541589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 541207

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			1.00	1.12		ug/L		112	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*27*		*15 - 110*

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 541589

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541207

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	ND		1.00	1.13		ug/L		113	40 - 140		

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*23*		*15 - 110*

Lab Sample ID: 480-172508-2 MSD
Matrix: Water
Analysis Batch: 541589

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541207

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	ND		1.00	1.12		ug/L		112	40 - 140	1	20

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*23*		*15 - 110*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-541858/1-A
Matrix: Water
Analysis Batch: 541945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 541858

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 17:27	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 17:27	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 17:27	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 17:27	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 17:27	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 17:27	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 17:27	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 17:27	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 17:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*39 - 121*	*07/23/20 15:09*	*07/24/20 17:27*	*1*
Tetrachloro-m-xylene	*63*		*39 - 121*	*07/23/20 15:09*	*07/24/20 17:27*	*1*
DCB Decachlorobiphenyl	*29*		*19 - 120*	*07/23/20 15:09*	*07/24/20 17:27*	*1*
DCB Decachlorobiphenyl	*34*		*19 - 120*	*07/23/20 15:09*	*07/24/20 17:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-541858/2-A
Matrix: Water
Analysis Batch: 541945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 541858

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			4.00	2.87		ug/L		72	62 - 130		
PCB-1260			4.00	2.69		ug/L		67	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*74*		*39 - 121*
Tetrachloro-m-xylene	*61*		*39 - 121*
DCB Decachlorobiphenyl	*28*		*19 - 120*
DCB Decachlorobiphenyl	*33*		*19 - 120*

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 541945

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541858

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	ND		4.00	2.94		ug/L		73	28 - 150		
PCB-1260	ND		4.00	2.56		ug/L		64	25 - 131		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*74*		*39 - 121*
Tetrachloro-m-xylene	*61*		*39 - 121*
DCB Decachlorobiphenyl	*29*		*19 - 120*
DCB Decachlorobiphenyl	*34*		*19 - 120*

Lab Sample ID: 480-172508-2 MSD
Matrix: Water
Analysis Batch: 541945

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541858

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		4.00	2.80		ug/L		70	28 - 150	5	50
PCB-1260	ND		4.00	2.58		ug/L		65	25 - 131	1	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*70*		*39 - 121*
Tetrachloro-m-xylene	*60*		*39 - 121*
DCB Decachlorobiphenyl	*30*		*19 - 120*
DCB Decachlorobiphenyl	*35*		*19 - 120*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-396911/1-A
Matrix: Water
Analysis Batch: 397609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		07/21/20 18:38	07/23/20 19:42	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-396911/1-A
Matrix: Water
Analysis Batch: 397609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorohexanesulfonic acid (PFHxS)	0.320	J	2.0	0.17	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		07/21/20 18:38	07/23/20 19:42	1
Perfluorooctanesulfonamide (FOSA)	0.592	J	2.0	0.35	ng/L		07/21/20 18:38	07/23/20 19:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1	ng/L		07/21/20 18:38	07/23/20 19:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9	ng/L		07/21/20 18:38	07/23/20 19:42	1
6:2 FTS	ND		20	2.0	ng/L		07/21/20 18:38	07/23/20 19:42	1
8:2 FTS	ND		20	2.0	ng/L		07/21/20 18:38	07/23/20 19:42	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C5 PFPeA	*91*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C2 PFHxA	*93*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C4 PFHpA	*94*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C4 PFOA	*92*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C5 PFNA	*97*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C2 PFDA	*95*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C2 PFUnA	*91*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C2 PFDoA	*88*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C2 PFTeDA	*86*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
18O2 PFHxS	*91*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C4 PFOS	*90*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C8 FOSA	*88*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
d3-NMeFOSAA	*78*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
d5-NEtFOSAA	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
M2-6:2 FTS	*97*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
M2-8:2 FTS	*103*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*
13C3 PFBS	*87*		*25 - 150*	*07/21/20 18:38*	*07/23/20 19:42*	*1*

Lab Sample ID: LCS 320-396911/2-A
Matrix: Water
Analysis Batch: 397609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	43.9		ng/L		110	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	39.6		ng/L		99	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	43.9		ng/L		110	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	42.9		ng/L		107	72 - 132

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-396911/2-A
Matrix: Water
Analysis Batch: 397609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	40.0	43.4		ng/L		108	70 - 130
Perfluorononanoic acid (PFNA)	40.1	39.9		ng/L		100	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	39.1		ng/L		98	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	39.0		ng/L		97	68 - 128
Perfluorododecanoic acid (PFDoA)	40.2	37.9		ng/L		94	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	40.8		ng/L		102	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	42.4		ng/L		106	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	38.1		ng/L		108	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.3		ng/L		100	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	42.2		ng/L		111	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	38.9		ng/L		105	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	38.7		ng/L		100	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	40.1		ng/L		100	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	43.8		ng/L		109	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.1		ng/L		103	76 - 136
6:2 FTS	37.9	42.1		ng/L		111	59 - 175
8:2 FTS	38.3	41.4		ng/L		108	75 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*94*		*25 - 150*
13C5 PFPeA	*95*		*25 - 150*
13C2 PFHxA	*96*		*25 - 150*
13C4 PFHpA	*98*		*25 - 150*
13C4 PFOA	*96*		*25 - 150*
13C5 PFNA	*104*		*25 - 150*
13C2 PFDA	*99*		*25 - 150*
13C2 PFUnA	*94*		*25 - 150*
13C2 PFDoA	*101*		*25 - 150*
13C2 PFTeDA	*94*		*25 - 150*
18O2 PFHxS	*97*		*25 - 150*
13C4 PFOS	*97*		*25 - 150*
13C8 FOSA	*93*		*25 - 150*
d3-NMeFOSAA	*87*		*25 - 150*
d5-NEtFOSAA	*88*		*25 - 150*
M2-6:2 FTS	*101*		*25 - 150*
M2-8:2 FTS	*102*		*25 - 150*
13C3 PFBS	*94*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 397609

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 396911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	1.0	J	35.7	42.3		ng/L		116	76 - 136
Perfluoropentanoic acid (PFPeA)	ND		35.7	39.0		ng/L		109	71 - 131
Perfluorohexanoic acid (PFHxA)	ND		35.7	39.7		ng/L		111	73 - 133
Perfluoroheptanoic acid (PFHpA)	0.35	J	35.7	39.6		ng/L		110	72 - 132
Perfluorooctanoic acid (PFOA)	ND		35.7	39.0		ng/L		109	70 - 130
Perfluorononanoic acid (PFNA)	ND		35.7	37.7		ng/L		105	75 - 135
Perfluorodecanoic acid (PFDA)	ND		35.7	37.7		ng/L		106	76 - 136
Perfluoroundecanoic acid (PFUnA)	ND		35.7	37.9		ng/L		106	68 - 128
Perfluorododecanoic acid (PFDoA)	ND		35.9	37.6		ng/L		105	71 - 131
Perfluorotridecanoic acid (PFTriA)	ND		35.7	38.6		ng/L		108	71 - 131
Perfluorotetradecanoic acid (PFTeA)	ND		35.7	38.6		ng/L		108	70 - 130
Perfluorobutanesulfonic acid (PFBS)	0.28	J	31.5	34.7		ng/L		109	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	0.35	J B	32.5	32.9		ng/L		100	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	ND		34.0	40.9		ng/L		120	76 - 136
Perfluorooctanesulfonic acid (PFOS)	ND		33.1	37.3		ng/L		113	70 - 130
Perfluorodecanesulfonic acid (PFDS)	ND		34.4	31.6		ng/L		92	71 - 131
Perfluorooctanesulfonamide (FOSA)	ND		35.7	38.5		ng/L		108	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		35.7	40.4		ng/L		113	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		35.7	39.2		ng/L		110	76 - 136
6:2 FTS	ND		33.8	40.2		ng/L		119	59 - 175
8:2 FTS	ND		34.2	38.4		ng/L		112	75 - 135

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*59*		*25 - 150*
13C5 PFPeA	*68*		*25 - 150*
13C2 PFHxA	*73*		*25 - 150*
13C4 PFHpA	*76*		*25 - 150*
13C4 PFOA	*72*		*25 - 150*
13C5 PFNA	*77*		*25 - 150*
13C2 PFDA	*75*		*25 - 150*
13C2 PFUnA	*66*		*25 - 150*
13C2 PFDoA	*66*		*25 - 150*
13C2 PFTeDA	*65*		*25 - 150*
18O2 PFHxS	*80*		*25 - 150*
13C4 PFOS	*74*		*25 - 150*
13C8 FOSA	*75*		*25 - 150*
d3-NMeFOSAA	*62*		*25 - 150*
d5-NEtFOSAA	*62*		*25 - 150*
M2-6:2 FTS	*92*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 397609

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 396911

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
M2-8:2 FTS	85		25 - 150
13C3 PFBS	73		25 - 150

