



**Department of
Environmental
Conservation**

Division of Environmental Remediation

Semi-Annual Remedial System Optimization Report – 2021

January 2021 – June 2021

Vestal Water Supply Site

Vestal, New York (Site No. 7-04-009A)

November 2021

Semi-Annual Remedial System Optimization Report – 2021

January 2021 – June 2021

Vestal Water Supply Site

Vestal, New York (Site No. 7-04-009A)

November 2021

Prepared By:

Arcadis CE, Inc.
855 Route 146, Suite 210
Clifton Park
New York 12065
Phone: 518 250 7300
Fax: 518 371 2757

Prepared For:

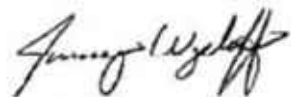
New York State Department of
Environmental Conservation

Our Ref:

30054254 (00266401.0000)



Andrew R. Vitolins, P.G.
Principal Scientist



Jeremy Wyckoff
Project Geologist



Katie Bidwell
Project Geologist

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

Contents

1	Introduction.....	1-1
2	Site Activities	2-1
2.1	Groundwater Sampling	2-1
2.1.1	Water Level Data.....	2-1
2.1.2	April 2021 Groundwater Sampling.....	2-2
2.1.2.1	April 2021 VOC Groundwater Sampling Results	2-2
2.1.3	Town of Vestal Municipal Well Sampling	2-5
2.1.3.1	Town of vestal Municipal Well April 2021 VOC Sampling Results	2-5
2.1.4	April 2021 PFAS and 1,4-Dioxane Sampling	2-6
2.1.4.1	April 2021 1,4-Dioxane and PFAS Groundwater Sampling Results	2-6
2.1.4.2	Town of Vestal Municipal Well April 2021 1,4-Dioxane and PFAS Sampling Results	2-7
3	Recommendations.....	3-1
4	July through December 2021 Scheduled Activities	4-1

Tables

Table 1-1	Summary of the Groundwater Monitoring Locations
Table 2-1	Summary of Groundwater Elevation Data
Table 2-2	Summary of Groundwater Sampling Results (VOCs)
Table 2-3	Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Table 2-4	Summary of 1,4-dioxane and PFAS Groundwater Sampling Results
Table 2-5	Summary of Town of Vestal Municipal Well 1,4-dioxane and PFAS Sampling Results

Figures

Figure 1-1	Site Location
Figure 2-1	Monitoring Well Location Map
Figure 2-2	Summary of VOC Sampling Results (Shallow Wells)
Figure 2-3	Summary of VOC Sampling Results (Intermediate Wells)
Figure 2-4	VOC Concentrations in Monitoring Well 4009-8
Figure 2-5	VOC Concentrations in Monitoring Well 4009-26

Figure 2-6 VOC Concentrations in Monitoring Well 4009-29S

Figure 2-7 Summary of VOC Sampling Results (Deep Wells)

Appendix

Appendix A. Analytical Reporting Forms (TestAmerica Laboratories, Inc. and Microbac Laboratory Services)

Appendix B. Low-Flow Purge Logs June 2021

Appendix C. Data Usability Summary Report

1 Introduction

The New York State Department of Environmental Conservation (NYSDEC) issued a Work Assignment (# D009804-10) to Arcadis CE, Inc. (Arcadis) (approved on November 18, 2020) to continue Operation, Maintenance, and Monitoring at the Vestal Water Supply Site (site) in New York State (Site # 7-04-009A) (Figure 1-1).

The NYSDEC is evaluating the efficiency, effectiveness, environmental benefit, and cost of existing environmental remedies by performing a Remedial System Optimization (RSO). The purpose of the RSO is to assess the site's Conceptual Site Model (CSM), provide a summary of the performance of the remedy, document current cleanup practices, provide a summary of progress toward the cleanup goals, and provide recommendations for improvements, if required.

The Well 1-1A groundwater treatment plant was shut down on February 28, 2014 as part of the RSO to evaluate the impacts to groundwater quality while the treatment plant is not operating. In particular, plume migration is being monitored to assess the effects of groundwater withdrawals from the Town of Vestal water supply wells 1-2A and 1-3 on the groundwater plume distribution and migration. In addition, soil and groundwater samples have been collected to further evaluate the horizontal and vertical distribution of VOCs in the area of the site.

The following recommendations that were included in the 4th quarter 2018 RSO report were approved by the NYSDEC via email on March 26, 2019:

- The groundwater sampling frequency has been reduced to occur semi-annually with sampling conducted in the spring (March/April) and fall (September/October) months until remedial activities commence at the source area (ECO International property), located upgradient of the site. The groundwater sampling frequency may be increased when source area remedial activities are initiated.
- The quarterly post-RSO sampling data has demonstrated that there are minimal impacts to groundwater in several areas of the shallow groundwater that are currently included in the monitoring program. This includes several wells that have had no detections of contaminants over several years. Based on these data, the current sample list (Table 1-1) was revised and the following monitoring wells were eliminated from the sampling program: 4009-10, 4009-11A, 4009-13A, and 4009-30A. This recommendation was implemented during the second 2019 semiannual event in September 2019.

Due to the COVID-19 pandemic and the end of the previous Standby contract, there was no activity conducted onsite by Arcadis from July through December 2020. The Town of Vestal Water Superintendent continued to provide the monthly analytical data for Well 1-2A and 1-3. There were no constituents of concern (COC) detections in these samples during this time frame.

This Semiannual Report has been prepared to summarize the January 2021 through June 2021 field activities. The first 2021 semiannual sampling event took place from April 8 through April 13, 2021.

2 Site Activities

The scope of work for the RSO was designed to provide data for use in evaluation of the existing remedy and to further characterize the nature and extent of contamination in soil and groundwater at the site. The RSO provides information that is being used to assess the efficiency of the remedy and evaluate potential alternative remedial approaches. These data are summarized in the Final Focused Feasibility Study (FFS), which was submitted to the NYSDEC on September 25, 2015.

The basic scope of work included field oversight of subcontractors (i.e., driller and surveyor), preparation of daily field logs, collection of subsurface and surface soil samples, installation of monitoring wells, monitoring well development and hydraulic conductivity testing, measuring groundwater levels, installation of groundwater level data loggers, shut-down of the Well 1-1A groundwater treatment plant for a period of at least one year, collection of groundwater samples from new and existing wells, evaluation of data, and reporting of conclusions and recommendations.

Currently the investigation includes monthly pre-treatment sampling of the Town of Vestal water supply wells 1-2A and 1-3 and semiannual groundwater sampling. Under the new Standby contract, groundwater monitoring wells and Wells 1-2A and 1-3 were analyzed for 1,4-dioxane and polyfluoroalkyl substances (PFAS) in April 2021 as part of the semiannual sampling event.

2.1 Groundwater Sampling

The semiannual groundwater monitoring is being conducted to evaluate the distribution of the VOC groundwater plume on the north side of NYS Route 17 over time. The sampling includes wells surrounding the Town of Vestal water supply wells 1-2A, 1-3, and 1-1 (Figure 2-1). The sample list followed for the April 2021 sampling event (Table 1-1) was approved by the NYSDEC on March 26, 2019 as part of 2018 RSO recommendations (as detailed in Section 1). During the April 2021 sampling event, Water supply Well 1-1 could not be sampled due to a bend in the PVC casing that resulted in the tubing getting stuck in the well before reaching the water table.

EPA low-flow groundwater sampling procedures were used during the spring sampling event to facilitate the collection of samples to be analyzed for 1,4-dioxane and PFAS, which cannot be collected using passive diffusion bags (PDBs). VOCs were collected using the same low-flow procedures. The use of PDBs will be reinstated during the fall event, when only VOCs will be analyzed.

All samples were submitted for analysis of TCL VOCs by USEPA Method 8260, PFAS by Method ISO 25101 and USEPA Method 537 Modified, and 1,4-dioxane by method 8270C to Eurofins- TestAmerica-Buffalo following chain-of-custody sample handling procedures.

2.1.1 Water Level Data

On April 7, 2021, groundwater levels were measured at all wells to be sampled using an electronic water-level meter. As indicated in Section 1, the Well 1-1A treatment plant continues to be shut down, therefore, groundwater levels are representative of static (non-pumping) conditions. Groundwater levels were used to calculate groundwater elevations and assess groundwater flow conditions across the site. A summary of groundwater elevation data is provided in Table 2-1. Groundwater flow in the shallow and intermediate groundwater monitoring

zones is generally west to northwest and north to northwest in the deep groundwater monitoring zone toward the Susquehanna River.

2.1.2 April 2021 Groundwater Sampling

Groundwater samples were collected from April 8 through April 13, 2021, using EPA low-flow sampling techniques for the wells identified on Table 1-1. Laboratory analytical reporting forms are provided in Appendix A and the low-flow purge logs are provided in Appendix B.

2.1.2.1 April 2021 VOC Groundwater Sampling Results

Groundwater results from the April 2021 groundwater sampling event are provided in Table 2-2, and presented on Figures 2-2 (shallow groundwater), 2-3 (intermediate groundwater), and 2-7 (deep groundwater), respectively. Detected constituents were compared to NYSDEC Technical and Operation Guidance Series (TOGS 1.1.1) Class GA Groundwater Quality Criteria (Class GA Standard). The VOCs detected at the highest concentrations were benzene, 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE), and vinyl chloride (VC).

Total VOC results discussed below do not include acetone or methylene chloride results, as these compounds are common laboratory contaminants. Though it should be noted that, during the spring 2021 sampling, acetone was reported at concentrations greater than the Class GA Standard in the groundwater samples collected from three monitoring wells; 4009-11, 4009-15 and 4009-16. Methylene chloride was also detected at a concentration slightly greater than the respective Class GA Standard in the groundwater sample collected from one monitoring well, 4009-26.

Shallow Groundwater Zone Monitoring Wells

Three shallow groundwater zone monitoring wells were sampled in April 2021. Cis-1,2-DCE, 1,1,1-TCA, 1,1-DCE, and vinyl chloride were the only VOCs detected at concentrations greater than the respective Class GA Standard in the groundwater sample collected from monitoring well 4009-7. Cis-1,2-DCE was the only VOC concentration greater than the respective Class GA Standard in the groundwater sample from monitoring well 4009-9. The highest concentrations in the shallow zone are consistently observed in monitoring well 4009-7, which is located on the south side of Route 17, downgradient of the source area (ECO International property) (Figure 2-2 and in Table 2-2). A summary of the shallow groundwater zone results is presented below:

- **1,1,1-TCA and 1,1-DCE** were detected at concentrations greater than their Class GA Standard (5 µg/L) in the groundwater sampled from 4009-7 (7.8 µg/L and 7.1 µg/L, respectively). This is the first time that these two analytes have been detected at concentrations greater than the Class GA Standards since the RSO evaluation sampling started in 2014.
- **Vinyl Chloride** was detected at a concentration greater than its Class GA Standard (2 µg/L) in the groundwater sampled from 4009-7 (29 µg/L).
- **cis-1,2-DCE** was detected at concentrations greater than its Class GA Standard (5 µg/L) in the groundwater sampled from 4009-7 (48 µg/L) and 4009-9 (13 µg/L).

As shown on Table 2-2 and Figure 2-2, VOCs have not been detected at concentrations greater than the Class GA Standards in samples from monitoring well 4009-16A in the past three years of sampling VOC concentrations

in groundwater samples from wells 4009-7 and 4009-9 have generally been consistent the past three years of sampling, showing slight fluctuations (Figure 2-2 and Table 2-2).

Intermediate Groundwater Zone Monitoring Wells

Six intermediate groundwater zone monitoring wells were sampled in April 2021. The highest concentrations of VOCs are in the intermediate groundwater zone, downgradient of the source area (ECO International property) (Figure 2-3 and in Table 2-2). Samples collected from five of the six intermediate groundwater zone monitoring wells contained concentrations that exceeded the Class GA Standards including; 4009-8, 4009-26, 4009-27S, 4009-29S, and 4009-29I. Wells 4009-8 and 4009-26 are located on the south side of NYS Route 17, just west of the source area. Well 4009-29S is on the north side of NYS Route 17, farther downgradient of the source area where higher concentrations are typically reported for the intermediate groundwater zone.

A summary of the results in the intermediate groundwater zone wells is listed below:

- The following four VOCs were detected at concentrations greater than the Class GA Standard (5 µg/L) in five intermediate wells with groundwater concentrations ranging from:
 - **1,1,1-TCA**: 73 µg/L (4009-27S) to 1,200 µg/L (4009-29S),
 - **1,1-DCE**: 11 µg/L (4009-26) to 86 µg/L (4009-29S),
 - **Cis-1,2-DCE**: 17 µg/L (4009-27S) to 340 µg/L (4009-29S), and
 - **TCE**: 15 µg/L (4009-27S) to 390 µg/L (4009-8).
- **1,1-DCA** was detected at a concentration greater than the Class GA Standard (5 µg/L) in four intermediate wells with groundwater concentrations ranging from 43 µg/L (4009-8) to 72 µg/L (4009-29S).
- **VC** was detected at a concentration greater than the Class GA Standard (2 µg/L) in three intermediate wells with groundwater concentrations ranging from 10 µg/L (4009-26) to 91 µg/L (4009-29S).

As shown on Table 2-2 and Figure 2-3, the majority of the detected analytes in samples from monitoring well 4009-27S remain generally stable, while concentrations in 4009-29I are also generally consistent with the range of results reported in the three years of sampling, with some fluctuations. VOC groundwater concentrations in the wells immediately downgradient of the source area (4009-8, 4009-26, and 4009-29S) continue to fluctuate, with decreasing concentrations during the April 2021 event; however, the current overall data are showing increasing trends for these three monitoring wells, as shown on Figures 2-4 through 2-6. These trends will continue to be monitored during the next quarter. VOC concentrations detected in 4009-27I remain less than the Class GA Standards over the past eight events (Table 2-2).

Deep Groundwater Zone Monitoring Wells

Fourteen monitoring wells screened in the deep groundwater zone were sampled in April 2021. As noted above, one deep monitoring well, Well 1-1 was not sampled during the April 2021 sampling event. All fifteen deep wells monitor the area north of Route 17. Seven monitoring wells screened in the deep groundwater monitoring zone contained concentrations of VOCs that exceeded the Class GA Standards (Figure 2-7, Table 2-2). Of the seven monitoring wells, benzene was the only VOC exceeding a standard in two of the samples.

A summary of the results in the deep groundwater zone wells is listed below:

- **Benzene** was detected at a concentration greater than the Class GA Standard (1 µg/L) in five deep wells with groundwater concentrations ranging from 3.4 µg/L (4009-22) to 30 µg/L (4009-16).

- **1,1,1-TCA** detected at a concentration greater than the Class GA Standard (5 µg/L) in two deep wells with groundwater concentrations of 36 µg/L (4009-29D) and 300 µg/L (4009-12).
- **1,1-DCA** was detected at concentrations greater than the Class GA Standard (5 µg/L) in three deep wells with concentrations ranging from 5.3 µg/L (4009-29D) to 34 µg/L (4009-12).
- **1,1-DCE** was detected at a concentration greater than the Class GA Standard (5 µg/L) in the groundwater sampled from monitoring well 4009-12 (19 µg/L).
- **Cis 1,2 DCE** was detected at a concentration greater than the Class GA Standard (5 µg/L) in the groundwater sampled from monitoring wells 4009-12 (63 µg/L) and 4009-29D (11 µg/L).
- **Chloroethane** was detected at a concentration greater than the Class GA Standard (5 µg/L) in the groundwater sampled from monitoring well 4009-29D (6.0 µg/L).
- **TCE** was detected at a concentration greater than the Class GA Standard (5 µg/L) in the groundwater sampled from monitoring wells 4009-12 (54 µg/L) and 4009-29D (11 µg/L).
- **VC** was detected at a concentration greater than the Class GA Standard (2 µg/L) in three deep wells with groundwater concentrations ranging from 2.5 µg/L (4009-11) to 47 µg/L (4009-12).
- Groundwater samples from seven of the fourteen deep groundwater zone monitoring wells were either non-detect or had low-level detections less than their respective Class GA Standards including: 4009-13, 4009-14, 4009-18, 4009-19, 4009-27D, 4009-28, and 4009-30.

As shown in Figure 2-7 there have been no VOC groundwater concentrations exceeding the Class GA Standards in samples from monitoring wells 4009-13, 4009-18, and 4009-27D for the past four events. Total VOC concentrations were slightly higher than the most recent data at monitoring wells 4009-11 and 4009-12, and a decrease in total VOCs was noted in 4009-29D. Total VOCs detected in the remaining groundwater samples collected during the April 2021 sampling event were generally consistent with the range of results reported during the last three years.

