

C.T. MALE ASSOCIATES

Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.

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October 15, 2020 (Revised April 19, 2021)

Ms. Brianna Scharf
Remedial Section C, Remedial Bureau E
Division of Environmental Remediation
NYSDEC Central Office
625 Broadway
Albany, New York 12233-7017

*Re: 2020 Groundwater Monitoring and Periodic Review Report
Schuyler Heights Fire District Station House Site (NYSDEC Site Number E401050)
Town of Colonie, Albany County, New York
Reporting Period: December 7, 2018 to April 7, 2020
C.T. Male Project No. 20.0319*

Dear Ms. Scharf:

On behalf of the Schuyler Heights Fire District, C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. (C.T. Male) presents the 2020 Groundwater Monitoring and Periodic Review Report for the Schuyler Heights Fire District Station House Site in Colonie, New York in accordance with the NYSDEC approved Site Management Plan (SMP) dated October 2018, as prepared by NYSDEC's consultant ARCADIS. C.T. Male conducted a site-wide inspection visit on April 29, 2020 and completed a groundwater sampling event of the select wells identified in the SMP over two (2) days on May 14 and 15, 2020.

It should be noted that the October 2018 SMP requires stormwater sampling as part of the site monitoring plan. During the site visits for the site inspection and for the groundwater sampling, the swale that is designated as the sampling point was dry. Furthermore, this swale does not appear to have any stormwater traverse/collect in it as it is well vegetated with grass and shows no evidence of regular stormwater flow.

Groundwater Sampling Event - General

A groundwater monitoring event was conducted on May 14 and 15, 2020. In accordance with the SMP Monitoring and Sampling Plan, monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7 were sampled for 1,4-Dioxane by USEPA Method 8270 SIM, perfluoroalkyl substances (PFAS) for linear and non-linear branch isomers by USEPA EPA Method 537.1 following isotopic dilution techniques, and Target Analyte List (TAL) metals by USEPA Method 6010B.

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C.T. Male did not have keys to the locks that were on the monitoring wells at the start of sampling. Therefore, the existing locks were cut off and replaced with new ones.

The groundwater samples were collected using low flow sampling techniques with a peristaltic pump and new high-density polyethylene tubing at each well. The volume of groundwater purged from each well was dependent on the stabilization of field parameters. The wells were sampled after three (3) consecutive readings whereby the pH, specific conductance, oxidation-reduction potential, dissolved oxygen and turbidity met the criteria listed in Section 3.3.2.1 of the SMP.

Monitoring Well Inspection

The monitoring wells were inspected and screened on May 14th for organic vapors at the time of the water level measurements and prior to any sampling. The well screening was performed with a MiniRAE-3000 Photoionization Detection (PID) calibrated prior to use against 100 parts per million (ppm) isobutylene gas. The water levels were measured and recorded from all of the monitoring wells on the site within an hour. The measurements and PID screening results are listed below in Table 1.

Table 1				
Well ID	Depth to Water (feet below TPVC)	Top of Casing Elev. (feet)	Water Elev. (feet)	PID Reading (ppm) *
MW-1	8.33	42.2 **	33.87	0.0
MW-2	11.32	46	34.68	0.2
MW-3	13.97	48.75	34.78	0.0
MW-4	13.72	49.0 **	35.28	0.2
MW-5	15.63	49.5	33.87	0.2
MW-6	14.71	51.0	36.29	0.1
MW-7	13.93	51.0	37.07	0.2

Notes:

* reading above background.

** denotes that the PVC casing was damaged, and the accuracy of the top of PVC and water elevation are potentially affected.

As shown in Table 1, the PID readings were nearly zero and indicative of background levels of organic vapors, if any. The monitoring wells and their protective casing were in good condition except for monitoring wells MW-1 and MW-4, as explained below.

- The PVC casing at monitoring well MW-1 was found to be broken off near the ground surface and inaccessible to the water level meter and tubing. C.T. Male

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removed the steel protective cover that was still affixed with its concrete base, installed a PVC slip coupling to reconnect the PVC casing to the below grade portion of the well, and reset the cover (and concrete base) back in the stone surface. This well is completely functional after this repair although the top of casing elevation has the potential to be slightly different from what is listed in the SMP.

- The PVC casing at monitoring well MW-4 was noted to be bent/broken at about the elevation of the surrounding ground surface. Due to the bend in the PVC, a water level meter could not be lowered into the well. C.T. Male surmises that the PVC may have been bent during the grading activities of the remedial action. C.T. Male installed a slip coupling to reattach the PVC riser pipe and was able slightly reduce the bend enough that sampling tubing could be inserted into the well but not enough to accommodate a water level meter. The static water level was determined by slowly lowering the sampling tubing until it reached the groundwater surface and then measuring the length of tubing used, so the water level recorded may be inaccurate. The SMP required monitoring of the water level during purging to gauge for stabilization was also estimated using the tubing as the measuring device.

Utilizing the water levels collected at the wells and the top of PVC well casing elevations documented by others in the SMP, a groundwater contour map was generated to infer the groundwater flow direction. See Figure 1 (Attachment A) Groundwater Contour Map (5/14/20) where the ARCADIS map was used as a base map. The inferred groundwater flow direction at the time of sampling was south and southeastward.

The field parameters collected during the monitoring well purging and sampling were recorded on Well Low-Flow Purging Logs which are included in Attachment B. Most of the monitoring wells remained at or near 100% of their static water level throughout purging except for monitoring well MW-5, which went dry after removal of one well volume. Monitoring well MW-5 recovered to 90% of the static water level prior to collecting the laboratory samples. After collecting the sample volume for 1,4-dioxane and metals the well went dry again. Therefore, the PFAS samples were collected the following day after the well had recovered again. Quality control samples were also collected consisting of Lab Trip Blank; Field Trip Blank; Matrix Spike/Matrix Spike Duplicate at MW-7; and a Field Duplicate from MW-6. The groundwater samples were delivered to Alpha Analytical under proper Chain of Custody protocols.

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Groundwater Sampling Event - Laboratory Results

The laboratory reports (Alpha ID Nos. L2020210 & L2020229) for the groundwater samples are presented in Attachment C. Report L2020210 presents the 1,4-dioxane and total/dissolved metal results and L2020229 presents the PFAS results. Summary tables of the analytical results were prepared and are included in Attachment D. The summary tables only include those parameters that were detected above the limit of laboratory detection.

1,4-Dioxane was detected above the limit of laboratory detection at three (3) of the seven (7) monitoring wells sampled. Monitoring wells MW-2, MW-6 and MW-7 had concentrations of 1.06 ug/l, 0.152 ug/l and 0.202 ug/l, respectively. There is no Ambient Water Quality Standard (AWQS) set forth in TOGS 1.1.1 for 1,4-Dioxane, but the New York State Department of Health has set a Maximum Contaminant Level (MCL) as of July 30, 2020 of 1.0 ug/l. Monitoring well MW-2 is the only well to exceed this MCL. This monitoring well is close to the northern property, and based on the inferred groundwater flow direction, would be the most upgradient well with respect to the wells installed on the Schuyler Heights Fire District property.

Several metals were detected above the limit of laboratory detection, some of which are commonly detected in the environment and not necessarily indicators of site contaminants. Listed below in Table 1 are those metals that had at least one detection above its TOGS 1.1.1 AWQS.

Table 1 - 2020 Summary of Metal Results			
Metal	Concentration Range (ug/l)	AWQS (ug/l)	Frequency of SCG Exceedance
Antimony	0.46 to 3.54	3	1 of 7
Arsenic	0.21 to 49.39	25	1 of 7
Copper	0.92 to 1,567	300	1 of 7
Iron	89.9 to 61,200	300	4 of 7
Lead	0.73 to 147.7	25	1 of 7
Magnesium	19,600 to 45,200	35,000	2 of 7
Manganese	587.6 to 9,016	300	7 of 7
Mercury	0.2 to 54.49	0.7	1 of 7
Nickel	1.88 to 2,245	100	1 of 7
Sodium	12,200 to 112,000	20,000	5 of 7

The last time the monitoring wells were sampled was in 2006 when the Remedial Investigation was completed. As shown in Table 2 below, aluminum, antimony, iron,

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magnesium, manganese and sodium were detected above their AWQS in 2006 at one or more locations. For ease of comparison to the most recent results, the concentration of metals from the 2006 sampling event are included in the summary table in Attachment D. Comparing the results from 2020 to those from 2006 show that aluminum was no longer detected above its AWQS at MW-1, and arsenic, copper, lead, mercury and nickel were newly detected above their AWQS in 2020 at monitoring well MW-5.

Table 2 - 2016 Summary of Metal Results			
Metal	Concentration Range (ug/l)	AWQS (ug/l)	Frequency of SCG Exceedance
Aluminum	42.2 to 885	100	1 of 7
Antimony	18.6	3	1 of 7
Iron	2,740 to 10,500	300	1 of 7
Magnesium	15,300 to 38,400	35,000	2 of 7
Manganese	32.6 to 1,880	300	7 of 7
Sodium	24,200 to 92,800	20,000	5 of 7

Since the turbidity of the groundwater sample collected from monitoring well MW-5 was greater than 50 NTUs, additional groundwater sample volume was collected for dissolved metals analysis. Iron, manganese and sodium were the only metals detected above their AWQS in the dissolved metals sample. Arsenic, copper, lead, mercury and nickel which were detected in monitoring well MW5 on a total basis above their AWQS, but not in the dissolved metals sample, suggests that those total metals concentrations were due to the suspended soil particles rather than being present in groundwater.

Laboratory Results - Perfluoroalkyl Substances (PFAS)

The groundwater samples were also analyzed for perfluoroalkyl substances (PFAS) for linear and non-linear branch isomers by USEPA EPA Method 537.1 following isotopic dilution techniques. As shown in the summary table in Attachment D, there were several PFAS compounds detected above the limit of laboratory detection. The results were compared to guidance established by EPA and NYSDEC, as summarized below.

EPA Drinking Water Health Advisory:

- Perfluorooctanoic acid (PFOA) was detected above EPA's lifetime health advisory of 70 parts per trillion (ppt) for long-term exposure to PFOA/PFOS in drinking water at monitoring wells MW-2, MW-4, MW-6 and MW-7; and
- Perfluorooctanesulfonic acid (PFOS) was detected above EPA's lifetime health advisory of 70 ppt for long-term exposure to PFOA/PFOS in drinking water at monitoring wells MW-5, MW-6 and MW-7.

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PFOA and PFOS are the only two compounds that have an associated health advisory. It is noted that there is no drinking water use at the site, so the applicability of this EPA standard is questionable.

NYSDEC January 2021 Sampling, Analysis and Assessment of PFAS:

- PFOA and PFOS were detected above 10 ng/L in each of the monitoring wells sampled;
- Three (3) individual PFAS (not PFOA and PFOS) were detected above 100 ng/L in monitoring well MW6;
- One (1) individual PFAS (not PFOA and PFOS) was detected above 100 ng/L in monitoring well MW7; and
- Total concentrations of PFAS (including PFOA and PFOS) were above 500 ng/L in monitoring well MW6 (1,061 ng/L) and MW7 (720 ng/L), and to a lesser degree at MW-2 (505 ng/L).

Based on the inferred groundwater flow direction, monitoring wells MW-4, MW-6 and MW-7 would be the most upgradient locations with respect to the wells installed on the Site, so it is not clear whether these detections are site related. However, the concentrations detected are the highest at MW6 and MW7, which are closest to the site's northern property boundary, where an active metal recycling facility is located.

Groundwater Sampling Event - Data Validation

The ASP Category B Data Deliverable packages (L2020210 & L2020229) were provided to Environmental Data Services, Inc. (EDS) for third party Data Usability Summary Report validation. An individual report was prepared for each data package (dated April 12, 2021) and a copy of the each DUSR is provided as Attachment E. Where applicable, the analytical data was edited accordingly in the summary tables and denoted with red text.

L2020210

This data package was applicable to the metals and 1,4-dioxane analyses. There were no rejections of data and the data are acceptable for the intended purposes as qualified for the deficiencies detailed in the DUSR.

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L2020229

This data package was applicable to the PFAS analyses. There were no rejections of data and the data are acceptable for the intended purposes as qualified for the deficiencies detailed in the DUSR.

Assessment of Private Well Water Supplies

At the request of the NYSDEC due to the PFAS concentrations found in the groundwater samples, an assessment to determine the presence/absence of private well water supplies surrounding the site was performed. Using an on-line resource for property records (i.e., LANDMAX Data Systems, Inc.), the properties immediately adjacent to the site are listed as “public water”. A drive-by assessment of the neighborhoods surrounding the site was also performed on April 8, 2021. The goal of the visual assessment was to look for evidence of private water wells such as well casing protruding from the properties or fire hydrants suggesting water mains in the area. There was no evidence of private well water supplies and there were many fire hydrants observed confirming a public water supply in the general area surrounding the site. Therefore, the assumption is that with the presence of a public water supply, there are no private water wells in the area.

Annual Monitoring of the Surface Cover System

The remedial action for the site included the installation of a separation fabric between existing site soils and imported soil serving as a surface cover system, the limits of which are shown in the April 2018 Figure 3 presented within the October 2018 SMP. Within the northern and central portions of the Site, the surface cover system reportedly consists of common fill overlain by a layer of topsoil. In the south region of the Site, the cover system consists of gravel. On April 29, 2020, this site was traversed on foot to observe the condition and adequacy of the site’s surface cover system.

A visual inspection of the surface cover system was conducted by a NYS licensed professional engineer in accordance with the requirements of the October 2018 SMP. The purpose of the visual inspection was to identify any changes, such as damage or erosion to the surficial media that could compromise the functionality of the surface cover system. The condition of the surface cover system was documented using the Cover Inspection Form from the SMP. A copy of the completed form is included as Attachment F.

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There were no significant un-vegetated areas, erosion, animal burrows, or other surface disturbances observed. Photographs taken during the site visit are presented in Attachment G.

Evaluate Remedy Performance, Effectiveness and Protectiveness

The implemented remedy appears to be achieving the remedial goals for the site. The existing surface cover continues to provide protection of human health and the environment from the underlying soils.

IC/EC Plan Compliance

The applicable IC/EC's for the site are still applicable and required for the site. No action or changes are required for the IC/EC's. The EC's continue to perform as designed.

Operation & Maintenance Plan Compliance

The Site remedy does not rely on any mechanical systems, such as groundwater treatment systems, sub-slab depressurization systems or air sparge/soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not required at this time.

Overall Conclusions and Recommendations

The following conclusions and recommendations relative to compliance with the SMP are provided:

1. Groundwater Use Restriction: Requirements were met during the reporting period.
2. Land Use Restriction: Requirements were met during the reporting period.
3. Site Management Plan: Requirements were met during the reporting period.
4. Monitoring Plan: Requirements were met during the reporting period.
5. IC/EC Plan: Requirements were met during the reporting period.
6. Surface Cover System: Requirements were met during the reporting period.

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7. Based on C.T. Male's evaluation of the components of the SMP, the remedy is achieving the remedial objectives for the site.
8. The frequency of the submittal of the PRR should not be changed at this time.
9. Site management shall be continued.

Certifications

The Institutional and Engineering Controls (IC/EC) Certification Form is provided as Attachment H. In addition, I also certify that all of the following statements are true:

- The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the Site is compliant with the environmental easement;
- The information presented in this report is accurate and complete.
- No new information, including groundwater monitoring data from the wells located at the site, indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid.
- I certify that all information and statements in this certification form 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, Jeffrey A. Marx, P.E., of C.T. Male Associates located at 50 Century Hill Drive, Latham, New York, am certifying that I have been authorized and designated by the site owner to sign this certification for the Site.

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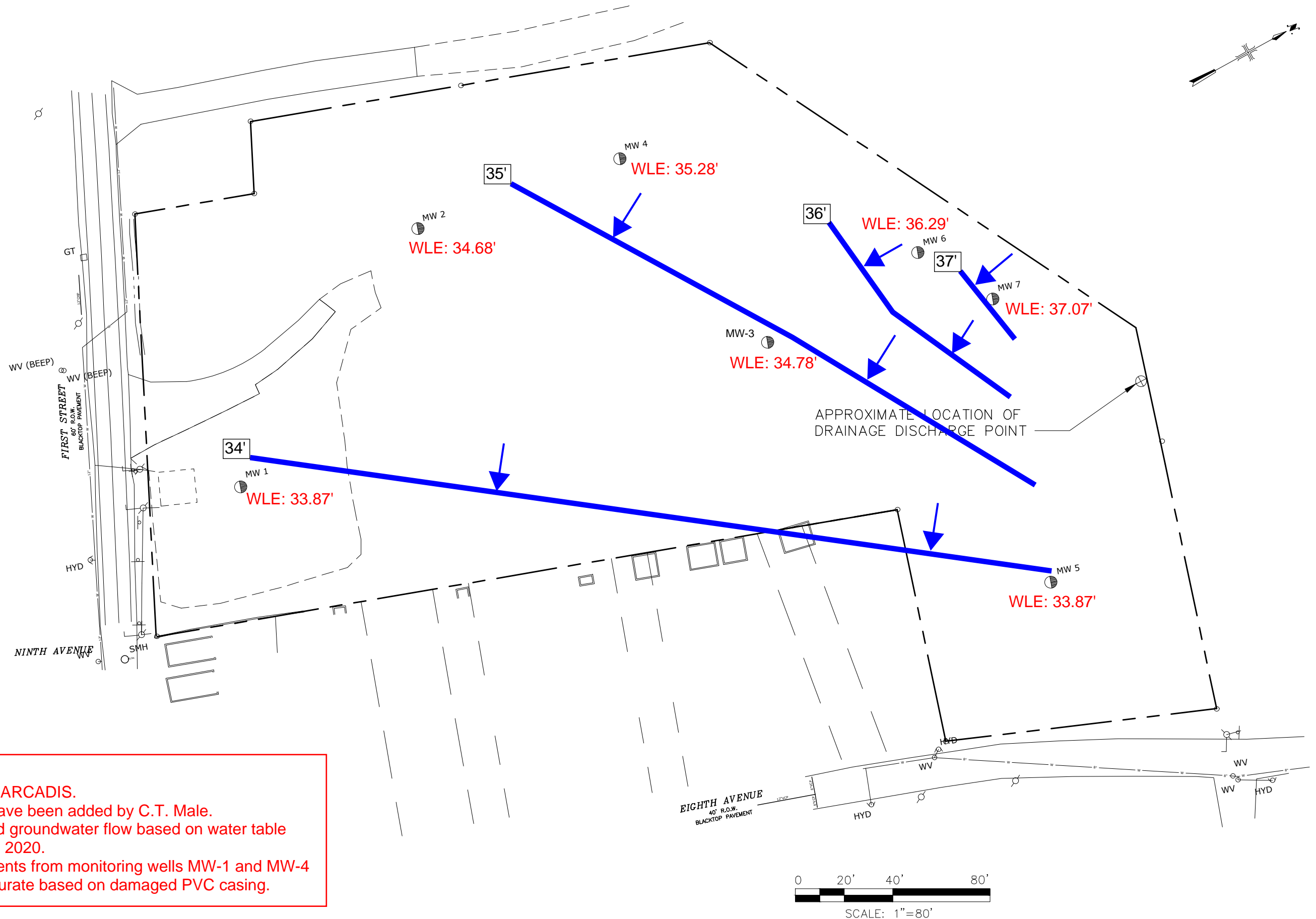
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Respectfully Submitted,
C.T. MALE ASSOCIATES



Jeffrey A. Marx, P.E.
Project Manager/ Sr. Environmental Engineer

Att.	Attachment A:	Groundwater Contour Map
	Attachment B:	Well Low-Flow Purging Logs
	Attachment C:	Alpha Lab Reports (L2020210 & L2020229)
	Attachment D:	Analytical Summary Tables
	Attachment E:	Data Usability Summary Reports (L2020210 & L2020229)
	Attachment F:	Cover Inspection Form
	Attachment G:	Site Photographs
	Attachment H:	IC/EC Certification Form





WELL LOW-FLOW PURGING LOG

Sampling Activity (check all that apply):

☐ Initial / 3 Vol.