Lab Sample ID: 480-172508-2 MSD
Matrix: Water
Analysis Batch: 397609

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 396911

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	1.0	J	34.5	40.9		ng/L		116	76 - 136	3	30
Perfluoropentanoic acid (PFPeA)	ND		34.5	36.7		ng/L		107	71 - 131	6	30
Perfluorohexanoic acid (PFHxA)	ND		34.5	37.8		ng/L		110	73 - 133	5	30
Perfluoroheptanoic acid (PFHpA)	0.35	J	34.5	37.9		ng/L		109	72 - 132	4	30
Perfluorooctanoic acid (PFOA)	ND		34.5	34.2		ng/L		99	70 - 130	13	30
Perfluorononanoic acid (PFNA)	ND		34.5	35.8		ng/L		104	75 - 135	5	30
Perfluorodecanoic acid (PFDA)	ND		34.5	35.0		ng/L		102	76 - 136	7	30
Perfluoroundecanoic acid (PFUnA)	ND		34.5	34.5		ng/L		100	68 - 128	9	30
Perfluorododecanoic acid (PFDoA)	ND		34.7	34.2		ng/L		99	71 - 131	10	30
Perfluorotridecanoic acid (PFTriA)	ND		34.5	39.0		ng/L		113	71 - 131	1	30
Perfluorotetradecanoic acid (PFTeA)	ND		34.5	38.4		ng/L		111	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	0.28	J	30.5	32.8		ng/L		107	67 - 127	6	30
Perfluorohexanesulfonic acid (PFHxS)	0.35	J B	31.4	30.1		ng/L		95	59 - 119	9	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND		32.8	37.9		ng/L		116	76 - 136	8	30
Perfluorooctanesulfonic acid (PFOS)	ND		32.0	33.9		ng/L		106	70 - 130	10	30
Perfluorodecanesulfonic acid (PFDS)	ND		33.2	28.5		ng/L		86	71 - 131	10	30
Perfluorooctanesulfonamide (FOSA)	ND		34.5	34.3		ng/L		99	73 - 133	12	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		34.5	40.1		ng/L		116	76 - 136	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		34.5	37.0		ng/L		107	76 - 136	6	30
6:2 FTS	ND		32.7	36.3		ng/L		111	59 - 175	10	30
8:2 FTS	ND		33.0	36.4		ng/L		110	75 - 135	6	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	58		25 - 150
13C5 PFPeA	67		25 - 150
13C2 PFHxA	75		25 - 150
13C4 PFHpA	74		25 - 150
13C4 PFOA	78		25 - 150
13C5 PFNA	78		25 - 150
13C2 PFDA	72		25 - 150
13C2 PFUnA	71		25 - 150
13C2 PFDoA	62		25 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-172508-2 MSD
Matrix: Water
Analysis Batch: 397609

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 396911

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C2 PFTeDA	63		25 - 150
18O2 PFHxS	81		25 - 150
13C4 PFOS	77		25 - 150
13C8 FOSA	75		25 - 150
d3-NMeFOSAA	57		25 - 150
d5-NEtFOSAA	61		25 - 150
M2-6:2 FTS	93		25 - 150
M2-8:2 FTS	77		25 - 150
13C3 PFBS	77		25 - 150

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-541026/1-A
Matrix: Water
Analysis Batch: 541325

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 541026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.158	J	0.20	0.060	mg/L		07/18/20 16:45	07/20/20 19:04	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 19:04	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 19:04	1
Barium	ND	^	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 19:04	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 19:04	1
Cadmium	ND		0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 19:04	1
Calcium	ND		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:04	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/20/20 19:04	1
Cobalt	ND		0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 19:04	1
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 19:04	1
Iron	0.0244	J	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 19:04	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 19:04	1
Magnesium	ND		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 19:04	1
Manganese	0.00147	J	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 19:04	1
Nickel	ND		0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 19:04	1
Potassium	ND		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:04	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 19:04	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 19:04	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 19:04	1
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 19:04	1
Zinc	0.00868	J	0.010	0.0015	mg/L		07/18/20 16:45	07/20/20 19:04	1

Lab Sample ID: LCS 480-541026/2-A
Matrix: Water
Analysis Batch: 541325

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 541026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.58		mg/L		106	80 - 120
Antimony	0.200	0.222		mg/L		111	80 - 120
Arsenic	0.200	0.217		mg/L		109	80 - 120
Barium	0.200	0.224	^	mg/L		112	80 - 120
Beryllium	0.200	0.223		mg/L		112	80 - 120

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

Lab Sample ID: LCS 480-541026/2-A
Matrix: Water
Analysis Batch: 541325

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 541026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.200	0.212		mg/L		106	80 - 120
Calcium	10.0	10.80		mg/L		108	80 - 120
Chromium	0.200	0.217		mg/L		108	80 - 120
Cobalt	0.200	0.207		mg/L		103	80 - 120
Copper	0.200	0.212		mg/L		106	80 - 120
Iron	10.0	10.71		mg/L		107	80 - 120
Lead	0.200	0.212		mg/L		106	80 - 120
Magnesium	10.0	10.80		mg/L		108	80 - 120
Manganese	0.200	0.212		mg/L		106	80 - 120
Nickel	0.200	0.208		mg/L		104	80 - 120
Potassium	10.0	10.56		mg/L		106	80 - 120
Selenium	0.200	0.209		mg/L		104	80 - 120
Silver	0.0500	0.0529		mg/L		106	80 - 120
Thallium	0.200	0.214		mg/L		107	80 - 120
Vanadium	0.200	0.216		mg/L		108	80 - 120
Zinc	0.200	0.222		mg/L		111	80 - 120

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 541325

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	ND		10.0	10.57		mg/L		106	75 - 125
Antimony	ND		0.200	0.224		mg/L		112	75 - 125
Arsenic	ND		0.200	0.225		mg/L		112	75 - 125
Barium	0.68	^	0.200	0.848	^	mg/L		83	75 - 125
Beryllium	ND		0.200	0.222		mg/L		111	75 - 125
Cadmium	ND		0.200	0.216		mg/L		108	75 - 125
Calcium	105		10.0	111.4	4	mg/L		68	75 - 125
Cobalt	0.0026	J	0.200	0.212		mg/L		104	75 - 125
Copper	ND		0.200	0.215		mg/L		108	75 - 125
Iron	0.23	B	10.0	10.74		mg/L		105	75 - 125
Lead	ND		0.200	0.219		mg/L		109	75 - 125
Magnesium	22.6		10.0	32.23		mg/L		96	75 - 125
Manganese	1.6	B	0.200	1.80	4	mg/L		89	75 - 125
Nickel	ND		0.200	0.211		mg/L		105	75 - 125
Potassium	0.63		10.0	11.17		mg/L		105	75 - 125
Selenium	ND		0.200	0.214		mg/L		107	75 - 125
Silver	ND		0.0500	0.0540		mg/L		108	75 - 125
Thallium	ND		0.200	0.217		mg/L		108	75 - 125
Vanadium	ND		0.200	0.217		mg/L		108	75 - 125

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 541511

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND		0.200	0.194		mg/L		97	75 - 125
Sodium	1.4	B	10.0	11.13		mg/L		98	75 - 125

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

Lab Sample ID: 480-172508-2 MS
Matrix: Water
Analysis Batch: 541511

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	ND		0.200	0.197		mg/L		99	75 - 125

Lab Sample ID: 480-172508-2 MSD
Matrix: Water
Analysis Batch: 541325

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	ND		10.0	10.64		mg/L		106	75 - 125	1	20
Antimony	ND		0.200	0.227		mg/L		114	75 - 125	1	20
Arsenic	ND		0.200	0.226		mg/L		113	75 - 125	1	20
Barium	0.68	^	0.200	0.872	^	mg/L		95	75 - 125	3	20
Beryllium	ND		0.200	0.225		mg/L		112	75 - 125	1	20
Cadmium	ND		0.200	0.218		mg/L		109	75 - 125	1	20
Calcium	105		10.0	114.8	4	mg/L		102	75 - 125	3	20
Cobalt	0.0026	J	0.200	0.214		mg/L		106	75 - 125	1	20
Copper	ND		0.200	0.220		mg/L		110	75 - 125	2	20
Iron	0.23	B	10.0	10.80		mg/L		106	75 - 125	1	20
Lead	ND		0.200	0.223		mg/L		111	75 - 125	2	20
Magnesium	22.6		10.0	33.70		mg/L		111	75 - 125	4	20
Manganese	1.6	B	0.200	1.91	4	mg/L		147	75 - 125	6	20
Nickel	ND		0.200	0.214		mg/L		107	75 - 125	1	20
Potassium	0.63		10.0	11.27		mg/L		106	75 - 125	1	20
Selenium	ND		0.200	0.213		mg/L		106	75 - 125	1	20
Silver	ND		0.0500	0.0552		mg/L		110	75 - 125	2	20
Thallium	ND		0.200	0.220		mg/L		110	75 - 125	1	20
Vanadium	ND		0.200	0.223		mg/L		111	75 - 125	3	20

Lab Sample ID: 480-172508-2 MSD
Matrix: Water
Analysis Batch: 541511

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 541026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		0.200	0.195		mg/L		98	75 - 125	1	20
Sodium	1.4	B	10.0	11.16		mg/L		98	75 - 125	0	20
Zinc	ND		0.200	0.202		mg/L		101	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-541229/1-A
Matrix: Water
Analysis Batch: 541418

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 541229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 14:57	1

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

Lab Sample ID: LCS 480-541229/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 541418
Prep Batch: 541229

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00690		mg/L		103	80 - 120		

Lab Sample ID: 480-172508-2 MS
Client Sample ID: MW-302
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 541418
Prep Batch: 541229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00667	0.00688		mg/L		103	80 - 120		

Lab Sample ID: 480-172508-2 MSD
Client Sample ID: MW-302
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 541418
Prep Batch: 541229

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00677		mg/L		101	80 - 120	2	20

QC Association Summary

Client: New York State D.E.C.
Project/Site: North Lawrence Oil Dump #645013

Job ID: 480-172508-1

GC/MS VOA

Analysis Batch: 542071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	8260C	
480-172508-2	MW-302	Total/NA	Water	8260C	
480-172508-3	MW-301	Total/NA	Water	8260C	
480-172508-4	DUPA	Total/NA	Water	8260C	
480-172508-5	MW-303	Total/NA	Water	8260C	
480-172508-6	TRIP BLANK	Total/NA	Water	8260C	
MB 480-542071/8	Method Blank	Total/NA	Water	8260C	
LCS 480-542071/6	Lab Control Sample	Total/NA	Water	8260C	
480-172508-2 MS	MW-302	Total/NA	Water	8260C	
480-172508-2 MSD	MW-302	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 541207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	3510C	
480-172508-2	MW-302	Total/NA	Water	3510C	
480-172508-3	MW-301	Total/NA	Water	3510C	
480-172508-4	DUPA	Total/NA	Water	3510C	
480-172508-5	MW-303	Total/NA	Water	3510C	
MB 480-541207/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-541207/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-172508-2 MS	MW-302	Total/NA	Water	3510C	
480-172508-2 MSD	MW-302	Total/NA	Water	3510C	