Summary of Results

Semiannual groundwater monitoring data continue to indicate that there is little change in the shallow and deep groundwater plume distribution and migration since the shutdown of the Well 1-1A groundwater treatment plant. Although, the total VOC concentrations from the groundwater sampled at the intermediate zone monitoring wells immediately downgradient of the source area (wells 4009-8, 4009-26, and 4009-29S) were less than the 2020 concentrations, in general these three wells continue to show an overall increasing trend in VOC groundwater concentrations over the last two years (Figures 2-4 through 2-6 respectively). Total VOCs detected in the remaining groundwater samples collected during the April 2021 sampling event were generally consistent with the range of results reported during the last two years.

Benzene Concentrations in Deep Wells

Benzene has been observed in deep groundwater zone monitoring wells during sampling events over the past several years. Benzene was detected in groundwater samples from five deep groundwater zone monitoring wells in April 2021 at concentrations that exceeded the Class GA Standard of 1.0 µg/L. Exceedances were observed in groundwater samples collected from monitoring wells 4009-11 (6.7 µg/L), 4009-15 (13.0 µg/L), 4009-16 (30 µg/L), 4009-21 (4.8 µg/L), and 4009-22 (3.4 µg/L). With the exception of 4009-16, these concentrations are similar to previous sampling results (Table 2-2) and continue to fluctuate in the central portion of the study area over the

past several years in groundwater samples from four of the deep groundwater zone monitoring wells 4009-14, 4009-15, 4009-21 and 4009-30. During the past six events, benzene concentrations have been either non-detect or less than the Class GA Standard in the groundwater samples collected from 4009-12. During the April 2020 sampling event, benzene was detected in the groundwater sample collected at 4009-16 at a concentration greater than previous results. The April 2021 benzene concentration was less than the 2020 concentration, but still slightly elevated (42 and 30 µg/L, respectively). Similar concentrations have inconsistently been noted in the surrounding area and will continue to be monitored.

Benzene continues to not be detected at concentrations greater than the Class GA Standard in the samples collected from the shallow and intermediate zones during the April 2021 sampling event. This includes the three monitoring wells; 4009-7, 4009-8, and 4009-26 which were added to the first quarter 2017 sampling list in an attempt to identify the source of the benzene increases. However, benzene was not detected at concentrations greater than the Class GA Standard in the samples from those monitoring wells during the 2018 through 2021 sampling events.

Monitoring Wells in Vicinity of Town of Vestal Supply Wells

With the exception of 4009-16 as noted above, concentrations of VOCs in groundwater samples from the monitoring wells in the vicinity of the Town of Vestal's water supply wells 1-2A and 1-3 (monitoring wells 4009-16A, 4009-18, 4009-19, 4009-21, 4009-30) are generally consistent with the previous sampling events. VOCs were not detected at concentrations greater than the Class GA Standards in samples collected from monitoring wells 4009-16A, 4009-18, 4009-19, and 4009-30. Similar to previous sampling results, benzene was detected at a concentration exceeding the Class GA Standard (1.00 µg/L) in samples from wells 4009-16 (30 µg/L) and 4009-21(4.8 µg/L).

2.1.3 Town of Vestal Municipal Well Sampling

2.1.3.1 Town of vestal Municipal Well April 2021 VOC Sampling Results

Monthly analytical data are provided by the Town of Vestal Water Superintendent for Well 1-2A and 1-3. Samples were collected on January 22, February 16, March 22, April 28, May 18, June 15, 2021. Pre-treatment groundwater samples were also collected by Arcadis from the Town of Vestal water supply wells 1-2A and 1-3 on January 15, February 17, March 18, April 9, May 11, and June 23, 2021. These samples were used to supplement the Town's monthly influent sampling data and to evaluate potential impacts to the Town's water supply wells related to the shutdown of the Well 1-1A treatment plant. Samples were collected in consultation with the Town of Vestal Water District Superintendent and submitted to Eurofins-TestAmerica for analysis of VOCs by USEPA Method 8260.

Until April 2018, chlorinated VOCs had not been detected in any of the pre-treatment effluent samples collected from the Town of Vestal water supply wells 1-2A and 1-3 since the RSO evaluation has been implemented through 2017. In April 2018, 1,1,1-TCA was detected at an estimated concentration of 0.29 ug/L in Well 1-3 pre-treatment sample. The Class GA Standard for this compound is 5 µg/L. As part of the RSO contingency plan, Arcadis collected a post-treatment sample from Well 1-3 from May 2018 to June 2020. During this time, chlorinated VOCs were not detected in the post-treatment sample from Well 1-3. Per the WA, as long as there are no COC detections in Well 1-2A and 1-3, RSO contingency plan of collecting a post-treatment sample from Well

1-3 is not required. No VOCs were detected in the monthly samples for this reporting period (January through June 2021) collected by Arcadis from Well 1-2A and Well 1-3. The monthly analytical data provided by the Town of Vestal Water Superintendent for Well 1-2A and 1-3 were also non-detect during all six months of this reporting period. As approved by the NYSDEC (May 24, 2018 via email), Arcadis will continue with routine monthly sampling of the pre-treatment Well 1-2A and 1-3. A summary of the monthly analytical data is provided in Table 2-3. Laboratory analytical reporting forms are provided in Appendix B. Table 2-3 also includes the data the Town of Vestal collected during July through December 2020, when Arcadis was not conducting site activities due to the COVID-19 pandemic and the end of the previous Standby contract. There were no COC detections in these samples during this time frame.

2.1.4 April 2021 PFAS and 1,4-Dioxane Sampling

Groundwater monitoring wells and Wells 1-2A and 1-3 were analyzed for 1,4-dioxane and PFAS during the April 2021 semiannual sampling event. In August 2020, NYSDEC established a maximum contaminant level (MCL) for 1,4-dioxane of 1.0 µg/L for drinking water and in June 2021 NYSDEC updated the NYSDEC Part 375 Remedial Program guidance titled; Sampling, Analysis, and Assessment of Per-and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs to include the following MCL and screening levels for PFAS:

- Perfluorooctanesulfonic acid (PFOS) and perfluorooctanic acid (PFOA) are considered potential contaminants of concern in surface water or groundwater when detected in any water sample at or above the MCL of 10 ng/L and is attributed to the site.

Then further assessment may be warranted.

A summary of the 1,4-dioxane and PFAS results for the April 2021 groundwater sampling event are provided in Tables 2-4 and 2-5. The Laboratory analytical results were reviewed and validated by Vali-data of Western NY LLC a data validator subcontracted by Arcadis. The data validator prepared Data Usability Summary Reports (DUSR), which are provided in Appendix C. The analytical results were usable as reported or with minor qualification, with a few exceptions as discussed in the DUSRs.

2.1.4.1 April 2021 1,4-Dioxane and PFAS Groundwater Sampling Results

At the direction of the NYSDEC, groundwater samples have been analyzed for 1,4-dioxane and PFAS in June 2017 and April 2021. At the time of sampling, a guidance value/standard had not been established for 1,4-dioxane and concentrations ranged from non-detect (0.4 U µg/L) to 200 µg/L, though the majority of 1,4-dioxane concentrations were less than 1.0 µg/L.

During the April 2021 sampling event, 4009-9 was the only monitoring well in the shallow monitoring zone that contained a concentration of 1,4 dioxane (2.0 µg/L) in the groundwater sample that was above the MCL.

The following intermediate zone monitoring wells were reported with a concentration of 1,4-dioxane slightly above the MCL in the groundwater samples for 2021:

- 4009-8 (2.0 µg/L)
- 4009-26 (2.9 µg/L)
- 4009-29S (6.0 µg/L), and

- 4009-29I (2.5 µg/L)

The following deep zone monitoring wells were reported with a concentration of 1,4-dioxane greater than the MCL in the groundwater samples for 2021:

- 4009-11 (4.1 µg/L)
- 4009-12 (2.9 µg/L), and
- 4009-29D (150 µg/L)

In general 1,4-dioxane concentrations of 2021 are consistent with the 2017 reported concentrations, as shown on Table 2-4.

In 2017 the recommended standard to use for PFAS was the U.S. EPA Health Advisory Limit (HAL) for drinking water of 70 nanograms per liter (ng/L). During the June 2017 sampling event there were no detections of PFAS at concentrations greater than 70 ng/L in the shallow, intermediate, or deep groundwater monitoring wells. Five locations were non-detect (2.0 U ng/L) for all analyzed PFAS and the remaining 22 locations ranged in concentrations from non-detect to 15.5 ng/L.

In 2021, there were no detections greater than the newly established June 2021 MCL and screening levels for PFAS in the shallow zone. PFOS was the only analyte detected in the intermediate zone at a concentration slightly greater than the MCL in monitoring well 4009-8 (13 ng/L). In 2021, PFOA was detected in the deep monitoring zone at concentrations equal to and slightly greater than the MCL in groundwater samples collected from wells 4009-15 (11 ng/L) and 4009-27D (10 ng/L). In 2021, the total PFAS ranged from non-detect to 61 ng/L (4009-7).

Groundwater results from the June 2017 and April 2021 sampling events are provided in Table 2-4. As shown on Table 2-4, the 2021 PFAS concentrations are generally consistent with the 2017 concentrations. The next sampling event for 1,4-dioxane and PFAS is scheduled for the spring of 2022.

2.1.4.2 Town of Vestal Municipal Well April 2021 1,4-Dioxane and PFAS Sampling Results

Per the instructions of the NYSDEC project manager in June 2017, Wells 1-2A and 1-3 were analyzed for 1,4-dioxane and PFAS and in October 2019 pre- and post-treatment samples were collected from Wells 1-2A and 1-3 and analyzed for 1,4-dioxane and PFAS. Under the new Standby contract, in April 2021 Wells 1-2A and 1-3 pre-treatment samples were analyzed for 1,4-dioxane and PFAS as part of the semiannual sampling event.

1,4-Dioxane has not been detected in Well 1-3 during any of the sampling events in 2017, 2019, or 2021. 1,4-Dioxane was detected at a low concentration below the MCL in Well 1-2A in 2021 (0.63 µg/L), which is consistent with the previous pre-treatment concentration of 0.39 µg/L and 0.72 µg/L in 2017 and 2019 respectively.

Consistent with the June 2017 and the October 2019 sampling events, concentrations of PFAS were not detected in the sample collected from pre-treatment Well 1-2A. Several PFAS analytes have been detected in the sample collected from the Well 1-3 pre-treatment sample during the June 2017 and October 2019 (pre- & post-treatment samples) sampling events, but concentrations were all less than the current U.S. EPA HAL of 10 ng/L for PFOS and PFOA. Neither PFOA nor PFOS were detected in the pre-treatment sample collected from Well 1-3A during the April 2021 sampling event. Several other PFAS analytes were detected at low concentrations in the pre-treatment sample collected from Well 1-3A for a total PFAS of 6.85 ng/L.

The town of Vestal results from the 2017, 2019 and April 2021 sampling events are provided in Table 2-5. As shown on Table 2-5, the 2021 PFAS concentrations are generally consistent with the previous concentrations. The next sampling event for 1,4-dioxane and PFAS is scheduled for the spring of 2022.

3 Recommendations

Based on the data presented herein, Arcadis recommends the following:

1. Town of Vestal Wells 1-2A and 1-3 (pre-treatment) should continue to be sampled for VOCs on a monthly basis to supplement the Town's sampling program at least until the final remedy for the source area (ECO International property) is implemented.
2. Semiannual sampling should continue while Well 1-1A treatment plant is shut down. With the exception of Well 1-1, the revised sample list will remain in place during the next sampling event, Fall of 2021. The building where Well 1-1 is located has been deemed unsafe and is no longer accessible. The location of Well 1-1 is not critical in monitoring the groundwater plume distribution and migration, and the monitoring wells in the vicinity of Well 1-1 will continue to be sampled. As noted herein, the sampling schedule may be revised once the final remedy for the source area is implemented.

4 July through December 2021 Scheduled Activities

Scheduled activities for the next semiannual period are summarized below.

- Monthly sampling at Town of Vestal Wells 1-2A and 1-3 (pre-treatment).
- Semiannual groundwater sampling (September/October 2021).

Tables

Table 1-1**Summary of the Groundwater Monitoring Locations****Semi-Annual Remedial System Optimization Report - January - June 2021****Vestal Water Supply Site****Vestal, New York (Site Number 7-04-009A)**

Well I.D.	2021 Semiannual Monitoring Locations
4009-7	X
4009-8	X
4009-9	X
4009-11	X
4009-12	X
4009-13	X
4009-14	X
4009-15	X
4009-16	X
4009-16A	X
4009-18	X
4009-19	X
4009-21	X
4009-22	X
4009-26	X
4009-27S	X
4009-27I	X
4009-27D	X
4009-28	X
4009-29S	X
4009-29I	X
4009-29D	X
4009-30	X
WELL 1-1	*

Notes:

* - Well 1-1 was not sampled during the 1st Semiannual 2021 sampling event due to the well having a bend in the PVC that prevented the tubing from reaching the water table.

Table 2-1
Summary of Groundwater Elevation Data
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



WELL I.D.	Top of Riser (ft AMSL)	3/16/2018			5/31/2018			9/13/2018			12/5/2018		
		DTW (fbgs)	DTP (fbgs)	GW ELEV (famsl)	DTW (fbgs)	DTP (fbgs)	GW ELEV (famsl)	DTW (fbgs)	DTP (fbgs)	GW ELEV (famsl)	DTW (fbgs)	DTP (fbgs)	GW ELEV (famsl)
4009-7	824.27	17.27	NP	807.00	17.64	NP	806.63	17.07	NP	807.20	12.07	NP	812.20
4009-8	824.52	16.81	NP	807.71	18.36	NP	806.16	17.78	NP	806.74	12.39	NP	812.13
4009-9	825.05	18.09	NP	806.96	19.57	NP	805.48	19.23	NP	805.82	13.05	NP	812.00
4009-10	831.31	26.41	NP	804.90	25.65	NP	805.66	25.48	NP	805.83	19.33	NP	811.98
4009-11	830.06	24.55	NP	805.51	26.65	NP	803.41	24.39	NP	805.67	18.79	NP	811.27
4009-11A	830.80	13.91	NP	816.89	14.54	NP	816.26	13.58	NP	817.22	11.82	NP	818.98
4009-12	823.34	17.23	NP	806.11	18.57	NP	804.77	16.95	NP	806.39	11.37	NP	811.97
4009-13	816.28	8.86	NP	807.42	11.44	NP	804.84	9.75	NP	806.53	4.24	NP	812.04
4009-13A	816.17	9.24	NP	806.93	10.74	NP	805.43	9.44	NP	806.73	4.14	NP	812.03
4009-14	820.71	14.51	NP	806.20	16.87	NP	803.84	14.19	NP	806.52	8.60	NP	812.11
4009-15	826.54	20.49	NP	806.05	22.08	NP	804.46	20.21	NP	806.33	14.54	NP	812.00
4009-16	826.72	20.72	NP	806.00	22.23	NP	804.49	20.41	NP	806.31	14.73	NP	811.99
4009-16A	826.84	20.84	NP	806.00	21.81	NP	805.03	20.24	NP	806.60	14.80	NP	812.04
4009-18	834.78	28.89	NP	805.89	30.27	NP	804.51	28.53	NP	806.25	22.44	NP	812.34
4009-19	824.94	19.05	NP	805.89	20.43	NP	804.51	18.79	NP	806.15	13.05	NP	811.89
4009-21	825.02 **	19.53	NP	805.49	20.63	NP	804.39	20.58	NP	804.44	13.24	NP	811.78
4009-22	817.40	9.93	NP	807.47	10.51	NP	806.89	9.70	NP	807.70	6.10	NP	811.30
4009-26	824.31	16.60	NP	807.71	18.09	NP	806.22	17.39	NP	806.92	12.13	NP	812.18
4009-27S	826.19	19.46	NP	806.73	20.98	NP	805.21	19.54	NP	806.65	14.18	NP	812.01
4009-27I	826.03	19.47	NP	806.56	20.96	NP	805.07	19.48	NP	806.55	14.05	NP	811.98
4009-27D	825.87	19.26	NP	806.61	20.81	NP	805.06	19.30	NP	806.57	13.92	NP	811.95
4009-28	821.59	15.56	NP	806.03	17.16	NP	804.43	15.83	NP	805.76	9.45	NP	812.14
4009-29S	825.77	19.32	NP	806.45	20.83	NP	804.94	19.28	NP	806.49	13.79	NP	811.98
4009-29I	825.68	19.29	NP	806.39	21.04	NP	804.64	19.30	NP	806.38	13.71	NP	811.97
4009-29D	825.67	19.46	NP	806.21	21.01	NP	804.66	19.26	NP	806.41	13.71	NP	811.96
4009-30	827.50 **	21.56	NP	805.94	30.02	NP	797.48	21.15	NP	806.35	15.43	NP	812.07
4009-30A	826.69 **	20.73	NP	805.96	22.16	NP	804.53	20.29	NP	806.40	14.76	NP	811.93