☒ Low-Flow

☒ Sample

DATE:

PROJECT NO.:

SAMPLING PERSONNEL:

NOTES TAKEN BY:

PROJECT NAME:

PROJECT LOCATION:

MONITORING WELL ID#:

DEPTH TO WATER (ft):

DEPTH TO BOTTOM (ft):

WATER COLUMN HEIGHT:

WELL VOLUME:

NOTES CHECKED BY:

WELL CASING DIAMETER:

CONVERSION FACTORS LINEAR FEET TO GALLONS

1" = 0.041 GAL/LF

3" = 0.38 GAL/LF

1.25" = 0.064 GAL/LF

4" = 0.66 GAL/LF

2" = 0.16 GAL/LF

6" = 1.47 GAL/LF

Field Parameters	Stabilization	Time (since start of purging)									
Time (minutes)	-	Initial	5	15	30	45	60	75	90	105	120
Water Level (ft)	± 0.00	15.63	15.14	14.65	14.16	13.67	13.18	12.69	12.20	11.71	11.22
Temperature (C)	± 3%	11.6	11.8	12.1	12.4	12.7	13.0	13.3	13.6	13.9	14.2
DO (mg/L)	±10%	1.29	1.21	1.13	1.05	0.97	0.89	0.81	0.73	0.65	0.57
Conductivity (uS)	± 3%	915	918	921	924	927	930	933	936	939	942
pH (SU)	± 0.1	6.21	6.23	6.25	6.27	6.29	6.31	6.33	6.35	6.37	6.39
ORP (mV)	±10 mV	16.7	39.5	62.3	85.1	107.9	130.7	153.5	176.3	199.1	221.9
Turbidity (NTU)	±10%	54.01	56.07	58.13	60.19	62.25	64.31	66.37	68.43	70.49	72.55

Field Parameters	Time (since start of purging)									
Time (minutes)										
Water Level (ft)										
Temperature (C)										
DO (mg/L)										
Conductivity (uS)										
pH (SU)										
ORP (mV)										
Turbidity (NTU)										

VOLUMES PURGED:

~0.16

GALLONS

AVG PURGE RATE:

~20mL/min

TIME STARTED:

1000

TIME FINISHED:

1005

OBSERVATIONS: COLOR

blackish/clear

ODOR

none

SHEEN

none

OTHER

WATER LEVEL AT 90% RECOV.:

15.88 ft

WATER RECOVERY HEIGHT:

15.79 ft

SAMPLE COLLECTION TIME:

5/14 → 1620

1,4 dioxane

RECOVERY TIME IN MINUTES:

~225

NOTES:

turbidity 750 NTU 5/15 → 720 PPTS a second bottle

Sampled for:

1,4 Dioxane, PPTS, metals

EQUIPMENT:

PERISTALTIC PUMP

NEW DISPOSABLE BAILER

STAINLESS STEEL BAILER

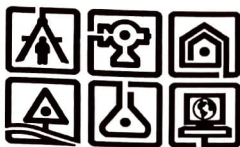
BLADDER PUMP

SUBMERSIBLE PUMP

OTHER

SERIAL NOS:

FA02191



WELL LOW-FLOW PURGING LOG

Sampling Activity (check all that apply):

☐ Initial / 3 Vol.

☒ Low-Flow

☒ Sample

DATE:

5/14/20

PROJECT NO.:

20.0319

SAMPLING PERSONNEL:

K. Carter

NOTES TAKEN BY:

KE

PROJECT NAME:

Schuyler Heights Fire District

PROJECT LOCATION:

Waterbury, NY

MONITORING WELL ID#:

MW 7

DEPTH TO WATER (ft):

3.93

FROM: TPVC

DEPTH TO BOTTOM (ft):

20.49

FROM: TPVC

WATER COLUMN HEIGHT:

6.56

ft

WELL VOLUME:

0.42

GALLONS

WELL CASING DIAMETER:

1.25 in.

CONVERSION FACTORS LINEAR FEET TO GALLONS

1" = 0.041 GAL/LF

3" = 0.38 GAL/LF

1.25" = 0.064 GAL/LF

4" = 0.66 GAL/LF

2" = 0.16 GAL/LF

6" = 1.47 GAL/LF

Field Parameters	Stabilization	Time (since start of purging)									
Time (minutes)	-	Initial	5	10	15	20	25	30	35	40	
Water Level (ft)	± 0.00	13.93	13.98	14.02	14.02	14.02	14.02	14.02	14.02	14.02	
Temperature (C)	± 3%	11.0	10.9	10.6	10.9	11.0	10.9	10.9	11.0	11.0	
DO (mg/L)	±10%	1.03	0.71	0.61	0.60	0.58	0.56	0.55	0.54	0.54	
Conductivity (uS)	± 3%	632	627	716	758	804	820	806	819	809	
pH (SU)	± 0.1	6.34	6.25	6.30	6.33	6.36	6.36	6.36	6.38	6.38	
ORP (mV)	±10 mV	104.8	129.0	137.2	136.4	133.3	129.7	126.8	121.7	124.3	
Turbidity (NTU)	±10%	107.9	35.42	17.91	9.71	5.11	4.09	5.36	9.96	5.29	

Field Parameters	Time (since start of purging)									
Time (minutes)										
Water Level (ft)										
Temperature (C)										
DO (mg/L)										
Conductivity (uS)										
pH (SU)										
ORP (mV)										
Turbidity (NTU)										

VOLUMES PURGED:

~1.5

GALLONS

AVG PURGE RATE:

~140 ml/min

TIME STARTED:

1040

TIME FINISHED:

1120

OBSERVATIONS: COLOR

clear

ODOR

none

SHEEN

none

OTHER

WATER LEVEL AT 80% RECOV.:

ft

WATER RECOVERY HEIGHT:

ft

SAMPLE COLLECTION TIME:

1/20

RECOVERY TIME IN MINUTES:

NOTES:

turbidity < 50 NTU so no filter used when sampling metals
ms/msd collected here

Sampled for:

EQUIPMENT:

PERISTALTIC PUMP

NEW DISPOSABLE BAILER

STAINLESS STEEL BAILER

BLADDER PUMP

SUBMERSIBLE PUMP

OTHER

SERIAL NOS:

#A02191



WELL LOW-FLOW PURGING LOG

Sampling Activity (check all that apply):

☐ Initial / 3 Vol.

☒ Low-Flow

☒ Sample

DATE:

5/14/20

PROJECT NO.:

200319

SAMPLING PERSONNEL:

K. COOK

NOTES TAKEN BY:

KC

PROJECT NAME:

Schuyler Heights Fire District

PROJECT LOCATION:

Watervale, NY

NOTES CHECKED BY:

MONITORING WELL ID#:

MW6

DEPTH TO WATER (ft):

14.71

FROM: TPVC

DEPTH TO BOTTOM (ft):

22.24

FROM: TPVC

WATER COLUMN HEIGHT:

7.53

ft

WELL VOLUME:

0.48

GALLONS

WELL CASING DIAMETER:

1.25 in.

CONVERSION FACTORS LINEAR FEET TO GALLONS

1" = 0.041 GAL/LF

3" = 0.38 GAL/LF

1.25" = 0.064 GAL/LF

4" = 0.66 GAL/LF

2" = 0.16 GAL/LF

6" = 1.47 GAL/LF

Field Parameters	Stabilization	Time (since start of purging)											
Time (minutes)	-	Initial	5	10	15	20	25	30	35	40	45	50	
Water Level (ft)	± 0.00	14.71	14.86	14.89	14.89	14.89	14.89	14.89	14.89	14.89	14.89	14.89	
Temperature (C)	± 3%	13.4	12.9	12.5	12.7	11.9	11.8	12.3	12.0	12.7	12.5	12.1	
DO (mg/L)	±10%	0.72	0.64	0.58	0.5	0.56	0.54	0.52	0.52	0.51	0.51	0.51	
Conductivity (uS)	± 3%	1282	1281	1328	1332	1334	1330	1323	1335	1328	1338	1336	
pH (SU)	± 0.1	6.51	6.36	6.41	6.42	6.43	6.43	6.43	6.44	6.43	6.44	6.43	
ORP (mV)	±10 mV	141.9	171.7	241.7	263.7	207.7	211.1	212.5	222.7	212.7	243.3	213.6	
Turbidity (NTU)	±10%	36.42	26.17	10.21	40.46	29.19	40.52	15.96	13.32	29.51	34.22	33.91	

Field Parameters	Time (since start of purging)											
Time (minutes)	55	60	65									
Water Level (ft)	14.89	14.89	14.89									
Temperature (C)	11.9	12.0	12.0									
DO (mg/L)	0.51	0.51	0.51									
Conductivity (uS)	1340	1338	1338									
pH (SU)	6.44	6.44	6.44									
ORP (mV)	212.8	212.6	211.9									
Turbidity (NTU)	35.22	36.17	37.25									

VOLUMES PURGED:

3

GALLONS

AVG PURGE RATE:

~175 mL/min

TIME STARTED:

1210

TIME FINISHED:

1305

OBSERVATIONS: COLOR

clear

ODOR

none

SHEEN

none

OTHER

WATER LEVEL AT 80% RECOV.:

—

ft

WATER RECOVERY HEIGHT:

—

ft

SAMPLE COLLECTION TIME:

1315

RECOVERY TIME IN MINUTES:

—

NOTES:

POD collected here

turbidity < 50 NTU so no filter used on metals

Sampled for:

1,4 Dioxane, PEMS, Total metals

EQUIPMENT:

PERISTALTIC PUMP

NEW DISPOSABLE BAILER

STAINLESS STEEL BAILER

BLADDER PUMP

SUBMERSIBLE PUMP

OTHER

SERIAL NOS:

FA 02191



WELL LOW-FLOW PURGING LOG

Sampling Activity (check all that apply):

☐ Initial / 3 Vol.

☒ Low-Flow

☒ Sample

DATE:

5/14/20

PROJECT NO.:

20-0319

SAMPLING PERSONNEL:

K. Geller

NOTES TAKEN BY:

RC

PROJECT NAME:

Schuyler Heights Fire District

PROJECT LOCATION:

Waterfall, NY

NOTES CHECKED BY:

MONITORING WELL ID#:

MW3

WELL CASING DIAMETER:

1.25 in.

DEPTH TO WATER (ft):

12.97

FROM: TPVC

CONVERSION FACTORS LINEAR FEET TO GALLONS

DEPTH TO BOTTOM (ft):

20.05

FROM: TPVC

1" = 0.041 GAL/LF

3" = 0.38 GAL/LF

WATER COLUMN HEIGHT:

7.08

ft

1.25" = 0.064 GAL/LF

4" = 0.66 GAL/LF

WELL VOLUME:

0.45

GALLONS

2" = 0.16 GAL/LF

6" = 1.47 GAL/LF

Field Parameters	Stabilization	Time (since start of purging)										
Time (minutes)	-	Initial	5	10	15	20	25	30	35	40		
Water Level (ft)	± 0.00	12.97	12.97	12.97	12.97	12.97	12.97	12.97	12.97	12.97		
Temperature (C)	± 3%	13.0	11.4	12.1	11.5	11.7	11.5	10.9	10.8	10.9		
DO (mg/L)	±10%	3.76	0.88	0.68	0.61	0.61	0.60	0.57	0.56	0.55		
Conductivity (uS)	± 3%	907	901	911	921	919	925	931	929	929		
pH (SU)	± 0.1	6.37	5.80	5.81	5.80	5.81	5.80	5.81	5.80	5.81		
ORP (mV)	±10 mV	294.1	293.6	251.6	257.8	258.3	258.7	259.8	258.1	257.9		
Turbidity (NTU)	±10%	18.04	34.09	15.56	6.38	4.35	2.91	2.49	2.36	2.31		

Field Parameters	Time (since start of purging)											
Time (minutes)												
Water Level (ft)												
Temperature (C)												
DO (mg/L)												
Conductivity (uS)												
pH (SU)												
ORP (mV)												
Turbidity (NTU)												

VOLUMES PURGED: 21.5 GALLONS

AVG PURGE RATE: ~140 m/min

TIME STARTED:

1345

TIME FINISHED:

1425

OBSERVATIONS: COLOR

clear

ODOR none

SHEEN

none

OTHER

WATER LEVEL AT 80% RECOV.: — ft

WATER RECOVERY HEIGHT: — ft

SAMPLE COLLECTION TIME:

1425

RECOVERY TIME IN MINUTES: —

NOTES:

turbidity <50 NTU so no filter used when sampling metals

Sampled for:

1/4 Dioxane, PPA's, total metals

EQUIPMENT:

PERISTALTIC PUMP

NEW DISPOSABLE BAILER

STAINLESS STEEL BAILER

BLADDER PUMP

SUBMERSIBLE PUMP

OTHER

SERIAL NOS:

PA82191



WELL LOW-FLOW PURGING LOG

Sampling Activity (check all that apply):

☐ Initial / 3 Vol.

☒ Low-Flow

☒ Sample

DATE:

PROJECT NO.:

SAMPLING PERSONNEL:

NOTES TAKEN BY:

PROJECT NAME:

PROJECT LOCATION:

MONITORING WELL ID#:

DEPTH TO WATER (ft):

DEPTH TO BOTTOM (ft):

WATER COLUMN HEIGHT:

WELL VOLUME:

WELL CASING DIAMETER:

CONVERSION FACTORS LINEAR FEET TO GALLONS

1" = 0.041 GAL/LF

3" = 0.38 GAL/LF

1.25" = 0.064 GAL/LF

4" = 0.66 GAL/LF

2" = 0.16 GAL/LF

6" = 1.47 GAL/LF

Field Parameters	Stabilization	Time (since start of purging)										
Time (minutes)	-	Initial	5	10	15	20	25	30	35	40	45	50
Water Level (ft)	± 0.00	13.70	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Temperature (C)	± 3%	11.4	11.4	11.5	11.0	11.2	11.6	11.3	11.5	11.5	11.6	11.6
DO (mg/L)	±10%	2.1	1.1	0.7	0.8	1.9	0.6	0.6	0.5	0.5	0.5	0.5
Conductivity (uS)	± 3%	908	910	914	907	913	920	922	920	922	920	921
pH (SU)	± 0.1	6.62	6.59	6.61	6.74	6.74	6.61	6.62	6.62	6.62	6.62	6.62
ORP (mV)	±10 mV	209	14.6	-2.9	-26.3	58.1	47.1	28.3	51.3	50.5	53.2	56.3
Turbidity (NTU)	±10%	309.41	50.72	205.0	153.6	58.62	46.91	32.14	26.78	19.16	14.34	19.49

Field Parameters	Time (since start of purging)											
Time (minutes)												
Water Level (ft)												
Temperature (C)												
DO (mg/L)												
Conductivity (uS)												
pH (SU)												
ORP (mV)												
Turbidity (NTU)												

VOLUMES PURGED: ~2 GALLONS

AVG PURGE RATE: ~150 mL/min

TIME STARTED: 1450

TIME FINISHED: 1540

OBSERVATIONS: COLOR orange tint / clear
SHEEN none

ODOR none
OTHER

WATER LEVEL AT 80% RECOV.: — ft

WATER RECOVERY HEIGHT: — ft

SAMPLE COLLECTION TIME: 1540

RECOVERY TIME IN MINUTES: —

NOTES: turbidity < 50 NTU so no filter used on metals

Sampled for: 1,4 Dioxane, PPTS, Total metals

EQUIPMENT: PERISTALTIC PUMP NEW DISPOSABLE BAILER STAINLESS STEEL BAILER

BLADDER PUMP SUBMERSIBLE PUMP OTHER

SERIAL NOS: FA 02191



WELL LOW-FLOW PURGING LOG

Sampling Activity (check all that apply):

☐ Initial / 3 Vol.

☒ Low-Flow

☒ Sample

DATE:

PROJECT NO.:

SAMPLING PERSONNEL:

NOTES TAKEN BY:

MONITORING WELL ID#:

DEPTH TO WATER (ft):

DEPTH TO BOTTOM (ft):

WATER COLUMN HEIGHT:

WELL VOLUME:

PROJECT NAME:

PROJECT LOCATION:

NOTES CHECKED BY:

WELL CASING DIAMETER:

CONVERSION FACTORS LINEAR FEET TO GALLONS

1" = 0.041 GAL/LF

3" = 0.38 GAL/LF

1.25" = 0.064 GAL/LF

4" = 0.66 GAL/LF

2" = 0.16 GAL/LF

6" = 1.47 GAL/LF

Field Parameters	Stabilization	Time (since start of purging)
Time (minutes)	-	Initial 5 10 15 20 25 30 35 40 45 50
Water Level (ft)	± 0.00	11.32 11.32 11.32 11.32 11.32 11.32 11.32 11.32 11.32 11.32
Temperature (C)	± 3%	11.7 11.5 11.7 11.6 11.6 11.5 11.6 11.5 11.5 11.6
DO (mg/L)	±10%	3.07 0.84 0.70 0.63 0.61 0.58 0.57 0.56 0.55 0.55
Conductivity (uS)	± 3%	1050 1052 1048 1060 1055 1053 1056 1057 1055 1057
pH (SU)	± 0.1	6.19 6.02 6.02 6.04 6.06 6.08 6.09 6.10 6.12 6.13
ORP (mV)	±10 mV	351.4 341.8 370.6 372.7 373.5 373.9 374.0 373.7 373.1 372.8
Turbidity (NTU)	±10%	92.13 70.55 135.44 86.76 39.24 13.39 7.63 5.04 4.04 4.19

Field Parameters	Time (since start of purging)
Time (minutes)	
Water Level (ft)	
Temperature (C)	
DO (mg/L)	
Conductivity (uS)	
pH (SU)	
ORP (mV)	
Turbidity (NTU)	

VOLUMES PURGED:

GALLONS

AVG PURGE RATE:

TIME STARTED:

TIME FINISHED:

OBSERVATIONS: COLOR

SHEEN

ODOR

OTHER

WATER LEVEL AT 80% RECOV.:

ft

WATER RECOVERY HEIGHT:

ft

SAMPLE COLLECTION TIME:

RECOVERY TIME IN MINUTES:

NOTES:

Sampled for:

EQUIPMENT:

PERISTALTIC PUMP

NEW DISPOSABLE BAILER

STAINLESS STEEL BAILER

BLADDER PUMP

SUBMERSIBLE PUMP

OTHER

SERIAL NOS:



WELL LOW-FLOW PURGING LOG

Sampling Activity (check all that apply):

☐ Initial / 3 Vol.

☒ Low-Flow

☒ Sample

DATE:

5/15/20

PROJECT NO.:

20.0319

SAMPLING PERSONNEL:

K. Geller

NOTES TAKEN BY:

KC

PROJECT NAME:

Schuyler Heights Fire District

PROJECT LOCATION:

MONITORING WELL ID#:

MW 1

DEPTH TO WATER (ft):

8.33

FROM: TPVC

DEPTH TO BOTTOM (ft):

11.413

FROM: TPVC

WATER COLUMN HEIGHT:

3.08

ft

WELL VOLUME:

0.2

GALLONS

WELL CASING DIAMETER:

1.25

in.

CONVERSION FACTORS LINEAR FEET TO GALLONS

1" = 0.041 GAL/LF

3" = 0.38 GAL/LF

1.25" = 0.064 GAL/LF

4" = 0.66 GAL/LF

2" = 0.16 GAL/LF

6" = 1.47 GAL/LF

Field Parameters	Stabilization	Time (since start of purging)									
Time (minutes)	-	Initial	5	10	15	20	25	30	35	40	45
Water Level (ft)	± 0.00	8.33	8.54	8.69	8.91	8.91	8.91	8.91	8.91	8.91	8.91
Temperature (C)	± 3%	12.3	11.4	11.4	11.3	11.1	11.1	11.1	11.2	11.1	11.1
DO (mg/L)	±10%	3.91	1.19	0.77	0.79	0.73	0.70	0.60	0.62	0.60	0.59
Conductivity (uS)	± 3%	589	601	650	678	727	804	850	858	855	853
pH (SU)	± 0.1	6.01	6.60	6.73	6.69	6.58	6.44	6.40	6.38	6.39	6.38
ORP (mV)	±10 mV	244.3	53.9	14.7	13.5	5.3	19.1	16.9	16.5	16.4	16.3
Turbidity (NTU)	±10%	265.87	287.93	206.58	172.68	148.83	93.44	52.71	41.52	40.95	38.72

Field Parameters	Time (since start of purging)									
Time (minutes)										
Water Level (ft)										
Temperature (C)										
DO (mg/L)										
Conductivity (uS)										
pH (SU)										
ORP (mV)										
Turbidity (NTU)										

VOLUMES PURGED:

~1.75

GALLONS

AVG PURGE RATE:

~150 mL/min

TIME STARTED:

845

TIME FINISHED:

930

OBSERVATIONS: COLOR

clear

ODOR

none

SHEEN

none

OTHER

WATER LEVEL AT 80% RECOV.:

ft

WATER RECOVERY HEIGHT:

ft

SAMPLE COLLECTION TIME:

930

RECOVERY TIME IN MINUTES:

NOTES:

turbidity < 50 NTU so no filter used when sampling metals

Sampled for:

1,4 Dioxane, PFAS, metals

EQUIPMENT:

PERISTALTIC PUMP

NEW DISPOSABLE BAILER

STAINLESS STEEL BAILER

BLADDER PUMP

SUBMERSIBLE PUMP

OTHER

SERIAL NOS:

PA02191



ANALYTICAL REPORT

Lab Number:	L2020210
Client:	C.T. Male Associates 50 Century Hill Drive Latham, NY 12210
ATTN:	Jeffrey Marx
Phone:	(518) 786-7548
Project Name:	SCHUYLER HEIGHTS FIRE DISTRICT
Project Number:	20.0319
Report Date:	06/02/20

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2020210-01	MW7-200514	WATER	WATERVALIET,NY	05/14/20 11:20	05/15/20
L2020210-02	MW6-200514	WATER	WATERVALIET,NY	05/14/20 13:15	05/15/20
L2020210-03	FD-01-200514	WATER	WATERVALIET,NY	05/14/20 00:00	05/15/20
L2020210-04	MW3-200514	WATER	WATERVALIET,NY	05/14/20 14:25	05/15/20
L2020210-05	MW4-200514	WATER	WATERVALIET,NY	05/14/20 15:40	05/15/20
L2020210-06	MW5-200514	WATER	WATERVALIET,NY	05/14/20 16:20	05/15/20
L2020210-07	MW2-200514	WATER	WATERVALIET,NY	05/15/20 08:25	05/15/20
L2020210-08	MW1-200514	WATER	WATERVALIET,NY	05/15/20 09:30	05/15/20

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Case Narrative (continued)

Report Revision

June 02, 2020: The Total Metals analyte list has been amended on L2020210-01 through -08. The Dissolved Metals analyte list has been amended on L2020210-01.