Analysis Batch: 541589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	8270D SIM ID	541207
480-172508-2	MW-302	Total/NA	Water	8270D SIM ID	541207
480-172508-3	MW-301	Total/NA	Water	8270D SIM ID	541207
480-172508-4	DUPA	Total/NA	Water	8270D SIM ID	541207
480-172508-5	MW-303	Total/NA	Water	8270D SIM ID	541207
MB 480-541207/1-A	Method Blank	Total/NA	Water	8270D SIM ID	541207
LCS 480-541207/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	541207
480-172508-2 MS	MW-302	Total/NA	Water	8270D SIM ID	541207
480-172508-2 MSD	MW-302	Total/NA	Water	8270D SIM ID	541207

GC Semi VOA

Prep Batch: 541858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	3510C	
480-172508-2	MW-302	Total/NA	Water	3510C	
480-172508-3	MW-301	Total/NA	Water	3510C	
480-172508-4	DUPA	Total/NA	Water	3510C	
480-172508-5	MW-303	Total/NA	Water	3510C	
MB 480-541858/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-541858/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-172508-2 MS	MW-302	Total/NA	Water	3510C	
480-172508-2 MSD	MW-302	Total/NA	Water	3510C	

QC Association Summary

Client: New York State D.E.C.
Project/Site: North Lawrence Oil Dump #645013

Job ID: 480-172508-1

GC Semi VOA

Analysis Batch: 541945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	8082A	541858
480-172508-2	MW-302	Total/NA	Water	8082A	541858
480-172508-3	MW-301	Total/NA	Water	8082A	541858
480-172508-4	DUPA	Total/NA	Water	8082A	541858
480-172508-5	MW-303	Total/NA	Water	8082A	541858
MB 480-541858/1-A	Method Blank	Total/NA	Water	8082A	541858
LCS 480-541858/2-A	Lab Control Sample	Total/NA	Water	8082A	541858
480-172508-2 MS	MW-302	Total/NA	Water	8082A	541858
480-172508-2 MSD	MW-302	Total/NA	Water	8082A	541858

LCMS

Prep Batch: 396911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	3535	
480-172508-2	MW-302	Total/NA	Water	3535	
480-172508-3	MW-301	Total/NA	Water	3535	
480-172508-4	DUPA	Total/NA	Water	3535	
480-172508-5	MW-303	Total/NA	Water	3535	
MB 320-396911/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-396911/2-A	Lab Control Sample	Total/NA	Water	3535	
480-172508-2 MS	MW-302	Total/NA	Water	3535	
480-172508-2 MSD	MW-302	Total/NA	Water	3535	

Analysis Batch: 397609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	537 (modified)	396911
480-172508-2	MW-302	Total/NA	Water	537 (modified)	396911
480-172508-3	MW-301	Total/NA	Water	537 (modified)	396911
480-172508-4	DUPA	Total/NA	Water	537 (modified)	396911
480-172508-5	MW-303	Total/NA	Water	537 (modified)	396911
MB 320-396911/1-A	Method Blank	Total/NA	Water	537 (modified)	396911
LCS 320-396911/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	396911
480-172508-2 MS	MW-302	Total/NA	Water	537 (modified)	396911
480-172508-2 MSD	MW-302	Total/NA	Water	537 (modified)	396911

Metals

Prep Batch: 541026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	3005A	
480-172508-2	MW-302	Total/NA	Water	3005A	
480-172508-3	MW-301	Total/NA	Water	3005A	
480-172508-4	DUPA	Total/NA	Water	3005A	
480-172508-5	MW-303	Total/NA	Water	3005A	
MB 480-541026/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-541026/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-172508-2 MS	MW-302	Total/NA	Water	3005A	
480-172508-2 MSD	MW-302	Total/NA	Water	3005A	

Metals

Prep Batch: 541229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	7470A	
480-172508-2	MW-302	Total/NA	Water	7470A	
480-172508-3	MW-301	Total/NA	Water	7470A	
480-172508-4	DUPA	Total/NA	Water	7470A	
480-172508-5	MW-303	Total/NA	Water	7470A	
MB 480-541229/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-541229/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-172508-2 MS	MW-302	Total/NA	Water	7470A	
480-172508-2 MSD	MW-302	Total/NA	Water	7470A	

Analysis Batch: 541325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	6010C	541026
480-172508-2	MW-302	Total/NA	Water	6010C	541026
480-172508-3	MW-301	Total/NA	Water	6010C	541026
480-172508-4	DUPA	Total/NA	Water	6010C	541026
480-172508-5	MW-303	Total/NA	Water	6010C	541026
MB 480-541026/1-A	Method Blank	Total/NA	Water	6010C	541026
LCS 480-541026/2-A	Lab Control Sample	Total/NA	Water	6010C	541026
480-172508-2 MS	MW-302	Total/NA	Water	6010C	541026
480-172508-2 MSD	MW-302	Total/NA	Water	6010C	541026

Analysis Batch: 541418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	7470A	541229
480-172508-2	MW-302	Total/NA	Water	7470A	541229
480-172508-3	MW-301	Total/NA	Water	7470A	541229
480-172508-4	DUPA	Total/NA	Water	7470A	541229
480-172508-5	MW-303	Total/NA	Water	7470A	541229
MB 480-541229/1-A	Method Blank	Total/NA	Water	7470A	541229
LCS 480-541229/2-A	Lab Control Sample	Total/NA	Water	7470A	541229
480-172508-2 MS	MW-302	Total/NA	Water	7470A	541229
480-172508-2 MSD	MW-302	Total/NA	Water	7470A	541229

Analysis Batch: 541511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172508-1	MW-102A	Total/NA	Water	6010C	541026
480-172508-2	MW-302	Total/NA	Water	6010C	541026
480-172508-3	MW-301	Total/NA	Water	6010C	541026
480-172508-4	DUPA	Total/NA	Water	6010C	541026
480-172508-5	MW-303	Total/NA	Water	6010C	541026
480-172508-2 MS	MW-302	Total/NA	Water	6010C	541026
480-172508-2 MSD	MW-302	Total/NA	Water	6010C	541026

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-102A
Lab Sample ID: 480-172508-1
Date Collected: 07/15/20 13:45
Matrix: Water
Date Received: 07/17/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	542071	07/25/20 02:59	AMM	TAL BUF
Total/NA	Prep	3510C			541207	07/20/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	541589	07/23/20 04:52	RJS	TAL BUF
Total/NA	Prep	3510C			541858	07/23/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8082A		1	541945	07/24/20 20:20	W1T	TAL BUF
Total/NA	Prep	3535			396911	07/21/20 18:38	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	397609	07/23/20 20:00	AEC	TAL SAC
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541325	07/20/20 19:50	LMH	TAL BUF
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541511	07/21/20 19:13	LMH	TAL BUF
Total/NA	Prep	7470A			541229	07/21/20 12:22	BMB	TAL BUF
Total/NA	Analysis	7470A		1	541418	07/21/20 15:00	BMB	TAL BUF

Client Sample ID: MW-302
Lab Sample ID: 480-172508-2
Date Collected: 07/15/20 15:20
Matrix: Water
Date Received: 07/17/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	542071	07/25/20 03:23	AMM	TAL BUF
Total/NA	Prep	3510C			541207	07/20/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	541589	07/23/20 02:35	RJS	TAL BUF
Total/NA	Prep	3510C			541858	07/23/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8082A		1	541945	07/24/20 18:53	W1T	TAL BUF
Total/NA	Prep	3535			396911	07/21/20 18:38	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	397609	07/23/20 20:09	AEC	TAL SAC
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541325	07/20/20 19:54	LMH	TAL BUF
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541511	07/21/20 19:17	LMH	TAL BUF
Total/NA	Prep	7470A			541229	07/21/20 12:22	BMB	TAL BUF
Total/NA	Analysis	7470A		1	541418	07/21/20 15:01	BMB	TAL BUF

Client Sample ID: MW-301
Lab Sample ID: 480-172508-3
Date Collected: 07/15/20 17:05
Matrix: Water
Date Received: 07/17/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	542071	07/25/20 03:48	AMM	TAL BUF
Total/NA	Prep	3510C			541207	07/20/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	541589	07/23/20 05:14	RJS	TAL BUF
Total/NA	Prep	3510C			541858	07/23/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8082A		1	541945	07/24/20 20:32	W1T	TAL BUF
Total/NA	Prep	3535			396911	07/21/20 18:38	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	397609	07/23/20 20:36	AEC	TAL SAC

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: MW-301
Lab Sample ID: 480-172508-3
Date Collected: 07/15/20 17:05
Matrix: Water
Date Received: 07/17/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541325	07/20/20 20:05	LMH	TAL BUF
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541511	07/21/20 19:39	LMH	TAL BUF
Total/NA	Prep	7470A			541229	07/21/20 12:22	BMB	TAL BUF
Total/NA	Analysis	7470A		1	541418	07/21/20 15:07	BMB	TAL BUF

Client Sample ID: DUPA
Lab Sample ID: 480-172508-4
Date Collected: 07/15/20 16:00
Matrix: Water
Date Received: 07/17/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	542071	07/25/20 04:12	AMM	TAL BUF
Total/NA	Prep	3510C			541207	07/20/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	541589	07/23/20 05:37	RJS	TAL BUF
Total/NA	Prep	3510C			541858	07/23/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8082A		1	541945	07/24/20 20:44	W1T	TAL BUF
Total/NA	Prep	3535			396911	07/21/20 18:38	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	397609	07/23/20 20:45	AEC	TAL SAC
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541325	07/20/20 20:09	LMH	TAL BUF
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541511	07/21/20 19:43	LMH	TAL BUF
Total/NA	Prep	7470A			541229	07/21/20 12:22	BMB	TAL BUF
Total/NA	Analysis	7470A		1	541418	07/21/20 15:09	BMB	TAL BUF