Table 2-1
Summary of Groundwater Elevation Data
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



WELL I.D.	Top of Riser (ft AMSL)	3/25/2019			9/26/2019			3/16/2020			4/7/2021		
		DTW (fbgs)	DTP (fbgs)	GW ELEV (famsl)	DTW (fbgs)	DTP (fbgs)	GW ELEV (famsl)	DTW (fbgs)	DTP (fbgs)	GW ELEV (famsl)	DTW (fbgs)	DTP (fbgs)	GW ELEV (famsl)
4009-7	824.27	19.14	NP	805.13	20.89	NP	803.38	15.28	NP	808.99	16.24	NP	808.03
4009-8	824.52	18.91	NP	805.61	21.80	NP	802.72	15.77	NP	808.75	16.84	NP	807.68
4009-9	825.05	19.41	NP	805.64	22.90	NP	802.15	16.70	NP	808.35	18.08	NP	806.97
4009-10	831.31	25.96	NP	805.35	NM	NM	NM	NM	NM	NM	NM	NM	NM
4009-11	830.06	26.17	NP	803.89	29.23	NP	800.83	23.05	NP	807.01	24.81	NP	805.25
4009-11A	830.80	14.43	NP	816.37	NM	NM	NM	NM	NM	NM	NM	NM	NM
4009-12	823.34	18.55	NP	804.79	21.88	NP	801.46	15.84	NP	807.50	17.24	NP	806.10
4009-13	816.28	11.58	NP	804.70	14.43	NP	801.85	8.73	NP	807.55	10.02	NP	806.26
4009-13A	816.17	11.08	NP	805.09	NM	NM	NM	NM	NM	NM	NM	NM	NM
4009-14	820.71	16.06	NP	804.65	18.96	NP	801.75	13.19	NP	807.52	14.53	NP	806.18
4009-15	826.54	22.24	NP	804.30	25.01	NP	801.53	19.19	NP	807.35	20.75	NP	805.79
4009-16	826.72	22.29	NP	804.43	25.20	NP	801.52	19.47	NP	807.25	20.94	NP	805.78
4009-16A	826.84	22.05	NP	804.79	25.13	NP	801.71	19.57	NP	807.27	20.91	NP	805.93
4009-18	834.78	30.21	NP	804.57	33.42	NP	801.36	27.78	NP	807.00	28.98	NP	805.80
4009-19	824.94	20.42	NP	804.52	23.83	NP	801.11	17.85	NP	807.09	19.20	NP	805.74
4009-21	825.02 **	20.64	NP	804.38	25.03	NP	799.99	18.19	NP	806.83	19.41	NP	805.61
4009-22	817.40	8.70	NP	808.70	10.39	NP	807.01	8.81	NP	808.59	9.48	NP	807.92
4009-26	824.31	18.64	NP	805.67	21.52	NP	802.79	15.43	NP	808.88	16.68	NP	807.63
4009-27S	826.19	21.22	NP	804.97	24.29	NP	801.90	18.14	NP	808.05	19.60	NP	806.59
4009-27I	826.03	21.14	NP	804.89	24.12	NP	801.91	18.11	NP	807.92	19.60	NP	806.43
4009-27D	825.87	20.98	NP	804.89	23.95	NP	801.92	17.98	NP	807.89	19.42	NP	806.45
4009-28	821.59	17.16	NP	804.43	20.12	NP	801.47	14.19	NP	807.40	15.81	NP	805.78
4009-29S	825.77	20.97	NP	804.80	23.99	NP	801.78	17.94	NP	807.83	19.52	NP	806.25
4009-29I	825.68	21.10	NP	804.58	24.15	NP	801.53	18.23	NP	807.45	19.64	NP	806.04
4009-29D	825.67	21.08	NP	804.59	24.14	NP	801.53	18.11	NP	807.56	19.66	NP	806.01
4009-30	827.50 **	23.05	NP	804.45	26.21	NP	801.29	20.51	NP	806.99	21.88	NP	805.62
4009-30A	826.69 **	22.12	NP	804.57	NM	NM	NM	NM	NM	NM	26.53	NP	800.16

Notes:
fbgs - feet below ground surface
famsl - feet above mean sea level
* - Elevation data from Conceptual Site Model (Lockheed Martin, 2012).
** - Elevation data remeasured on 4/1/15 after well repairs
NM - Not measured
NP - No product / LNAPL
Starting in 2018, only wells that are sampled will be gauged.

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-7 3/30/2018 Shallow ug/L	4009-7 6/14/2018 Shallow ug/L	4009-7 9/27/2018 Shallow ug/L	4009-7 12/19/2018 Shallow ug/L	4009-7 3/25/2019 Shallow ug/L	4009-7 10/10/2019 Shallow ug/L	4009-7 4/6/2020 Shallow ug/L	4009-7 4/13/2021 Shallow ug/L	4009-8 3/30/2018 Intermediate ug/L	4009-8 6/14/2018 Intermediate ug/L	4009-8 9/27/2018 Intermediate ug/L	4009-8 12/19/2018 Intermediate ug/L	4009-8 3/25/2019 Intermediate ug/L	4009-8 10/10/2019 Intermediate ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.8	1100	800	3700	2000	4100	3300
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 J	40 U	6.7	40 U	40 U	19 J	80 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,1-Dichloroethane	5	0.47 J	0.59 J	0.62 J	0.47 J	0.43 J	0.56 J	0.38 J	7.10	51	44	150	96	130	92
1,1-Dichloroethene	5	1.0 U	0.41 J	0.53 J	1.0 U	1.0 U	0.52 J	1.0 U	1.6	47	34	160	110	120	210
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
2-Hexanone	50*	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	200 U	10 U'	200 U	200 U	200 U	400 U
Acetone	50*	10 U	5.0 U	4.0 J	10 U	4.1 J	6.1 J	3.7 J	3.7 J	400 U	10 U	400 U	400 U	400 U	800 U
Benzene	1	1.0 U	1.0 U	0.45 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	40 U	2.0 U	40 U	40 U	40 U	80 U
Carbon disulfide		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	40 U	2.0 U	40 U	40 U	40 U	80 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	40 U	2.0 U	40 U	40 U	40 U	80 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	5.2	40 U	40 U	40 U	80 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	0.66 J	40 U	40 U	40 U	80 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	40 U	2.0 U	40 U	40 U	40 U	80 U
cis-1,2-Dichloroethene	5	26	38	55	36	23	31	14	48	490	320	910	700	950	670
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Methyl Acetate		2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	100 U	10 U	100 U	100 U	100 U	200 U
2-Butanone (MEK)	50	10 U'	5.0 U	10 U	10 U	10 U'	10 U	10 U	10 U*+	400 U'	10 U	400 U	400 U	400 U'	800 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	200 U	10 U'	200 U	200 U	200 U	400 U
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	1.6 J	40 U	40 U	40 U	80 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
trans-1,2-Dichloroethene	5	1.0 U	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	1.2 J	40 U	40 U	40 U	80 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Trichloroethene	5	1.0 U	0.72 J	0.97 J	1.0 U	1.0 U	1.0 U	1.0 U	2.1	300	190	580	330	95	990
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	2.0 U	40 U	40 U	40 U	80 U
Vinyl chloride	2	1.0 U	5.6	7.5	6.2	0.9 J	5.7	1.0 U	29 *1	40 U	11	40 U	40 U	40 U	80 U
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	80 U	4.0 U	80 U	80 U	80 U	160 U
Total VOCs		26.5	45.6	69.1	42.7	28.4	43.9	18.1	99.9	1988	1414	5500	3236	5414	5262
Total VOCs (w/o Acteone or Methlyene Chloride)		26.5	45.6	65.1	42.7	24.3	43.9	14.4	96.2	1988	1414	5500	3236	5414	5262

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-8 4/6/2020 Intermediate ug/L	4009-8 4/13/2021 Intermediate ug/L	4009-9 3/30/2018 Shallow ug/L	4009-9 6/14/2018 Shallow ug/L	4009-9 9/27/2018 Shallow ug/L	4009-9 12/19/2018 Shallow ug/L	4009-9 3/25/2019 Shallow ug/L	4009-9 10/10/2019 Shallow ug/L	4009-9 4/6/2020 Shallow ug/L	4009-9 4/13/2021 Shallow ug/L	4009-10 3/30/2018 Shallow ug/L	4009-10 6/14/2018 Shallow ug/L	4009-10 9/27/2018 Shallow ug/L	4009-10 12/19/2018 Shallow ug/L	4009-10 3/25/2019 Shallow ug/L
1,1,1-Trichloroethane	5	1500	560	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.31 J	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		50 U	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	57	43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	95	32	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trimethylbenzene		50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50*	250 U	40 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U
Acetone	50*	500 U	80 U	10 U	5.0 U	3.6 J	5.2 J	10 U	10 U	3.7 J	10.0 U	10 U	5.0 U	3.1 J	4.8 J	3.5 J
Benzene	1	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.51 J	0.61 J	0.60 J
Bromodichloromethane	50*	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50*	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	50 U	8.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide		50 U	8.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	50 U	8.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	50 U	5.0 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.43 J	1.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		50 U	8.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	510	200	2.6	8.2	13	1.6	5.6	21	5.6	13.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane		50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate		130 U	20 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U
2-Butanone (MEK)	50	500 U	80 U*+	10 U'	5.0 U	10 U	10 U	10 U'	10 U	1.0 U	10.0 U*+	10 U'	5.0 U	10 U	10 U	10 U'
4-Methyl-2-pentanone (MIBK)		250 U	40 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U
Methyl Cyclohexane		50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	390	390	1.0 U	0.32 J	0.73 J	1.0 U	0.5 J	1.0 U	0.68 J	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	50 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	50 U	8.0 U*1	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total		100 U	16 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		2552.0	1240	2.60	8.77	17.33	6.80	6.09	21.0	10.41	15.4	0.00	0.31	3.61	5.41	4.10
Total VOCs (w/o Acteone or Methlyene Chloride)		2552.0	1240	2.60	8.77	13.73	1.60	6.09	21.0	6.71	15.4	0.00	0.31	0.51	0.61	0.60

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-11 3/30/2018 Deep ug/L	4009-11 6/14/2018 Deep ug/L	4009-11 9/27/2018 Deep ug/L	4009-11 12/19/2018 Deep ug/L	4009-11 3/25/2019 Deep ug/L	4009-11 10/10/2019 Deep ug/L	4009-11 4/6/2020 Deep ug/L	4009-11 4/14/2021 Deep ug/L	4009-11A 3/30/2018 Shallow ug/L	4009-11A 6/14/2018 Shallow ug/L	4009-11A 9/27/2018 Shallow ug/L	4009-11A 12/19/2018 Shallow ug/L	4009-11A 3/25/2019 Shallow ug/L	4009-12 3/30/2018 Deep ug/L
1,1,1-Trichloroethane	5	88	68	1.0 U	170	71	51	160	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	45
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.2	1.0 U	1.6	2.0 U	1.0 U	3.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	24	21	7.0	49	30	15	49	8.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13
1,1-Dichloroethene	5	7.2	6.4	1.0 U	17	5.5	5.5	19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50*	5.0 U	5.0 U'	5.0 U	5.0 U	10 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	10 U	5.0 U	10 U	10 U	8.4 J	10 U	6.3 J	160	10 U	5.0 U	5.0 J	5.9 J	3.4 J	10 U
Benzene	1	1.0 U	1.0 U	8.9	1.0 U	2.0 U	1.0 U	2.0 U	6.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide		1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	1.3	1.2	1.0 U	1.7	1.0 J	1.0 U	1.7 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.88 J
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	23	20	1.3	48	19	16	52	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	15
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate		2.5 U	5.0 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Butanone (MEK)	50	10 U'	5.0 U	10 U	10 U	20 U'	10 U	20 U	6.2 J	10 U'	5.0 U	10 U	10 U	10 U'	10 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U'	5.0 U	5.0 U	10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	0.52 J	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.6	1.1	1.0 U	4.7	2.5	2.2	7.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	14
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	17	19	1.7	38	18	11	40	2.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	38
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		162	138	19.4	330	155	101	338.9	345.1	0.00	0.00	5.00	5.90	3.40	133
Total VOCs (w/o Acteone or Methlyene Chloride)		162	138	19.4	330	147	101	332.6	185.1	0.00	0.00	0.00	0.00	0.00	133

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-12 6/14/2018 Deep ug/L	4009-12 9/27/2018 Deep ug/L	4009-12 12/19/2018 Deep ug/L	4009-12 3/25/2019 Deep ug/L	4009-12 10/10/2019 Deep ug/L	DUP-1 10/10/2019 Deep ug/L	4009-12 4/6/2020 Deep ug/L	DUP-1 4/6/2020 Deep ug/L	4009-12 4/8/2021 Deep ug/L	4009-13 3/30/2018 Deep ug/L	4009-13 6/14/2018 Deep ug/L	4009-13 9/27/2018 Deep ug/L	4009-13 12/19/2018 Deep ug/L	4009-13 3/25/2019 Deep ug/L
1,1,1-Trichloroethane	5	1.0 U	95	80	280	1.0 U	1.0 U	230	280 D	300 F1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	0.76 J	4.8	1.0 U	1.0 U	4.0 U	3.5	4.7 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	0.3 J	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	6.2	11	12	50	0.64 J	0.73 J	46	49	34	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	0.54 J	6.9	3.9	15	1.0 U	1.0 U	9.6	8.4	19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50*	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	25 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U
Acetone	50*	5.0 U	4.4 J	5.2 J	3.0 J	3.6 J	10 U	40 U	10 U	50 U	10 U	5.0 U	3.0 J	5.2 J	10 U
Benzene	1	1.7	0.73 J	1.0 U	0.4 J	1.0 U	1.0 U	4.0 U	0.49 J	5.0 U	1.0 U	1.0 U	0.44 J	0.76 J	0.57 J
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	1.0 U	0.68 J	0.32 J	5.0	1.0 U	1.0 U	3.8 J	6.6	3.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	2.0	25	14	55	1.0 U	1.0 U	22	23	63	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U'	1.0 U	1.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate		5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U	13 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U
2-Butanone (MEK)	50	5.0 U	10 U	10 U	10 U'	10 U	10 U	40 U	10 U	50 U*+F1	10 U'	5.0 U	10 U	10 U	10 U'
4-Methyl-2-pentanone (MIBK)		5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	25 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.6	25	13	51	1.0 U	1.0 U	23	23	54	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	2.6	26	34	81	1.0 U	1.0 U	80	89	47	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		14.6	195	163	546	4.24	0.73	414.4	483.0	521.7	0.00	0.00	3.44	5.96	0.57
Total VOCs (w/o Acteone or Methlyene Chloride)		14.6	190	158	543	0.64	0.73	414.4	483.0	521.7	0.00	0.00	0.44	0.76	0.57

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-14 4/12/2021 Deep ug/L	4009-15 3/30/2018 Deep ug/L	4009-15 6/14/2018 Deep ug/L	4009-15 9/27/2018 Deep ug/L	4009-15 12/19/2018 Deep ug/L	4009-15 3/25/2019 Deep ug/L	4009-15 10/10/2019 Deep ug/L	4009-15 4/6/2020 Deep ug/L	4009-15 4/9/2021 Deep ug/L	4009-16 3/30/2018*** Deep ug/L	4009-16 6/14/2018 Deep ug/L	4009-16 9/27/2018 Deep ug/L	4009-16 12/19/2018 Deep ug/L	4009-16 3/25/2019 Deep ug/L	4009-16 10/10/2019 Deep ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	40.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	10 U	4.4 J	5.0 U	7.3 J	5.6 J	6.9 J	4.9 J	8.3 J	190.0	10 U	5.0 U	3.1 J	10 U	3.0 J	10 U
Benzene	1	1.0 U	9.3	9.0	7.3	8.7	8.8	9.2	9.0	13.0	1.1	5.7	1.5	7.3	2.1	4.2
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide		1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate		2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 UT	2.5 U	20 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 UT
2-Butanone (MEK)	50	10 U*+	10 U	5.0 U	10 U	10 U	10 U'	10 U	10 U	80 U*+	10 U	5.0 U	10 U	10 U	10 U'	10 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 UT	5.0 U	40 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 UT
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	16.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		0.0	13.7	9.00	14.6	14.3	15.7	14.1	17.3	203.0	1.10	5.70	4.60	7.30	5.10	4.20
Total VOCs (w/o Acteone or Methlyene Chloride)		0.0	9.30	9.00	7.30	8.70	8.80	9.20	9	13	1.10	5.70	1.50	7.30	2.10	4.20