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2020210-06: The sample was field filtered for Dissolved Metals.

Total Metals

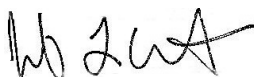
The WG1372417-3/-4 MS/MSD recoveries, performed on L2020210-01, are outside the acceptance criteria for iron (155%/132%) and thallium (MS at 127%). A post digestion spike was performed and was within acceptance criteria.

Dissolved Metals

The WG1372440-3 MS recoveries for calcium (139%) and manganese (34%), performed on L2020210-06, do not apply because the sample concentrations are greater than four times the spike amounts added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Jennifer L Clements

Title: Technical Director/Representative

Date: 06/02/20

ORGANICS

SEMIVOLATILES

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

SAMPLE RESULTS

Lab ID: L2020210-01
Client ID: MW7-200514
Sample Location: WATERVALIET,NY

Date Collected: 05/14/20 11:20
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 05/20/20 11:15
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 05/19/20 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	1060		ng/l	150	33.9	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	50			15-110		

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

SAMPLE RESULTS

Lab ID: L2020210-02
Client ID: MW6-200514
Sample Location: WATERVALIET,NY

Date Collected: 05/14/20 13:15
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 05/20/20 12:46
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 05/19/20 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	202.		ng/l	156	35.3	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	40			15-110		

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

SAMPLE RESULTS

Lab ID: L2020210-03
Client ID: FD-01-200514
Sample Location: WATERVALIET,NY

Date Collected: 05/14/20 00:00
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 05/20/20 13:19
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 05/19/20 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	219.		ng/l	150	33.9	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	47			15-110		

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

SAMPLE RESULTS

Lab ID: L2020210-04
Client ID: MW3-200514
Sample Location: WATERVALIET,NY

Date Collected: 05/14/20 14:25
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 05/20/20 13:51
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 05/19/20 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	33.9	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	38			15-110		

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

SAMPLE RESULTS

Lab ID: L2020210-05
Client ID: MW4-200514
Sample Location: WATERVALIET,NY

Date Collected: 05/14/20 15:40
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 05/20/20 14:27
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 05/19/20 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	156	35.3	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	44			15-110		

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

SAMPLE RESULTS

Lab ID: L2020210-06
Client ID: MW5-200514
Sample Location: WATERVALIET,NY

Date Collected: 05/14/20 16:20
Date Received: 05/15/20
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 05/20/20 15:04
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 05/19/20 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	163	36.8	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	54			15-110		

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

SAMPLE RESULTS

Lab ID: L2020210-07
Client ID: MW2-200514
Sample Location: WATERVALIET,NY

Date Collected: 05/15/20 08:25
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 05/20/20 15:35
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 05/19/20 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	152.		ng/l	150	33.9	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	45			15-110		

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

SAMPLE RESULTS

Lab ID: L2020210-08
Client ID: MW1-200514
Sample Location: WATERVALIET,NY

Date Collected: 05/15/20 09:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 05/20/20 16:10
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 05/19/20 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	156	35.3	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	48			15-110		

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 05/20/20 09:40
 Analyst: PS

Extraction Method: EPA 3510C
 Extraction Date: 05/19/20 17:44

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-08 Batch: WG1372397-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	45		15-110

Lab Control Sample Analysis**Batch Quality Control****Project Name:** SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01-08 Batch: WG1372397-2 WG1372397-3								
1,4-Dioxane	110		111		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	46		48		15-110

Matrix Spike Analysis**Batch Quality Control****Project Name:** SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1372397-4 WG1372397-5 QC Sample: L2020210-01 Client ID: MW7-200514												
1,4-Dioxane	1060	5000	6810	115		6770	114		40-140	1		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	39		38		15-110

METALS

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-01

Date Collected: 05/14/20 11:20

Client ID: MW7-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00869	J	mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Antimony, Total	0.00107	J	mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00075		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Barium, Total	0.1059		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00016	J	mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Calcium, Total	145.		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Chromium, Total	0.00019	J	mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00145		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Copper, Total	0.00092	J	mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Iron, Total	0.311		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Magnesium, Total	19.7		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Manganese, Total	8.085		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	05/20/20 10:00	05/20/20 17:13	EPA 7470A	1,7470A	AL
Molybdenum, Total	ND		mg/l	0.00200	0.00067	1	05/20/20 09:05	05/29/20 15:12	EPA 3005A	1,6020B	AM
Nickel, Total	0.00369		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Potassium, Total	10.1		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Sodium, Total	18.9		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Thallium, Total	0.00047	J	mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Tin, Total	0.0057		mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Titanium, Total	0.2256		mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 13:02	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 13:01	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-02

Date Collected: 05/14/20 13:15

Client ID: MW6-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0404		mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00044	J	mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Barium, Total	0.06400		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00023		mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Calcium, Total	242.		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Chromium, Total	0.00026	J	mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00377		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Copper, Total	0.00677		mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Iron, Total	0.129		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Lead, Total	0.00073	J	mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Magnesium, Total	44.0		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Manganese, Total	5.312		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	05/20/20 10:00	05/20/20 17:31	EPA 7470A	1,7470A	AL
Molybdenum, Total	0.00241	J	mg/l	0.00600	0.00067	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Nickel, Total	0.04469		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Potassium, Total	14.6		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Sodium, Total	40.4		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Thallium, Total	0.00017	J	mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Tin, Total	ND		mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Titanium, Total	0.3768		mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 13:47	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 13:46	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-03

Date Collected: 05/14/20 00:00

Client ID: FD-01-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0660		mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00045	J	mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Barium, Total	0.06607		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00025		mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Calcium, Total	246.		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Chromium, Total	0.00035	J	mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00366		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Copper, Total	0.01528		mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Iron, Total	0.201		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Lead, Total	0.00483		mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Magnesium, Total	44.6		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Manganese, Total	5.456		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	05/20/20 10:00	05/20/20 17:33	EPA 7470A	1,7470A	AL
Molybdenum, Total	0.00281	J	mg/l	0.00600	0.00067	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Nickel, Total	0.04703		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Potassium, Total	15.0		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Sodium, Total	41.1		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Thallium, Total	0.00014	J	mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Tin, Total	0.0018	J	mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Titanium, Total	0.3807		mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 13:52	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM
Zinc, Total	0.1479		mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 13:51	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-04

Date Collected: 05/14/20 14:25

Client ID: MW3-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00491	J	mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Antimony, Total	0.00046	J	mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00021	J	mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Barium, Total	0.1382		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00032		mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Calcium, Total	58.0		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Chromium, Total	0.00019	J	mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00048	J	mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Copper, Total	0.00224		mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Iron, Total	0.0899		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Magnesium, Total	19.6		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Manganese, Total	0.5876		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	05/20/20 10:00	05/20/20 17:40	EPA 7470A	1,7470A	AL
Molybdenum, Total	0.00091	J	mg/l	0.00600	0.00067	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Nickel, Total	0.00546		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Potassium, Total	2.93		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Sodium, Total	112.		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Tin, Total	ND		mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Titanium, Total	0.08914		mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 13:57	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM
Zinc, Total	0.04918		mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 13:56	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-05

Date Collected: 05/14/20 15:40

Client ID: MW4-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Antimony, Total	0.00354	J	mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00047	J	mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Barium, Total	0.06258		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00018	J	mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Calcium, Total	134.		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Chromium, Total	0.00017	J	mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00066		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Copper, Total	0.01874		mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Iron, Total	42.9		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Lead, Total	0.00384		mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Magnesium, Total	31.3		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Manganese, Total	2.171		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	05/20/20 10:00	05/20/20 17:42	EPA 7470A	1,7470A	AL
Molybdenum, Total	ND		mg/l	0.00600	0.00067	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Nickel, Total	0.00580		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Potassium, Total	12.0		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Sodium, Total	12.2		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Tin, Total	ND		mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Titanium, Total	0.2097		mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 14:02	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM
Zinc, Total	0.04008		mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 14:01	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-06

Date Collected: 05/14/20 16:20

Client ID: MW5-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4.76		mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Antimony, Total	0.00153	J	mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Arsenic, Total	0.04939		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Barium, Total	0.2795		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Beryllium, Total	0.00043	J	mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00435		mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Calcium, Total	77.0		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Chromium, Total	0.01571		mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Cobalt, Total	0.2323		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Copper, Total	1.567		mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Iron, Total	61.2		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Lead, Total	0.1477		mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Magnesium, Total	31.9		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Manganese, Total	9.016		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Mercury, Total	0.05449		mg/l	0.00100	0.00045	5	05/20/20 10:00	05/20/20 20:00	EPA 7470A	1,7470A	AL
Molybdenum, Total	0.06745		mg/l	0.00200	0.00067	1	05/20/20 09:05	05/29/20 15:23	EPA 3005A	1,6020B	AM
Nickel, Total	2.245		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Potassium, Total	5.11		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Selenium, Total	0.00759		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Silver, Total	0.01303		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Sodium, Total	41.4		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Thallium, Total	0.00039	J	mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Tin, Total	0.0033		mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Titanium, Total	0.1756		mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 14:07	EPA 3005A	1,6020B	AM
Vanadium, Total	0.02130		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM
Zinc, Total	0.9364		mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 14:06	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-06

Date Collected: 05/14/20 16:20

Client ID: MW5-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00824	J	mg/l	0.0100	0.00327	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00053	J	mg/l	0.00400	0.00042	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00509		mg/l	0.00050	0.00016	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1501		mg/l	0.00050	0.00017	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Calcium, Dissolved	53.3		mg/l	0.100	0.0394	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00039	J	mg/l	0.00100	0.00017	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.01014		mg/l	0.00050	0.00016	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00079	J	mg/l	0.00100	0.00038	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Iron, Dissolved	15.2		mg/l	0.0500	0.0191	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	23.6		mg/l	0.0700	0.0242	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Manganese, Dissolved	7.048		mg/l	0.00100	0.00044	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	05/20/20 14:57	05/20/20 20:28	EPA 7470A	1,7470A	AL
Molybdenum, Dissolved	0.00258		mg/l	0.00200	0.00067	1	05/20/20 13:51	05/29/20 14:49	EPA 3005A	1,6020B	AM
Nickel, Dissolved	0.08647		mg/l	0.00200	0.00055	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Potassium, Dissolved	3.47		mg/l	0.100	0.0309	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Sodium, Dissolved	41.2		mg/l	0.100	0.0293	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Thallium, Dissolved	0.00041	J	mg/l	0.00100	0.00014	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Tin, Dissolved	0.0016	J	mg/l	0.0030	0.0011	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Titanium, Dissolved	0.08382		mg/l	0.00050	0.00007	1	05/20/20 13:51	05/21/20 15:10	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/20/20 13:51	05/21/20 15:09	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-07

Date Collected: 05/15/20 08:25

Client ID: MW2-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0359		mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Antimony, Total	0.00129	J	mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00034	J	mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Barium, Total	0.07918		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00023		mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Calcium, Total	166.		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Chromium, Total	0.00095	J	mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00205		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Copper, Total	0.00411		mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Iron, Total	0.278		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Lead, Total	0.00251		mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Magnesium, Total	45.2		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Manganese, Total	3.960		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	05/20/20 10:00	05/20/20 17:47	EPA 7470A	1,7470A	AL
Molybdenum, Total	ND		mg/l	0.00200	0.00067	1	05/20/20 09:05	05/29/20 15:26	EPA 3005A	1,6020B	AM
Nickel, Total	0.00645		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Potassium, Total	8.60		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Sodium, Total	20.3		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Tin, Total	ND		mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Titanium, Total	0.2633		mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 14:12	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM
Zinc, Total	0.02416		mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 14:11	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**SAMPLE RESULTS**

Lab ID: L2020210-08

Date Collected: 05/15/20 09:30

Client ID: MW1-200514

Date Received: 05/15/20

Sample Location: WATERVALIET,NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.308		mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00273		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Barium, Total	0.1272		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Calcium, Total	142.		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Chromium, Total	0.00064	J	mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00174		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Copper, Total	0.00200		mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Iron, Total	6.45		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Lead, Total	0.00124		mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Magnesium, Total	20.3		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Manganese, Total	4.435		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	05/20/20 10:00	05/20/20 17:49	EPA 7470A	1,7470A	AL
Molybdenum, Total	0.00363	J	mg/l	0.00600	0.00067	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Nickel, Total	0.00207		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Potassium, Total	5.28		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Sodium, Total	24.9		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Tin, Total	ND		mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Titanium, Total	0.2194		mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 14:17	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM
Zinc, Total	0.00402	J	mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 14:16	EPA 3005A	1,6020B	AM



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT

Lab Number: L2020210

Project Number: 20.0319

Report Date: 06/02/20

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1372417-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Copper, Total	0.00070	J	mg/l	0.00100	0.00038	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Iron, Total	ND		mg/l	0.0500	0.0191	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Molybdenum, Total	0.00122	J	mg/l	0.00600	0.00067	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Thallium, Total	0.00023	J	mg/l	0.00100	0.00014	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Tin, Total	ND		mg/l	0.0030	0.0011	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1372420-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	05/20/20 10:00	05/20/20 17:04	1,7470A	AL



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 06 Batch: WG1372440-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Chromium, Dissolved	0.00018	J	mg/l	0.00100	0.00017	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Molybdenum, Dissolved	ND		mg/l	0.00200	0.00067	1	05/20/20 13:51	05/29/20 14:15	1,6020B	AM
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Sodium, Dissolved	ND		mg/l	0.100	0.0293	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00100	0.00014	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Tin, Dissolved	ND		mg/l	0.0030	0.0011	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT

Lab Number: L2020210

Project Number: 20.0319

Report Date: 06/02/20

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 06 Batch: WG1372441-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	05/20/20 14:57	05/20/20 20:24	1,7470A	AL

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 06 Batch: WG1375394-1										
Titanium, Dissolved	0.00017	J	mg/l	0.00050	0.00007	1	05/20/20 13:51	05/21/20 14:45	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1375395-1										
Titanium, Total	0.00023	J	mg/l	0.00050	0.00007	1	05/20/20 09:05	05/21/20 12:36	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT

Lab Number: L2020210

Project Number: 20.0319

Report Date: 06/02/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1372417-2								
Aluminum, Total	114		-		80-120	-		
Antimony, Total	97		-		80-120	-		
Arsenic, Total	108		-		80-120	-		
Barium, Total	105		-		80-120	-		
Beryllium, Total	107		-		80-120	-		
Cadmium, Total	110		-		80-120	-		
Calcium, Total	113		-		80-120	-		
Chromium, Total	110		-		80-120	-		
Cobalt, Total	113		-		80-120	-		
Copper, Total	107		-		80-120	-		
Iron, Total	120		-		80-120	-		
Lead, Total	112		-		80-120	-		
Magnesium, Total	120		-		80-120	-		
Manganese, Total	110		-		80-120	-		
Molybdenum, Total	110		-		80-120	-		
Nickel, Total	113		-		80-120	-		
Potassium, Total	112		-		80-120	-		
Selenium, Total	107		-		80-120	-		
Silver, Total	109		-		80-120	-		
Sodium, Total	118		-		80-120	-		
Thallium, Total	118		-		80-120	-		

Lab Control Sample Analysis**Batch Quality Control****Project Name:** SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1372417-2					
Tin, Total	103	-	80-120	-	
Vanadium, Total	111	-	80-120	-	
Zinc, Total	111	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1372420-2					
Mercury, Total	101	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT

Project Number: 20.0319

Lab Number: L2020210

Report Date: 06/02/20

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 06 Batch: WG1372440-2					
Aluminum, Dissolved	104	-	80-120	-	
Antimony, Dissolved	91	-	80-120	-	
Arsenic, Dissolved	98	-	80-120	-	
Barium, Dissolved	97	-	80-120	-	
Beryllium, Dissolved	104	-	80-120	-	
Cadmium, Dissolved	102	-	80-120	-	
Calcium, Dissolved	110	-	80-120	-	
Chromium, Dissolved	102	-	80-120	-	
Cobalt, Dissolved	101	-	80-120	-	
Copper, Dissolved	97	-	80-120	-	
Iron, Dissolved	109	-	80-120	-	
Lead, Dissolved	108	-	80-120	-	
Magnesium, Dissolved	113	-	80-120	-	
Manganese, Dissolved	101	-	80-120	-	
Molybdenum, Dissolved	104	-	80-120	-	
Nickel, Dissolved	101	-	80-120	-	
Potassium, Dissolved	107	-	80-120	-	
Selenium, Dissolved	101	-	80-120	-	
Silver, Dissolved	102	-	80-120	-	
Sodium, Dissolved	112	-	80-120	-	
Thallium, Dissolved	112	-	80-120	-	

Lab Control Sample Analysis**Batch Quality Control****Project Name:** SCHUYLER HEIGHTS FIRE DISTRICT**Project Number:** 20.0319**Lab Number:** L2020210**Report Date:** 06/02/20

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 06 Batch: WG1372440-2					
Tin, Dissolved	101	-	80-120	-	
Vanadium, Dissolved	104	-	80-120	-	
Zinc, Dissolved	100	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 06 Batch: WG1372441-2					
Mercury, Dissolved	108	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 06 Batch: WG1375394-2					
Titanium, Dissolved	89	-	80-120	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1375395-2					
Titanium, Total	92	-	80-120	-	20

Matrix Spike Analysis

Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1372417-3 WG1372417-4 QC Sample: L2020210-01 Client ID: MW7-200514												
Aluminum, Total	0.00869J	2	2.20	110		2.20	110		75-125	0		20
Antimony, Total	0.00107J	0.5	0.5721	114		0.5742	115		75-125	0		20
Arsenic, Total	0.00075	0.12	0.1300	108		0.1303	108		75-125	0		20
Barium, Total	0.1059	2	2.157	102		2.185	104		75-125	1		20
Beryllium, Total	ND	0.05	0.05529	110		0.05557	111		75-125	1		20
Cadmium, Total	0.00016J	0.051	0.05584	109		0.05628	110		75-125	1		20
Calcium, Total	145.	10	154	90		155	100		75-125	1		20
Chromium, Total	0.00019J	0.2	0.2131	106		0.2142	107		75-125	1		20
Cobalt, Total	0.00145	0.5	0.5423	108		0.5498	110		75-125	1		20
Copper, Total	0.00092J	0.25	0.2607	104		0.2634	105		75-125	1		20
Iron, Total	0.311	1	1.86	155	Q	1.63	132	Q	75-125	13		20
Lead, Total	ND	0.51	0.5718	112		0.5791	114		75-125	1		20
Magnesium, Total	19.7	10	31.5	118		31.8	121		75-125	1		20
Manganese, Total	8.085	0.5	8.671	117		8.490	81		75-125	2		20
Molybdenum, Total	ND	1	1.105	110		1.091	109		75-125	1		20
Nickel, Total	0.00369	0.5	0.5454	108		0.5560	110		75-125	2		20
Potassium, Total	10.1	10	20.8	107		21.0	109		75-125	1		20
Selenium, Total	ND	0.12	0.129	108		0.128	107		75-125	1		20
Silver, Total	ND	0.05	0.05323	106		0.05437	109		75-125	2		20
Sodium, Total	18.9	10	28.0	91		28.5	96		75-125	2		20
Thallium, Total	0.00047J	0.12	0.1524	127	Q	0.1461	122		75-125	4		20