Client Sample ID: MW-303
Lab Sample ID: 480-172508-5
Date Collected: 07/15/20 18:30
Matrix: Water
Date Received: 07/17/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	542071	07/25/20 04:36	AMM	TAL BUF
Total/NA	Prep	3510C			541207	07/20/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	541589	07/23/20 06:00	RJS	TAL BUF
Total/NA	Prep	3510C			541858	07/23/20 15:09	ATG	TAL BUF
Total/NA	Analysis	8082A		1	541945	07/24/20 21:21	W1T	TAL BUF
Total/NA	Prep	3535			396911	07/21/20 18:38	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	397609	07/23/20 20:55	AEC	TAL SAC
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541325	07/20/20 20:13	LMH	TAL BUF
Total/NA	Prep	3005A			541026	07/18/20 16:45	KMP	TAL BUF
Total/NA	Analysis	6010C		1	541511	07/21/20 19:47	LMH	TAL BUF
Total/NA	Prep	7470A			541229	07/21/20 12:22	BMB	TAL BUF
Total/NA	Analysis	7470A		1	541418	07/21/20 15:10	BMB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-172508-6
Date Collected: 07/15/20 00:00
Matrix: Water
Date Received: 07/17/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	542071	07/25/20 05:00	AMM	TAL BUF

Laboratory References:

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

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-02-21

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11666	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
5030C	Purge and Trap	SW846	TAL BUF
7470A	Preparation, Mercury	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-172508-1	MW-102A	Water	07/15/20 13:45	07/17/20 08:00	
480-172508-2	MW-302	Water	07/15/20 15:20	07/17/20 08:00	
480-172508-3	MW-301	Water	07/15/20 17:05	07/17/20 08:00	
480-172508-4	DUPA	Water	07/15/20 16:00	07/17/20 08:00	
480-172508-5	MW-303	Water	07/15/20 18:30	07/17/20 08:00	
480-172508-6	TRIP BLANK	Water	07/15/20 00:00	07/17/20 08:00	

Quantitation Limit Exceptions Summary

Client: New York State D.E.C.
Job ID: 480-172508-1
Project/Site: North Lawrence Oil Dump #645013

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Analyte	Matrix	Prep Type	Unit	Client RL	Lab PQL
537 (modified)	Perfluorobutanesulfonic acid (PFBS)	Water	Total/NA	ng/L	1.9	2

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Brian Neumann	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-147925-32902.1
Client Contact: Brian Neumann	Phone: 518-885-4399	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: Precision Environmental Services Inc.				Job #:
Address: 831 State Route 67 Ste 38	Due Date Requested:			
City: Ballston Spa	TAT Requested (days): Standard			
State, Zip: NY, 12020				
Phone:	PO #: Callout 137968			
Email: bneumann@pesnyinc.com	WO #:			
Project Name: North Lawrence Oil Dump #645013	Project #: 48022395			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	8082A - TCL PCBs	6010C, 7470A	8260C - TCL VOAs	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	A	N		
MW-102A	7/15/20	1345	G	Water			X	X	X	X	X	10	
MW-303 302 (BN)	7/15/20	1520	G	Water		X	X	X	X	X	X	24 (BN) 30	3 PCB & 3 DIOXANE
MW-301	7/15/20	1905	G	Water			X	X	X	X	X	8	
DUPA	7/15/20	1600	G	Water			X	X	X	X	X	8	
MW-303	7/15/20	1830	G	Water			X	X	X	X	X	8	
TRIPBLANK	7/15/20	X	X	Water						X		3 2 (BN)	
				Water									
				Water									

480-172508 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7/16/20 @ 0900			7/16/20 0900	
2	Relinquished by: Kat Zocher	7/16/20 1700		Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	7/17/20 0800	TAB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.4, 2.9 #1

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Brian Neumann	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-147925-32902.1
Client Contact: Brian Neumann	Phone: 518-885-4399	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: Precision Environmental Services Inc.				Job #:
Address: 831 State Route 67 Ste 38	Due Date Requested:	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify); Other:
City: Ballston Spa	TAT Requested (days): Standard			
State, Zip: NY, 12020	PO #: Callout 137968			
Phone:	WO #:			
Email: bneumann@pesnyinc.com	Project #: 48022395			
Project Name: North Lawrence Oil Dump #645013	SSOW#:			
Site:				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	8082A - TCL PCBs	6010C, 7470A	8260C - TCL VOAs	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	D	A	N	X	
MW-102A	7/15/20	1345	G	Water			X	X	X	X	X	10	
MW-~~303~~ 302 (BN)	7/15/20	1520	G	Water		X	X	X	X	X	X	(BN) 24 ~~30~~	3 PCB & 3 DIOXANE
MW-301	7/15/20	1905	G	Water			X	X	X	X	X	8	
DUPA	7/15/20	1600	G	Water			X	X	X	X	X	8	
MW-303	7/15/20	1830	G	Water			X	X	X	X	X	8	
TRIPBLANK	7/15/20	X	X	Water						X		~~3~~ 2 (BN)	
				Water									
				Water									

480-172508 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7/16/20 @ 0900			7/16/20 0900	Eurofins
Relinquished by: Kail Lardner	Date/Time: 7/16/20 1700	Company Eurofins	Received by:	Date/Time: 7/16 17:20	Company ETA-SAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 905	Company

Custody Seals Intact: ☒ Yes ☐ No	Custody Seal No.: 113760 / 124753	Cooler Temperature(s) °C and Other Remarks: 2.7°C / 4.4°C

Ver: 01/16/2019

eurofins | Environment Testing TestAmerica

Sacramento Sample Receiving Notes

Place Field Sheet Label Here

Tracking # : 1891 4486 0100

Job: _____

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Therm. ID: AK5 Corr. Factor: (+ / -) 0 °C

Ice ✓ Wet ✓ Gel _____ Other _____

Cooler Custody Seal: 1247531

Cooler ID: 1 of 2

Temp Observed: 4.4 °C Corrected: 4.4 °C

From: Temp Blank ☒ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐

Initials: PK Date: July 17, 20

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☐	☒	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: SR Date: 7/18/20

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☒	☐	☐
Log Release checked in TALS?	☐	☐	☒

Initials: SR Date: 7/18/20

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Sacramento Sample Receiving Notes

480-172508 Field Sheet

Job: _____

Tracking # : 1891 4486 0110

SO / (PO) / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Therm. ID: AK5 Corr. Factor: (+ / -) 0 °C

Ice ✓ Wet ✓ Gel _____ Other _____

Cooler Custody Seal: 1137601

Cooler ID: 2 of 2

Temp Observed: 2.7 °C Corrected: 2.7 °C

From: Temp Blank ☒ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐

Initials: PK Date: 7/17/20

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☐	☒	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: KT Date: 7/18/20

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☒	☐	☐
Log Release checked in TALS?	☐	☐	☒

Initials: KT Date: 7/18/20

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-172508-1

Login Number: 172508

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4 2.9 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	PRECISION
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-172508-1

Login Number: 172508
List Number: 2
Creator: Thompson, Sarah W

List Source: Eurofins TestAmerica, Sacramento
List Creation: 07/18/20 09:31 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1137601, 1247531
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4c, 2.7c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix F

ALPHA
GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

August 22, 2020

Mr. Brian Neumann
Project Manager
Precision Environmental Services, Inc.
Curtis Industrial Park
831 Rt. 67, Lot 38A.
Ballston Spa, New York 12020

Re: Data Usability Summary Report
North Lawrence Oil Dump
July 2020 Ground Water Event

Dear Mr. Neumann:

The data usability summary report and data validation summary are attached to this letter for the former North Lawrence Oil Dump, July 2020 ground water event. The data for Eurofins TestAmerica-Buffalo, job number 480-172508-1 were acceptable with some minor issues identified in the validation summaries. There were no data that were qualified unusable (R) in the data packs.

A list of common data validation acronyms and data validation qualifiers are attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Precision Environmental Services, Inc.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA:dca
attachments

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ALPHA
GEOSCIENCE
Geology
Hydrology
Remediation
Water Supply

Data Usability Summary Report (DUSR) for
TestAmerica Buffalo, Job Number: 460-172508-1

4 Ground Water Samples, 1 Field Duplicate,
and 1 Trip Blank
Collected July 15, 2020

Prepared by: Donald Anné
August 22, 2020

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contained the results for 4 ground water samples, 1 field duplicate, and 1 trip blank analyzed for volatiles, and the results for 4 ground water samples and 1 field duplicate analyzed for 1,4-dioxane, PCBs, PFAS and TAL metals.

The overall performances of the analyses are acceptable. Eurofins TestAmerica-Buffalo & Burlington did fulfill the requirements of the laboratory referenced analytical methods.

The data are acceptable with some minor issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The "not detected" volatile results for styrene and trans-1,3-dichloropropene were qualified as "estimated" (UJ) in sample MW-302 because 1 of 2 percent recoveries for styrene and trans-1,3-dichloropropene were below QC limits, but not below 30% in the aqueous MS/MSD.

- The positive PFAS results for PFHxS were qualified as "not detected" (U) at the reporting limit (RL) for samples all 4 ground water samples and DUPA because the samples were associated with the method blank containing PFHxS below the RL and reported concentrations were below the reporting limit.

- The positive PFAS results for FOSA was qualified as "not detected" (U) at the reporting limit (RL) for sample MW-102A because the sample was associated with the method blank containing FOSA below the RL and reported concentration was below the reporting limit.

All data are considered usable with estimated (UJ) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high andassociated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Polyfluorinated Alkyl Substances (PFAS) Acronyms

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTriA or PFTrDA	Perfluorotridecanoic acid
PFTeA or PFTA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
FOSA	Perfluorooctane Sulfonamide
NMeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid
4:2 FTS or 4:2	1H, 1H, 2H, 2H-perfluorohexanesulfonic acid
6:2 FTS or 6:2	1H, 1H, 2H, 2H-perfluorooctanesulfonic acid or 6:2 Fluorotelomersulfonate
8:2 FTS or 8:2	1H, 1H, 2H, 2H-perfluorodecanesulfonic acid or 8:2 Fluorotelomersulfonate

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of Method 8260C Volatiles Data for
Eurofins TestAmerica-Buffalo, Job No: 480-172508-1

4 Ground Water Samples, 1 Field Duplicate,
and 1 Trip Blank
Collected July 15, 2020

Prepared by: Donald Anné
August 22, 2020

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for applicable compounds were above the method minimums and the %RSDs were below the method maximum, as required.

The average RRFs for target compounds were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for applicable compounds were above the method minimums and the %Ds were below the method maximum, as required.