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-18 10/10/2019 Deep ug/L	4009-18 4/6/2020 Deep ug/L	4009-18 4/9/2021 Deep ug/L	4009-19 3/30/2018 Deep ug/L	4009-19 6/14/2018 Deep ug/L	4009-19 9/27/2018 Deep ug/L	4009-19 12/19/2018 Deep ug/L	4009-19 3/25/2019 Deep ug/L	4009-19 10/10/2019 Deep ug/L	4009-19 4/6/2020 Deep ug/L	4009-19 4/9/2021 Deep ug/L	DUP-2 4/9/2021 Deep ug/L	4009-21 3/30/2018 Deep ug/L	4009-21 6/14/2018 Deep ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	0.44 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'
Acetone	50*	3.3 J	10.0 U	10.0 U	10 U	5.0 U	10 U	10 U	10 U	4.4 J	10 U	10 U	10 U	10 U	5.0 U
Benzene	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	0.50 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	17	11
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide		1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate		2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U
2-Butanone (MEK)	50	10 UT	10 U	10 U*+	10 U	5.0 U	10 U	10 U	10 U'	10 UT	10 U	10 U*+	10 U*+	10 U	5.0 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 UT	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		3.30	0.00	0.44	0.00	0.26	1.50	0.50	0.00	4.40	0.00	0.00	0.00	17.0	11.0
Total VOCs (w/o Acteone or Methlyene Chloride)		0.00	0.00	0.44	0.00	0.26	1.50	0.50	0.00	0.00	0.00	0.00	0.00	17.0	11.0

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-21 9/27/2018 Deep ug/L	4009-21 12/19/2018 Deep ug/L	4009-21 3/25/2019 Deep ug/L	4009-21 10/10/2019 Deep ug/L	4009-21 4/6/2020 Deep ug/L	4009-21 4/9/2021 Deep ug/L	4009-22 3/30/2018 Deep ug/L	4009-22 6/14/2018 Deep ug/L	4009-22 9/27/2018 Deep ug/L	4009-22 12/19/2018 Deep ug/L	4009-22 3/25/2019 Deep ug/L	4009-22 10/10/2019 Deep ug/L	4009-22 5/15/2020 Deep ug/L	4009-22 4/12/2021 Deep ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	1.5 J	10.0 U
Acetone	50*	10 U	10 U	10 U	5.3 J	10.0 U	10.0 U	10 U	5.0 U	3.4 J	10 U	3.5 J	3.2 J	10 U	13 J
Benzene	1	5.3	11	7.3	3.7	7.7	4.8	1.2	0.96 J	1.2	0.96 J	1.1	1.2	0.97 J	3.4
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U*1
Carbon disulfide		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U*1
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U*1
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U*1
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Dibromochloromethane	50	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Methyl Acetate		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U
2-Butanone (MEK)	50	10 U	10 U	10 U'	10 U	10 U	10 U*+	10 U	5.0 U	10 U	10 U	10 U'	10 U	10 U'	20 U*+
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.72 J	0.55 J	0.65 J	1.0 U	0.66 J	0.67 J	1.0 U	2.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U*1
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Total VOCs		5.30	11.0	7.30	9.00	7.70	4.80	1.92	1.51	5.25	0.96	5.26	5.07	2.47	16.40
Total VOCs (w/o Acteone or Methlyene Chloride)		5.30	11.0	7.30	3.70	7.70	4.80	1.92	1.51	1.85	0.96	1.76	1.87	2.47	3.40

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-26 3/30/2018 Intermediate ug/L	4009-26 6/14/2018 Intermediate ug/L	4009-26 9/27/2018 Intermediate ug/L	4009-26 12/19/2018 Intermediate ug/L	4009-26 3/25/2019 Intermediate ug/L	4009-26 10/10/2019 Intermediate ug/L	4009-26 4/6/2020 Intermediate ug/L	4009-26 4/13/2021 Intermediate ug/L	4009-27S 3/30/2018 Intermediate ug/L	4009-27S 6/14/2018 Intermediate ug/L	4009-27S 9/27/2018 Intermediate ug/L	4009-27S 12/19/2018 Intermediate ug/L	4009-27S 3/25/2019 Intermediate ug/L	4009-27S 10/10/2019 Intermediate ug/L
1,1,1-Trichloroethane	5	290	280	350	530	2300	350	880	210	52	43	47	43	52	60
1,1,2,2-Tetrachloroethane	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		8.8	8.4	11	12	22	14	21	10	2.4	2.6	1.5 J	2.3	2.8	2.6
1,1,2-Trichloroethane	1	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	35	32	42	45	79	20	69	44	2.2	1.9	2.2	1.9	2.1	2.4
1,1-Dichloroethene	5	8.5	8.7	17	16	66	16	50	11	4.4	4.1	4.5	4.2	4.1	4.8
1,2,3-Trimethylbenzene		2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50*	10 U	5.0 U'	25 U	25 U	50 U	50 U	50 U	25 U	10 U	5.0 U'	10 U	5.0 U	5.0 U	5.0 U
Acetone	50*	20 U	5.0 U	50 U	50 U	100 U	100 U	100 U	50 U	20 U	5.0 U	20 U	6.3 J	3.0 J	10 U
Benzene	1	2.0 U	0.53 J	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50*	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50*	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide		2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	0.91 J	2.3	2.0 J	5.0 U	5.1 J	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 UT	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 UT
cis-1,2-Dichloroethene	5	120	110	170	190	360	100	300	150	21	18	21	18	19	21
cis-1,3-Dichloropropene	0.4**	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane		2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U'	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 UT	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 UT
Ethylbenzene	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate		5.0 U	5.0 U	13 U	13 U	25 U	25 UT	25 U	13 U	5.0 U	5.0 U	5.0 U	2.5 U	2.5 U	2.5 UT
2-Butanone (MEK)	50	20 U'	5.0 U	50 U	50 U	10 U'	100 U	100 U	25 UF1	20 U	5.0 U	20 U	10 U	10 U'	10 U
4-Methyl-2-pentanone (MIBK)		10 U	5.0 U'	25 U	25 U	50 U	50 UT	50 U	25 U	10 U	5.0 U'	10 U	5.0 U	5.0 U	5.0 UT
Methyl Cyclohexane		2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	7.0	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.3 J'	1.2	5.0 U	1.8 J	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	2.0 U	0.74 J	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	88	65	140	120	400	140	230	150	26	20	25	21	20	20
Trichlorofluoromethane	5	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	9.9	8.1	13	13	15	10 U	14	10	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total		4.0 U	2.0 U	10 U	10 U	20 U	20 U	20 U	10 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		562	517	745	928	3247	640	1564	592	108	89.6	101	96.7	103	111
Total VOCs (w/o Acteone or Methlyene Chloride)		562	517	745	928	3247	640	1564	585	108	89.6	101	90.4	100	111

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-27S 4/6/2020 Intermediate ug/L	4009-27S 4/8/2021 Intermediate ug/L	4009-27I 3/30/2018 Intermediate ug/L	4009-27I 6/14/2018 Intermediate ug/L	4009-27I 9/27/2018 Intermediate ug/L	4009-27I 12/19/2018 Intermediate ug/L	4009-27I 3/25/2019 Intermediate ug/L	4009-27I 10/10/2019 Intermediate ug/L	4009-27I 4/6/2020 Intermediate ug/L	4009-27I 4/8/2021 Intermediate ug/L	4009-27D 3/30/2018 Deep ug/L	4009-27D 6/14/2018 Deep ug/L	4009-27D 9/27/2018 Deep ug/L	4009-27D 12/19/2018 Deep ug/L
1,1,1-Trichloroethane	5	54	73 *1	1.0 U	0.61 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		2.2	2.2	1.0 U	0.42 J	1.0 U	1.0 U	0.44 J	1.0 U	1.0 U	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	2.4	2.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	5.5	4.5 *1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50*	5.0 U	10.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U
Acetone	50*	10 U	20 U	10 U	5.0 U	4.6 J	10 U	10 U	3.5 J	10.0 U	10.0 U	10 U	5.0 U	3.6 J	5.0 J
Benzene	1	1.0 U	2.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50*	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50*	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide		1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	1.0 U	2.0 U*1	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	1.0 U	2.0 U*	1.0 U*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	19	17	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane		1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U'	1.0 U
Dichlorodifluoromethane	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate		2.5 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U
2-Butanone (MEK)	50	50 U	20 U	10 U*+	5.0 U	10 U	10 U	10 U'	10 UT	10 U	10 U	10 U	5.0 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		5.0 U	10.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U
Methyl Cyclohexane		1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 U	2.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	17	15	1.6	1.4	1.7	2.2	1.9	0.80 J	2.5	2.2	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	1.0 U	2.0 *1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total		2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		100	117	1.60	2.43	6.30	2.20	2.34	4.30	2.50	2.52	0.00	0.00	3.60	5.00
Total VOCs (w/o Acteone or Methlyene Chloride)		100	117	1.60	2.43	1.70	2.20	2.34	0.80	2.50	2.52	0.00	0.00	0.00	0.00

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-27D 3/25/2019 Deep ug/L	4009-27D 10/10/2019 Deep ug/L	4009-27D 4/6/2020 Deep ug/L	4009-27D 4/8/2021 Deep ug/L	4009-28 3/30/2018 Deep ug/L	4009-28 6/14/2018 Deep ug/L	4009-28 9/27/2018 Deep ug/L	4009-28 12/19/2018 Deep ug/L	4009-28 3/25/2019 Deep ug/L	4009-28 10/10/2019 Deep ug/L	4009-28 4/6/2020 Deep ug/L	4009-28 4/8/2021 Deep ug/L	DUP-1 4/8/2021 Deep ug/L	4009-29S 3/30/2018 Intermediate ug/L	4009-29S 6/14/2018 Intermediate ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U*1	2.9	2.5	3.2	2.5	3.4	1.0 U	2.7	1.0 U*1	1.0 U*1	650	420
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.8 J	4.3
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	97	58
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	51	37
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	10 U'
Acetone	50*	10 U	3.7 J	10.0 U	10.0 U	10 U	5.0 U	3.6 J	10 U	10 U	10 U	10 U	5.0 J	4.0 J	100 U	10 U
Benzene	1	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	0.61 J	1.0 U	1.0 U	1.0 U	2.4	1.0 U	0.93 J*1	0.96 J*1	10 U	2.0 U
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Carbon disulfide		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U*1	10 U	2.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U*-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*-	1.0 U*-	10 U	2.0
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.41 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	350	260
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Methyl Acetate		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	10 U
2-Butanone (MEK)	50	10 U'	10 UT	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U'	10 UT	10 U	10 U*+	10 U*+	100 U	10 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	5.0 U	10.0 U*+	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	10 U'
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	0.26 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Tetrachloroethene	5	1.0 U	1.0 UT	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	10 U	2.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	0.78 J
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	48	19
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U*1	120	74
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	4.0 U
Total VOCs		0.00	3.70	0.00	0.26	2.90	3.52	6.80	2.50	3.40	3.76	2.70	5.93	4.96	1322	875
Total VOCs (w/o Acteone or Methlyene Chloride)		0.00	0.00	0.00	0.26	2.90	3.52	3.20	2.50	3.40	3.76	2.70	0.93	0.96	1322	875

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-29S 9/27/2018 Intermediate ug/L	4009-29S 12/19/2018 Intermediate ug/L	4009-29S 3/25/2019 Intermediate ug/L	4009-29S 10/10/2019 Intermediate ug/L	4009-29S 4/6/2020 Intermediate ug/L	4009-29S 4/8/2021 Intermediate ug/L	4009-29I 3/30/2018 Intermediate ug/L	4009-29I 6/14/2018 Intermediate ug/L	4009-29I 9/27/2018 Intermediate ug/L	4009-29I 12/19/2018 Intermediate ug/L	4009-29I 3/25/2019 Intermediate ug/L	DUP-2 3/25/2019 Intermediate ug/L	4009-29I 10/10/2019 Intermediate ug/L
1,1,1-Trichloroethane	5	960	1000	1600	1700	1300	1200 *1	1200	620	990	950	850	930	1200
1,1,2,2-Tetrachloroethane	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	5.0 J	10 U	10 U	11 J	20 U	12 J	9.6 J	20 U	7.5	20 U	20 U	20 U	10 J	20 U
1,1,2-Trichloroethane	1	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,1-Dichloroethane	5	90	95	110	100	81	72	93	50	84	72	70	73	91
1,1-Dichloroethene	5	74	85	100	110	100	86 *1	95	50	82	79	65	69	86
1,2,3-Trimethylbenzene		10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,2,4-Trichlorobenzene	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,2,4-Trimethylbenzne	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,2-Dibromo-3-Chloropropane	0.04	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,2-Dibromoethane (Ethylene Dibromide)	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,2-Dichlorobenzene	3	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,2-Dichloroethane	0.6	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,2-Dichloropropane	1	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,3,5-Trimethylbenzene (Mesitylene)	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,3-Dichlorobenzene	3	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
1,4-Dichlorobenzene	3	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
2-Hexanone	50*	50 U	50 U	100 U	100 U	100 U	100 U	100 U	10 U'	100 U	100 U	100 U	100 U	100 U
Acetone	50*	100 U	100 U	200 U	200 U	200 U	200 U	200 U	10 U	200 U	200 U	200 U	200 U	200 U
Benzene	1	10 U	10 U	20 U	20 U	20 U	20 U*1	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Bromodichloromethane	50*	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Bromoform	50*	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Bromomethane	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Carbon disulfide		10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Carbon tetrachloride	5	10 U	10 U	20 U	20 U	20 U	20 U*1	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Chlorobenzene	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	0.91 J	20 U	20 U	20 U	20 U	20 U
Chloroethane	5	10 U	10 U	20 U	20 U	20 U	20 U*	20 U	2.2	20 U	20 U	20 U	20 U	20 U
Chloroform	7	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Chloromethane		10 U	10 U	20 U	20 UT	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
cis-1,2-Dichloroethene	5	470	430	590	550	480	340	400	250	380	350	290	310	320
cis-1,3-Dichloropropene	0.4**	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Cyclohexane		10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Dibromochloromethane	50	10 U'	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Dichlorodifluoromethane	5	10 U	10 U	20 U	20 UT	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Ethylbenzene	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Isopropylbenzne (Cumene)	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Methyl Acetate		25 U	25 U	50 U	50 UT	50 U	50 U	50 U	10 U	50 U	50 U	50 U	50 U	50 U
2-Butanone (MEK)	50	100 U	100 U	200 U'	200 U	200 U	200 U*+	200 U	10 U	200 U	200 U	200 U'	200 U'	200 UT
4-Methyl-2-pentanone (MIBK)		50 U	50 U	100 U	100 UT	100 U	100 U	100 U	10 U'	100 U	100 U	100 U	100 U	100 U
Methyl Cyclohexane		10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Methylene Chloride	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Styrene	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Methyl Tert Butyl Ether	10	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Tetrachloroethene	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	1.1 J	20 U	20 U	20 U	20 U	20 U
Toluene	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
trans-1,2-Dichloroethene	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	0.95 J	20 U	20 U	20 U	20 U	20 U
trans-1,3-Dichloropropene	0.4**	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U	20 U	20 U	20 U	20 U	20 U
Trichloroethene	5	150	220	210	380	250	270	420	200	400	330	340	350	340
Trichlorofluoromethane	5	10 U	10 U	20 U	20 U	20 U	20 U	20 U	2.0 U'	20 U	20 U	20 U	20 U	20 U
Vinyl chloride	2	100	120	130	140	88	91 *1	92	63	79	68	57	61	81
Xylenes, Total		20 U	20 U	40 U	40 U	40 U	40 U	40 U	4.0 U	40 U	40 U	40 U	40 U	40 U
Total VOCs		1849	1950	2751	2980	2311	2069	2300	1246	2015	1849	1672	1793	2118
Total VOCs (w/o Acteone or Methlyene Chloride)		1849	1950	2751	2980	2311	2069	2300	1246	2015	1849	1672	1793	2118