Matrix Spike Analysis

Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1372417-3 WG1372417-4 QC Sample: L2020210-01 Client ID: MW7-200514									
Tin, Total	0.0057	1	1.072	107	1.090	108	75-125	2	20
Vanadium, Total	ND	0.5	0.5379	108	0.5525	110	75-125	3	20
Zinc, Total	ND	0.5	0.5382	108	0.5462	109	75-125	1	20
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1372420-3 WG1372420-4 QC Sample: L2020210-01 Client ID: MW7-200514									
Mercury, Total	ND	0.005	0.00554	111	0.00594	119	75-125	7	20

Matrix Spike Analysis

Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1372440-3 QC Sample: L2020210-06 Client ID: MW5-200514									
Aluminum, Dissolved	0.00824J	2	2.10	105	-	-	75-125	-	20
Antimony, Dissolved	0.00053J	0.5	0.5548	111	-	-	75-125	-	20
Arsenic, Dissolved	0.00509	0.12	0.1262	101	-	-	75-125	-	20
Barium, Dissolved	0.1501	2	2.109	98	-	-	75-125	-	20
Beryllium, Dissolved	ND	0.05	0.05259	105	-	-	75-125	-	20
Cadmium, Dissolved	ND	0.051	0.05281	104	-	-	75-125	-	20
Calcium, Dissolved	53.3	10	67.2	139	Q	-	75-125	-	20
Chromium, Dissolved	0.00039J	0.2	0.2069	103	-	-	75-125	-	20
Cobalt, Dissolved	0.01014	0.5	0.5200	102	-	-	75-125	-	20
Copper, Dissolved	0.00079J	0.25	0.2503	100	-	-	75-125	-	20
Iron, Dissolved	15.2	1	16.4	120	-	-	75-125	-	20
Lead, Dissolved	ND	0.51	0.5545	109	-	-	75-125	-	20
Magnesium, Dissolved	23.6	10	35.3	117	-	-	75-125	-	20
Manganese, Dissolved	7.048	0.5	7.218	34	Q	-	75-125	-	20
Molybdenum, Dissolved	0.00258	1	1.103	110	-	-	75-125	-	20
Nickel, Dissolved	0.08647	0.5	0.6132	105	-	-	75-125	-	20
Potassium, Dissolved	3.47	10	14.7	112	-	-	75-125	-	20
Selenium, Dissolved	ND	0.12	0.116	97	-	-	75-125	-	20
Silver, Dissolved	ND	0.05	0.05110	102	-	-	75-125	-	20
Sodium, Dissolved	41.2	10	49.8	86	-	-	75-125	-	20
Thallium, Dissolved	0.00041J	0.12	0.1246	104	-	-	75-125	-	20

Matrix Spike Analysis

Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1372440-3 QC Sample: L2020210-06 Client ID: MW5-200514									
Tin, Dissolved	0.0016J	1	1.077	108	-	-	75-125	-	20
Vanadium, Dissolved	ND	0.5	0.5367	107	-	-	75-125	-	20
Zinc, Dissolved	ND	0.5	0.5089	102	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1372441-3 QC Sample: L2020210-06 Client ID: MW5-200514									
Mercury, Dissolved	ND	0.005	0.00529	106	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1375394-3 QC Sample: L2020210-06 Client ID: MW5-200514									
Titanium, Dissolved	0.08382	1	1.017	93	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1375395-3 WG1375395-4 QC Sample: L2020210-01 Client ID: MW7-200514									
Titanium, Total	0.2256	1	1.136	91	1.158	93	75-125	2	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020210
Report Date: 06/02/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1372440-4 QC Sample: L2020210-06 Client ID: MW5-200514						
Aluminum, Dissolved	0.00824J	0.00724J	mg/l	NC		20
Antimony, Dissolved	0.00053J	0.00098J	mg/l	NC		20
Arsenic, Dissolved	0.00509	0.00549	mg/l	7		20
Barium, Dissolved	0.1501	0.1580	mg/l	5		20
Beryllium, Dissolved	ND	ND	mg/l	NC		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Calcium, Dissolved	53.3	54.5	mg/l	2		20
Chromium, Dissolved	0.00039J	0.00044J	mg/l	NC		20
Cobalt, Dissolved	0.01014	0.01050	mg/l	3		20
Copper, Dissolved	0.00079J	0.00077J	mg/l	NC		20
Iron, Dissolved	15.2	15.8	mg/l	4		20
Lead, Dissolved	ND	ND	mg/l	NC		20
Magnesium, Dissolved	23.6	23.9	mg/l	1		20
Manganese, Dissolved	7.048	7.413	mg/l	5		20
Nickel, Dissolved	0.08647	0.08966	mg/l	4		20
Potassium, Dissolved	3.47	3.56	mg/l	3		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Sodium, Dissolved	41.2	43.2	mg/l	5		20

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
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Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2020210
Report Date: 06/02/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1372440-4 QC Sample: L2020210-06 Client ID: MW5-200514					
Thallium, Dissolved	0.00041J	0.00151	mg/l	NC	20
Tin, Dissolved	0.0016J	0.0031	mg/l	NC	20
Vanadium, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	ND	ND	mg/l	NC	20
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1372440-4 QC Sample: L2020210-06 Client ID: MW5-200514					
Molybdenum, Dissolved	0.00258	0.00299	mg/l	15	20
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1372441-4 QC Sample: L2020210-06 Client ID: MW5-200514					
Mercury, Dissolved	ND	ND	mg/l	NC	20
Dissolved Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1375394-4 QC Sample: L2020210-06 Client ID: MW5-200514					
Titanium, Dissolved	0.08382	0.08678	mg/l	3	20

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020210**Project Number:** 20.0319**Report Date:** 06/02/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2020210-01A	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		TL-6020T(180),FE-6020T(180),BA-6020T(180),SE-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),SN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),HG-T(28),AG-6020T(180),CD-6020T(180),AL-6020T(180),MG-6020T(180),MO-6020T(180),A2-TI-6020T(180),CO-6020T(180)
L2020210-01A1	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		TL-6020T(180),FE-6020T(180),BA-6020T(180),SE-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SN-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),HG-T(28),AG-6020T(180),CD-6020T(180),AL-6020T(180),MG-6020T(180),MO-6020T(180),A2-TI-6020T(180),CO-6020T(180)
L2020210-01A2	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		TL-6020T(180),FE-6020T(180),BA-6020T(180),SE-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SN-6020T(180),V-6020T(180),SB-6020T(180),AS-6020T(180),HG-T(28),AG-6020T(180),CD-6020T(180),AL-6020T(180),MG-6020T(180),MO-6020T(180),A2-TI-6020T(180),CO-6020T(180)
L2020210-01B	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-01B1	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-01B2	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-01C	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-01C1	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-01C2	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2020210-02A	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		BA-6020T(180),FE-6020T(180),TL-6020T(180),SE-6020T(180),NI-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),SN-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),CD-6020T(180),AG-6020T(180),HG-T(28),MG-6020T(180),AL-6020T(180),A2-TI-6020T(180),MO-6020T(180),CO-6020T(180)
L2020210-02A1	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-02A2	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-02B	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-02C	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-03A	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		BA-6020T(180),SE-6020T(180),TL-6020T(180),FE-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CR-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),SN-6020T(180),BE-6020T(180),V-6020T(180),SB-6020T(180),AS-6020T(180),CD-6020T(180),AL-6020T(180),AG-6020T(180),HG-T(28),MG-6020T(180),MO-6020T(180),A2-TI-6020T(180),CO-6020T(180)
L2020210-03A1	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-03A2	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-03B	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-03C	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-04A	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		TL-6020T(180),FE-6020T(180),SE-6020T(180),BA-6020T(180),K-6020T(180),CA-6020T(180),NI-6020T(180),CR-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SN-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),AG-6020T(180),CD-6020T(180),AL-6020T(180),MG-6020T(180),HG-T(28),MO-6020T(180),A2-TI-6020T(180),CO-6020T(180)
L2020210-04A1	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-04A2	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-04B	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-04C	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2020210-05A	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		BA-6020T(180),TL-6020T(180),FE-6020T(180),SE-6020T(180),K-6020T(180),NI-6020T(180),CA-6020T(180),CR-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),SN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),CD-6020T(180),AL-6020T(180),A2-TI-6020T(180),MO-6020T(180),CO-6020T(180)
L2020210-05A1	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-05A2	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-05B	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-05C	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-06A	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		CU-6020S(180),K-6020S(180),V-6020S(180),SE-6020S(180),MN-6020S(180),ZN-6020S(180),MG-6020S(180),BE-6020S(180),CO-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),SN-6020S(180),BA-6020S(180),TL-6020S(180),MO-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),SB-6020S(180),AS-6020S(180),AG-6020S(180),AL-6020S(180),CD-6020S(180),A2-TI-6020S(180),HG-S(28)
L2020210-06A1	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-06A2	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-06B	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		FE-6020T(180),SE-6020T(180),TL-6020T(180),BA-6020T(180),NI-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),AG-6020T(180),MG-6020T(180),MO-6020T(180),A2-TI-6020T(180),CO-6020T(180)
L2020210-06C	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-06D	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2020210-07A	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		SE-6020T(180),TL-6020T(180),BA-6020T(180),FE-6020T(180),CR-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),SN-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),HG-T(28),CD-6020T(180),AG-6020T(180),AL-6020T(180),MG-6020T(180),MO-6020T(180),A2-TI-6020T(180),CO-6020T(180)
L2020210-07A1	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-07A2	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-07B	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-07C	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-08A	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		BA-6020T(180),SE-6020T(180),FE-6020T(180),TL-6020T(180),CA-6020T(180),K-6020T(180),NI-6020T(180),CR-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),SN-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),CD-6020T(180),MG-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),MO-6020T(180),A2-TI-6020T(180),CO-6020T(180)
L2020210-08A1	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-08A2	Plastic 500ml HNO3 preserved	NA	NA			Y	Absent		-
L2020210-08B	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2020210-08C	Amber 250ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)-(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

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Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



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Lab Number: L2020210
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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 17

Department: **Quality Assurance**

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

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ANALYTICAL REPORT

Lab Number:	L2020229
Client:	C.T. Male Associates 50 Century Hill Drive Latham, NY 12210
ATTN:	Jeffrey Marx
Phone:	(518) 786-7548
Project Name:	SCHUYLER HEIGHTS FIRE DISTRICT
Project Number:	20.0319
Report Date:	05/22/20

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2020229-01	MW7-200514	WATER	WATERVALIET, NY	05/14/20 11:20	05/15/20
L2020229-02	MW6-200514	WATER	WATERVALIET, NY	05/14/20 13:15	05/15/20
L2020229-03	FD01-200514	WATER	WATERVALIET, NY	05/14/20 00:00	05/15/20
L2020229-04	MW3-200514	WATER	WATERVALIET, NY	05/14/20 14:25	05/15/20
L2020229-05	MW4-200514	WATER	WATERVALIET, NY	05/14/20 15:40	05/15/20
L2020229-06	MW5-200514	WATER	WATERVALIET, NY	05/15/20 07:20	05/15/20
L2020229-07	MW2-200514	WATER	WATERVALIET, NY	05/15/20 08:25	05/15/20
L2020229-08	MW1-200514	WATER	WATERVALIET, NY	05/15/20 09:30	05/15/20
L2020229-09	LAB TRIP BLANK	WATER	WATERVALIET, NY	05/14/20 00:00	05/15/20
L2020229-10	FIELD TRIP BLANK	WATER	WATERVALIET, NY	05/14/20 16:45	05/15/20

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

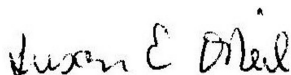
Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Susan O'Neil

Title: Technical Director/Representative

Date: 05/22/20

ORGANICS

SEMIVOLATILES

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-01
Client ID: MW7-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 11:20
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 01:51
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	41.2		ng/l	1.87	0.382	1
Perfluoropentanoic Acid (PFPeA)	84.8		ng/l	1.87	0.371	1
Perfluorobutanesulfonic Acid (PFBS)	27.1		ng/l	1.87	0.223	1
Perfluorohexanoic Acid (PFHxA)	104		ng/l	1.87	0.307	1
Perfluoroheptanoic Acid (PFHpA)	52.8		ng/l	1.87	0.211	1
Perfluorohexanesulfonic Acid (PFHxS)	30.6		ng/l	1.87	0.352	1
Perfluorooctanoic Acid (PFOA)	176		ng/l	1.87	0.221	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	77.7		ng/l	1.87	1.25	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.44	J	ng/l	1.87	0.644	1
Perfluorononanoic Acid (PFNA)	15.0		ng/l	1.87	0.292	1
Perfluorooctanesulfonic Acid (PFOS)	105		ng/l	1.87	0.472	1
Perfluorodecanoic Acid (PFDA)	4.64		ng/l	1.87	0.285	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.87	1.13	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.87	0.607	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.87	0.243	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.87	0.918	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.87	0.543	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.87	0.753	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.87	0.348	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.87	0.306	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.87	0.232	1
PFOA/PFOS, Total	281		ng/l	1.87	0.221	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-01
Client ID: MW7-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 11:20
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	87		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	56		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	68		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	83		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	96		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	125		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	83		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	129		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	73		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	86		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	48		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	86		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	83		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-02
Client ID: MW6-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 13:15
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 02:08
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	51.7		ng/l	1.90	0.388	1
Perfluoropentanoic Acid (PFPeA)	118		ng/l	1.90	0.376	1
Perfluorobutanesulfonic Acid (PFBS)	22.5		ng/l	1.90	0.226	1
Perfluorohexanoic Acid (PFHxA)	151		ng/l	1.90	0.312	1
Perfluoroheptanoic Acid (PFHpA)	201		ng/l	1.90	0.214	1
Perfluorohexanesulfonic Acid (PFHxS)	80.6		ng/l	1.90	0.357	1
Perfluorooctanoic Acid (PFOA)	312		ng/l	1.90	0.224	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	11.0		ng/l	1.90	1.27	1
Perfluoroheptanesulfonic Acid (PFHpS)	4.43		ng/l	1.90	0.654	1
Perfluorononanoic Acid (PFNA)	13.9		ng/l	1.90	0.296	1
Perfluorooctanesulfonic Acid (PFOS)	92.6		ng/l	1.90	0.479	1
Perfluorodecanoic Acid (PFDA)	1.94		ng/l	1.90	0.289	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.90	1.15	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.90	0.616	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.90	0.247	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.90	0.932	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.90	0.551	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.90	0.764	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.90	0.354	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.90	0.311	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.90	0.236	1
PFOA/PFOS, Total	405		ng/l	1.90	0.224	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-02
Client ID: MW6-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 13:15
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	86		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	47		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	73		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	50		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	67		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	83		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	87		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	203		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	82		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	80		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	148		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	82		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	80		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	44		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	81		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	78		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	75		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-03
Client ID: FD01-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 00:00
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 02:24
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	54.6		ng/l	1.93	0.394	1
Perfluoropentanoic Acid (PFPeA)	126		ng/l	1.93	0.382	1
Perfluorobutanesulfonic Acid (PFBS)	23.9		ng/l	1.93	0.230	1
Perfluorohexanoic Acid (PFHxA)	164		ng/l	1.93	0.317	1
Perfluoroheptanoic Acid (PFHpA)	214		ng/l	1.93	0.217	1
Perfluorohexanesulfonic Acid (PFHxS)	87.8		ng/l	1.93	0.363	1
Perfluorooctanoic Acid (PFOA)	340		ng/l	1.93	0.228	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	13.3		ng/l	1.93	1.28	1
Perfluoroheptanesulfonic Acid (PFHpS)	3.74		ng/l	1.93	0.664	1
Perfluorononanoic Acid (PFNA)	15.8		ng/l	1.93	0.301	1
Perfluorooctanesulfonic Acid (PFOS)	92.6		ng/l	1.93	0.486	1
Perfluorodecanoic Acid (PFDA)	2.22		ng/l	1.93	0.293	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.93	1.17	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.93	0.625	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.93	0.251	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.93	0.946	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.93	0.560	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.93	0.776	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.93	0.359	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.93	0.316	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.93	0.239	1
PFOA/PFOS, Total	433		ng/l	1.93	0.228	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-03
Client ID: FD01-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 00:00
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	81		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	45		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	68		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	45		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	61		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	81		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	79		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	185		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	90		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	80		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	70		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	147		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	74		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	75		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	42		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	65		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	68		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	71		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-04
Client ID: MW3-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 14:25
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 02:41
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	9.38		ng/l	1.90	0.388	1
Perfluoropentanoic Acid (PFPeA)	11.7		ng/l	1.90	0.376	1
Perfluorobutanesulfonic Acid (PFBS)	2.27		ng/l	1.90	0.226	1
Perfluorohexanoic Acid (PFHxA)	12.9		ng/l	1.90	0.312	1
Perfluoroheptanoic Acid (PFHpA)	11.2		ng/l	1.90	0.214	1
Perfluorohexanesulfonic Acid (PFHxS)	7.46		ng/l	1.90	0.357	1
Perfluorooctanoic Acid (PFOA)	20.9		ng/l	1.90	0.224	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.90	1.27	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.90	0.654	1
Perfluorononanoic Acid (PFNA)	1.86	J	ng/l	1.90	0.296	1
Perfluorooctanesulfonic Acid (PFOS)	19.6		ng/l	1.90	0.479	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.90	0.289	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.90	1.15	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.90	0.616	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.90	0.247	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.90	0.932	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.90	0.551	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.90	0.764	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.90	0.354	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.90	0.311	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.90	0.236	1
PFOA/PFOS, Total	40.5		ng/l	1.90	0.224	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-04
Client ID: MW3-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 14:25
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Surrogate (Extracted Internal Standard)	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro[13C4]Butanoic Acid (MPFBA)	77				2-156	
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	82				16-173	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	75				31-159	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	69				21-145	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	75				30-139	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	85				47-153	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	76				36-149	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80				1-244	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	70				34-146	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	69				42-146	
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	67				38-144	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	52				7-170	
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	45				1-181	
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	64				40-144	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	18				1-87	
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	57				23-146	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	57				24-161	
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	61				33-143	