The RRFs for target compounds were above the allowable minimum (0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: The analyses of the method and trip blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were with control limits for the ground water samples and trip blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target compounds were below the allowable maximum, but 1 of 2 percent recoveries for styrene and trans-1,3-dichloropropene were below QC limits, but not below 30% for aqueous MS/MSD sample MW-302. The "not detected" results for styrene and trans-1,3-dichloropropene should be considered estimated (UJ) in sample MW-302.

679 Plank Road ● Clifton Park, New York 12065 ● (518) 348-6995 ● Fax (518) 348-6966
www.alphageoscience.com

Laboratory Control Sample: The percent recoveries for target compounds were within QC limits for aqueous sample LCS 480-542071/6.

Field Duplicates: The relative percent difference for cis-1,2-dichloroethene was below the allowable maximum (20%) for aqueous field duplicate pair MW-301/DUPA (attached table), as required.

Compound ID: Checked surrogates and compounds were within quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-172508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: N4746.D

Lab ID: 480-172508-2 MS Client ID: MW-302 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	ND	21.8	87	73-126	
1,1,2,2-Tetrachloroethane	25.0	ND	21.3	85	76-120	
1,1,2-Trichloroethane	25.0	ND	22.9	91	76-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	ND	21.6	86	61-148	
1,1-Dichloroethane	25.0	ND	23.4	94	77-120	
1,1-Dichloroethene	25.0	ND	22.1	88	66-127	
1,2,4-Trichlorobenzene	25.0	ND	22.8	91	79-122	
1,2-Dibromo-3-Chloropropane	25.0	ND	22.9	92	56-134	
1,2-Dichlorobenzene	25.0	ND	21.7	87	80-124	
1,2-Dichloroethane	25.0	ND	23.1	92	75-120	
1,2-Dichloropropane	25.0	ND	22.8	91	76-120	
1,3-Dichlorobenzene	25.0	ND	21.9	88	77-120	
1,4-Dichlorobenzene	25.0	ND	22.0	88	78-124	
2-Butanone (MEK)	125	ND	126	101	57-140	
2-Hexanone	125	ND	124	99	65-127	
4-Methyl-2-pentanone (MIBK)	125	ND	126	101	71-125	
Acetone	125	ND	129	103	56-142	
Benzene	25.0	ND	21.7	87	71-124	
Bromodichloromethane	25.0	ND	22.5	90	80-122	
Bromoform	25.0	ND	21.0	84	61-132	
Bromomethane	25.0	ND	22.6	90	55-144	
Carbon disulfide	25.0	ND	20.4	82	59-134	
Carbon tetrachloride	25.0	ND	22.5	90	72-134	
Chlorobenzene	25.0	ND	22.3	89	80-120	
Dibromochloromethane	25.0	ND	22.4	90	75-125	
Chloroethane	25.0	ND	21.4	85	69-136	
Chloroform	25.0	ND	21.7	87	73-127	
Chloromethane	25.0	ND	23.0	92	68-124	
cis-1,2-Dichloroethene	25.0	ND	22.0	88	74-124	
cis-1,3-Dichloropropene	25.0	ND	20.4	82	74-124	
Cyclohexane	25.0	ND	23.5	94	59-135	
Dichlorodifluoromethane	25.0	ND	19.5	78	59-135	
Ethylbenzene	25.0	ND	22.2	89	77-123	
1,2-Dibromoethane	25.0	ND	23.0	92	77-120	
Isopropylbenzene	25.0	ND	22.8	91	77-122	
Methyl acetate	50.0	ND	44.6	89	74-133	
Methyl tert-butyl ether	25.0	ND	22.8	91	77-120	
Methylcyclohexane	25.0	ND	21.8	87	68-134	
Methylene Chloride	25.0	ND	21.2	85	75-124	
Styrene	25.0	ND	22.2	89	80-120	
Tetrachloroethene	25.0	ND	23.3	93	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-172508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: N4746.D

Lab ID: 480-172508-2 MS Client ID: MW-302 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	25.0	ND	22.4	90	80-122	
trans-1,2-Dichloroethene	25.0	ND	21.2	85	73-127	
trans-1,3-Dichloropropene	25.0	ND	21.5	86	80-120	
Trichloroethene	25.0	ND	21.1	84	74-123	
Trichlorofluoromethane	25.0	ND	22.1	89	62-150	
Vinyl chloride	25.0	ND	22.7	91	65-133	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-172508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: N4747.D

Lab ID: 480-172508-2 MSD Client ID: MW-302 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	20.4	82	7	15	73-126	
1,1,2,2-Tetrachloroethane	25.0	20.5	82	4	15	76-120	
1,1,2-Trichloroethane	25.0	20.9	84	9	15	76-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	20.2	81	7	20	61-148	
1,1-Dichloroethane	25.0	21.2	85	10	20	77-120	
1,1-Dichloroethene	25.0	20.2	81	9	16	66-127	
1,2,4-Trichlorobenzene	25.0	22.8	91	0	20	79-122	
1,2-Dibromo-3-Chloropropane	25.0	22.8	91	0	15	56-134	
1,2-Dichlorobenzene	25.0	20.7	83	4	20	80-124	
1,2-Dichloroethane	25.0	21.4	86	7	20	75-120	
1,2-Dichloropropane	25.0	20.5	82	11	20	76-120	
1,3-Dichlorobenzene	25.0	19.8	79	10	20	77-120	
1,4-Dichlorobenzene	25.0	20.0	80	10	20	78-124	
2-Butanone (MEK)	125	124	99	2	20	57-140	
2-Hexanone	125	117	94	6	15	65-127	
4-Methyl-2-pentanone (MIBK)	125	122	98	3	35	71-125	
Acetone	125	128	103	0	15	56-142	
Benzene	25.0	19.5	78	10	13	71-124	
Bromodichloromethane	25.0	20.3	81	11	15	80-122	
Bromoform	25.0	19.1	76	10	15	61-132	
Bromomethane	25.0	21.0	84	7	15	55-144	
Carbon disulfide	25.0	18.5	74	10	15	59-134	
Carbon tetrachloride	25.0	20.3	81	10	15	72-134	
Chlorobenzene	25.0	20.1	81	10	25	80-120	
Dibromochloromethane	25.0	19.9	80	12	15	75-125	
Chloroethane	25.0	21.1	84	1	15	69-136	
Chloroform	25.0	19.4	78	11	20	73-127	
Chloromethane	25.0	22.5	90	2	15	68-124	
cis-1,2-Dichloroethene	25.0	19.3	77	13	15	74-124	
cis-1,3-Dichloropropene	25.0	18.4	74	10	15	74-124	
Cyclohexane	25.0	21.8	87	8	20	59-135	
Dichlorodifluoromethane	25.0	18.6	74	5	20	59-135	
Ethylbenzene	25.0	20.4	82	8	15	77-123	
1,2-Dibromoethane	25.0	21.0	84	9	15	77-120	
Isopropylbenzene	25.0	21.1	84	8	20	77-122	
Methyl acetate	50.0	42.1	84	6	20	74-133	
Methyl tert-butyl ether	25.0	21.5	86	6	37	77-120	
Methylcyclohexane	25.0	19.8	79	9	20	68-134	
Methylene Chloride	25.0	19.6	78	8	15	75-124	
Styrene	25.0	19.8	79	12	20	80-120	F1
Tetrachloroethene	25.0	21.2	85	10	20	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-172508-1

SDG No.:

Matrix: Water Level: Low Lab File ID: N4747.D

Lab ID: 480-172508-2 MSD Client ID: MW-302 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	25.0	20.6	82	9	15	80-122	
trans-1,2-Dichloroethene	25.0	19.1	76	10	20	73-127	
trans-1,3-Dichloropropene	25.0	19.3	77	10	15	80-120	F1
Trichloroethene	25.0	19.5	78	7	16	74-123	
Trichlorofluoromethane	25.0	21.6	87	2	20	62-150	
Vinyl chloride	25.0	22.1	88	3	15	65-133	

Column to be used to flag recovery and RPD values

FORM III 8260C

Client Sample ID: MW-102A
Lab Sample ID: 480-172508-1

Date Collected: 07/15/20 13:45
Matrix: Water

Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 02:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 02:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 02:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 02:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 02:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 02:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 02:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 02:59	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 02:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 02:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 02:59	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 02:59	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 02:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 02:59	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 02:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 02:59	1
Acetone	ND		10	3.0	ug/L			07/25/20 02:59	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 02:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 02:59	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 02:59	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 02:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 02:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 02:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 02:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 02:59	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 02:59	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 02:59	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 02:59	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 02:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 02:59	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 02:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 02:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 02:59	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 02:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 02:59	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 02:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 02:59	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 02:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 02:59	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 02:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 02:59	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 02:59	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 02:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 02:59	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 02:59	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 02:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 02:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 02:59	1

Client Sample ID: MW-102A
Date Collected: 07/15/20 13:45
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/25/20 02:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*07/25/20 02:59*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*07/25/20 02:59*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*07/25/20 02:59*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 04:52	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	*21*		*15 - 110*	*07/20/20 15:09*	*07/23/20 04:52*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:20	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*67*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:20*	*1*
Tetrachloro-m-xylene	*65*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:20*	*1*
DCB Decachlorobiphenyl	*43*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:20*	*1*
DCB Decachlorobiphenyl	*51*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:20*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.57**	**J**	1.8	0.31	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.43	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.51	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.22	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorooctanoic acid (PFOA)	ND		1.8	0.75	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.24	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.27	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.97	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.48	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.1	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorotetradecanoic acid (PFTeA)	**0.43**	**J**	1.8	0.25	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.18	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorohexanesulfonic acid (PFHxS)	**1.8**	**U**	1.8	0.15	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.17	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorooctanesulfonic acid (PFOS)	**0.85**	**J**	1.8	0.47	ng/L		07/21/20 18:38	07/23/20 20:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.28	ng/L		07/21/20 18:38	07/23/20 20:00	1