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	DUP-2 10/10/2019 Intermediate ug/L	4009-29I 4/6/2020 Intermediate ug/L	DUP-2 4/6/2020 Intermediate ug/L	4009-29I 4/8/2021 Intermediate ug/L	4009-29D 6/14/2018 Deep ug/L	4009-29D 9/27/2018 Deep ug/L	4009-29D 12/19/2018 Deep ug/L	4009-29D 3/25/2019 Deep ug/L	4009-29D 10/10/2019 Deep ug/L	4009-29D 4/6/2020 Deep ug/L	4009-29D 4/8/2021 Deep ug/L	4009-30 3/30/2018 Deep ug/L	4009-30 6/14/2018 Deep ug/L	4009-30 9/27/2018 Deep ug/L
1,1,1-Trichloroethane	5	1100	810	810	930 *1	41	150	56	100	210	17	36 *1	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		9.6 J	20 U	20 U	20 U	0.67 J	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	0.39 J	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	82	65	69	52	11	29	14	15	18	3.7 J	5.3	0.71 J	0.61 J	1.0 U
1,1-Dichloroethene	5	68	70	66	58 *1	5.3	13		5.0	32	1.6 J	3.2 *1	1.0 U	1.0 U	1.0 U
1,2,3-Trimethylbenzene		20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50*	100 U	100 U	100 U	100 U	5.0 U'	25 U	5.0 U	5.0 U	20 U	20 U	5.0 U	5.0 U	5.0 U'	5.0 U
Acetone	50*	200 U	200 U	200 U	200 U	5.0 U	50 U	3.9 J	10 U	40 U	40 U	10 U	10.0 U	5.0 U	3.5 J
Benzene	1	20 U	20 U	20 U	20 U*1	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U*1	5.3	4.1	33
Bromodichloromethane	50*	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50*	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide		20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	20 U	20 U	20 U	20 U*1	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	20 U	20 U	20 U	20 U*-	3.0	3.6 J	2.9	3.0	4.2	3.3 J	6.0 *-	1.0 U	1.0 U	1.0 U
Chloroform	7	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		20 UT	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	320	290	310	230	26	77	20	29	93	3.8 J	11	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane		20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	20 UT	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate		50 UT	50 U	50 U	50 U	5.0 U	13 U	2.5 U	2.5 U	10.0 U	10.0 U	2.5 U	2.5 U	5.0 U	2.5 U
2-Butanone (MEK)	50	200 U	200 U	200 U	200 U*+	5.0 U	50 U	10 U	10 U'	40.0 U	40.0 U	10.0 U*+	10.0 U'	5.0 U	10 U
4-Methyl-2-pentanone (MIBK)		100 UT	100 U	100 U	100 U	5.0 U'	25 U	5.0 U	5.0 U	20.0 U	20.0 U	5.0 U	5.0 U	5.0 U'	5.0 U
Methyl Cyclohexane		20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.2	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U'	1.0 U	1.0 U
Toluene	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	340	230	230	230	10	16	12	12	100	5.3	11	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	20 U	20 U	20 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	77	53	62	44 *1	17	35	15	22	42	11	15 *1	1.0 U	1.0 U	1.0 U
Xylenes, Total		40 U	40 U	40 U	40 U	2.0 U	10 U	2.0 U	2.0 U	8.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		1997	1518	1547	1544	114	324	128	186	499	45.7	89.1	6.01	4.71	36.5
Total VOCs (w/o Acteone or Methlyene Chloride)		1997	1518	1547	1544	114	324	124	186	499	45.7	89.1	6.01	4.71	33.0

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	4009-30 12/19/2018 Deep ug/L	4009-30 3/25/2019 Deep ug/L	4009-30 10/10/2019 Deep ug/L	4009-30 4/6/2020 Deep ug/L	4009-30 4/12/2021 Deep ug/L	4009-30A 3/30/2018 Shallow ug/L	4009-30A 6/14/2018 Shallow ug/L	4009-30A 9/27/2018 Shallow ug/L	4009-30A 12/19/2018 Shallow ug/L	4009-30A 3/25/2019 Shallow ug/L	Well 1-1 3/30/2018 Deep ug/L	Well 1-1 6/14/2018 Deep ug/L	Well 1-1 9/27/2018 Deep ug/L	Well 1-1 12/19/2018 Deep ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	230	170	220	220
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.2	4.0 U	3.2 J
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,1-Dichloroethane	5	1.1	0.98 J	0.73 J	0.75 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	21	17	20	25
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	16	14	18	18
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U'	5.0 U	5.0 U	5.0 U	20 U	5.0 U'	20 U	20 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	3.1 J	10 U	10 U	40 U	5.0 U	40 U	40 U
Benzene	1	0.87 J	1.2	4.5	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Carbon disulfide		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	0.46 J	4.0 U	4.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	69	56	68	78
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Methyl Acetate		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	10 U	5.0 U	10 U	10 U
2-Butanone (MEK)	50	10 U	10 U'	10 UT	10 U	10 U*+	10 U'	5.0 U	10 U	10 U	10 U'	40 U'	5.0 U	40 U	40 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U'	5.0 U'	5.0 U	5.0 U	5.0 U	20 U	5.0 U'	20 U	20 U
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.8 J	4.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	0.35 J	4.0 U	4.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	73	53	67	67
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	4.0 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	0.29 J	4.0 U	4.0 U
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	2.0 U	8.0 U	8.0 U
Total VOCs		1.97	2.18	5.23	2.35	2.00	0.00	0.00	3.10	0.00	0.00	409	315	395	411
Total VOCs (w/o Acteone or Methlyene Chloride)		1.97	2.18	5.23	2.35	2.00	0.00	0.00	0.00	0.00	0.00	409	315	393	411

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-1 3/25/2019 Deep ug/L	Well 1-1 10/10/2019 Deep ug/L	Well 1-1 4/6/2020 Deep ug/L	Well 1-1 4/1/2021 Deep ug/L
1,1,1-Trichloroethane	5	360	250	230	NS
1,1,2,2-Tetrachloroethane	5	4.0 U	5.0 U	5.0 U	NS
1,1,2-Trichloro-1,2,2-Trifluoroethane		4.0 U	3.7 J	5.0 U	NS
1,1,2-Trichloroethane	1	4.0 U	5.0 U	5.0 U	NS
1,1-Dichloroethane	5	36	21	29	NS
1,1-Dichloroethene	5	25	18	20	NS
1,2,3-Trimethylbenzene		4.0 U	5.0 U	5.0 U	NS
1,2,4-Trichlorobenzene	5	4.0 U	5.0 U	5.0 U	NS
1,2,4-Trimethylbenzne	5	4.0 U	5.0 U	5.0 U	NS
1,2-Dibromo-3-Chloropropane	0.04	4.0 U	5.0 U	5.0 U	NS
1,2-Dibromoethane (Ethylene Dibromide)	5	4.0 U	5.0 U	5.0 U	NS
1,2-Dichlorobenzene	3	4.0 U	5.0 U	5.0 U	NS
1,2-Dichloroethane	0.6	4.0 U	5.0 U	5.0 U	NS
1,2-Dichloropropane	1	4.0 U	5.0 U	5.0 U	NS
1,3,5-Trimethylbenzene (Mesitylene)	5	4.0 U	5.0 U	5.0 U	NS
1,3-Dichlorobenzene	3	4.0 U	5.0 U	5.0 U	NS
1,4-Dichlorobenzene	3	4.0 U	5.0 U	5.0 U	NS
2-Hexanone	50*	20 U	25 U	25 U	NS
Acetone	50*	40 U	50 U	50 U	NS
Benzene	1	4.0 U	5.0 U	5.0 U	NS
Bromodichloromethane	50*	4.0 U	5.0 U	5.0 U	NS
Bromoform	50*	4.0 U	5.0 U	5.0 U	NS
Bromomethane	5	4.0 U	5.0 U	5.0 U	NS
Carbon disulfide		4.0 U	5.0 U	5.0 U	NS
Carbon tetrachloride	5	4.0 U	5.0 U	5.0 U	NS
Chlorobenzene	5	4.0 U	5.0 U	5.0 U	NS
Chloroethane	5	4.0 U	5.0 U	5.0 U	NS
Chloroform	7	4.0 U	5.0 U	5.0 U	NS
Chloromethane		4.0 U	5.0 UT	5.0 U	NS
cis-1,2-Dichloroethene	5	100	73	87	NS
cis-1,3-Dichloropropene	0.4**	4.0 U	5.0 U	5.0 U	NS
Cyclohexane		4.0 U	5.0 U	5.0 U	NS
Dibromochloromethane	50	4.0 U	5.0 U	5.0 U	NS
Dichlorodifluoromethane	5	4.0 U	5.0 UT	5.0 U	NS
Ethylbenzene	5	4.0 U	5.0 U	5.0 U	NS
Isopropylbenzne (Cumene)	5	4.0 U	5.0 U	5.0 U	NS
Methyl Acetate		10 U	13 UT	13 U	NS
2-Butanone (MEK)	50	40 U*	50 U	50 U	NS
4-Methyl-2-pentanone (MIBK)		20 U	25 UT	25 U	NS
Methyl Cyclohexane		4.0 U	5.0 U	5.0 U	NS
Methylene Chloride	5	4.0 U	5.0 U	5.0 U	NS
Styrene	5	4.0 U	5.0 U	5.0 U	NS
Methyl Tert Butyl Ether	10	4.0 U	5.0 U	5.0 U	NS
Tetrachloroethene	5	4.0 U	5.0 U	5.0 U	NS
Toluene	5	4.0 U	5.0 U	5.0 U	NS
trans-1,2-Dichloroethene	5	4.0 U	5.0 U	5.0 U	NS
trans-1,3-Dichloropropene	0.4**	4.0 U	5.0 U	5.0 U	NS
Trichloroethene	5	89	71	64	NS
Trichlorofluoromethane	5	4.0 U	5.0 U	5.0 U	NS
Vinyl chloride	2	4.0 U	5.0 U	5.0 U	NS
Xylenes, Total		8.0 U	10 U	10 U	NS
Total VOCs		610	437	430	NS
Total VOCs (w/o Acteone or Methlyene Chloride)		610	437	430	NS

Table 2-2
Summary of Groundwater Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Notes:
NYSDEC GA Standard / Guidance Value - New York State Department of Environmental Conservation Groundwater Standard/Guidance Value
[redacted] - Concentration exceeds NYSDEC GA Standard/Guidance Value
* - Guidance Value
** - Sum of these compounds cannot exceed 0.4 ug/L
U- Compound analyzed for but not detected
J - Compound detected below the reporting limit or reported concentration is estimated
µg/L - Micrograms per Liter
D- Result of diluted sample shown
' - Laboratory control sample (LCS) or LCS Duplicate is outside acceptable limits Matrix Spike (MS) or MS Duplicate is outside acceptable limits
DUP-1 a duplicate sample from monitoring well 4009-12
DUP-2 is a duplicate sample from monitoring well 4009-29I
NS - Not Sampled
*** - 4009-16 was sampled via low flow on this date

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-2A Influent 6/14/2018 ug/L	Well 1-2A Influent 6/19/2018 ug/L	Well 1-2A Influent 7/6/2018 ug/L	Well 1-2A Influent 7/17/2018 ug/L	Well 1-2A Influent 8/8/2018 ug/L	Well 1-2A Influent 8/27/2018 ug/L	Well 1-2A Influent 9/13/2018 ug/L	Well 1-2A Influent 9/24/2018 ug/L	Well 1-2A Influent 10/22/2018 ug/L	Well 1-2A Influent 10/30/2018 ug/L	Well 1-2A Influent 11/12/2018 ug/L	Well 1-2A Influent 11/30/2018 ug/L	Well 1-2A Influent 12/17/2018 ug/L	Well 1-2A Influent 12/19/2018 ug/L	Well 1-2A Influent 1/7/2019 ug/L	Well 1-2A Influent 1/28/2019 ug/L	Well 1-2A Influent 2/11/2019 ug/L	Well 1-2A Influent 2/22/2019 ug/L
1,1,1-Trichloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U'	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,1,2,2-Tetrachloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1,2-Trichloroethane	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,1-Dichloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,1-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2,3-Trimethylbenzene		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,2,4-Trichlorobenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2,4-Trimethylbenzne	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,2-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2-Dichloroethane	0.6	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2-Dichloropropane	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,3-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,4-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
2-Butanone (MEK)	50	10 U	NA	10 U	NA	10 U'	NA	10 U'	NA	NA	10 U'	10 U	NA	NA	10 U	10 U	NA	10 U	NA
2-Hexanone	50*	5.0 U'	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	5.0 U	NA
4-Methyl-2-pentanone (MIBK)		5.0 U'	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	5.0 U	NA
Acetone	50*	10 U	NA	10 U	NA	3.1 J	NA	10 U	NA	NA	3.5 J	10 U	NA	NA	10 U	10 U	NA	10 U	NA
Benzene	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Bromodichloromethane	50*	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Bromoform	50*	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Bromomethane	5	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Carbon disulfide		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Carbon tetrachloride	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Chlorobenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Chloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Chloroform	7	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Chloromethane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
cis-1,2-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
cis-1,3-Dichloropropene	0.4**	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Cyclohexane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Dibromochloromethane	50	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Dichlorodifluoromethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Ethylbenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Isopropylbenzne (Cumene)	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Methyl Acetate		2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	NA	2.5 U	2.5 U	NA	NA	2.5 U	2.5 U	NA	2.5 U	NA
Methyl Cyclohexane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Methylene Chloride	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.8BT	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Methyl Tert Butyl Ether	10	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Styrene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Tetrachloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U'	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Toluene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
trans-1,2-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
trans-1,3-Dichloropropene	0.4**	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Trichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Trichlorofluoromethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Vinyl chloride	2	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Xylenes, Total		2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	0.5 U	2.0 U	2.0 U	0.5 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	0.5 U
Total VOCs		0	0	0	0	3.1	0	0	0	0	5.3	0	0	0	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-2A Influent 3/11/2019 ug/L	Well 1-2A Influent 3/26/2019 ug/L	Well 1-2A Influent 4/11/2019 ug/L	Well 1-2A Influent 4/22/2019 ug/L	Well 1-2A Influent 5/6/2019 ug/L	Well 1-2A Influent 5/31/2019 ug/L	Well 1-2A Influent 6/7/2019 ug/L	Well 1-2A Influent 6/19/2019 ug/L	Well 1-2A Influent 7/12/2019 ug/L	Well 1-2A Influent 7/22/2019 ug/L	Well 1-2A Influent 8/12/2019 ug/L	Well 1-2A Influent 8/26/2019 ug/L	Well 1-2A Influent 9/26/2019 ug/L	Well 1-2A Influent 9/30/2019 ug/L	Well 1-2A Influent 10/10/2019 ug/L	Well 1-2A Influent 10/28/2019 ug/L	Well 1-2A Influent 11/22/2019 ug/L	Well 1-2A Influent 11/25/2019 ug/L
1,1,1-Trichloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,1,2,2-Tetrachloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,1,2-Trichloroethane	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,1-Dichloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,1-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2,3-Trimethylbenzene		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,2,4-Trichlorobenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2,4-Trimethylbenzne	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,2-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2-Dichloroethane	0.6	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,2-Dichloropropane	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,3-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
1,4-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
2-Butanone (MEK)	50	10 U	NA	10 U	NA	10 U'	NA	10 U	NA	10 U'	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA
2-Hexanone	50*	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA
4-Methyl-2-pentanone (MIBK)		5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U'	NA	5.0 U	NA
Acetone	50*	10 U	NA	10 U	NA	10 U	NA	3.8 J	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA
Benzene	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Bromodichloromethane	50*	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	0.5 U
Bromoform	50*	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U'	NA	1.0 U	NA	1.0 U	NA	1.0 U	0.78	1.0 U	0.99
Bromomethane	5	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	0.5 U
Carbon disulfide		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Carbon tetrachloride	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Chlorobenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Chloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Chloroform	7	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	0.5 U
Chloromethane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U'	0.5 U	1.0 U	0.5 U
cis-1,2-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
cis-1,3-Dichloropropene	0.4**	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U'	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Cyclohexane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Dibromochloromethane	50	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U'	NA	1.0 U	NA	1.0 U	NA	1.0 U	0.66	1.0 U	0.61
Dichlorodifluoromethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U'	0.5 U	1.0 U	0.5 U
Ethylbenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Isopropylbenzne (Cumene)	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Methyl Acetate		2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U'	NA	2.5 U	NA
Methyl Cyclohexane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Methylene Chloride	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.44 J	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	2.0 B'	0.5 U
Methyl Tert Butyl Ether	10	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Styrene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Tetrachloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Toluene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
trans-1,2-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
trans-1,3-Dichloropropene	0.4**	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Trichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Trichlorofluoromethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Vinyl chloride	2	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Xylenes, Total		2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U
Total VOCs		0	0	0	0	0	0	4.24	0	0	0	0	0	0	0	0	1.44	2	1.6