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-05
Client ID: MW4-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 15:40
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 02:58
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	13.0		ng/l	2.08	0.425	1
Perfluoropentanoic Acid (PFPeA)	29.4		ng/l	2.08	0.412	1
Perfluorobutanesulfonic Acid (PFBS)	3.88		ng/l	2.08	0.248	1
Perfluorohexanoic Acid (PFHxA)	33.0		ng/l	2.08	0.342	1
Perfluoroheptanoic Acid (PFHpA)	50.4		ng/l	2.08	0.234	1
Perfluorohexanesulfonic Acid (PFHxS)	29.3		ng/l	2.08	0.392	1
Perfluorooctanoic Acid (PFOA)	119		ng/l	2.08	0.246	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.08	1.39	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.70	J	ng/l	2.08	0.717	1
Perfluorononanoic Acid (PFNA)	13.6		ng/l	2.08	0.325	1
Perfluorooctanesulfonic Acid (PFOS)	41.1		ng/l	2.08	0.525	1
Perfluorodecanoic Acid (PFDA)	0.704	J	ng/l	2.08	0.317	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.08	1.26	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.08	0.675	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.08	0.271	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.08	1.02	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.08	0.604	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.08	0.838	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.08	0.388	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.08	0.341	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.08	0.258	1
PFOA/PFOS, Total	160		ng/l	2.08	0.246	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-05
Client ID: MW4-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 15:40
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	88		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	78		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	67		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	93		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	165		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	86		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	70		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	68		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	71		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	46		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	58		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	30		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	51		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	64		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	65		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-06
Client ID: MW5-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/15/20 07:20
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 03:14
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	6.36		ng/l	1.98	0.405	1
Perfluoropentanoic Acid (PFPeA)	4.40		ng/l	1.98	0.393	1
Perfluorobutanesulfonic Acid (PFBS)	0.718	J	ng/l	1.98	0.236	1
Perfluorohexanoic Acid (PFHxA)	4.13		ng/l	1.98	0.325	1
Perfluoroheptanoic Acid (PFHpA)	3.16		ng/l	1.98	0.223	1
Perfluorohexanesulfonic Acid (PFHxS)	5.05		ng/l	1.98	0.373	1
Perfluorooctanoic Acid (PFOA)	15.2		ng/l	1.98	0.234	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.98	1.32	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.10	J	ng/l	1.98	0.682	1
Perfluorononanoic Acid (PFNA)	5.96		ng/l	1.98	0.310	1
Perfluorooctanesulfonic Acid (PFOS)	77.5		ng/l	1.98	0.500	1
Perfluorodecanoic Acid (PFDA)	2.58		ng/l	1.98	0.302	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.98	1.20	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.98	0.643	1
Perfluoroundecanoic Acid (PFUnA)	0.817	J	ng/l	1.98	0.258	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.98	0.972	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.98	0.575	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.98	0.798	1
Perfluorododecanoic Acid (PFDoA)	0.484	J	ng/l	1.98	0.369	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.98	0.325	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.98	0.246	1
PFOA/PFOS, Total	92.7		ng/l	1.98	0.234	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-06
Client ID: MW5-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/15/20 07:20
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	77		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	86		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	76		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	67		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	71		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	83		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	73		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	100		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	68		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	67		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	63		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	60		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	49		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	67		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	25		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	48		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	70		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	58		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-07
Client ID: MW2-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/15/20 08:25
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 03:31
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	42.5		ng/l	1.84	0.376	1
Perfluoropentanoic Acid (PFPeA)	90.5		ng/l	1.84	0.365	1
Perfluorobutanesulfonic Acid (PFBS)	7.65		ng/l	1.84	0.220	1
Perfluorohexanoic Acid (PFHxA)	70.2		ng/l	1.84	0.302	1
Perfluoroheptanoic Acid (PFHpA)	85.0		ng/l	1.84	0.208	1
Perfluorohexanesulfonic Acid (PFHxS)	30.8		ng/l	1.84	0.347	1
Perfluorooctanoic Acid (PFOA)	124		ng/l	1.84	0.218	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	3.07		ng/l	1.84	1.23	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.24	J	ng/l	1.84	0.635	1
Perfluorononanoic Acid (PFNA)	7.84		ng/l	1.84	0.288	1
Perfluorooctanesulfonic Acid (PFOS)	40.3		ng/l	1.84	0.465	1
Perfluorodecanoic Acid (PFDA)	0.812	J	ng/l	1.84	0.280	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	1.44	J	ng/l	1.84	1.12	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.84	0.598	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.84	0.240	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.84	0.904	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.84	0.535	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.84	0.742	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.84	0.343	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.84	0.302	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.84	0.229	1
PFOA/PFOS, Total	164		ng/l	1.84	0.218	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-07
Client ID: MW2-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/15/20 08:25
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	91		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	63		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	58		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	76		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	94		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	91		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	199		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	86		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	109		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	70		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	88		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	45		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	72		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	87		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	72		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-08
Client ID: MW1-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/15/20 09:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 03:47
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	27.4		ng/l	1.94	0.395	1
Perfluoropentanoic Acid (PFPeA)	40.7		ng/l	1.94	0.384	1
Perfluorobutanesulfonic Acid (PFBS)	3.69		ng/l	1.94	0.231	1
Perfluorohexanoic Acid (PFHxA)	31.5		ng/l	1.94	0.318	1
Perfluoroheptanoic Acid (PFHpA)	24.2		ng/l	1.94	0.218	1
Perfluorohexanesulfonic Acid (PFHxS)	12.1		ng/l	1.94	0.364	1
Perfluorooctanoic Acid (PFOA)	32.2		ng/l	1.94	0.229	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.94	1.29	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.94	0.667	1
Perfluorononanoic Acid (PFNA)	1.90	J	ng/l	1.94	0.302	1
Perfluorooctanesulfonic Acid (PFOS)	17.7		ng/l	1.94	0.488	1
Perfluorodecanoic Acid (PFDA)	0.915	J	ng/l	1.94	0.294	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.94	1.17	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.94	0.628	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.94	0.252	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.94	0.950	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.94	0.562	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.94	0.779	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.94	0.360	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.94	0.317	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.94	0.240	1
PFOA/PFOS, Total	49.9		ng/l	1.94	0.229	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-08
Client ID: MW1-200514
Sample Location: WATERVALIET, NY

Date Collected: 05/15/20 09:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	90		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	81		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	80		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	67		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	77		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	87		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	83		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	194		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	81		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	75		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	80		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	137		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	82		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	77		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	37		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	85		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	71		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	72		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-09
Client ID: LAB TRIP BLANK
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 00:00
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/21/20 23:06
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.92	0.391	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.92	0.379	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.92	0.228	1
Perfluorohexanoic Acid (PFHxA)	0.333	J	ng/l	1.92	0.314	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.92	0.216	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.92	0.360	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.92	0.226	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.92	1.28	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.92	0.659	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.92	0.299	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.92	0.483	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.92	0.291	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	1.16	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.621	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.249	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.92	0.939	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.92	0.556	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.92	0.770	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.356	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.92	0.313	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.92	0.238	1
PFOA/PFOS, Total	ND		ng/l	1.92	0.226	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-09
Client ID: LAB TRIP BLANK
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 00:00
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	67		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	77		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	81		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	68		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	73		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	93		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	74		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	58		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	69		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	65		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	62		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	47		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	51		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	67		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	25		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	48		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	76		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	75		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-10
Client ID: FIELD TRIP BLANK
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 16:45
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/21/20 23:23
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.98	0.403	1
Perfluoropentanoic Acid (PFPeA)	0.518	J	ng/l	1.98	0.391	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.98	0.235	1
Perfluorohexanoic Acid (PFHxA)	0.379	J	ng/l	1.98	0.324	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.98	0.222	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.98	0.372	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.98	0.233	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.98	1.32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.98	0.680	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.98	0.308	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.98	0.498	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.98	0.300	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.98	1.20	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.98	0.640	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.98	0.257	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.98	0.968	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.98	0.573	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.98	0.794	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.98	0.368	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.98	0.323	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.98	0.245	1
PFOA/PFOS, Total	ND		ng/l	1.98	0.233	1

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

SAMPLE RESULTS

Lab ID: L2020229-10
Client ID: FIELD TRIP BLANK
Sample Location: WATERVALIET, NY

Date Collected: 05/14/20 16:45
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	66		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	76		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	82		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	62		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	67		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	98		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	72		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	47		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	68		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	78		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	66		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	48		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	52		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	72		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	38		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	49		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	73		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	71		33-143

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 01:02
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-10 Batch: WG1372587-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	0.372	J	ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

Lab Number: L2020229
Report Date: 05/22/20

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/22/20 01:02
Analyst: JW

Extraction Method: ALPHA 23528
Extraction Date: 05/20/20 07:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-10 Batch: WG1372587-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	106		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	94		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	94		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	77		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	94		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	77		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	83		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	95		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	57		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	69		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	98		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT

Project Number: 20.0319

Lab Number: L2020229

Report Date: 05/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-10 Batch: WG1372587-2 WG1372587-3								
Perfluorobutanoic Acid (PFBA)	113		114		67-148	1		30
Perfluoropentanoic Acid (PFPeA)	112		114		63-161	2		30
Perfluorobutanesulfonic Acid (PFBS)	110		109		65-157	1		30
Perfluorohexanoic Acid (PFHxA)	116		120		69-168	3		30
Perfluoroheptanoic Acid (PFHpA)	113		117		58-159	3		30
Perfluorohexanesulfonic Acid (PFHxS)	109		111		69-177	2		30
Perfluorooctanoic Acid (PFOA)	111		111		63-159	0		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	129		137		49-187	6		30
Perfluoroheptanesulfonic Acid (PFHpS)	113		114		61-179	1		30
Perfluorononanoic Acid (PFNA)	112		107		68-171	5		30
Perfluorooctanesulfonic Acid (PFOS)	114		112		52-151	2		30
Perfluorodecanoic Acid (PFDA)	109		99		63-171	10		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	107		101		56-173	6		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	108		120		60-166	11		30
Perfluoroundecanoic Acid (PFUnA)	107		112		60-153	5		30
Perfluorodecanesulfonic Acid (PFDS)	123		130		38-156	6		30
Perfluorooctanesulfonamide (FOSA)	113		117		46-170	3		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	116		112		45-170	4		30
Perfluorododecanoic Acid (PFDoA)	107		122		67-153	13		30
Perfluorotridecanoic Acid (PFTTrDA)	120		123		48-158	2		30
Perfluorotetradecanoic Acid (PFTA)	118		110		59-182	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT

Project Number: 20.0319

Lab Number: L2020229

Report Date: 05/22/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-10 Batch: WG1372587-2 WG1372587-3

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100		93		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	109		100		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		96		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97		88		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100		88		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	108		99		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	99		88		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	71		64		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94		90		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96		85		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	95		88		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	73		72		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	78		73		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	96		83		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	60		55		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	82		70		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	98		79		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	94		91		33-143

Matrix Spike Analysis **Batch Quality Control**

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT

Project Number: 20.0319

Lab Number: L2020229

Report Date: 05/22/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG1372587-4 WG1372587-5 QC Sample: L2020229-01 Client ID: MW7-200514												
Perfluorobutanoic Acid (PFBA)	41.2	37.7	86.3	120		86.1	120		67-148	0		30
Perfluoropentanoic Acid (PFPeA)	84.8	37.7	129	117		129	118		63-161	0		30
Perfluorobutanesulfonic Acid (PFBS)	27.1	33.4	65.0	113		64.5	113		65-157	1		30
Perfluorohexanoic Acid (PFHxA)	104	37.7	154	133		152	128		69-168	1		30
Perfluoroheptanoic Acid (PFHpA)	52.8	37.7	98.1	120		98.8	123		58-159	1		30
Perfluorohexanesulfonic Acid (PFHxS)	30.6	34.4	72.2	121		66.0	104		69-177	9		30
Perfluorooctanoic Acid (PFOA)	176	37.7	224	127		232	150		63-159	4		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	77.7	35.8	128	140		129	144		49-187	1		30
Perfluoroheptanesulfonic Acid (PFHpS)	1.44J	35.8	44.5	124		46.0	129		61-179	3		30
Perfluorononanoic Acid (PFNA)	15.0	37.7	58.0	114		58.6	116		68-171	1		30
Perfluorooctanesulfonic Acid (PFOS)	105	34.9	141	103		148	124		52-151	5		30
Perfluorodecanoic Acid (PFDA)	4.64	37.7	47.9	115		48.6	117		63-171	1		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	36.2	42.0	116		44.6	124		56-173	6		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	37.7	41.6	110		39.1	104		60-166	6		30
Perfluoroundecanoic Acid (PFUnA)	ND	37.7	43.0	114		43.7	117		60-153	2		30
Perfluorodecanesulfonic Acid (PFDS)	ND	36.4	48.8	134		47.6	132		38-156	2		30
Perfluorooctanesulfonamide (FOSA)	ND	37.7	44.4	118		42.6	114		46-170	4		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	37.7	42.1	112		41.0	109		45-170	3		30
Perfluorododecanoic Acid (PFDoA)	ND	37.7	41.5	110		41.6	111		67-153	0		30
Perfluorotridecanoic Acid (PFTrDA)	ND	37.7	47.7	126		44.4	119		48-158	7		30
Perfluorotetradecanoic Acid (PFTA)	ND	37.7	45.8	121		42.9	115		59-182	7		30

Matrix Spike Analysis**Batch Quality Control****Project Name:** SCHUYLER HEIGHTS FIRE DISTRICT**Project Number:** 20.0319**Lab Number:** L2020229**Report Date:** 05/22/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG1372587-4 WG1372587-5 QC Sample: L2020229-01 Client ID: MW7-200514												

Surrogate (Extracted Internal Standard)	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	141		111		7-170
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	121		107		1-244
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	83		65		23-146
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	79		69		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	83		74		40-144
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	80		74		38-144
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	71		65		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	89		79		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	92		93		47-153
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	86		79		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		79		33-143
Perfluoro[13C4]Butanoic Acid (MPFBA)	90		83		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	56		53		16-173
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	49		44		1-87
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	85		74		42-146
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		81		36-149
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		76		34-146
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92		85		31-159

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT**Lab Number:** L2020229**Project Number:** 20.0319**Report Date:** 05/22/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2020229-01A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-01B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-01C	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-01D	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-01E	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-01F	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-02A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-02B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-03A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-03B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-04A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-04B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-05A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-05B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-06A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-06B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-07A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-07B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-08A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-08B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-09A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-09B	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L2020229-10A	2 Plastic/1 Plastic/1 H2O Plastic	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT

Project Number: 20.0319

Serial_No:05222015:10

Lab Number: L2020229

Report Date: 05/22/20

Container Information

Container ID Container Type

**Cooler Initial
pH Final
pH Temp
deg C Pres Seal**

**Frozen
Date/Time**

Analysis(*)

Project Name: SCHUYLER HEIGHTS FIRE DISTRICT
Project Number: 20.0319

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PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

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Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

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REFERENCES

- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,


3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1	Date Rec'd in Lab 5/15/20	ALPHA Job # L2020229	
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Project Information Project Name: <u>Schuyler Heights Env District</u> Project Location: <u>Watervliet, NY</u> Project # <u>20.0519</u> (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> Other	Billing Information <input type="checkbox"/> Same as Client Info PO #
Client Information Client: <u>C.T. Mule Associates</u> Address: <u>50 Century Hill Dr</u> <u>LaPham, NY 12110</u> Phone: <u>518 746 7400</u> Fax: <u>—</u> Email: <u>J.Mule@ctmule.com</u>		Project Manager: <u>Jeff Mule</u> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:	
These samples have been previously analyzed by Alpha <input type="checkbox"/>				ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments:				Please specify Metals or TAL.		Sample Specific Comments	
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix Sampler's Initials	
20229 - 01		MW7-200514		5/14/20 1120		GW KC X	
- 02		MW6-200514		1315		KC X	
- 03		FQ1-200514		—		KC X	
- 04		MW3-200514		1425		KC X	
- 05		MW4-200514		1540		KC X	
- 06		MW5-200515		5/15/20 0720		KC X	
- 07		MW2-200515		825		KC X	
- 08		MW1-200515		930		KC X	
- 09		Lab Trip Blank		5/14/20 —		KC X	
- 10		Field Trip Blank		5/14/20 1645		KC X	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative	
Relinquished By:		Date/Time		Received By:		Date/Time	
<u>Jeff Mule</u>		5/15/20 1150		<u>Robert AAL</u>		5-15-20 10:50	
<u>He-Hicks</u>		5-15-20 13:00		<u>H. Hicks</u>		5/15/20 13:00	
<u>He-Hicks</u>		5/15/20 19:15		<u>He-Hicks</u>		5/15/20 19:15	
<u>He-Hicks</u>		5/15/20 19:48		<u>He-Hicks</u>		5/15/20 19:48	
Form No: 01-25 HC (rev. 30-Sept-2013)		Relinquished By:		Date/Time		Received By:	
Form No: 01-25 HC (rev. 30-Sept-2013)		Relinquished By:		Date/Time		Received By:	

LOCATION				MW1-200514		MW-1		MW2-200514		MW-2		MW3-200514		CTM-3		MW4-200514		CTM-4		MW5-200514		MW-5		MW6-200514		CTM-6		FD-01-200514		MW7-200514		CTM-7		
SAMPLING DATE				5/15/2020		2006		5/15/2020		2006		5/14/2020		2006		5/14/2020		2006		5/14/2020		2006		5/14/2020		2006		5/14/2020		5/14/2020		2006		
LAB SAMPLE ID				L2020210-08		X3873-01		L2020210-07		X3873-02		L2020210-04		X4003-01		L2020210-05		X4003-02		L2020210-06		X3873-09		L2020210-02		X4003-05		L2020210-03		L2020210-01		X4003-06		
SAMPLE TYPE				WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER (Duplicate of MW-6)		WATER		WATER		WATER		
	CasNum	NY-AWQS	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	
1,4 Dioxane by 8270D-SIM																																		
1,4-Dioxane				123-91-1	1 **	ug/l	0.156	U		0.152		0.15	U	0.156	U	0.163	U	0.202		0.219		1.06												
Dissolved Metals																																		
Aluminum, Dissolved				7429-90-5	NS	ug/l	-	-	-	-	-	-	-	-	-	8.24	J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony, Dissolved				7440-36-0	3	ug/l	-	-	-	-	-	-	-	-	-	0.53	J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic, Dissolved				7440-38-2	25	ug/l	-	-	-	-	-	-	-	-	-	5.09		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium, Dissolved				7440-39-3	1000	ug/l	-	-	-	-	-	-	-	-	-	150.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium, Dissolved				7440-70-2	NS	ug/l	-	-	-	-	-	-	-	-	-	53300		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Dissolved				7440-47-3	50	ug/l	-	-	-	-	-	-	-	-	-	1	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Dissolved				7440-48-4	NS	ug/l	-	-	-	-	-	-	-	-	-	10.14		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper, Dissolved				7440-50-8	200	ug/l	-	-	-	-	-	-	-	-	-	0.79	J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Dissolved				7439-89-6	300	ug/l	-	-	-	-	-	-	-	-	-	15200		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium, Dissolved				7439-95-4	35000	ug/l	-	-	-	-	-	-	-	-	-	23600		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese, Dissolved				7439-96-5	300	ug/l	-	-	-	-	-	-	-	-	-	7048		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum, Dissolved				7439-98-7	NS	ug/l	-	-	-	-	-	-	-	-	-	2.58		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel, Dissolved				7440-02-0	100	ug/l	-	-	-	-	-	-	-	-	-	86.47		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium, Dissolved				7440-09-7	NS	ug/l	-	-	-	-	-	-	-	-	-	3470		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium, Dissolved				7440-23-5	20000	ug/l	-	-	-	-	-	-	-	-	-	41200		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium, Dissolved				7440-28-0	0.5	ug/l	-	-	-	-	-	-	-	-	-	0.41	J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tin, Dissolved				7440-31-5	NS	ug/l	-	-	-	-	-	-	-	-	-	1.6	J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Titanium, Dissolved				7440-32-6	NS	ug/l	-	-	-	-	-	-	-	-	-	83.82		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals																																		
Aluminum, Total				7429-90-5	NS	ug/l	308		855	35.9	5.310 U	4.91 J	5.310 U	10 U	5.310	4760	42.2 J	40.4 J	5.310 U	66 J	8.69 J	5.310 U												
Antimony, Total				7440-36-0	3	ug/l	4	U	3.170 U	1.29 J	3.170 U	0.46 J	3.170 UJ	3.54 J	18.6 J	1.53 J	14.5 UJ	4 U	3.170 U	4 U	1.07 J	3.170 U												
Arsenic, Total				7440-38-2	25	ug/l	2.73		3.320 U	0.34 J	3.320 U	0.21 J	3.320 U	0.47 J	3.320	49.39	3.320 UJ	0.44 J	3.320 U	0.45 J	0.75	3.320 U												
Barium, Total				7440-39-3	1000	ug/l	127.2		28.7 J	79.18	22.6 J	138.2	46.9 J	62.58	9.340 J	279.5	43.6 J	64	4.310 J	66.07	105.9	20.8 J												
Beryllium, Total				7440-41-7	3	ug/l	0.5 U		0.090 U	0.5 U	0.090 U	0.5 U	0.090 U	0.5 U	0.090	0.43 J	0.090 UJ	0.5 U	0.090 U	0.5 U	0.090 U	0.5 U												
Cadmium, Total				7440-43-9	5	ug/l	0.2 U		0.327 U	0.23	0.327 U	0.32	0.327 U	0.18 J	0.327	4.35	0.327 UJ	0.23	0.327 U	0.25	0.16 J	0.327 U												
Calcium, Total				7440-70-2	NS	ug/l	142000		108000	166000	115000	58000	66500	134000	143000 J	77000	31600 J	242000	137000 U	246000	145000	125000												
Chromium, Total				7440-47-3	50	ug/l	0.64 J		0.600 J	0.95 J	0.343 U	0.19 J	5.350 U	0.17 J	3.330	15.71	4.150 J	0.26 J	0.870 U	0.35 J	0.19 J	3.080 U												
Cobalt, Total				7440-48-4	NS	ug/l	1.74		0.370 U	2.05	0.370 U	0.48 J	0.370 U	0.66	0.620	232.3	0.760 J	3.77	0.370 U	3.66	1.45	0.370 U												
Copper, Total				7440-50-8	200	ug/l	2 U		3.640 U	4.11 U	3.640 U	2.24 U	3.640 U	18.74	29.8	1567	4.130 J	6.77 U	3.640 U	15.28	0.1 U	9.070 U												
Iron, Total				7439-89-6	300	ug/l	6450 J		2740	278 J	27.0 U	89.9 J	27.0 U	42900 J	10500 J	61200 J	27.0 UJ	129 J	27.0 U	201 J	311 J	27.0 U												
Lead, Total				7439-92-1	25	ug/l	1.24		2.180 U	2.51	2.180 U	1 U	2.180 U	3.84	2.180	147.7	2.180 UJ	0.73 J	2.180 U	4.83	1 U	5.450												
Magnesium, Total				7439-95-4	35000	ug/l	20300		17900	45200	29700	19600	15300	31300	38400 J	31900	218000 J	44000	30700 J	44600	19700	22600												
Manganese, Total				7439-96-5	300	ug/l	4435		1790	3960	1880	587.6	32.6	2171	1010 J	9016	151 J	5312	804	5456	8085	261												
Mercury, Total				7439-97-6	0.7	ug/l	0.2 U		0.03 U	0.2 U	0.03 U	0.2 U	0.0300 U	0.2 U	0.0300	54.49	0.0300 UJ	0.2 U	0.0300 U	0.2 U	0.2 U	0.0300 U												
Molybdenum, Total				7439-98-7	NS	ug/l	6 U		NS	2 U	1.560 U	6 U	NS	6 U	NS	67.45	NS	6 U	NS	6 U	2 U	NS												
Nickel, Total				7440-02-0	100	ug/l	2.07		1.560	6.45	NS	5.46	3.390 U	5.8	40.0	2245	1.88 J	44.69	40.0 J	47.03	3.69	1.560 U												
Potassium, Total				7440-09-7	NS	ug/l	5280		8720	8600	8640	2930	5220	12000	16500	5110	4030 J	14600	16500	15000	10100	20100												
Selenium, Total				7782-49-2	10	ug/l	5 U		3.040 U	5 U	3.040 U	5 U	3.040 U	5 U	3.040	7.59	3.040 UJ	5 U	3.040 U	5 U	5 U	3.040 U												
Silver, Total				7440-22-4	50	ug/l	0.4 U		1.640 U	0.4 U	1.640 U	0.4 U	3.660 UJ	0.4 U	1.640	13.03	9.560 UJ	0.4 U	1.640 UJ	0.4 U	0.4 U	4.790 UJ												
Sodium, Total				7440-23-5	20000	ug/l	24900		39700	20300	30900	112000	92800	12200	51800	41400	24200 J	40400	51800	41100	18900	27500												
Thallium, Total				7440-28-0	0.5	ug/l	1 U		3.050 U	1 U	3.050 U	1 U	3.050 U	1 U	3.050	1	3.050 UJ	1 U	3.050 U	1 U	1 U	3.050 U												
Tin, Total				7440-31-5	NS	ug/l	3 U		NS	3 U	NS	3 U	NS	3 U	NS	3.3	NS	3 U	NS	1.8 J	5.7	NS												
Titanium, Total				7440-32-6	NS	ug/l	219.4		NS	263.3	NS	89.14	NS	209.7	NS	175.6	NS	376.8	NS	380.7	225.6	NS												
Vanadium, Total				7440-62-2	NS	ug/l	5 U		1.200 J	5 U	0.701 U	5 U	0.701 U	5 U	0.701	21.3	3.150 J	5 U	0.701 U	5 U	5 U	0.701 U												
Zinc, Total				7440-66-6	2000	ug/l	4.02 J		40.5 U	24.16	24.4	49.18	65.7	40.08	22.8	936.4	20.0 UJ	10 U	22.8 U	147.9	10 U	22.0 U												