Client Sample ID: MW-102A
Date Collected: 07/15/20 13:45
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (FOSA)	**1.8**	**U**	1.8	0.31	ng/L		07/21/20 18:38	07/23/20 20:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.7	ng/L		07/21/20 18:38	07/23/20 20:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.7	ng/L		07/21/20 18:38	07/23/20 20:00	1
6:2 FTS	**22**		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:00	1
8:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*84*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C5 PFPeA	*88*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFHxA	*92*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C4 PFHpA	*93*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C4 PFOA	*95*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C5 PFNA	*98*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFDA	*93*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFUnA	*96*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFDoA	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C2 PFTeDA	*81*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
18O2 PFHxS	*95*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C4 PFOS	*92*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C8 FOSA	*94*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
d3-NMeFOSAA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
d5-NEtFOSAA	*84*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
M2-6:2 FTS	*100*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
M2-8:2 FTS	*110*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*
13C3 PFBS	*91*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:00*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/18/20 16:45	07/20/20 19:50	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 19:50	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 19:50	1
Barium	**0.13**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 19:50	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 19:50	1
Cadmium	**0.00051**	**J**	0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 19:50	1
Calcium	**69.6**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:50	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:13	1
Cobalt	ND		0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 19:50	1
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 19:50	1
Iron	**0.72**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 19:50	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 19:50	1
Magnesium	**34.1**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 19:50	1
Manganese	**0.033**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 19:50	1
Nickel	ND		0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 19:50	1
Potassium	**1.5**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:50	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 19:50	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 19:50	1
Sodium	**2.8**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:13	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 19:50	1

Client Sample ID: MW-102A — Lab Sample ID: 480-172508-1

Date Collected: 07/15/20 13:45 **Matrix: Water**
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 19:50	1
Zinc	**0.0052**	**J B**	0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:00	1

Client Sample ID: MW-302 — Lab Sample ID: 480-172508-2

Date Collected: 07/15/20 15:20 **Matrix: Water**
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 03:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 03:23	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 03:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 03:23	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 03:23	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 03:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 03:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 03:23	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 03:23	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 03:23	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 03:23	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 03:23	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 03:23	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 03:23	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 03:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 03:23	1
Acetone	ND		10	3.0	ug/L			07/25/20 03:23	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 03:23	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 03:23	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 03:23	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 03:23	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 03:23	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 03:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 03:23	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 03:23	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 03:23	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 03:23	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 03:23	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 03:23	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 03:23	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 03:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 03:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 03:23	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 03:23	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 03:23	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 03:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 03:23	1

Client Sample ID: MW-302
Date Collected: 07/15/20 15:20
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 03:23	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 03:23	1
Styrene	ND	UJ	1.0	0.73	ug/L			07/25/20 03:23	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 03:23	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 03:23	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 03:23	1
trans-1,3-Dichloropropene	ND	UJ	1.0	0.37	ug/L			07/25/20 03:23	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 03:23	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 03:23	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 03:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/25/20 03:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*07/25/20 03:23*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*07/25/20 03:23*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*07/25/20 03:23*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 02:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*23*		*15 - 110*	*07/20/20 15:09*	*07/23/20 02:35*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 18:53	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*39 - 121*	*07/23/20 15:09*	*07/24/20 18:53*	*1*
Tetrachloro-m-xylene	*64*		*39 - 121*	*07/23/20 15:09*	*07/24/20 18:53*	*1*
DCB Decachlorobiphenyl	*35*		*19 - 120*	*07/23/20 15:09*	*07/24/20 18:53*	*1*
DCB Decachlorobiphenyl	*41*		*19 - 120*	*07/23/20 15:09*	*07/24/20 18:53*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.0**	**J**	1.8	0.31	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.43	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.51	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluoroheptanoic acid (PFHpA)	**0.35**	**J**	1.8	0.22	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorooctanoic acid (PFOA)	ND		1.8	0.75	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.24	ng/L		07/21/20 18:38	07/23/20 20:09	1

Client Sample ID: MW-302 — Lab Sample ID: 480-172508-2

Date Collected: 07/15/20 15:20 — **Matrix: Water**
Date Received: 07/17/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	ND		1.8	0.27	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.97	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.48	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.1	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.26	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorobutanesulfonic acid (PFBS)	**0.28**	**J**	1.8	0.18	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorohexanesulfonic acid (PFHxS)	**1.8**	**U**	1.8	0.15	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.17	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.48	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.28	ng/L		07/21/20 18:38	07/23/20 20:09	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	0.31	ng/L		07/21/20 18:38	07/23/20 20:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.7	ng/L		07/21/20 18:38	07/23/20 20:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.7	ng/L		07/21/20 18:38	07/23/20 20:09	1
6:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:09	1
8:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*60*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C5 PFPeA	*69*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFHxA	*76*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C4 PFHpA	*78*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C4 PFOA	*76*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C5 PFNA	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFDA	*75*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFUnA	*70*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFDoA	*69*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C2 PFTeDA	*64*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
18O2 PFHxS	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C4 PFOS	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C8 FOSA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
d3-NMeFOSAA	*62*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
d5-NEtFOSAA	*64*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
M2-6:2 FTS	*98*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
M2-8:2 FTS	*90*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*
13C3 PFBS	*79*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:09*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/18/20 16:45	07/20/20 19:54	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 19:54	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 19:54	1
Barium	**0.68**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 19:54	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 19:54	1
Cadmium	ND		0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 19:54	1
Calcium	**105**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:54	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:17	1
Cobalt	**0.0026**	**J**	0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 19:54	1

Client Sample ID: MW-302 — Lab Sample ID: 480-172508-2

Date Collected: 07/15/20 15:20 — **Matrix: Water**
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 19:54	1
Iron	**0.23**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 19:54	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 19:54	1
Magnesium	**22.6**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 19:54	1
Manganese	**1.6**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 19:54	1
Nickel	ND		0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 19:54	1
Potassium	**0.63**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 19:54	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 19:54	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 19:54	1
Sodium	**1.4**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:17	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 19:54	1
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 19:54	1
Zinc	ND		0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:01	1

Client Sample ID: MW-301 — Lab Sample ID: 480-172508-3

Date Collected: 07/15/20 17:05 — **Matrix: Water**
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 03:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 03:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 03:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 03:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 03:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 03:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 03:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 03:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 03:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 03:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 03:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 03:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 03:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 03:48	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 03:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 03:48	1
Acetone	ND		10	3.0	ug/L			07/25/20 03:48	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 03:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 03:48	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 03:48	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 03:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 03:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 03:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 03:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 03:48	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 03:48	1

Client Sample ID: MW-301
Date Collected: 07/15/20 17:05
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.34	ug/L			07/25/20 03:48	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 03:48	1
cis-1,2-Dichloroethene	**12**		1.0	0.81	ug/L			07/25/20 03:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 03:48	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 03:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 03:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 03:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 03:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 03:48	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 03:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 03:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 03:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 03:48	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 03:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 03:48	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 03:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 03:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 03:48	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 03:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 03:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 03:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/25/20 03:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*07/25/20 03:48*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*07/25/20 03:48*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*07/25/20 03:48*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 05:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*24*		*15 - 110*	*07/20/20 15:09*	*07/23/20 05:14*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:32	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:32*	*1*
Tetrachloro-m-xylene	*63*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:32*	*1*

Client Sample ID: MW-301
Date Collected: 07/15/20 17:05
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-3
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*45*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:32*	*1*
DCB Decachlorobiphenyl	*51*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:32*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.6**	**J**	1.8	0.32	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.45	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorohexanoic acid (PFHxA)	**1.2**	**J**	1.8	0.54	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluoroheptanoic acid (PFHpA)	**0.68**	**J**	1.8	0.23	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorooctanoic acid (PFOA)	**2.3**		1.8	0.79	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.25	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.29	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorododecanoic acid (PFDoA)	**0.58**	**J**	1.8	0.51	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.27	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorobutanesulfonic acid (PFBS)	ND	G	1.8	1.8	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorohexanesulfonic acid (PFHxS)	**1.8**	**U**	1.8	0.16	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.18	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.50	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.30	ng/L		07/21/20 18:38	07/23/20 20:36	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	0.32	ng/L		07/21/20 18:38	07/23/20 20:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.9	ng/L		07/21/20 18:38	07/23/20 20:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:36	1
6:2 FTS	**4.5**	**J**	18	1.8	ng/L		07/21/20 18:38	07/23/20 20:36	1
8:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	*50*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C5 PFPeA	*67*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C2 PFHxA	*79*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C4 PFHpA	*80*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C4 PFOA	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C5 PFNA	*87*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C2 PFDA	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C2 PFUnA	*80*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C2 PFDoA	*75*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C2 PFTeDA	*74*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
18O2 PFHxS	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C4 PFOS	*87*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C8 FOSA	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
d3-NMeFOSAA	*53*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
d5-NEtFOSAA	*79*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
M2-6:2 FTS	*115*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
M2-8:2 FTS	*104*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*
13C3 PFBS	*79*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:36*	*1*

Client Sample ID: MW-301
Lab Sample ID: 480-172508-3
Date Collected: 07/15/20 17:05
Matrix: Water
Date Received: 07/17/20 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.093**	**J B**	0.20	0.060	mg/L		07/18/20 16:45	07/20/20 20:05	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 20:05	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 20:05	1
Barium	**0.65**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 20:05	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 20:05	1
Cadmium	ND		0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 20:05	1
Calcium	**80.1**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:05	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:39	1
Cobalt	**0.0027**	**J**	0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 20:05	1
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 20:05	1
Iron	**1.4**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 20:05	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 20:05	1
Magnesium	**31.9**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 20:05	1
Manganese	**1.5**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 20:05	1
Nickel	**0.0032**	**J**	0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 20:05	1
Potassium	**0.75**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:05	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 20:05	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 20:05	1
Sodium	**7.2**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:39	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 20:05	1
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 20:05	1
Zinc	**0.0059**	**J B**	0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:07	1

Client Sample ID: DUPA
Lab Sample ID: 480-172508-4
Date Collected: 07/15/20 16:00
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 04:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 04:12	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 04:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 04:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 04:12	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 04:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 04:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 04:12	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 04:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 04:12	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 04:12	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 04:12	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 04:12	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 04:12	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 04:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 04:12	1
Acetone	ND		10	3.0	ug/L			07/25/20 04:12	1