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-2A Influent 12/13/2019 ug/L	Well 1-2A Influent 12/20/2019 ug/L	Well 1-2A Influent 1/13/2020 ug/L	Well 1-2A Influent 1/28/2020 ug/L	Well 1-2A Influent 2/6/2020 ug/L	Well 1-2A Influent 2/25/2020 ug/L	Well 1-2A Influent 3/16/2020 ug/L	Well 1-2A Influent 3/23/2020 ug/L	Well 1-2A Influent 4/6/2020 ug/L	Well 1-2A Influent 4/28/2020 ug/L	Well 1-2A Influent 5/15/2020 ug/L	Well 1-2A Influent 5/29/2020 ug/L	Well 1-2A Influent 6/8/2020 ug/L	Well 1-2A Influent 6/26/2020 ug/L	Well 1-2A Influent 7/31/2020 ug/L	Well 1-2A Influent 9/25/2020 ug/L	Well 1-2A Influent 10/19/2020 ug/L	Well 1-2A Influent 11/23/2020 ug/L
1,1,1-Trichloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trimethylbenzene		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzne	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.6	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone (MEK)	50	10 U'	NA	10 U'	NA	10 U'	NA	10 U	NA	10 U'	NA	10 U'	NA	10 U'	NA	NA	NA	NA	NA
2-Hexanone	50*	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)		5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA
Acetone	50*	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	NA	NA	NA	NA
Benzene	1	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50*	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	1.0 U	0.81	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
Carbon tetrachloride	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane		1.0 U	0.5 U	1.0 U	0.5 U	0.36 J	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	0.4**	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
Dibromochloromethane	50	1.0 U	0.54	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzne (Cumene)	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Acetate		2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	NA	NA	NA	NA
Methyl Cyclohexane		1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
Methylene Chloride	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Tert Butyl Ether	10	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U'	0.5 U	1.0 U'	0.5 U	1.0 U'	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	0.4**	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	2	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes, Total		2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total VOCs		0	1.35	0	0	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-2A Influent 12/15/2020 ug/L	Well 1-2A Influent 1/15/2021 ug/L	Well 1-2A Influent 1/22/2021 ug/L	Well 1-2A Influent 2/17/2021 ug/L	Well 1-2A Influent 2/16/2021 ug/L	Well 1-2A Influent 3/18/2021 ug/L	Well 1-2A Influent 3/22/2021 ug/L	Well 1-2A Influent 4/9/2021 ug/L	Well 1-2A Influent 4/28/2021 ug/L	Well 1-2A Influent 5/11/2021 ug/L	Well 1-2A Influent 5/18/2021 ug/L	Well 1-2A Influent 6/15/2021 ug/L	Well 1-2A Influent 6/23/2021 ug/L	Well 1-3 Influent 6/14/2018 ug/L	Well 1-3 (post) Effluent 6/14/2018 ug/L	Well 1-3 Influent 6/19/2018 ug/L
1,1,1-Trichloroethane	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 *1	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	NA
1,1,2-Trichloroethane	1	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,1-Dichloroethane	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,1-Dichloroethene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U*1	0.5 U*1	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,2,3-Trimethylbenzene		NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	NA
1,2,4-Trichlorobenzene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,2,4-Trimethylbenzne	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,2-Dibromo-3-Chloropropane	0.04	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	NA
1,2-Dibromoethane (Ethylene Dibromide)	5	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	NA
1,2-Dichlorobenzene	3	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,2-Dichloroethane	0.6	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,2-Dichloropropane	1	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,3-Dichlorobenzene	3	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
1,4-Dichlorobenzene	3	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
2-Butanone (MEK)	50	NA	10 U*+	NA	10 U*+	NA	10 U*+	NA	10 U*+	NA	10 U*+	NA	NA	10 U*+	10 U	10 U	NA
2-Hexanone	50*	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	5.0 U*1	5.0 U'	5.0 U'	NA
4-Methyl-2-pentanone (MIBK)		NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	5.0 U	5.0 U'	5.0 U'	NA
Acetone	50*	NA	10 U	NA	10 U	NA	10 U	NA	10.0 U	NA	10 U	NA	NA	10 U*1	10 U	10 U	NA
Benzene	1	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U*1	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
Bromodichloromethane	50*	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	NA
Bromoform	50*	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	NA
Bromomethane	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U*1	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	NA
Carbon disulfide		NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U*1	1.0 U	1.0 U	NA
Carbon tetrachloride	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U*1	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
Chlorobenzene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
Chloroethane	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U*-	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
Chloroform	7	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	NA
Chloromethane		0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	NA
cis-1,2-Dichloroethene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
cis-1,3-Dichloropropene	0.4**	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
Cyclohexane		NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	NA
Dibromochloromethane	50	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	NA
Dichlorodifluoromethane	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*-1	1.0 U	1.0 U	0.5 U
Ethylbenzene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
Isopropylbenzne (Cumene)	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
Methyl Acetate		NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	2.5 U	NA	NA	2.5 U	2.5 U	2.5 U	NA
Methyl Cyclohexane		NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U*1	1.0 U	1.0 U	NA
Methylene Chloride	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
Methyl Tert Butyl Ether	10	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*+	1.0 U	1.0 U	0.5 U
Styrene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
Tetrachloroethene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
Toluene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
trans-1,2-Dichloroethene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
trans-1,3-Dichloropropene	0.4**	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
Trichloroethene	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1	1.0 U	1.0 U	0.5 U
Trichlorofluoromethane	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U
Vinyl chloride	2	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U*1	0.5 U	1.0 U	0.5 U	0.2 U	1.0 U*1	1.0 U	1.0 U	0.5 U
Xylenes, Total		0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	2.0 U	2.0 U	2.0 U	0.5 U
Total VOCs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-3 Influent 7/6/2018 ug/L	Well 1-3 (post) Effluent 7/6/2018 ug/L	Well 1-3 Influent 7/17/2018 ug/L	Well 1-3 Influent 8/8/2018 ug/L	Well 1-3 (post) Effluent 8/8/2018 ug/L	Well 1-3 Influent 8/27/2018 ug/L	Well 1-3 Influent 9/13/2018 ug/L	Well 1-3 (post) Effluent 9/13/2018 ug/L	Well 1-3 Influent 9/24/2018 ug/L	Well 1-3 Influent 10/22/2018 ug/L	Well 1-3 Influent 10/30/2018 ug/L	Well 1-3 (post) Effluent 10/30/2018 ug/L	Well 1-3 Influent 11/12/2018 ug/L	Well 1-3 (post) Effluent 11/12/2018 ug/L	Well 1-3 Influent 11/30/2018 ug/L	Well 1-3 Influent 12/17/2018 ug/L	Well 1-3 Influent 12/19/2018 ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U'	1.0 U'	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
2-Butanone (MEK)	50	10 U	10 U	NA	10 U'	10 U'	NA	10 U'	10 U'	NA	NA	10 U'	10 U	10 U	10 U	NA	NA	10 U
2-Hexanone	50*	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Acetone	50*	3.3 J	10 U	NA	10.0 U	10 U	NA	10.0 U	10 U	NA	NA	10 U	3.5 J	10.0 U	10 U	NA	NA	10.0 U
Benzene	1	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Bromodichloromethane	50*	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
Bromoform	50*	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
Bromomethane	5	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
Carbon disulfide		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Chlorobenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Chloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Chloroform	7	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
Chloromethane		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Cyclohexane		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Methyl Acetate		2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	NA	2.5 U	2.5 U	2.5 U	2.5 U	NA	NA	2.5 U
Methyl Cyclohexane		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
Methylene Chloride	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	2.7 B	2.5 B	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Styrene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U'	1.0 U'	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Toluene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Trichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Vinyl chloride	2	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U
Xylenes, Total		2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	0.5 U	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U	0.5 U	2.0 U
Total VOCs		3.3	0	0	0	0	0	0	0	0	0	2.7	6	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-3 (post) Effluent 12/19/2018 ug/L	Well 1-3 Influent 1/7/2019 ug/L	Well 1-3 (post) Effluent 1/7/2019 ug/L	Well 1-3 Influent 1/28/2019 ug/L	Well 1-3 Influent 2/11/2019 ug/L	Well 1-3 (post) Effluent 2/11/2019 ug/L	Well 1-3 Influent 2/22/2019 ug/L	Well 1-3 Influent 3/11/2019 ug/L	Well 1-3 (post) Effluent 3/11/2019 ug/L	Well 1-3 Influent 3/26/2019 ug/L	Well 1-3 Influent 4/11/2019 ug/L	Well 1-3 (post) Effluent 4/11/2019 ug/L	Well 1-3 Influent 4/22/2019 ug/L	Well 1-3 Influent 5/6/2019 ug/L	Well 1-3 (post) Effluent 5/6/2019 ug/L	Well 1-3 Influent 5/31/2019 ug/L	Well 1-3 Influent 6/7/2019 ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
2-Butanone (MEK)	50	10 U	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U'	10 U'	NA	10 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U
Acetone	50*	10 U	10.0 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	4.9 J
Benzene	1	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Carbon disulfide		1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Chloromethane		1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U'	1.0 U'	0.5 U	1.0 U
Cyclohexane		1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Methyl Acetate		2.5 U	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U
Xylenes, Total		2.0 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U
Total VOCs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-3 (post) Effluent 6/7/2019 ug/L	Well 1-3 Influent 6/19/2019 ug/L	Well 1-3 Influent 7/12/2019 ug/L	Well 1-3 (post) Effluent 7/12/2019 ug/L	Well 1-3 Influent 7/22/2019 ug/L	Well 1-3 Influent 8/12/2019 ug/L	Well 1-3 (post) Effluent 8/12/2019 ug/L	Well 1-3 Influent 8/26/2019 ug/L	Well 1-3 Influent 9/26/2019 ug/L	Well 1-3 (post) Effluent 9/26/2019 ug/L	Well 1-3 Influent 9/30/2019 ug/L	Well 1-3 (post) Effluent 10/10/2019 ug/L	Well 1-3 Influent 10/10/2019 ug/L	Well 1-3 Influent 10/28/2019 ug/L	Well 1-3 (post) Effluent 11/22/2019 ug/L	Well 1-3 Influent 11/22/2019 ug/L	Well 1-3 Influent 11/25/2019 ug/L
1,1,1-Trichloroethane	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,1,2,2-Tetrachloroethane	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA
1,1,2-Trichloroethane	1	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,1-Dichloroethane	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,1-Dichloroethene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,2,3-Trimethylbenzene		1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA
1,2,4-Trichlorobenzene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,2,4-Trimethylbenzne	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA
1,2-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,2-Dichloroethane	0.6	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,2-Dichloropropane	1	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,3-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
1,4-Dichlorobenzene	3	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
2-Butanone (MEK)	50	10 U	NA	10 U'	10 U'	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA
2-Hexanone	50*	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA
4-Methyl-2-pentanone (MIBK)		5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U'	5.0 U'	NA	5.0 U	5.0 U	NA
Acetone	50*	4.9 J	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA
Benzene	1	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Bromodichloromethane	50*	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Bromoform	50*	1.0 U	NA	1.0 U'	1.0 U'	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	3.88	1.0 U	1.0 U	3.62
Bromomethane	5	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Carbon disulfide		1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA
Carbon tetrachloride	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Chlorobenzene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Chloroethane	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Chloroform	7	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Chloromethane		1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U'	1.0 U'	0.5 U	1.0 U	1.0 U	0.5 U
cis-1,2-Dichloroethene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
cis-1,3-Dichloropropene	0.4**	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Cyclohexane		1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA
Dibromochloromethane	50	1.0 U	NA	1.0 U'	1.0 U'	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	0.91	1.0 U	1.0 U	1.20
Dichlorodifluoromethane	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U'	1.0 U'	0.5 U	1.0 U	1.0 U	0.5 U
Ethylbenzene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Isopropylbenzne (Cumene)	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Methyl Acetate		2.5 U	NA	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U'	2.5 U'	NA	2.5 U	2.5 U	NA
Methyl Cyclohexane		1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA
Methylene Chloride	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.6 B'	1.7 B'	0.5 U
Methyl Tert Butyl Ether	10	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Styrene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Tetrachloroethene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Toluene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
trans-1,2-Dichloroethene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
trans-1,3-Dichloropropene	0.4**	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Trichloroethene	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Trichlorofluoromethane	5	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Vinyl chloride	2	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Xylenes, Total		2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U
Total VOCs		0	0	0	0	0	0	0	0	0	0	0	0	0	4.79	1.6	1.7	4.82

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-3 (post) Effluent 12/13/2019 ug/L	Well 1-3 Influent 12/13/2019 ug/L	Well 1-3 Influent 12/20/2019 ug/L	Well 1-3 (post) Effluent 1/13/2020 ug/L	Well 1-3 Influent 1/13/2020 ug/L	Well 1-3 Influent 1/28/2020 ug/L	Well 1-3 (post) Effluent 2/6/2020 ug/L	Well 1-3 Influent 2/6/2020 ug/L	Well 1-3 Influent 2/25/2020 ug/L	Well 1-3 (Post) Effluent 2/25/2020 ug/L	Well 1-3 Influent 3/16/2020 ug/L	Well 1-3 (Post) Effluent 3/16/2020 ug/L	Well 1-3 Influent 3/23/2020 ug/L	Well 1-3 (Post) Effluent 3/23/2020 ug/L	Well 1-3 Influent 4/6/2020 ug/L	Well 1-3 (Post) Effluent 4/6/2020 ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
2-Butanone (MEK)	50	10 U'	10 U'	NA	10 U'	10 U'	NA	10 U'	10 U'	NA	NA	10 U	10 U	NA	NA	10 U'	10 U'
2-Hexanone	50*	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U
Acetone	50*	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	NA	10 U	10 U	NA	NA	10 U	10 U
Benzene	1	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Bromodichloromethane	50*	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Bromoform	50*	1.0 U	1.0 U	1.85	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Bromomethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Carbon disulfide		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Chlorobenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Chloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Chloroform	7	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Chloromethane		1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Cyclohexane		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Methyl Acetate		2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	NA	2.5 U	2.5 U	NA	NA	2.5 U	2.5 U
Methyl Cyclohexane		1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Methylene Chloride	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Styrene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U'	1.0 U'
Toluene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Trichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Vinyl chloride	2	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U
Xylenes, Total		2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	2.0 U	2.0 U	0.5 U	0.5 U	2.0 U	2.0 U	0.5 U	0.5 U	2.0 U	2.0 U
Total VOCs		0	0	1.85	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-3 Influent 4/28/2020 ug/L	Well 1-3 (Post) Effluent 4/28/2020 ug/L	Well 1-3 Influent 5/15/2020 ug/L	Well 1-3 (Post) Effluent 5/15/2020 ug/L	Well 1-3 Influent 5/29/2020 ug/L	Well 1-3 (Post) Effluent 5/29/2020 ug/L	Well 1-3 Influent 6/8/2020 ug/L	Well 1-3 (Post) Effluent 6/8/2020 ug/L	Well 1-3 Influent 6/26/2020 ug/L	Well 1-3 Influent 7/31/2020 ug/L	Well 1-3 Influent 9/25/2020 ug/L	Well 1-3 Influent 10/19/2020 ug/L	Well 1-3 Influent 11/23/2020 ug/L	Well 1-3 Influent 12/15/2020 ug/L	Well 1-3 Influent 1/15/2021 ug/L	Well 1-3 Influent 1/22/2021 ug/L	Well 1-3 Influent 2/16/2021 ug/L
1,1,1-Trichloroethane	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA
1,1,2-Trichloroethane	1	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,1-Dichloroethane	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,2,3-Trimethylbenzene		NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA
1,2,4-Trichlorobenzene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,2,4-Trimethylbenzne	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	0.04	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA
1,2-Dibromoethane (Ethylene Dibromide)	5	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA
1,2-Dichlorobenzene	3	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,2-Dichloropropane	1	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,3-Dichlorobenzene	3	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
1,4-Dichlorobenzene	3	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
2-Butanone (MEK)	50	NA	NA	10 U'	10 U'	NA	NA	10 U'	10 U'	NA	NA	NA	NA	NA	NA	10 U*+	NA	NA
2-Hexanone	50*	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
4-Methyl-2-pentanone (MIBK)		NA	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Acetone	50*	NA	NA	10 U	10 U	NA	NA	10 U	10 U	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Benzene	1	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Bromodichloromethane	50*	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Bromoform	50*	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Bromomethane	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Carbon disulfide		NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Carbon tetrachloride	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Chlorobenzene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Chloroethane	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Chloroform	7	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Chloromethane		0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	0.4**	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Cyclohexane		NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA
Dibromochloromethane	50	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Ethylbenzene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Isopropylbenzne (Cumene)	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Methyl Acetate		NA	NA	2.5 U	2.5 U	NA	NA	2.5 U	2.5 U	NA	NA	NA	NA	NA	NA	2.5 U	NA	NA
Methyl Cyclohexane		NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA
Methylene Chloride	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Methyl Tert Butyl Ether	10	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Styrene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Tetrachloroethene	5	0.5 U	0.5 U	1.0 U'	1.0 U'	0.5 U	0.5 U	1.0 U'	1.0 U'	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Toluene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	0.4**	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Trichlorofluoromethane	5	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Vinyl chloride	2	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
Xylenes, Total		0.5 U	0.5 U	2.0 U	2.0 U	0.5 U	0.5 U	2.0 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U
Total VOCs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Units	NYSDEC GA Standard / Guidance Value ug/L	Well 1-3 Influent 2/17/2021 ug/L	Well 1-3 Influent 3/18/2021 ug/L	Well 1-3 Influent 3/22/2021 ug/L	Well 1-3 Influent 4/9/2021 ug/L	Well 1-3 Influent 4/28/2021 ug/L	Well 1-3 Influent 5/11/2021 ug/L	Well 1-3 Influent 5/18/2021 ug/L	Well 1-3 Influent 6/15/2021 ug/L	Well 1-3 Influent 6/23/2021 ug/L
1,1,1-Trichloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U*1	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U*1	0.5 U*1	1.0 U	0.5 U	0.5 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
2-Butanone (MEK)	50	10 U*+	10 U*+	NA	10 U*+	NA	10 U*+	NA	NA	10 U*+
2-Hexanone	50*	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	5.0 U*1
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	5.0 U
Acetone	50*	10 U	10 U	NA	10 U	NA	10 U	NA	NA	10 U*1
Benzene	1	1.0 U	1.0 U	0.5 U	1.0 U*1	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
Bromodichloromethane	50*	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
Bromoform	50*	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Bromomethane	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U*1	0.5 U	0.5 U	1.0 U*1
Carbon disulfide		1.0 U	1.0 U	0.5 U	1.0 U	NA	1.0 U	NA	NA	1.0 U*1
Carbon tetrachloride	5	1.0 U	1.0 U	0.5 U	1.0 U*1	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
Chlorobenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Chloroethane	5	1.0 U	1.0 U	0.5 U	1.0 U*-	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
Chloroform	7	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Chloromethane		1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
Cyclohexane		1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
Dichlorodifluoromethane	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*-*1
Ethylbenzene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Methyl Acetate		2.5 U	2.5 U	NA	2.5 U	NA	2.5 U	NA	NA	2.5 U
Methyl Cyclohexane		1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U*1
Methylene Chloride	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*+
Styrene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Toluene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Trichloroethene	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U*1
Trichlorofluoromethane	5	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	1.0 U
Vinyl chloride	2	1.0 U	1.0 U	0.5 U	1.0 U*1	0.5 U	1.0 U	0.5 U	0.2 U	1.0 U*1
Xylenes, Total		1.0 U	1.0 U	0.5 U	2.0 U	0.5 U	2.0 U	0.5 U	0.5 U	2.0 U
Total VOCs		0	0	0	0	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results (VOCs)
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Notes:
NYSDEC GA Standard / Guidance Value - New York State Department of Environmental Conservation Groundwater Standard/Guidance Value
[redacted] - Concentration exceeds NYSDEC GA Standard/Guidance Value
* - Guidance Value
** - Sum of these compounds cannot exceed 0.4 ug/L
µg/L - Micrograms per Liter
NA - Not Analyzed
NS - Not Sampled
U - Compound was not detected at the indicated concentration
J - Reported Concentration is estimated
B- The analyte was found in an associated blank, as well as in the sample
' Laboratory control sample (LCS) or LCS Duplicate is outside acceptable limits