Notes
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.
** NYSDOH Maximum Contaminant Level (MCL) as of July 30, 2020.
U - The compound was not detected at the indicated concentration.
UJ - Data indicates the presence of a compound that meets the identification criteria; however the result is less than the quantitation limit but greater than zero.
J - Indicates an estimated value.
Yellow highlighting denotes exceedance of NY-AWQS.

C.T. MALE ASSOCIATES

SAMPLE ID:				MW1-200514				MW2-200514				MW3-200514				MW4-200514				MW5-200514			
LAB ID:				L2020229-08				L2020229-07				L2020229-04				L2020229-05				L2020229-06			
COLLECTION DATE:				5/15/2020				5/15/2020				5/14/2020				5/14/2020				5/15/2020			
SAMPLE MATRIX:				WATER				WATER				WATER				WATER				WATER			
		EPA-PFAS- HA	NYSDEC Screening Levels																				
ANALYTE	CAS	(ng/l)	(ng/l)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
PERFLUORINATED ALKYL ACIDS BY ISOTOPE DILUTION																							
Perfluorobutanoic Acid (PFBA)	375-22-4	NA	100	27.4		1.94	0.395	42.5		1.84	0.376	9.38		1.9	0.388	13		2.08	0.425	6.36		1.98	0.405
Perfluoropentanoic Acid (PFPeA)	2706-90-3	NA	100	40.7		1.94	0.384	90.5		1.84	0.365	11.7		1.9	0.376	29.4		2.08	0.412	ND		1.98	0.393
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	NA	100	3.69		1.94	0.231	7.65		1.84	0.22	2.27		1.9	0.226	3.88		2.08	0.248	0.718	J	1.98	0.236
Perfluorohexanoic Acid (PFHxA)	307-24-4	NA	100	31.5		1.94	0.318	70.2		1.84	0.302	12.9		1.9	0.312	33		2.08	0.342	4.13		1.98	0.325
Perfluoroheptanoic Acid (PFHpA)	375-85-9	NA	100	24.2		1.94	0.218	85		1.84	0.208	11.2		1.9	0.214	50.4		2.08	0.234	3.16		1.98	0.223
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	NA	100	12.1		1.94	0.364	30.8		1.84	0.347	7.46		1.9	0.357	29.3		2.08	0.392	5.05		1.98	0.373
Perfluorooctanoic Acid (PFOA)	335-67-1	70	10	32.2		1.94	0.229	124		1.84	0.218	20.9		1.9	0.224	119		2.08	0.246	15.2		1.98	0.234
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	27619-97-2	NA	100	ND		1.94	1.29	3.07		1.84	1.23	ND		1.9	1.27	ND		2.08	1.39	ND		1.98	1.32
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	NA	100	ND		1.94	0.667	1.24	J	1.84	0.635	ND		1.9	0.654	1.7	J	2.08	0.717	1.1	J	1.98	0.682
Perfluorononanoic Acid (PFNA)	375-95-1	NA	100	1.9	J	1.94	0.302	7.84		1.84	0.288	1.86	J	1.9	0.296	13.6		2.08	0.325	5.96		1.98	0.31
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	70	10	17.7		1.94	0.488	40.3		1.84	0.465	19.6		1.9	0.479	41.1		2.08	0.525	77.5		1.98	0.5
Perfluorodecanoic Acid (PFDA)	335-76-2	NA	100	0.915	J	1.94	0.294	0.812	J	1.84	0.28	ND		1.9	0.289	0.704	J	2.08	0.317	2.58		1.98	0.302
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4	NA	100	ND	J	1.94	1.17	1.44	J	1.84	1.12	ND	J	1.9	1.15	ND	J	2.08	1.26	ND	J	1.98	1.2
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2355-31-9	NA	100	ND		1.94	0.628	ND		1.84	0.598	ND		1.9	0.616	ND		2.08	0.675	ND		1.98	0.643
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	NA	100	ND		1.94	0.252	ND		1.84	0.24	ND		1.9	0.247	ND		2.08	0.271	0.817	J	1.98	0.258
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	NA	100	ND		1.94	0.95	ND		1.84	0.904	ND		1.9	0.932	ND		2.08	1.02	ND		1.98	0.972
Perfluorooctanesulfonamide (FOSA)	754-91-6	NA	100	ND		1.94	0.562	ND		1.84	0.535	ND		1.9	0.551	ND		2.08	0.604	ND		1.98	0.575
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	NA	100	ND		1.94	0.779	ND		1.84	0.742	ND		1.9	0.764	ND		2.08	0.838	ND		1.98	0.798
Perfluorododecanoic Acid (PFDoA)	307-55-1	NA	100	ND		1.94	0.36	ND		1.84	0.343	ND		1.9	0.354	ND		2.08	0.388	0.484	J	1.98	0.369
Perfluorotridecanoic Acid (PFTTrDA)	72629-94-8	NA	100	ND		1.94	0.317	ND		1.84	0.302	ND		1.9	0.311	ND		2.08	0.341	ND		1.98	0.325
Perfluorotetradecanoic Acid (PFTA)	376-06-7	NA	100	ND		1.94	0.24	ND		1.84	0.229	ND		1.9	0.236	ND		2.08	0.258	ND		1.98	0.246
PFAS, Total		NA	500	192.3				505.4				97.3				335.1				123.1			

Notes

EPA-PFAS-HA: PFOA & PFOS Health Advisories in Drinking Water Criteria per US EPA Fact Sheet, November 2016.

NYSDEC Screening Levels: Guidance: Sampling, Analysis, and Assessment of Per-and Polyfluoroalkyl Substances (PFAS), dated January 2021.

J - Is a lab qualifier (Q) that indicates an estimated value.

Yellow highlighting denotes exceedance of NYSDEC Screening Levels

ND - Indicates not detected above the limit of laboratory detection

SAMPLE ID:				MW6-200514				FD01-200514 (of MW6)				MW7-200514				LAB TRIP BLANK				FIELD TRIP BLANK			
LAB ID:				L2020229-02				L2020229-03				L2020229-01				L2020229-09				L2020229-10			
COLLECTION DATE:				5/14/2020				5/14/2020				5/14/2020				5/14/2020				5/14/2020			
SAMPLE MATRIX:				WATER				WATER				WATER				WATER				WATER			
		EPA-PFAS- HA	NYSDEC Screening Levels																				
ANALYTE	CAS	(ng/l)		Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
PERFLUORINATED ALKYL ACIDS BY ISOTOPE DILUTION																							
Perfluorobutanoic Acid (PFBA)	375-22-4	NA	100	51.7		1.9	0.388	54.6		1.93	0.394	41.2		1.87	0.382	ND		1.92	0.391	ND		1.98	0.403
Perfluoropentanoic Acid (PFPeA)	2706-90-3	NA	100	118		1.9	0.376	126		1.93	0.382	84.8		1.87	0.371	ND		1.92	0.379	0.518	J	1.98	0.391
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	NA	100	22.5		1.9	0.226	23.9		1.93	0.23	27.1		1.87	0.223	ND		1.92	0.228	ND		1.98	0.235
Perfluorohexanoic Acid (PFHxA)	307-24-4	NA	100	151		1.9	0.312	164		1.93	0.317	104		1.87	0.307	ND		1.92	0.314	ND		1.98	0.324
Perfluoroheptanoic Acid (PFHpA)	375-85-9	NA	100	201		1.9	0.214	214		1.93	0.217	52.8		1.87	0.211	ND		1.92	0.216	ND		1.98	0.222
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	NA	100	80.6		1.9	0.357	87.8		1.93	0.363	30.6		1.87	0.352	ND		1.92	0.36	ND		1.98	0.372
Perfluorooctanoic Acid (PFOA)	335-67-1	70	10	312		1.9	0.224	340		1.93	0.228	176		1.87	0.221	ND		1.92	0.226	ND		1.98	0.233
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	27619-97-2	NA	100	11		1.9	1.27	13.3		1.93	1.28	77.7		1.87	1.25	ND		1.92	1.28	ND		1.98	1.32
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	NA	100	4.43		1.9	0.654	3.74		1.93	0.664	1.44	J	1.87	0.644	ND		1.92	0.659	ND		1.98	0.68
Perfluorononanoic Acid (PFNA)	375-95-1	NA	100	13.9		1.9	0.296	15.8		1.93	0.301	15		1.87	0.292	ND		1.92	0.299	ND		1.98	0.308
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	70	10	92.6		1.9	0.479	92.6		1.93	0.486	105		1.87	0.472	ND		1.92	0.483	ND		1.98	0.498
Perfluorodecanoic Acid (PFDA)	335-76-2	NA	100	1.94		1.9	0.289	2.22		1.93	0.293	4.64		1.87	0.285	ND		1.92	0.291	ND		1.98	0.3
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4	NA	100	ND	J	1.9	1.15	ND	J	1.93	1.17	ND	J	1.87	1.13	ND	J	1.92	1.16	ND	J	1.98	1.2
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2355-31-9	NA	100	ND		1.9	0.616	ND		1.93	0.625	ND		1.87	0.607	ND		1.92	0.621	ND		1.98	0.64
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	NA	100	ND		1.9	0.247	ND		1.93	0.251	ND		1.87	0.243	ND		1.92	0.249	ND		1.98	0.257
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	NA	100	ND		1.9	0.932	ND		1.93	0.946	ND		1.87	0.918	ND		1.92	0.939	ND		1.98	0.968
Perfluorooctanesulfonamide (FOSA)	754-91-6	NA	100	ND		1.9	0.551	ND		1.93	0.56	ND		1.87	0.543	ND		1.92	0.556	ND		1.98	0.573
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	NA	100	ND		1.9	0.764	ND		1.93	0.776	ND		1.87	0.753	ND		1.92	0.77	ND		1.98	0.794
Perfluorododecanoic Acid (PFDoA)	307-55-1	NA	100	ND		1.9	0.354	ND		1.93	0.359	ND		1.87	0.348	ND		1.92	0.356	ND		1.98	0.368
Perfluorotridecanoic Acid (PFTTrDA)	72629-94-8	NA	100	ND		1.9	0.311	ND		1.93	0.316	ND		1.87	0.306	ND		1.92	0.313	ND		1.98	0.323
Perfluorotetradecanoic Acid (PFTA)	376-06-7	NA	100	ND		1.9	0.236	ND		1.93	0.239	ND		1.87	0.232	ND		1.92	0.238	ND		1.98	0.245
PFAS, Total		NA	500	1060.7				1,138				720.3				0				0.518			

**DATA USABILITY SUMMARY REPORT
SCHUYLER HEIGHT FIRE DISTRICT, NEW YORK**

Client: C.T. Male Associates, Latham, New York
SDG: L2020210
Laboratory: Alpha Analytical Laboratories, Mansfield, Massachusetts
Site: Schuyler Heights Fire District, Watervliet, New York
Date: April 12, 2021

EDS ID	Client ID	Laboratory ID	Matrix
1	MW7-200514	L2020210-01	Water
1MS	MW7-200514MS	L2020210-01MS	Water
1MSD	MW7-200514MSD	L2020210-01MSD	Water
2	MW6-200514	L2020210-02	Water
3	FD01-200514	L2020210-03	Water
4	MW3-200514	L2020210-04	Water
5	MW4-200514	L2020210-05	Water
6	MW5-200514	L2020210-06	Water
6D	MW5-200514	L2020210-06	Water
6DMS	MW5-200514MS	L2020210-06MS	Water
6DMSD	MW5-200514MSD	L2020210-06MSD	Water
7	MW2-200514	L2020210-07	Water
8	MW1-200514	L2020210-08	Water

D - Dissolved Metals/Hg

A Data Usability Summary Review was performed on the analytical data for eight water samples collected on May 14-15, 2020 by CT Male at the Schuyler Heights First District site in Watervliet, New York. The samples were analyzed under the Environmental Protection Agency (USEPA) Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions.

Specific method references are as follows:

Analysis

1,4-Dioxane
Metals/Hg (T/D)

Method References

USEPA SW-846 Method 8270D-SIM
USEPA SW-846 Methods 6020B/7470A

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-35A, Revision 1, September 2016: Semivolatile Data Validation;
- SOP Number HW-3b, Revision 1, September 2016: ICP-MS Data Validation;

- SOP Number HW-3c, Revision 1, September 2016: Mercury and Cyanide Data Validation;
- and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

Organics

- Holding times and sample preservation
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

Inorganics

- Data Completeness
- Holding times and sample preservation
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Duplicate Sample Analysis recoveries
- Laboratory Control Sample (LCS) recoveries
- Method blank and field blank contamination
- Initial and continuing calibration verifications
- Compound Quantitation
- ICP Serial Dilution
- Field Duplicate sample precision

Data Usability Assessment

There were no rejections of data.

The data are acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Semivolatile Organic Compounds by SIM (1,4-Dioxane)

Holding Times

- All samples were extracted within 7 days for water samples and analyzed within 40 days.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

Continuing Calibration

- The continuing calibrations exhibited acceptable %D and RRF values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC samples were not collected.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	MW6-200514 ng/L	FD01-200514 ng/L	RPD	Qualifier
1,4-Dioxane	202	219	8%	None

Total & Dissolved Metals & Mercury

Holding Times

- All samples were prepared and analyzed within 28 days for mercury and 180 days for all other metals.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The following table presents MS/MSD samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

MS/MSD Sample ID	Compound	MS %R/MSD %R/RPD	Qualifier	Affected Samples
1	Iron	155%/132%/OK	J	All Total Samples
	Thallium	127%/OK/OK	None	All Samples ND
6D	Calcium	139%/OK/OK	None	4X Rule Applies
	Manganese	34%/OK/OK	None	

Duplicate Sample Analysis

- Duplicate samples exhibited acceptable RPD values.

Laboratory Control Samples

- The LCS sample exhibited acceptable recoveries.

Method Blank

- The following table lists method blanks with contamination and the samples associated with the blanks that had results qualified as a consequence of the blank contamination. Detected sample concentrations less than ten times (10x) the highest associated blank (after taking sample dilution levels, percent moisture and sample volume into account) are negated and qualified with a (U).

Dissolved Metals				
Sample ID	Compound	Conc. mg/L	Qualifier	Affected Samples
WG1372440-1	Chromium	0.00018	U	6D
WG1375394-1	Titanium	0.00017	None	Sample >10X

Total Metals				
Sample ID	Compound	Conc. mg/L	Qualifier	Affected Samples
WG1372417-1	Copper	0.00070	U	1, 2, 4, 7, 8
	Molybdenum	0.00122	U	2, 3, 4, 8
	Thallium	0.00023	U	1, 2, 3, 6
WG1375395-1	Titanium	0.00023	None	Samples >10X

Field Blank

- Field QC samples were not collected.

Initial Calibration Verification

- All initial calibration criteria were met.

Continuing Calibration Verification

- All continuing calibration criteria were met.

Compound Quantitation

- All criteria were met.

ICP Serial Dilution

- The ICP serial dilution exhibited acceptable percent differences (%D).

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was unacceptable for aluminum. These results were qualified as estimated (J).

Compound	MW6-200514 mg/L	FD01-200514 mg/L	RPD	Qualifier
Aluminum	0.0404	0.0660	48%	J
Arsenic	0.00044	0.00045	2%	None
Barium	0.06400	0.06607	3%	
Cadmium	0.00023	0.00025	8%	
Calcium	242	246	2%	
Chromium	0.00026	0.00035	30%	
Cobalt	0.00377	0.00366	3%	
Copper	0.00677U	0.01528	NC	

Compound	MW6-200514 mg/L	FD01-200514 mg/L	RPD	Qualifier
Iron	0.129	0.201	44%	None - <5X RL
Lead	0.00073	0.00483	147%	None - <5X RL
Magnesium	44.0	44.6	1%	None
Manganese	5.312	5.456	3%	
Nickel	0.04469	0.04703	5%	
Potassium	14.6	15.0	3%	
Sodium	40.4	41.1	2%	
Tin	0.0030U	0.0018	NC	
Zinc	0.01000U	0.1479	NC	

Please contact the undersigned at (561) 475-2000 if you have any questions or need further information.