Client Sample ID: DUPA
Date Collected: 07/15/20 16:00
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			07/25/20 04:12	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 04:12	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 04:12	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 04:12	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 04:12	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 04:12	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 04:12	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 04:12	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 04:12	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 04:12	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 04:12	1
cis-1,2-Dichloroethene	**11**		1.0	0.81	ug/L			07/25/20 04:12	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 04:12	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 04:12	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 04:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 04:12	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 04:12	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 04:12	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 04:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 04:12	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 04:12	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 04:12	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 04:12	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 04:12	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 04:12	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 04:12	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 04:12	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 04:12	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 04:12	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 04:12	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/25/20 04:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*07/25/20 04:12*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*07/25/20 04:12*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*07/25/20 04:12*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 05:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*24*		*15 - 110*	*07/20/20 15:09*	*07/23/20 05:37*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1

Client Sample ID: DUPA
Date Collected: 07/15/20 16:00
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-4
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:44	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*83*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:44*	*1*
Tetrachloro-m-xylene	*73*		*39 - 121*	*07/23/20 15:09*	*07/24/20 20:44*	*1*
DCB Decachlorobiphenyl	*50*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:44*	*1*
DCB Decachlorobiphenyl	*58*		*19 - 120*	*07/23/20 15:09*	*07/24/20 20:44*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.8**		1.8	0.32	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluoropentanoic acid (PFPeA)	**0.49**	**J**	1.8	0.45	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorohexanoic acid (PFHxA)	**0.72**	**J**	1.8	0.53	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluoroheptanoic acid (PFHpA)	**0.68**	**J**	1.8	0.23	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorooctanoic acid (PFOA)	**2.2**		1.8	0.77	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.25	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.28	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.50	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.26	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorobutanesulfonic acid (PFBS)	ND	G	1.7	1.7	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorohexanesulfonic acid (PFHxS)	**1.8**	**U**	1.8	0.15	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.17	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.49	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.29	ng/L		07/21/20 18:38	07/23/20 20:45	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	0.32	ng/L		07/21/20 18:38	07/23/20 20:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18	2.8	ng/L		07/21/20 18:38	07/23/20 20:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18	1.7	ng/L		07/21/20 18:38	07/23/20 20:45	1
6:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:45	1
8:2 FTS	ND		18	1.8	ng/L		07/21/20 18:38	07/23/20 20:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*53*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C5 PFPeA	*67*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFHxA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C4 PFHpA	*79*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C4 PFOA	*80*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C5 PFNA	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFDA	*81*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFUnA	*80*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFDoA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C2 PFTeDA	*76*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
18O2 PFHxS	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*

Client Sample ID: DUPA
Lab Sample ID: 480-172508-4

Date Collected: 07/15/20 16:00
Matrix: Water
Date Received: 07/17/20 08:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*81*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C8 FOSA	*77*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
d3-NMeFOSAA	*65*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
d5-NEtFOSAA	*73*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
M2-6:2 FTS	*115*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
M2-8:2 FTS	*94*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*
13C3 PFBS	*74*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:45*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.13**	**J B**	0.20	0.060	mg/L		07/18/20 16:45	07/20/20 20:09	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 20:09	1
Arsenic	ND		0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 20:09	1
Barium	**0.66**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 20:09	1
Beryllium	ND		0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 20:09	1
Cadmium	**0.00050**	**J**	0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 20:09	1
Calcium	**83.2**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:09	1
Chromium	ND		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:43	1
Cobalt	**0.0032**	**J**	0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 20:09	1
Copper	ND		0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 20:09	1
Iron	**1.6**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 20:09	1
Lead	ND		0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 20:09	1
Magnesium	**32.7**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 20:09	1
Manganese	**1.7**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 20:09	1
Nickel	**0.0034**	**J**	0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 20:09	1
Potassium	**0.70**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:09	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 20:09	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 20:09	1
Sodium	**7.5**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:43	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 20:09	1
Vanadium	ND		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 20:09	1
Zinc	**0.0089**	**J B**	0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:09	1

Client Sample ID: MW-303
Lab Sample ID: 480-172508-5

Date Collected: 07/15/20 18:30
Matrix: Water
Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 04:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 04:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 04:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 04:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 04:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 04:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 04:36	1

Client Sample ID: MW-303
Date Collected: 07/15/20 18:30
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 04:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 04:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 04:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 04:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 04:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 04:36	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 04:36	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 04:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 04:36	1
Acetone	ND		10	3.0	ug/L			07/25/20 04:36	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 04:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 04:36	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 04:36	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 04:36	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 04:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 04:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 04:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 04:36	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 04:36	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 04:36	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 04:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 04:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 04:36	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 04:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 04:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 04:36	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 04:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 04:36	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 04:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 04:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 04:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 04:36	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 04:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 04:36	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 04:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 04:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 04:36	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 04:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 04:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 04:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/25/20 04:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*07/25/20 04:36*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*07/25/20 04:36*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*07/25/20 04:36*	*1*

Client Sample ID: MW-303
Date Collected: 07/15/20 18:30
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-5
Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/20/20 15:09	07/23/20 06:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*26*		*15 - 110*	*07/20/20 15:09*	*07/23/20 06:00*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1221	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1232	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1242	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1248	ND		0.50	0.18	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1254	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1260	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1262	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 21:21	1
PCB-1268	ND		0.50	0.25	ug/L		07/23/20 15:09	07/24/20 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*39 - 121*	*07/23/20 15:09*	*07/24/20 21:21*	*1*
Tetrachloro-m-xylene	*69*		*39 - 121*	*07/23/20 15:09*	*07/24/20 21:21*	*1*
DCB Decachlorobiphenyl	*33*		*19 - 120*	*07/23/20 15:09*	*07/24/20 21:21*	*1*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*07/23/20 15:09*	*07/24/20 21:21*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.3**		1.6	0.29	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluoropentanoic acid (PFPeA)	**0.42**	**J**	1.6	0.40	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.48	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluoroheptanoic acid (PFHpA)	**0.61**	**J**	1.6	0.21	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorooctanoic acid (PFOA)	**1.3**	**J**	1.6	0.70	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.26	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.91	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.45	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	1.1	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.24	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorobutanesulfonic acid (PFBS)	**0.56**	**J**	1.6	0.16	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorohexanesulfonic acid (PFHxS)	**1.6**	**U**	1.6	0.14	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.16	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.45	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.26	ng/L		07/21/20 18:38	07/23/20 20:55	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6	0.29	ng/L		07/21/20 18:38	07/23/20 20:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	2.6	ng/L		07/21/20 18:38	07/23/20 20:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.6	ng/L		07/21/20 18:38	07/23/20 20:55	1
6:2 FTS	**1.6**	**J**	16	1.6	ng/L		07/21/20 18:38	07/23/20 20:55	1
8:2 FTS	ND		16	1.6	ng/L		07/21/20 18:38	07/23/20 20:55	1

Client Sample ID: MW-303
Date Collected: 07/15/20 18:30
Date Received: 07/17/20 08:00

Lab Sample ID: 480-172508-5
Matrix: Water

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*81*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C5 PFPeA	*79*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C2 PFHxA	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C4 PFHpA	*88*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C4 PFOA	*86*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C5 PFNA	*93*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C2 PFDA	*83*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C2 PFUnA	*76*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C2 PFDoA	*71*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C2 PFTeDA	*71*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
18O2 PFHxS	*86*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C4 PFOS	*81*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C8 FOSA	*82*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
d3-NMeFOSAA	*78*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
d5-NEtFOSAA	*74*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
M2-6:2 FTS	*124*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
M2-8:2 FTS	*116*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*
13C3 PFBS	*85*		*25 - 150*	*07/21/20 18:38*	*07/23/20 20:55*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5.4**	**B**	0.20	0.060	mg/L		07/18/20 16:45	07/20/20 20:13	1
Antimony	ND		0.020	0.0068	mg/L		07/18/20 16:45	07/20/20 20:13	1
Arsenic	**0.0062**	**J**	0.015	0.0056	mg/L		07/18/20 16:45	07/20/20 20:13	1
Barium	**0.42**	**^**	0.0020	0.00070	mg/L		07/18/20 16:45	07/20/20 20:13	1
Beryllium	**0.00036**	**J**	0.0020	0.00030	mg/L		07/18/20 16:45	07/20/20 20:13	1
Cadmium	ND		0.0020	0.00050	mg/L		07/18/20 16:45	07/20/20 20:13	1
Calcium	**109**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:13	1
Chromium	**0.0061**		0.0040	0.0010	mg/L		07/18/20 16:45	07/21/20 19:47	1
Cobalt	**0.018**		0.0040	0.00063	mg/L		07/18/20 16:45	07/20/20 20:13	1
Copper	**0.0072**	**J**	0.010	0.0016	mg/L		07/18/20 16:45	07/20/20 20:13	1
Iron	**10.4**	**B**	0.050	0.019	mg/L		07/18/20 16:45	07/20/20 20:13	1
Lead	**0.0083**	**J**	0.010	0.0030	mg/L		07/18/20 16:45	07/20/20 20:13	1
Magnesium	**25.1**		0.20	0.043	mg/L		07/18/20 16:45	07/20/20 20:13	1
Manganese	**4.8**	**B**	0.0030	0.00040	mg/L		07/18/20 16:45	07/20/20 20:13	1
Nickel	**0.016**		0.010	0.0013	mg/L		07/18/20 16:45	07/20/20 20:13	1
Potassium	**2.9**		0.50	0.10	mg/L		07/18/20 16:45	07/20/20 20:13	1
Selenium	ND		0.025	0.0087	mg/L		07/18/20 16:45	07/20/20 20:13	1
Silver	ND		0.0060	0.0017	mg/L		07/18/20 16:45	07/20/20 20:13	1
Sodium	**1.3**	**B**	1.0	0.32	mg/L		07/18/20 16:45	07/21/20 19:47	1
Thallium	ND		0.020	0.010	mg/L		07/18/20 16:45	07/20/20 20:13	1
Vanadium	**0.011**		0.0050	0.0015	mg/L		07/18/20 16:45	07/20/20 20:13	1
Zinc	**0.014**	**B**	0.010	0.0015	mg/L		07/18/20 16:45	07/21/20 19:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/21/20 12:22	07/21/20 15:10	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-172508-6