Table 2-4
Summary of 1,4-dioxane and PFAS Groundwater Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NY State Established Criteria*	4009-7 6/28/2017 Shallow	4009-7 4/13/2021 Shallow	4009-8 6/28/2017 Intermediate	4009-8 4/13/2021 Intermediate	4009-9 6/26/2017 Shallow	4009-9 4/13/2021 Shallow	4009-10 6/26/2017 Shallow	4009-11 6/26/2017 Deep	4009-11 4/14/2021 Deep	4009-11A 6/26/2017 Shallow	4009-12 6/23/2017 Deep	4009-12 4/8/2021 Deep	4009-13 6/25/2017 Deep	4009-13 4/12/2021 Deep
1,4 Dioxane (µg/L)	1.0	0.73	0.65	2.8	2.0 E	0.4 U	2.0 E	0.4 U	3.8	4.1	0.4 U	3.4	2.9 E	0.4 U	0.19 U
Perfluorobutanoic acid (PFBA)		NA	40 B	NA	6.6 JH	NA	4.3 U	NA	NA	5.3 J	NA	NA	4.8	NA	4.2 U
Perfluoropentanoic acid (PFPeA)		NA	0.44 J	NA	2.9	NA	2.0	NA	NA	2.7 J	NA	NA	3.0	NA	1.3 J
Perfluorohexanoic acid (PFHxA)		NA	3.1 JH	NA	2.5 JH	NA	1.8 JH	NA	NA	2.1 U	NA	NA	2.2 JH	NA	1.7 U
Perfluoroheptanoic acid (PFHpA)		2.0 U	2.6 JH	1.68 J	2.3 JH	1.49 J	1.7 U	1.3 J	0.81 J	2.1 U	2.0 U	2.51	1.9	2.0 U	1.7 U
Perfluorooctanoic acid (PFOA)	10	9.75	5.1 B	12.7	7.3 B	15	3.4 JH	6.32	2.94	2.3	8.59	6.76	6.5	1.21 J	2.6 JH
Perfluorononanoic acid (PFNA)		6.18	2.5 JH	1.06 J	1.6 U	2.73	1.7 U	2.0 U	3.83	1.3 J	2.0 U	2.0 U	0.36 J	2.0 U	1.7 U
Perfluorodecanoic acid (PFDA)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	0.92 J	NA	NA	1.6 U	NA	1.7 U
Perfluoroundecanoic acid (PFUnA)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	2.8 U	NA	NA	1.6 U	NA	1.7 U
Perfluorododecanoic acid (PFDoA)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	2.1 U	NA	NA	1.6 U	NA	1.7 U
Perfluorotridecanoic acid (PFTriA)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	2.1 U	NA	NA	1.6 U	NA	1.7 U
Perfluorotetradecanoic acid (PFTeA)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	2.1 U	NA	NA	1.6 U	NA	1.7 U
Perfluorobutanesulfonic acid (PFBS)		10.2	1.9 JH	3.22	3.3 JH	1.23 J	1.8 JH	4.85	2.0 U	2.1 U	2.0 U	2.26	2.8	2.0 U	1.7 U
Perfluorohexanesulfonic acid (PFHxS)		2.0 U	1.7 U	5.02	2.9 JH	2.01	1.7 U	17.9	26	1 J	2.88	3.16	3.1	6.38	1.7 U
Perfluoroheptanesulfonic Acid (PFHpS)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	2.1 U	NA	NA	1.6 U	NA	1.7 U
Perfluorooctanesulfonic acid (PFOS)	10	7.02	5.6 JH	9.51	13 B	15.5	3.3 JH	6.19	2.0 U	0.86 J	6.8	2.0 U	2.1	1.81 J	3.8 JH
Perfluorodecanesulfonic acid (PFDS)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	2.1 U	NA	NA	1.6 U	NA	1.7 U
Perfluorooctanesulfonamide (PFOSA)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	2.1 U	NA	NA	1.6 U	NA	1.7 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		NA	4.3 U	NA	4.1 U	NA	4.3 U	NA	NA	5.2 UJ	NA	NA	4 U	NA	4.2 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		NA	4.3 U	NA	4.1 U	NA	4.3 U	NA	NA	5.2 U	NA	NA	4 U	NA	4.2 U
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)		NA	4.3 U	NA	4.1 U	NA	4.3 U	NA	NA	2.3 J	NA	NA	4 U	NA	4.2 U
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)		NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	NA	0.51 J	NA	NA	1.6 U	NA	1.7 U

Table 2-4
Summary of 1,4-dioxane and PFAS Groundwater Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NY State Established Criteria*	4009-13A 6/25/2017 Shallow	4009-14 6/23/2017 Deep	4009-14 4/12/2021 Deep	4009-15 6/23/2017 Deep	4009-15 4/9/2021 Deep	4009-16 6/21/2017 Deep	4009-16 4/9/2021 Deep	4009-16A 6/21/2017 Shallow	4009-16A 4/12/2021 Shallow	4009-18 6/21/2017 Deep	4009-18 4/9/2021 Deep	4009-19 6/22/2017 Deep	4009-19 4/9/2021 Deep	DUP-2 4/9/2021 Deep
1,4 Dioxane (µg/L)	1.0	0.4 U	0.4 U	0.19 U	0.4 U	0.19 U	0.91	0.69	0.4 U	0.19 U	0.40 U	0.36	0.85	0.88	0.89
Perfluorobutanoic acid (PFBA)		NA	NA	4 U	NA	11 J	NA	1.1 J	NA	4.3 U	NA	1.3 J	NA	4.2 U	4.3 U
Perfluoropentanoic acid (PFPeA)		NA	NA	1.7	NA	4.6	NA	0.67 J	NA	2.7	NA	1.9	NA	1.7 U	1.7 U
Perfluorohexanoic acid (PFHxA)		NA	NA	1.7 JH	NA	4.1 JH	NA	1.8 U	NA	2 JH	NA	1.9 U	NA	1.7 U	1.7 U
Perfluoroheptanoic acid (PFHpA)		2.52	2.0 U	1.6 U	2.0 U	3.3	2.0 U	1.8 U	2.67	1.7 JH	2.0 U	2.0	2.0 U	1.7 U	1.7 U
Perfluorooctanoic acid (PFOA)	10	5.63	2.0 U	3.0 JH	2.0 U	11	6.22	1.9	8.88	4.2 JH	2.25	2.0	2.0 U	1.7 U	1.7 U
Perfluorononanoic acid (PFNA)		2.0 U	2.0 U	1.6 U	2.0 U	1.7	3.05	1.8	3.65	2.3 JH	10.7	5.3	2.0 U	0.23 J	1.7 U
Perfluorodecanoic acid (PFDA)		NA	NA	1.6 U	NA	0.29 J	NA	0.28 J	NA	1.7 U	NA	0.54 J	NA	1.7 U	1.7 U
Perfluoroundecanoic acid (PFUnA)		NA	NA	1.6 U	NA	0.37 J	NA	0.44 J	NA	1.7 U	NA	1.9 U	NA	1.7 U	1.7 U
Perfluorododecanoic acid (PFDoA)		NA	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U	NA	1.9 U	NA	1.7 U	1.7 U
Perfluorotridecanoic acid (PFTriA)		NA	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U	NA	1.9 U	NA	1.7 U	1.7 U
Perfluorotetradecanoic acid (PFTeA)		NA	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U	NA	1.9 U	NA	1.7 U	1.7 U
Perfluorobutanesulfonic acid (PFBS)		12.9	2.0 U	3 JH	2.0 U	1.7 U	2.0 U	1.8 U	2.43	3.1 JH	2.0 U	1.9 U	2.0 U	1.7 U	1.7 U
Perfluorohexanesulfonic acid (PFHxS)		2.02	6.79	1.6 U	2.0 U	0.74 J	5.01	0.36 J	4.28	2.3 JH	1.11 J	0.82 J	2.0 U	1.7 U	1.7 U
Perfluoroheptanesulfonic Acid (PFHpS)		NA	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U	NA	1.9 U	NA	1.7 U	1.7 U
Perfluorooctanesulfonic acid (PFOS)	10	2.0 U	2.0 U	5.9 JH	2.0 U	1.7	2.0 U	0.9 J	9.18	9.5 B	2.28	1.4 J	2.0 U	1.7 U	1.7 U
Perfluorodecanesulfonic acid (PFDS)		NA	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U	NA	1.9 U	NA	1.7 U	1.7 U
Perfluorooctanesulfonamide (PFOSA)		NA	NA	1.6 U	NA	1.7 UJ	NA	1.8 U	NA	1.7 U	NA	1.9 U	NA	1.7 U	1.7 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		NA	NA	4.0 U	NA	4.2 U	NA	4.5 UJ	NA	4.3 U	NA	4.7 U	NA	4.2 U	4.3 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		NA	NA	4.0 U	NA	4.2 U	NA	4.5 U	NA	4.3 U	NA	4.7 U	NA	4.2 U	4.3 U
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)		NA	NA	4.0 U	NA	3.2 J	NA	3.6 J	NA	4.3 U	NA	4.7 U	NA	4.2 U	4.3 U
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)		NA	NA	1.6 U	NA	1.7 UJ	NA	1.8 UJ	NA	1.7 U	NA	1.9 U	NA	1.7 U	1.7 U

Table 2-4
Summary of 1,4-dioxane and PFAS Groundwater Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NY State Established Criteria*	4009-21 6/21/2017 Deep	4009-21 4/9/2021 Deep	4009-22 6/23/2017 Deep	4009-22 4/12/2021 Deep	4009-26 6/28/2017 Intermediate	4009-26 4/13/2021 Intermediate	4009-27S 6/27/2017 Intermediate	4009-27S 4/8/2021 Intermediate	4009-27I 6/27/2017 Intermediate	4009-27I 4/8/2021 Intermediate	4009-27D 6/27/2017 Deep	4009-27D 4/8/2021 Deep
1,4 Dioxane (µg/L)	1.0	0.78	0.99	0.78	0.80	3.7	2.9 E	0.73	0.82	0.21 J	0.19 U	0.4 U	0.19 U
Perfluorobutanoic acid (PFBA)		NA	4.6 U	NA	4.4 U	NA	6.3 JH	NA	3.9 J	NA	6.5	NA	14
Perfluoropentanoic acid (PFPeA)		NA	0.69 J	NA	1.1 J	NA	1.8	NA	3.8	NA	4.1	NA	1.5 J
Perfluorohexanoic acid (PFHxA)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	2.4 JH	NA	2.2 JH	NA	1.7 U
Perfluoroheptanoic acid (PFHpA)		2.0 U	1.8 U	2.0 U	1.7 U	2.0 U	1.7 JH	1.63 J	1.7 U	2.0 U	1.8 U	2.0 U	1.7 U
Perfluorooctanoic acid (PFOA)	10	2.0 U	1.8 U	2.0 U	1.7 U	9.62	6.8 B	3.4	4.3	3.79	5.5	2.0 U	10
Perfluorononanoic acid (PFNA)		2.0 U	0.27 J	3.57	1.7 U	1.14 J	1.6 U	2.0 U	1.7 U	2.0 U	0.35 J	2.0 U	0.94 J
Perfluorodecanoic acid (PFDA)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U
Perfluoroundecanoic acid (PFUnA)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U
Perfluorododecanoic acid (PFDoA)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U
Perfluorotridecanoic acid (PFTriA)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U
Perfluorotetradecanoic acid (PFTeA)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U
Perfluorobutanesulfonic acid (PFBS)		2.0 U	1.8 U	2.0 U	1.7 U	3.36	3.7 JH	1.87 J	2.1	2.18	3.4	4.5	9.8
Perfluorohexanesulfonic acid (PFHxS)		2.0 U	0.49 J	2.09	1.7 U	4.37	4.1 JH	1.12 J	1.7 U	1.86 J	2.2 JH	3.14	7.1 B
Perfluoroheptanesulfonic Acid (PFHpS)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U
Perfluorooctanesulfonic acid (PFOS)	10	2.0 U	0.37 J	2.0 U	1.7 U	8.44	8.5 JH	2.0 U	0.66 J	2.0 U	0.66 J	2.0 U	1.3 J
Perfluorodecanesulfonic acid (PFDS)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U
Perfluorooctanesulfonamide (PFOSA)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		NA	4.6 U	NA	4.4 U	NA	4.1 U	NA	4.3 U	NA	4.5 U	NA	4.1 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		NA	2.4 J	NA	4.4 U	NA	4.1 U	NA	4.3 U	NA	4.5 U	NA	4.1 U
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)		NA	1.1 J	NA	2.0 J	NA	4.1 U	NA	4.3 U	NA	4.5 U	NA	4.1 U
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)		NA	1.8 U	NA	1.7 U	NA	1.6 U	NA	1.7 U	NA	1.8 U	NA	1.7 U

Notes

*NYSDEC Part 375 Remedial Program, maximum contaminant level for 1,4-dioxane in drinking water, established August 2020

NYSDEC Part 375 Remedial Program, MCL for PFOA and PFOS screening levels, established June 2021

- Concentration exceeds Criteria

U - Compound was not detected at the indicated concentration

J - Reported concentration is estimated

JL - Reported concentration is estimated with a low bias

µg/L - Micrograms per Liter

ng/L - Nanograms/Liter

Unless otherwise noted, sample results are in ng/L

NA - Not Analyzed

B - Compound was found in the blank and sample

JH - Reported concentration is estimated biased high

E - Results exceeded the calibration range

Table 2-5
Summary of Town of Vestal Municipal Well 1,4-dioxane and PFAS Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2021
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)