Signed:

Nancy Weaver
Nancy Weaver
Senior Chemist

Dated:

4/12/21

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

Results Summary

Form 1

1,4 Dioxane by 8270D-SIM

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-01	Date Collected	: 05/14/20 11:20
Client ID	: MW7-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/20/20 11:15
Sample Matrix	: WATER	Date Extracted	: 05/19/20
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F605202008	Analyst	: PS
Sample Amount	: 250 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	1060	150	33.9	

Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

2

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-02	Date Collected	: 05/14/20 13:15
Client ID	: MW6-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/20/20 12:46
Sample Matrix	: WATER	Date Extracted	: 05/19/20
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F605202011	Analyst	: PS
Sample Amount	: 240 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	202.	156	35.3	

MW 4/12/21



Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

3

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-03	Date Collected	: 05/14/20 00:00
Client ID	: FD-01-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/20/20 13:19
Sample Matrix	: WATER	Date Extracted	: 05/19/20
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F605202012	Analyst	: PS
Sample Amount	: 250 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	219.	150	33.9	

ms4/12/21



Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

4

Client : C.T. Male Associates	Lab Number : L2020210
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020210-04	Date Collected : 05/14/20 14:25
Client ID : MW3-200514	Date Received : 05/15/20
Sample Location : WATERVALIET,NY	Date Analyzed : 05/20/20 13:51
Sample Matrix : WATER	Date Extracted : 05/19/20
Analytical Method : 1,8270D-SIM	Dilution Factor : 1
Lab File ID : F605202013	Analyst : PS
Sample Amount : 250 ml	Instrument ID : GCMS6
Extraction Method : EPA 3510C	GC Column : RTX-5
Extract Volume : 2500 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	150	33.9	U

nw 4/12/21



Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

5

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020210-05 Client ID : MW4-200514 Sample Location : WATERVALIET,NY Sample Matrix : WATER Analytical Method : 1,8270D-SIM Lab File ID : F605202014 Sample Amount : 240 ml Extraction Method : EPA 3510C Extract Volume : 2500 uL GPC Cleanup : N	Lab Number : L2020210 Project Number : 20.0319 Date Collected : 05/14/20 15:40 Date Received : 05/15/20 Date Analyzed : 05/20/20 14:27 Date Extracted : 05/19/20 Dilution Factor : 1 Analyst : PS Instrument ID : GCMS6 GC Column : RTX-5 %Solids : N/A Injection Volume : 1 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	156	35.3	U

mw4/12/21



Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

6

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-06	Date Collected	: 05/14/20 16:20
Client ID	: MW5-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/20/20 15:04
Sample Matrix	: WATER	Date Extracted	: 05/19/20
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F605202015	Analyst	: PS
Sample Amount	: 230 ml	Instrument ID	: GCMS6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	163	36.8	U

nw 4/12/21



Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

7

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020210-07 Client ID : MW2-200514 Sample Location : WATERVALIET,NY Sample Matrix : WATER Analytical Method : 1,8270D-SIM Lab File ID : F605202016 Sample Amount : 250 ml Extraction Method : EPA 3510C Extract Volume : 2500 uL GPC Cleanup : N	Lab Number : L2020210 Project Number : 20.0319 Date Collected : 05/15/20 08:25 Date Received : 05/15/20 Date Analyzed : 05/20/20 15:35 Date Extracted : 05/19/20 Dilution Factor : 1 Analyst : PS Instrument ID : GCMS6 GC Column : RTX-5 %Solids : N/A Injection Volume : 1 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	152.	150	33.9	

MW 4/12/21



Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

8

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020210-08 Client ID : MW1-200514 Sample Location : WATERVALIET,NY Sample Matrix : WATER Analytical Method : 1,8270D-SIM Lab File ID : F605202017 Sample Amount : 240 ml Extraction Method : EPA 3510C Extract Volume : 2500 uL GPC Cleanup : N	Lab Number : L2020210 Project Number : 20.0319 Date Collected : 05/15/20 09:30 Date Received : 05/15/20 Date Analyzed : 05/20/20 16:10 Date Extracted : 05/19/20 Dilution Factor : 1 Analyst : PS Instrument ID : GCMS6 GC Column : RTX-5 %Solids : N/A Injection Volume : 1 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	156	35.3	U

Form 1 METALS

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-01	Date Collected	: 05/14/20 11:20
Client ID	: MW7-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 13:01
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00869	0.0100	0.00327	J
7440-36-0	Antimony, Total	0.00107	0.00400	0.00042	J
7440-38-2	Arsenic, Total	0.00075	0.00050	0.00016	
7440-39-3	Barium, Total	0.1059	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	0.00016	0.00020	0.00005	J
7440-70-2	Calcium, Total	145.	0.100	0.0394	
7440-47-3	Chromium, Total	0.00019	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00145	0.00050	0.00016	
7440-50-8	Copper, Total	0.00010	0.00092	0.00038	J U
7439-89-6	Iron, Total	0.311	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	19.7	0.0700	0.0242	
7439-96-5	Manganese, Total	8.085	0.00100	0.00044	
7440-02-0	Nickel, Total	0.00369	0.00200	0.00055	
7440-09-7	Potassium, Total	10.1	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	18.9	0.100	0.0293	
7440-28-0	Thallium, Total	0.00100	0.00047	0.00014	J U
7440-31-5	Tin, Total	0.0057	0.0030	0.0011	
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-02	Date Collected	: 05/14/20 13:15
Client ID	: MW6-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 13:46
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0404	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	0.00044	0.00050	0.00016	J
7440-39-3	Barium, Total	0.06400	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	0.00023	0.00020	0.00005	
7440-70-2	Calcium, Total	242.	0.100	0.0394	
7440-47-3	Chromium, Total	0.00026	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00377	0.00050	0.00016	
7440-50-8	Copper, Total	0.00677	0.00100	0.00038	u
7439-89-6	Iron, Total	0.129	0.0500	0.0191	J
7439-92-1	Lead, Total	0.00073	0.00100	0.00034	J
7439-95-4	Magnesium, Total	44.0	0.0700	0.0242	
7439-96-5	Manganese, Total	5.312	0.00100	0.00044	
7439-98-7	Molybdenum, Total	0.00600	0.00241	0.00600	J u
7440-02-0	Nickel, Total	0.04469	0.00200	0.00055	
7440-09-7	Potassium, Total	14.6	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	40.4	0.100	0.0293	
7440-28-0	Thallium, Total	0.00100	0.00047	0.00100	J u
7440-31-5	Tin, Total	ND	0.0030	0.0011	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-03	Date Collected	: 05/14/20 00:00
Client ID	: FD-01-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 13:51
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0660	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	0.00045	0.00050	0.00016	J
7440-39-3	Barium, Total	0.06607	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	0.00025	0.00020	0.00005	
7440-70-2	Calcium, Total	246.	0.100	0.0394	
7440-47-3	Chromium, Total	0.00035	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00366	0.00050	0.00016	
7440-50-8	Copper, Total	0.01528	0.00100	0.00038	
7439-89-6	Iron, Total	0.201	0.0500	0.0191	J
7439-92-1	Lead, Total	0.00483	0.00100	0.00034	
7439-95-4	Magnesium, Total	44.6	0.0700	0.0242	
7439-96-5	Manganese, Total	5.456	0.00100	0.00044	
7439-98-7	Molybdenum, Total	0.00600	0.00200	0.00067	J U
7440-02-0	Nickel, Total	0.04703	0.00200	0.00055	
7440-09-7	Potassium, Total	15.0	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	41.1	0.100	0.0293	
7440-28-0	Thallium, Total	0.00100	0.00100	0.00014	J U
7440-31-5	Tin, Total	0.0018	0.0030	0.0011	J
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	0.1479	0.01000	0.00341	

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-04	Date Collected	: 05/14/20 14:25
Client ID	: MW3-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 13:56
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00491	0.0100	0.00327	J
7440-36-0	Antimony, Total	0.00046	0.00400	0.00042	J
7440-38-2	Arsenic, Total	0.00021	0.00050	0.00016	J
7440-39-3	Barium, Total	0.1382	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	0.00032	0.00020	0.00005	
7440-70-2	Calcium, Total	58.0	0.100	0.0394	
7440-47-3	Chromium, Total	0.00019	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00048	0.00050	0.00016	J
7440-50-8	Copper, Total	0.00224	0.00100	0.00038	u
7439-89-6	Iron, Total	0.0899	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	19.6	0.0700	0.0242	
7439-96-5	Manganese, Total	0.5876	0.00100	0.00044	
7439-98-7	Molybdenum, Total	0.00600	0.00091	0.00067	u
7440-02-0	Nickel, Total	0.00546	0.00200	0.00055	
7440-09-7	Potassium, Total	2.93	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	112.	0.100	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-31-5	Tin, Total	ND	0.0030	0.0011	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	0.04918	0.01000	0.00341	

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-05	Date Collected	: 05/14/20 15:40
Client ID	: MW4-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 14:01
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7440-36-0	Antimony, Total	0.00354	0.00400	0.00042	J
7440-38-2	Arsenic, Total	0.00047	0.00050	0.00016	J
7440-39-3	Barium, Total	0.06258	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	0.00018	0.00020	0.00005	J
7440-70-2	Calcium, Total	134.	0.100	0.0394	
7440-47-3	Chromium, Total	0.00017	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00066	0.00050	0.00016	
7440-50-8	Copper, Total	0.01874	0.00100	0.00038	
7439-89-6	Iron, Total	42.9	0.0500	0.0191	J
7439-92-1	Lead, Total	0.00384	0.00100	0.00034	
7439-95-4	Magnesium, Total	31.3	0.0700	0.0242	
7439-96-5	Manganese, Total	2.171	0.00100	0.00044	
7439-98-7	Molybdenum, Total	ND	0.00600	0.00067	U
7440-02-0	Nickel, Total	0.00580	0.00200	0.00055	
7440-09-7	Potassium, Total	12.0	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	12.2	0.100	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-31-5	Tin, Total	ND	0.0030	0.0011	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	0.04008	0.01000	0.00341	

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-06	Date Collected	: 05/14/20 16:20
Client ID	: MW5-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 14:06
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	4.76	0.0100	0.00327	
7440-36-0	Antimony, Total	0.00153	0.00400	0.00042	J
7440-38-2	Arsenic, Total	0.04939	0.00050	0.00016	
7440-39-3	Barium, Total	0.2795	0.00050	0.00017	
7440-41-7	Beryllium, Total	0.00043	0.00050	0.00010	J
7440-43-9	Cadmium, Total	0.00435	0.00020	0.00005	
7440-70-2	Calcium, Total	77.0	0.100	0.0394	
7440-47-3	Chromium, Total	0.01571	0.00100	0.00017	
7440-48-4	Cobalt, Total	0.2323	0.00050	0.00016	
7440-50-8	Copper, Total	1.567	0.00100	0.00038	
7439-89-6	Iron, Total	61.2	0.0500	0.0191	J
7439-92-1	Lead, Total	0.1477	0.00100	0.00034	
7439-95-4	Magnesium, Total	31.9	0.0700	0.0242	
7439-96-5	Manganese, Total	9.016	0.00100	0.00044	
7440-02-0	Nickel, Total	2.245	0.00200	0.00055	
7440-09-7	Potassium, Total	5.11	0.100	0.0309	
7782-49-2	Selenium, Total	0.00759	0.00500	0.00173	
7440-22-4	Silver, Total	0.01303	0.00040	0.00016	
7440-23-5	Sodium, Total	41.4	0.100	0.0293	
7440-28-0	Thallium, Total	0.00100	0.00039	0.00014	J U
7440-31-5	Tin, Total	0.0033	0.0030	0.0011	
7440-62-2	Vanadium, Total	0.02130	0.00500	0.00157	
7440-66-6	Zinc, Total	0.9364	0.01000	0.00341	

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-07	Date Collected	: 05/15/20 08:25
Client ID	: MW2-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 14:11
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0359	0.0100	0.00327	
7440-36-0	Antimony, Total	0.00129	0.00400	0.00042	J
7440-38-2	Arsenic, Total	0.00034	0.00050	0.00016	J
7440-39-3	Barium, Total	0.07918	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	0.00023	0.00020	0.00005	
7440-70-2	Calcium, Total	166.	0.100	0.0394	
7440-47-3	Chromium, Total	0.00095	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00205	0.00050	0.00016	
7440-50-8	Copper, Total	0.00411	0.00100	0.00038	U
7439-89-6	Iron, Total	0.278	0.0500	0.0191	J
7439-92-1	Lead, Total	0.00251	0.00100	0.00034	
7439-95-4	Magnesium, Total	45.2	0.0700	0.0242	
7439-96-5	Manganese, Total	3.960	0.00100	0.00044	
7440-02-0	Nickel, Total	0.00645	0.00200	0.00055	
7440-09-7	Potassium, Total	8.60	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	20.3	0.100	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-31-5	Tin, Total	ND	0.0030	0.0011	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	0.02416	0.01000	0.00341	

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-08	Date Collected	: 05/15/20 09:30
Client ID	: MW1-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 14:16
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.308	0.0100	0.00327	
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	0.00273	0.00050	0.00016	
7440-39-3	Barium, Total	0.1272	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	142.	0.100	0.0394	
7440-47-3	Chromium, Total	0.00064	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00174	0.00050	0.00016	
7440-50-8	Copper, Total	0.00200	0.00100	0.00038	u
7439-89-6	Iron, Total	6.45	0.0500	0.0191	J
7439-92-1	Lead, Total	0.00124	0.00100	0.00034	
7439-95-4	Magnesium, Total	20.3	0.0700	0.0242	
7439-96-5	Manganese, Total	4.435	0.00100	0.00044	
7439-98-7	Molybdenum, Total	0.00600	0.00600	0.00067	J u
7440-02-0	Nickel, Total	0.00207	0.00200	0.00055	
7440-09-7	Potassium, Total	5.28	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	24.9	0.100	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-31-5	Tin, Total	ND	0.0030	0.0011	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	0.00402	0.01000	0.00341	J

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-01	Date Collected	: 05/14/20 11:20
Client ID	: MW7-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 13:02
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Total	0.2256	0.00050	0.00007	

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-02	Date Collected	: 05/14/20 13:15
Client ID	: MW6-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 13:47
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Total	0.3768	0.00050	0.00007	

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-03	Date Collected	: 05/14/20 00:00
Client ID	: FD-01-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 13:52
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Total	0.3807	0.00050	0.00007	

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Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-04	Date Collected	: 05/14/20 14:25
Client ID	: MW3-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 13:57
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Total	0.08914	0.00050	0.00007	

new 4/12/21



Form 1 METALS

5

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-05	Date Collected	: 05/14/20 15:40
Client ID	: MW4-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 14:02
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Total	0.2097	0.00050	0.00007	

MW41.2121



Form 1 METALS

6

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-06	Date Collected	: 05/14/20 16:20
Client ID	: MW5-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 14:07
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Total	0.1756	0.00050	0.00007	

W4/12/21



Form 1 METALS

7

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-07	Date Collected	: 05/15/20 08:25
Client ID	: MW2-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 14:12
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Total	0.2633	0.00050	0.00007	

MW41.2121



Form 1 METALS

8

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-08	Date Collected	: 05/15/20 09:30
Client ID	: MW1-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 14:17
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Total	0.2194	0.00050	0.00007	

NEW 4/12/21



Form 1 METALS

6D

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-06	Date Collected	: 05/14/20 16:20
Client ID	: MW5-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 15:09
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1373057.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.00824	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved	0.00053	0.00400	0.00042	J
7440-38-2	Arsenic, Dissolved	0.00509	0.00050	0.00016	
7440-39-3	Barium, Dissolved	0.1501	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	53.3	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00100	0.00030	0.00017	J U
7440-48-4	Cobalt, Dissolved	0.01014	0.00050	0.00016	
7440-50-8	Copper, Dissolved	0.00079	0.00100	0.00038	J
7439-89-6	Iron, Dissolved	15.2	0.0500	0.0191	
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	23.6	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	7.048	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	0.08647	0.00200	0.00055	
7440-09-7	Potassium, Dissolved	3.47	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	41.2	0.100	0.0293	
7440-28-0	Thallium, Dissolved	0.00041	0.00100	0.00014	J
7440-31-5	Tin, Dissolved	0.0016	0.0030	0.0011	J
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

MW 4/12/21



Form 1 METALS

69

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-06	Date Collected	: 05/14/20 16:20
Client ID	: MW5-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/21/20 15:10
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020B	Analyst	: AM
Lab File ID	: WG1375755.pdf	Instrument ID	: ICPMSQ
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-32-6	Titanium, Dissolved	0.08382	0.00050	0.00007	

MW 4/12/21



Form 1 METALS

6D

Client	: C.T. Male Associates	Lab Number	: L2020210
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020210-06	Date Collected	: 05/14/20 16:20
Client ID	: MW5-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET,NY	Date Analyzed	: 05/20/20 20:28
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,7470A	Analyst	: AL
Lab File ID	: WG1372833	Instrument ID	: FIMS4
Sample Amount	: 25ml	%Solids	: N/A
Digestion Method	: EPA 7470A	Date Digested	: 05/20/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

MW412121



**DATA USABILITY SUMMARY REPORT
SCHUYLER HEIGHT FIRE DISTRICT, NEW YORK**

Client: C.T. Male Associates, Latham, New York
SDG: L2020229
Laboratory: Alpha Analytical Laboratories, Mansfield, Massachusetts
Site: Schuyler Heights Fire District, Watervliet, New York
Date: April 12, 2021

EDS ID	Client ID	Laboratory ID	Matrix
1	MW7-200514	L2020229-01	Water
1MS	MW7-200514MS	L2020229-01MS	Water
1MSD	MW7-200514MSD	L2020229-01MSD	Water
2	MW6-200514	L2020229-02	Water
3	FD01-200514	L2020229-03	Water
4	MW3-200514	L2020229-04	Water
5	MW4-200514	L2020229-05	Water
6	MW5-200514	L2020229-06	Water
7	MW2-200514	L2020229-07	Water
8	MW1-200514	L2020229-08	Water
9	LAB TRIP BLANK	L2020229-09	Water
10	FIELD TRIP BLANK	L2020229-10	Water

A Data Usability Summary Review was performed on the analytical data for eight water samples, one aqueous trip blank sample, and one aqueous field blank sample collected on May 14-15, 2020 by CT Male at the Schuyler Heights First District site in Watervliet, New York. The samples were analyzed under the USEPA Method Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS).

Specific method references are as follows:

Analysis
PFAS

Method References
USEPA Method 537 Modified

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Data Review and Validation Guidelines as follows:

- USEPA Data Review and Validation Guidelines for Perfluoroalkyl Substances (PFASs) Analyzed Using EPA Method 537, November 2018;
- and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

Organics

- Holding times and sample preservation
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

Data Usability Assessment

There were no rejections of data.

The data are acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Perfluorinated Alkyl Substances (PFAS)

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD), %R and/or coefficient of determination criteria were met.

Continuing Calibration

- The following table presents compounds that exceeded percent difference (%D) in the continuing calibration (CCAL). A high %D may indicate a potential high or low bias. All results for these compounds in affected samples are considered estimated and qualified (J/UJ).

CCAL Date	Compound	%D	Qualifier	Affected Samples
05/22/20	8:2 FTS	44.1%	J/UJ	All Samples

Method Blank

- The following table lists method blank samples with contamination and the samples associated with the blanks that had results qualified as a consequence of the blank contamination. Detected sample concentrations less than ten times (10x) the highest associated blank (after taking sample dilution levels, percent moisture and sample volume into account) are negated and qualified with a (U).

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
WG1372587-1	PFHxA	0.372	U	9, 10

Field QC Blank

- The following table lists field QC samples with contamination and the samples associated with the blanks that had results qualified as a consequence of the blank contamination. Detected sample concentrations less than ten times (10x) the highest associated blank (after taking sample dilution levels, percent moisture and sample volume into account) are negated and qualified with a (U).

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
LAB TRIP BLANK	None - ND	-	-	-
FIELD TRIP BLANK	PFPeA	0.518	U	6

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate percent recoveries (%R).

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	MW6-200514 ng/L	FD01-200514 ng/L	RPD	Qualifier
PFBA	51.7	54.6	5%	None
PFPeA	118	126	7%	
PFBS	22.5	23.9	6%	
PFHxA	151	164	8%	
PFHpA	201	214	6%	
PFHxS	80.6	87.8	8%	
PFOA	312	340	9%	
6:2 FTS	11.0	13.3	19%	
PFHpS	4.43	3.74	17%	
PFNA	13.9	15.8	13%	
PFOS	92.6	92.6	0%	
PFDS	1.94	2.22	13%	
PFOA/PFOS, Total	405	433	7%	

Please contact the undersigned at (561) 475-2000 if you have any questions or need further information.