Date Collected: 07/15/20 00:00
Matrix: Water

Date Received: 07/17/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/25/20 05:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/20 05:00	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/20 05:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/25/20 05:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/20 05:00	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/20 05:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/25/20 05:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/25/20 05:00	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/25/20 05:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/20 05:00	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/20 05:00	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/25/20 05:00	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/25/20 05:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/20 05:00	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/20 05:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/20 05:00	1
Acetone	ND		10	3.0	ug/L			07/25/20 05:00	1
Benzene	ND		1.0	0.41	ug/L			07/25/20 05:00	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/20 05:00	1
Bromoform	ND		1.0	0.26	ug/L			07/25/20 05:00	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/20 05:00	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/25/20 05:00	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/20 05:00	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/20 05:00	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/20 05:00	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/20 05:00	1
Chloroform	ND		1.0	0.34	ug/L			07/25/20 05:00	1
Chloromethane	ND		1.0	0.35	ug/L			07/25/20 05:00	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/25/20 05:00	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/20 05:00	1
Cyclohexane	ND		1.0	0.18	ug/L			07/25/20 05:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/25/20 05:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/20 05:00	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/25/20 05:00	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/25/20 05:00	1
Methyl acetate	ND		2.5	1.3	ug/L			07/25/20 05:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/25/20 05:00	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/25/20 05:00	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/20 05:00	1
Styrene	ND		1.0	0.73	ug/L			07/25/20 05:00	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/20 05:00	1
Toluene	ND		1.0	0.51	ug/L			07/25/20 05:00	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/25/20 05:00	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/20 05:00	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/20 05:00	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/25/20 05:00	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/20 05:00	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/20 05:00	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-172508-6

Date Collected: 07/15/20 00:00
Matrix: Water

Date Received: 07/17/20 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		07/25/20 05:00	1
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		07/25/20 05:00	1
4-Bromofluorobenzene (Surr)	108		73 - 120		07/25/20 05:00	1
Dibromofluoromethane (Surr)	101		75 - 123		07/25/20 05:00	1

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QA/QC Review of Method 8270D SIM 1,4-Dioxane Data
for Eurofins TestAmerica-Buffalo, Job No: 480-172508-1

4 Ground Water Samples and 1 Field Duplicate
Collected July 15, 2020

Prepared by: Donald Anné
August 22, 2020

Holding Times: The samples were extracted and analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The DFTPP tuning criteria were within control limits.

Initial Calibration: The average RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %RSD was below the allowable maximum (30%), as required.

Continuing Calibration: The RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %D was below the allowable maximum (20%), as required.

Blanks: The analysis of the method blank reported 1,4-dioxane as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-302.

Laboratory Control Sample: The percent recovery for 1,4-dioxane was within QC limits for aqueous sample LCS 480-541207/2-A.

Field Duplicates: The analyses of aqueous field duplicate pair MW-301/DUPA reported 1,4-dioxane as not detected; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked surrogates results were within quantitation limits. The analyses of ground water samples reported 1,4-dioxane as not detected.

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QA/QC Review of Method 8082A PCB Data for
Eurofins TestAmerica-Buffalo, Job No. 480-172508-1

4 Ground Water Samples and 1 Field Duplicate
Collected July 15, 2020

Prepared by: Donald Anné
August 22, 2020

Holding Times: Samples were extracted and analyzed within USEPA SW-846 holding times.

Blanks: The analysis of the method blank reported target PCBs as not detected.

Surrogate Recovery: The surrogate recoveries were within QC limits on both columns for the ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for PCB-1016 and PCB-1260 were below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-302.

Laboratory Control Sample: The percent recoveries for PCB-1016 and PCB-1260 were within QC limits for aqueous sample LCS 480-541858/2-A.

Field Duplicates: The analyses of aqueous field duplicate pair MW-301/DUPA reported target PCBs as not detected; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Initial Calibration: The average %RSDs for target PCBs were below the allowable maximum (20%) on both columns, as required.

Continuing Calibration: The average %Ds for applicable PCBs were below the allowable maximum (20%) on both columns, as required.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits on both columns.

PCB Identification Summary: Checked surrogates were within GC quantitation limits. The analyses of the aqueous samples reported target PCBs as not detected.

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QA/QC Review of TAL Metals Data for Eurofins TestAmerica-Edison, Job No: 480-172508-1

4 Ground Water Samples and 1 Field Duplicate Collected July 15, 2020

Prepared by: Donald Anné
August 22, 2020

Holding Times: Samples were analyzed within the USEPA SW-846 holding times.

Initial and Continuing Calibration Verification: The percent recoveries for TAL metals were within control limits (90-110% for all metals except Hg, 80-120% for Hg).

Low Level Initial and Continuing Calibration Verification: The percent recoveries for applicable TAL metals were within laboratory QC limits (70-130% for all metals except Hg).

Blanks: The analyses for initial and continuing calibration, and method blanks reported TAL metals as either not detected or below the reporting limits, as required.

ICP Interference Check Sample: The percent recoveries for applicable TAL metals were within control limits (80-120%).

Spike Sample Recovery: The percent recoveries for applicable metals were within control limits (75-125%) for aqueous MS/MSD sample MW-302.

Laboratory Duplicates: The relative percent differences for TAL metals were below allowable maximum (20%) for aqueous MS/MSD sample MW-302, as required.

Field Duplicates: The relative percent differences for applicable metals were below the allowable maximum (20%) for aqueous field duplicate pair MW-301/DUPA (attached table), as required.

Laboratory Control Sample: The percent recoveries for TAL metals were within control limits (80-120%) for aqueous samples LCS 480-541026/2-A and LCS 480-541229/2-A.

Instrument Detection Limits: The IDLs were at or below the MRLs, as required.

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QA/QC Review of Method 537 (Modified) PFAS Data for Eurofins TestAmerica-Sacramento, Job No: 480-172508-1

4 Ground Water Samples and 1 Field Duplicate Collected July 15, 2020

Prepared by: Donald Anné
August 22, 2020

Holding Times: Samples were analyzed within USEPA holding times.

Initial Calibration: The %RSDs for applicable PFAS compounds were below the method maximums, as required.

Continuing Calibration: The %Ds for applicable PFAS compounds were below the allowable maximums, as required

Blanks: Method blank MB 320-396911/1-A contained traces of PFHxS (0.320 ng/L) and FOSA (0.592 ng/L). Positive results for PFHxS and FOSA that are below the reporting limit (RL) should be reported as not detected (U) at the reporting limit in associated samples. Positive results for PFHxS and FOSA that are above the RL and less than ten times the highest blank level should be considered estimated, biased high (J+) in associated samples.

Surrogate Recovery: The surrogate recoveries were within QC limits for the ground water samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for target PFAS were below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-302.

Laboratory Control Sample: The percent recoveries for target PFAS were within QC limits for aqueous sample LCS 320-396911/2-A.

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Field Duplicate: The relative percent difference for PFOA was below the allowable maximum (20%) for aqueous field duplicate pair MW-301/DUPA (attached table), as required.

Compound ID: Checked compounds were within LC quantitation limits.

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-172508-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-396911/1-A

Matrix: Water Lab File ID: 2020.07.23_A17_PFC_ANNNIE_007.

Analysis Method: 537 (modified) Date Collected:

Extraction Method: 3535 Date Extracted: 07/21/2020 18:38

Sample wt/vol: 250(mL) Date Analyzed: 07/23/2020 19:42

Con. Extract Vol.: 10.0(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 397609 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		2.0	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	0.85
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	0.27
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	0.31
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.320	J	2.0	0.17
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.592	J	2.0	0.35
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	3.1
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.9
27619-97-2	6:2 FTS	ND		20	2.0
39108-34-4	8:2 FTS	ND		20	2.0

Volatiles

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. 480-172508-1

S1= MW-301 **S2=** DUPA

Analyte	S1	S2	RPD (%)
cis-1,2-Dichloroethene	12	11	9%

* RPD is above the allowable maximum 20%.

Results are in units of ug/L.

Bold numbers were values that are below the CRQL or above the high standard.
ND - Not detected.
NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

EPA Method 537 PFC

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. 480-172508-1

S1= MW-301 **S2=** DUPA

Analyte	S1	S2	RPD (%)
Perfluorobutanoic acid (PFBA)	**1.6**	1.8	NC
Perfluoropentanoic acid (PFPeA)	ND	**0.49**	NC
Perfluorohexanoic acid (PFHxA)	**1.2**	**0.72**	NC
Perfluoroheptanoic acid (PFHpA)	**0.68**	**0.68**	NC
Perfluorooctanoic acid (PFOA)	2.3	2.2	4%
Perfluorododecanoic acid (PFDoA)	**0.58**	ND	NC
Perfluorohexanesulfonic acid (PFHxS)	**0.50**	**0.58**	NC
6:2 FTS	**4.5**	ND	NC

* RPD is above the allowable maximum (20%).

All results are in mg/L.

Bold numbers were values that are below the CRQL or above the high standard.
ND - Not detected.
NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

TAL Metals

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. 480-172508-1

S1= MW-301 **S2=** DUPA

Analyte	S1	S2	RPD (%)
aluminum	**0.093**	**0.13**	NC
antimony	ND	ND	NC
arsenic	ND	ND	NC
barium	0.65	0.66	2%
beryllium	ND	ND	NC
cadmium	ND	**0.00050**	NC
calcium	80.1	83.2	4%
chromium	ND	ND	NC
cobalt	**0.0027**	**0.0032**	NC
copper	ND	ND	NC
iron	1.4	1.6	13%
lead	ND	ND	NC
magnesium	31.9	32.7	2%
manganese	1.5	1.7	13%
mercury	ND	ND	NC
nickel	**0.0032**	**0.0034**	NC
potassium	0.75	0.70	7%
selenium	ND	ND	NC
silver	ND	ND	NC
sodium	7.2	7.5	4%
thallium	ND	ND	NC
vanadium	ND	ND	NC
zinc	**0.0059**	**0.0089**	NC

* RPD is above the allowable maximum 20%.

Results are in units of ug/L.

Bold numbers were values that are below the CRDL.
ND - Not detected.
NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.