Signed:

Nancy Weaver

Nancy Weaver
Senior Chemist

Dated:

4/12/21

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-01	Date Collected : 05/14/20 11:20
Client ID : MW7-200514	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/22/20 01:51
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24178	Analyst : JW
Sample Amount : 267 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	41.2	1.87	0.382	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	84.8	1.87	0.371	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	27.1	1.87	0.223	
307-24-4	Perfluorohexanoic Acid (PFHxA)	104	1.87	0.307	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	52.8	1.87	0.211	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	30.6	1.87	0.352	
335-67-1	Perfluorooctanoic Acid (PFOA)	176	1.87	0.221	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	77.7	1.87	1.25	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.44	1.87	0.644	J
375-95-1	Perfluorononanoic Acid (PFNA)	15.0	1.87	0.292	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	105	1.87	0.472	
335-76-2	Perfluorodecanoic Acid (PFDA)	4.64	1.87	0.285	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.87	1.13	Y UJ
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.87	0.607	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.87	0.243	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.87	0.918	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.87	0.543	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.87	0.753	U

Results Summary

Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-01	Date Collected : 05/14/20 11:20
Client ID : MW7-200514	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/22/20 01:51
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24178	Analyst : JW
Sample Amount : 267 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.87	0.348	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.87	0.306	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.87	0.232	U
NONE	PFOA/PFOS, Total	281	1.87	0.221	

MW4/12/21



Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

2

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-02	Date Collected : 05/14/20 13:15
Client ID : MW6-200514	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/22/20 02:08
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24179	Analyst : JW
Sample Amount : 263 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	51.7	1.90	0.388	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	118	1.90	0.376	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	22.5	1.90	0.226	
307-24-4	Perfluorohexanoic Acid (PFHxA)	151	1.90	0.312	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	201	1.90	0.214	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	80.6	1.90	0.357	
335-67-1	Perfluorooctanoic Acid (PFOA)	312	1.90	0.224	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	11.0	1.90	1.27	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	4.43	1.90	0.654	
375-95-1	Perfluorononanoic Acid (PFNA)	13.9	1.90	0.296	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	92.6	1.90	0.479	
335-76-2	Perfluorodecanoic Acid (PFDA)	1.94	1.90	0.289	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.90	1.15	y u j
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.90	0.616	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.90	0.247	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.90	0.932	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.90	0.551	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.90	0.764	U

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2

Results Summary Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L2020229
Project Name	: SCHUYLER HEIGHTS FIRE DISTRICT	Project Number	: 20.0319
Lab ID	: L2020229-02	Date Collected	: 05/14/20 13:15
Client ID	: MW6-200514	Date Received	: 05/15/20
Sample Location	: WATERVALIET, NY	Date Analyzed	: 05/22/20 02:08
Sample Matrix	: WATER	Date Extracted	: 05/20/20
Analytical Method	: 134,LCMSMS-ID	Dilution Factor	: 1
Lab File ID	: I24179	Analyst	: JW
Sample Amount	: 263 g	Instrument ID	: LCMS02
Extraction Method	: ALPHA 23528	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.90	0.354	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.90	0.311	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.90	0.236	U
NONE	PFOA/PFOS, Total	405	1.90	0.224	

Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

3

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020229-03 Client ID : FD01-200514 Sample Location : WATERVALIET, NY Sample Matrix : WATER Analytical Method : 134,LCMSMS-ID Lab File ID : I24180 Sample Amount : 259 g Extraction Method : ALPHA 23528 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2020229 Project Number : 20.0319 Date Collected : 05/14/20 00:00 Date Received : 05/15/20 Date Analyzed : 05/22/20 02:24 Date Extracted : 05/20/20 Dilution Factor : 1 Analyst : JW Instrument ID : LCMS02 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	54.6	1.93	0.394	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	126	1.93	0.382	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	23.9	1.93	0.230	
307-24-4	Perfluorohexanoic Acid (PFHxA)	164	1.93	0.317	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	214	1.93	0.217	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	87.8	1.93	0.363	
335-67-1	Perfluorooctanoic Acid (PFOA)	340	1.93	0.228	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	13.3	1.93	1.28	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	3.74	1.93	0.664	
375-95-1	Perfluorononanoic Acid (PFNA)	15.8	1.93	0.301	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	92.6	1.93	0.486	
335-76-2	Perfluorodecanoic Acid (PFDA)	2.22	1.93	0.293	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.93	1.17	N UJ
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.93	0.625	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.93	0.251	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.93	0.946	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.93	0.560	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.93	0.776	U

nw 4/12/21



Results Summary

Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

3

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020229-03 Client ID : FD01-200514 Sample Location : WATERVALIET, NY Sample Matrix : WATER Analytical Method : 134,LCMSMS-ID Lab File ID : I24180 Sample Amount : 259 g Extraction Method : ALPHA 23528 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2020229 Project Number : 20.0319 Date Collected : 05/14/20 00:00 Date Received : 05/15/20 Date Analyzed : 05/22/20 02:24 Date Extracted : 05/20/20 Dilution Factor : 1 Analyst : JW Instrument ID : LCMS02 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.93	0.359	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.93	0.316	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.93	0.239	U
NONE	PFOA/PFOS, Total	433	1.93	0.228	

05/11/21



Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

4

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020229-04 Client ID : MW3-200514 Sample Location : WATERVALIET, NY Sample Matrix : WATER Analytical Method : 134,LCMSMS-ID Lab File ID : I24181 Sample Amount : 263 g Extraction Method : ALPHA 23528 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2020229 Project Number : 20.0319 Date Collected : 05/14/20 14:25 Date Received : 05/15/20 Date Analyzed : 05/22/20 02:41 Date Extracted : 05/20/20 Dilution Factor : 1 Analyst : JW Instrument ID : LCMS02 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	9.38	1.90	0.388	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	11.7	1.90	0.376	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	2.27	1.90	0.226	
307-24-4	Perfluorohexanoic Acid (PFHxA)	12.9	1.90	0.312	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	11.2	1.90	0.214	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	7.46	1.90	0.357	
335-67-1	Perfluorooctanoic Acid (PFOA)	20.9	1.90	0.224	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	1.90	1.27	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.90	0.654	U
375-95-1	Perfluorononanoic Acid (PFNA)	1.86	1.90	0.296	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	19.6	1.90	0.479	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.90	0.289	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.90	1.15	U UJ
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.90	0.616	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.90	0.247	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.90	0.932	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.90	0.551	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.90	0.764	U

mw 4/12/21



Results Summary Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

4

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020229-04 Client ID : MW3-200514 Sample Location : WATERVALIET, NY Sample Matrix : WATER Analytical Method : 134,LCMSMS-ID Lab File ID : I24181 Sample Amount : 263 g Extraction Method : ALPHA 23528 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2020229 Project Number : 20.0319 Date Collected : 05/14/20 14:25 Date Received : 05/15/20 Date Analyzed : 05/22/20 02:41 Date Extracted : 05/20/20 Dilution Factor : 1 Analyst : JW Instrument ID : LCMS02 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.90	0.354	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.90	0.311	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.90	0.236	U
NONE	PFOA/PFOS, Total	40.5	1.90	0.224	

MW4/12/21



Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

5

Client : C.T. Male Associates
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT
Lab ID : L2020229-05
Client ID : MW4-200514
Sample Location : WATERVALIET, NY
Sample Matrix : WATER
Analytical Method : 134,LCMSMS-ID
Lab File ID : I24182
Sample Amount : 240 g
Extraction Method : ALPHA 23528
Extract Volume : 1000 uL
GPC Cleanup : N

Lab Number : L2020229
Project Number : 20.0319
Date Collected : 05/14/20 15:40
Date Received : 05/15/20
Date Analyzed : 05/22/20 02:58
Date Extracted : 05/20/20
Dilution Factor : 1
Analyst : JW
Instrument ID : LCMS02
GC Column : Acquity UPLC BEH C18
%Solids : N/A
Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	13.0	2.08	0.425	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	29.4	2.08	0.412	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	3.88	2.08	0.248	
307-24-4	Perfluorohexanoic Acid (PFHxA)	33.0	2.08	0.342	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	50.4	2.08	0.234	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	29.3	2.08	0.392	
335-67-1	Perfluorooctanoic Acid (PFOA)	119	2.08	0.246	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	2.08	1.39	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.70	2.08	0.717	J
375-95-1	Perfluorononanoic Acid (PFNA)	13.6	2.08	0.325	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	41.1	2.08	0.525	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.704	2.08	0.317	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	2.08	1.26	U J
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	2.08	0.675	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	2.08	0.271	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	2.08	1.02	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	2.08	0.604	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	2.08	0.838	U

nw 4/12/21



Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

5

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020229-05 Client ID : MW4-200514 Sample Location : WATERVALIET, NY Sample Matrix : WATER Analytical Method : 134,LCMSMS-ID Lab File ID : I24182 Sample Amount : 240 g Extraction Method : ALPHA 23528 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2020229 Project Number : 20.0319 Date Collected : 05/14/20 15:40 Date Received : 05/15/20 Date Analyzed : 05/22/20 02:58 Date Extracted : 05/20/20 Dilution Factor : 1 Analyst : JW Instrument ID : LCMS02 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.08	0.388	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	2.08	0.341	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.08	0.258	U
NONE	PFOA/PFOS, Total	160	2.08	0.246	

nw4/12/21



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Results Summary Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-06	Date Collected : 05/15/20 07:20
Client ID : MW5-200514	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/22/20 03:14
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24183	Analyst : JW
Sample Amount : 252 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	6.36	1.98	0.405	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	4.40	1.98	0.393	u
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	0.718	1.98	0.236	J
307-24-4	Perfluorohexanoic Acid (PFHxA)	4.13	1.98	0.325	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	3.16	1.98	0.223	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	5.05	1.98	0.373	
335-67-1	Perfluorooctanoic Acid (PFOA)	15.2	1.98	0.234	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	1.98	1.32	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.10	1.98	0.682	J
375-95-1	Perfluorononanoic Acid (PFNA)	5.96	1.98	0.310	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	77.5	1.98	0.500	
335-76-2	Perfluorodecanoic Acid (PFDA)	2.58	1.98	0.302	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.98	1.20	u J
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.98	0.643	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.817	1.98	0.258	J
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.98	0.972	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.98	0.575	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.98	0.798	U

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Results Summary Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-06	Date Collected : 05/15/20 07:20
Client ID : MW5-200514	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/22/20 03:14
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24183	Analyst : JW
Sample Amount : 252 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	0.484	1.98	0.369	J
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.98	0.325	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.98	0.246	U
NONE	PFOA/PFOS, Total	92.7	1.98	0.234	

Results Summary Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

7

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-07	Date Collected : 05/15/20 08:25
Client ID : MW2-200514	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/22/20 03:31
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24184	Analyst : JW
Sample Amount : 271 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	42.5	1.84	0.376	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	90.5	1.84	0.365	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	7.65	1.84	0.220	
307-24-4	Perfluorohexanoic Acid (PFHxA)	70.2	1.84	0.302	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	85.0	1.84	0.208	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	30.8	1.84	0.347	
335-67-1	Perfluorooctanoic Acid (PFOA)	124	1.84	0.218	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	3.07	1.84	1.23	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.24	1.84	0.635	J
375-95-1	Perfluorononanoic Acid (PFNA)	7.84	1.84	0.288	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	40.3	1.84	0.465	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.812	1.84	0.280	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	1.44	1.84	1.12	J
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.84	0.598	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.84	0.240	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.84	0.904	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.84	0.535	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.84	0.742	U

MW 8/12/21



Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

7

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020229-07 Client ID : MW2-200514 Sample Location : WATERVALIET, NY Sample Matrix : WATER Analytical Method : 134,LCMSMS-ID Lab File ID : I24184 Sample Amount : 271 g Extraction Method : ALPHA 23528 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2020229 Project Number : 20.0319 Date Collected : 05/15/20 08:25 Date Received : 05/15/20 Date Analyzed : 05/22/20 03:31 Date Extracted : 05/20/20 Dilution Factor : 1 Analyst : JW Instrument ID : LCMS02 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.84	0.343	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.84	0.302	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.84	0.229	U
NONE	PFOA/PFOS, Total	164	1.84	0.218	

MW 4/12/21



Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

8

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-08	Date Collected : 05/15/20 09:30
Client ID : MW1-200514	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/22/20 03:47
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24185	Analyst : JW
Sample Amount : 258 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	27.4	1.94	0.395	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	40.7	1.94	0.384	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	3.69	1.94	0.231	
307-24-4	Perfluorohexanoic Acid (PFHxA)	31.5	1.94	0.318	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	24.2	1.94	0.218	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	12.1	1.94	0.364	
335-67-1	Perfluorooctanoic Acid (PFOA)	32.2	1.94	0.229	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	1.94	1.29	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.94	0.667	U
375-95-1	Perfluorononanoic Acid (PFNA)	1.90	1.94	0.302	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	17.7	1.94	0.488	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.915	1.94	0.294	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.94	1.17	y u J
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.94	0.628	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.94	0.252	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.94	0.950	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.94	0.562	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.94	0.779	U

mw 4/12/21



Results Summary Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

8

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020229-08 Client ID : MW1-200514 Sample Location : WATERVALIET, NY Sample Matrix : WATER Analytical Method : 134,LCMSMS-ID Lab File ID : I24185 Sample Amount : 258 g Extraction Method : ALPHA 23528 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2020229 Project Number : 20.0319 Date Collected : 05/15/20 09:30 Date Received : 05/15/20 Date Analyzed : 05/22/20 03:47 Date Extracted : 05/20/20 Dilution Factor : 1 Analyst : JW Instrument ID : LCMS02 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.94	0.360	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.94	0.317	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.94	0.240	U
NONE	PFOA/PFOS, Total	49.9	1.94	0.229	

mw 4/12/21



Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

9

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-09	Date Collected : 05/14/20 00:00
Client ID : LAB TRIP BLANK	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/21/20 23:06
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24168	Analyst : JW
Sample Amount : 261 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	1.92	0.391	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	1.92	0.379	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.92	0.228	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	0.333 1.92	1.92	0.314	u
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.92	0.216	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.92	0.360	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.92	0.226	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	1.92	1.28	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.92	0.659	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.92	0.299	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.92	0.483	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.92	0.291	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.92	1.16	u
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.92	0.621	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.92	0.249	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.92	0.939	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.92	0.556	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.92	0.770	U

AW4/12/21



Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

9

Client : C.T. Male Associates Project Name : SCHUYLER HEIGHTS FIRE DISTRICT Lab ID : L2020229-09 Client ID : LAB TRIP BLANK Sample Location : WATERVALIET, NY Sample Matrix : WATER Analytical Method : 134,LCMSMS-ID Lab File ID : I24168 Sample Amount : 261 g Extraction Method : ALPHA 23528 Extract Volume : 1000 uL GPC Cleanup : N	Lab Number : L2020229 Project Number : 20.0319 Date Collected : 05/14/20 00:00 Date Received : 05/15/20 Date Analyzed : 05/21/20 23:06 Date Extracted : 05/20/20 Dilution Factor : 1 Analyst : JW Instrument ID : LCMS02 GC Column : Acquity UPLC BEH C18 %Solids : N/A Injection Volume : 3 uL
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CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.92	0.356	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.92	0.313	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.92	0.238	U
NONE	PFOA/PFOS, Total	ND	1.92	0.226	U

mw 4/12/21



Results Summary Form 1 Perfluorinated Alkyl Acids by Isotope Dilution

10

Client : C.T. Male Associates
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT
Lab ID : L2020229-10
Client ID : FIELD TRIP BLANK
Sample Location : WATERVALIET, NY
Sample Matrix : WATER
Analytical Method : 134,LCMSMS-ID
Lab File ID : I24169
Sample Amount : 253 g
Extraction Method : ALPHA 23528
Extract Volume : 1000 uL
GPC Cleanup : N

Lab Number : L2020229
Project Number : 20.0319
Date Collected : 05/14/20 16:45
Date Received : 05/15/20
Date Analyzed : 05/21/20 23:23
Date Extracted : 05/20/20
Dilution Factor : 1
Analyst : JW
Instrument ID : LCMS02
GC Column : Acquity UPLC BEH C18
%Solids : N/A
Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	1.98	0.403	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	0.518	1.98	0.391	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.98	0.235	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	0.379 1.98	1.98	0.324	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.98	0.222	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.98	0.372	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.98	0.233	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	1.98	1.32	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.98	0.680	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.98	0.308	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.98	0.498	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.98	0.300	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.98	1.20	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.98	0.640	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.98	0.257	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.98	0.968	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.98	0.573	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.98	0.794	U

new 4/12/21



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Results Summary Form 1

Perfluorinated Alkyl Acids by Isotope Dilution

Client : C.T. Male Associates	Lab Number : L2020229
Project Name : SCHUYLER HEIGHTS FIRE DISTRICT	Project Number : 20.0319
Lab ID : L2020229-10	Date Collected : 05/14/20 16:45
Client ID : FIELD TRIP BLANK	Date Received : 05/15/20
Sample Location : WATERVALIET, NY	Date Analyzed : 05/21/20 23:23
Sample Matrix : WATER	Date Extracted : 05/20/20
Analytical Method : 134,LCMSMS-ID	Dilution Factor : 1
Lab File ID : I24169	Analyst : JW
Sample Amount : 253 g	Instrument ID : LCMS02
Extraction Method : ALPHA 23528	GC Column : Acquity UPLC BEH C18
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.98	0.368	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.98	0.323	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.98	0.245	U
NONE	PFOA/PFOS, Total	ND	1.98	0.233	U

m 4/12/21



**New York Works
Schuyler Heights Fire District Station
House Site
NYSDEC Site Number E401050
Cover Inspection Form**

Time: 3:00 pm

Date: April 29, 2020

Weather Conditions: Cloudy, 60 degrees

Were Photographs Taken ?: Yes

Inspection Checklist:

A. Soil Cover:

The soil cover shall be inspected by traversing it and examining it for the following:

	<u>Yes</u>	<u>No</u>
1. Is there bare ground, or dead or damaged vegetation?	<u> </u>	<u>X</u>
2. Are there cracks, subsidence, or holes in the ground surface?	<u> </u>	<u>X</u>
3. Is there evidence of burrowing by animals?	<u> </u>	<u>X</u>
4. Is there disturbance of the vegetated surface material?	<u> </u>	<u>X</u>
5. Is there any erosion damage to vegetated areas?	<u> </u>	<u>X</u>
6. Is there discoloration or evidence of spills on the surface?	<u> </u>	<u>X</u>
7. Is there other evidence of disturbance to the area?	<u> </u>	<u>X</u>
8. Is there debris or trash present?	<u> </u>	<u>X</u>

Comments (*Explanation required for each Yes answer in Section A*):

B. Gravel Cover:

The gravel cover shall be inspected by traversing it and examining it for the following:

	<u>Yes</u>	<u>No</u>
1. Are there ruts or holes in, or subsidence of the gravel?	<u> </u>	<u>X</u>
2. Is there evidence of burrowing by animals?	<u> </u>	<u>X</u>
3. Is there debris or trash present?	<u> </u>	<u>X</u>
4. Is there any erosion damage to the gravel surface?	<u> </u>	<u>X</u>
5. Is there discoloration or evidence of spills on the surface?	<u> </u>	<u>X</u>
6. Is there other evidence of disturbance to the area?	<u> </u>	<u>X</u>

Comments (*Explanation required for each Yes answer in Section B*):

C. Site Drainage

The perimeter of the Site near adjacent properties shall be inspected by traversing the area and examining it for the following:


	<u>Yes</u>	<u>No</u>
1. Is there any erosion damage?	___	<u>X</u>
2. Is there debris blocking drainage pathways?	___	<u>X</u>
3. Is there evidence of ponding or puddling of water?	___	<u>X</u>

Comments (*Explanation required for each Yes answer in Section C*):

General Comments, Site Notes and Observations of Activities on Adjacent Parcels Which Could Interact With the Work:

The site is in stable condition with no on-going or past erosion. There is no surface water in the swale at the site nor does it appear that stormwater collects in the swale. The well (MW-1), closest to the entrance and in the gravel parking area, was damaged and bent over.

Signature:


Inspector

April 29, 2020
Date

C.T. Male Associates
Organization



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04/29/2020



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Site Details

Site No. E401050

Box 1

Site Name Proposed Schuyler Heights Fire District Site

Site Address: 849 First Street Zip Code: 12189
City/Town: Watervliet
County: Albany
Site Acreage: 7.512

Reporting Period: December 07, 2018 to April 07, 2020

YES NO

- | | | | |
|----|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. | Is the information above correct? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | If NO, include handwritten above or on a separate sheet. | | |
| 2. | Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. | Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. | Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development? ☐ ☒

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below? ☒ ☐
Commercial and Industrial
7. Are all ICs/ECs in place and functioning as designed? ☒ ☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Not Applicable

Signature of Owner, Remedial Party or Designated Representative

Date _____

SITE NO. E401050

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

44.11-1-50.1

Schuyler Heights Fire District

Ground Water Use Restriction
Landuse Restriction
Site Management Plan

IC/EC Plan

Box 4

Description of Engineering Controls

Parcel

Engineering Control

44.11-1-50.1

Cover System

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

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) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Not Applicable

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. E401050

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Mark DiPofi at 900 1st Street, Watervliet, NY 12189,
print name print business address

am certifying as Schuyler Heights Fire District (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Mark DiPofi chairman
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

10/27/2020
Date

IC/EC CERTIFICATIONS

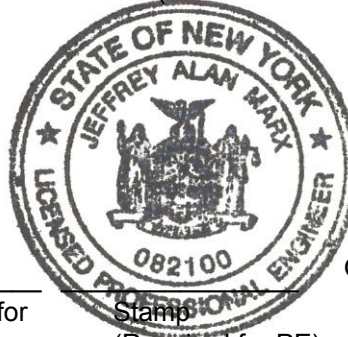
Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jeffrey A. Marx, PE at C.T. Male Associates Engineering, Surveying,
Architecture, Landscape Architecture & Geology, D.P.C.,
50 Century Hill Dr., Latham, New York 12110,
print name print business address

am certifying as a Qualified Environmental Professional for the Schuyler Heights Fire District
(Owner or Remedial Party)



Jeffrey A. Marx
Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification

Stamp
(Required for PE)

October 5, 2020
Date