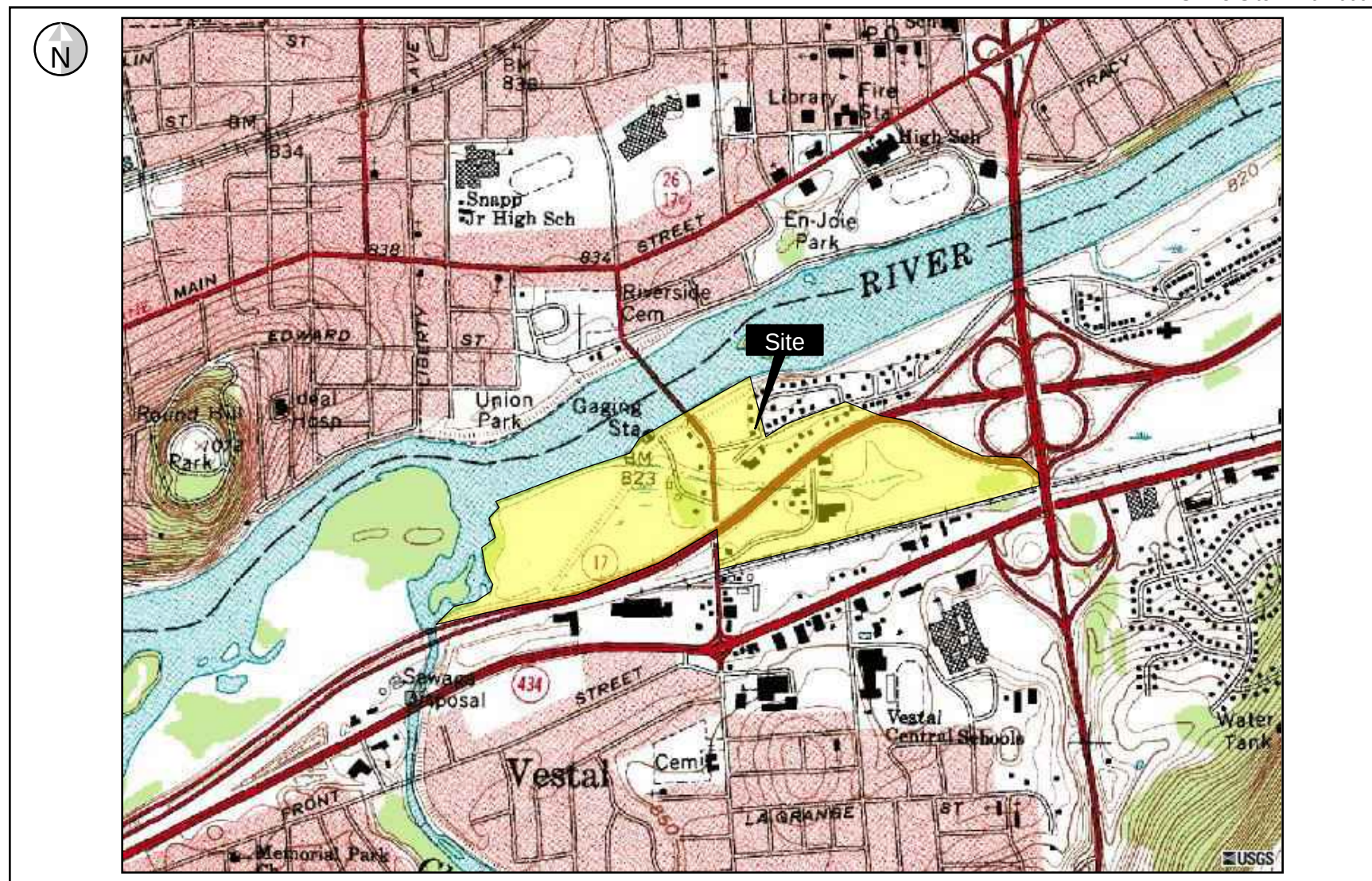
Sample ID Sampling Date	Established Criteria*	Well 1-2A 6/21/2017	Well 1-2A 10/10/2019	WELL 1-2A POST 10/10/2019 Effluent	Well 1-2A 4/9/2021	Well 1-3 6/21/2017	Well 1-3 10/10/2019	Well 1-3 POST 10/10/2019 Effluent	DUP-1 10/10/2019	Well 1-3 4/9/2021
1,4 Dioxane (µg/L)	1.0	0.39 J	0.70	0.72	0.63	0.4 U	0.20 U	0.20 U	0.20 U	0.19 U
Perfluorobutanoic acid (PFBA)		NA	NA	NA	4.3 U	NA	NA	NA	NA	1.3 J
Perfluoropentanoic acid (PFPeA)		NA	NA	NA	1.7 UJ	NA	NA	NA	NA	1.9 J
Perfluorohexanoic acid (PFHxA)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.2 J
Perfluoroheptanoic acid (PFHpA)		2.00 U	2.00 U	2.00 U	1.7 U	5.29	0.89 J	0.83 J	0.85 J	1.7 J
Perfluorooctanoic acid (PFOA)	10	2.00 U	2.00 U	2.00 U	1.7 U	4.79	1.43 J	1.18 J	1.33 J	1.7 U
Perfluorononanoic acid (PFNA)		2.00 U	2.00 U	2.00 U	1.7 U	4.8	0.78 J	2.00 U	2.00 U	0.75 J
Perfluorodecanoic acid (PFDA)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
Perfluoroundecanoic acid (PFUnA)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
Perfluorododecanoic acid (PFDoA)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
Perfluorotridecanoic acid (PFTriA)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
Perfluorotetradecanoic acid (PFTeA)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
Perfluorobutanesulfonic acid (PFBS)		2.00 U	2.00 U	2.00 U	1.7 U	0.96 J	2.00 U	2.00 U	2.00 U	1.7 U
Perfluorohexanesulfonic acid (PFHxS)		2.00 U	2.00 U	2.00 U	1.7 U	3.07	2.00 U	2.00 U	2.00 U	1.7 U
Perfluoroheptanesulfonic Acid (PFHpS)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
Perfluorooctanesulfonic acid (PFOS)	10	2.00 U	2.00 UJ	2.00 U	1.7 U	7.19	1.84 J	2.00 U	2.00 U	1.7 U
Perfluorodecanesulfonic acid (PFDS)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
Perfluorooctanesulfonamide (PFOSA)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		NA	NA	NA	4.3 U	NA	NA	NA	NA	4.4 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		NA	NA	NA	4.3 U	NA	NA	NA	NA	4.4 U
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)		NA	NA	NA	4.3 U	NA	NA	NA	NA	4.4 U
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)		NA	NA	NA	1.7 U	NA	NA	NA	NA	1.7 U
Total PFOS + PFOA	70	0.0	0.0	0.0	0.0	26.1	4.9	2.01	2.18	6.85

Notes:

*NYSDEC Part 375 Remedial Program, maximum contaminant level for 1,4-dioxane in drinking water, established August 2020
USEPA. 2016. Lifetime Health Advisories and Health Effects Support Documents for Perfluorooctanoic Acid and Perfluorooctane Sulfonate. EPA-HQ-OW-2014-0138; FRL-9946-91-OW. Federal Register/ Vol. 81. No. 101. May 25. Available online at: <https://www.govinfo.gov/content/pkg/FR-2016-05-25/pdf/2016-12361.pdf>.
NYSDEC Part 375 Remedial Program, MCL for PFOA and PFOS screening levels, established June 2021
DUP-1 Sampled from Well 1-3 POST
U - Compound was not detected at the indicated concentration
J - Compound detected below the reporting limit or approximate reported concentration is estimated
µg/L - micrograms per Liter
ng/L - nanograms/Liter
Unless otherwise noted, sample results are in ng/L.
NA- Not analyzed

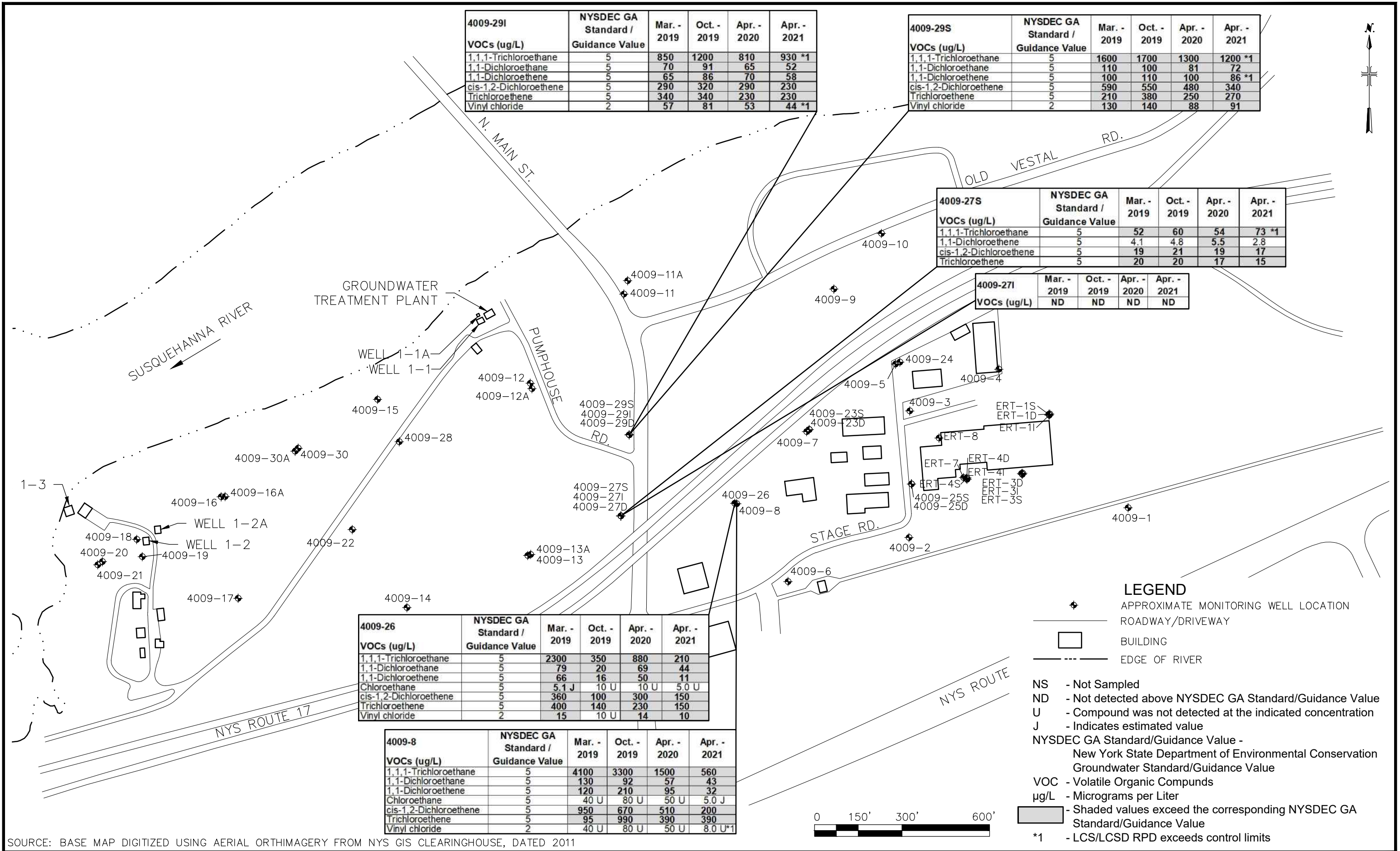
Figures

Figure 1-1
Site Location
Vestal Water Supply Site
Vestal, New York
NYSDEC Site # 7-04-009A



Source: USGS 7.5-minute Series Topographic Quadrangle, Endicott (1988).

CITY: SYRACUSE NY DIV/GROUP: ENV/CAD DB: E. KRAHMER PIC: PM: TM: TR: LYR: (OPTION="OFF"=REF*) PAGESETUP: PDF PLOTSTYLETABLE: AUS-NCMOD FULL MONO.CTB PLOTTED: 8/3/2021 12:48 PM BY: C:\Users\ekraher\OneDrive - ARCADIS\BIM 360 Docs\Temp-Delete\Vestal\2-3 VOC INTERMEDIATE 2019-2021.dwg LAYOUT: 2-3



SOURCE: BASE MAP DIGITIZED USING AERIAL ORTHIMAGERY FROM NYS GIS CLEARINGHOUSE, DATED 2011

Figure 2-4
Vestal Water Supply Site
Site No. 7-04-009A
VOC Concentrations in Monitoring Well 4009-8

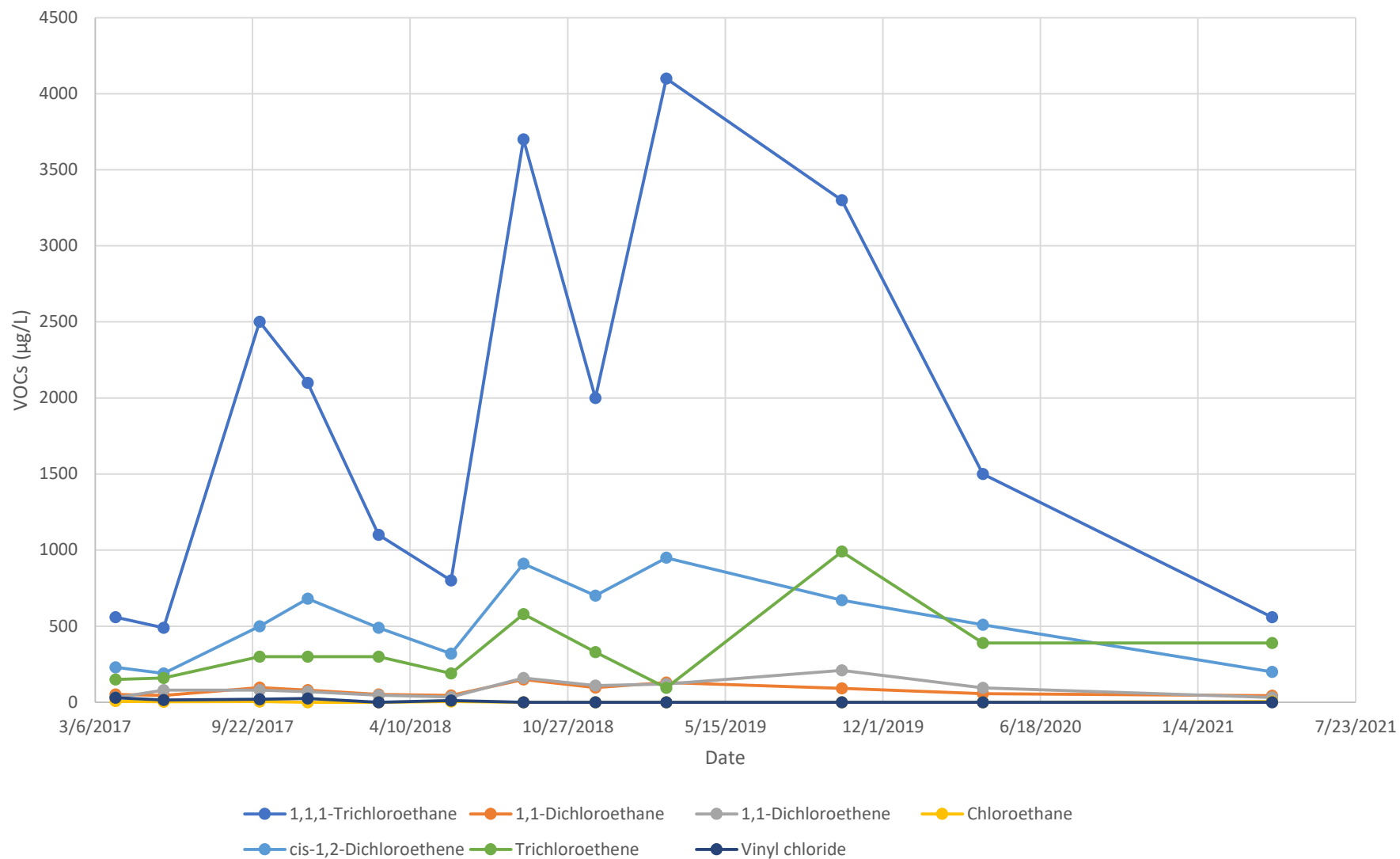


Figure 2-5
Vestal Water Supply Site
Site No. 7-04-009A
VOC Concentrations in Monitoring Well 4009-26

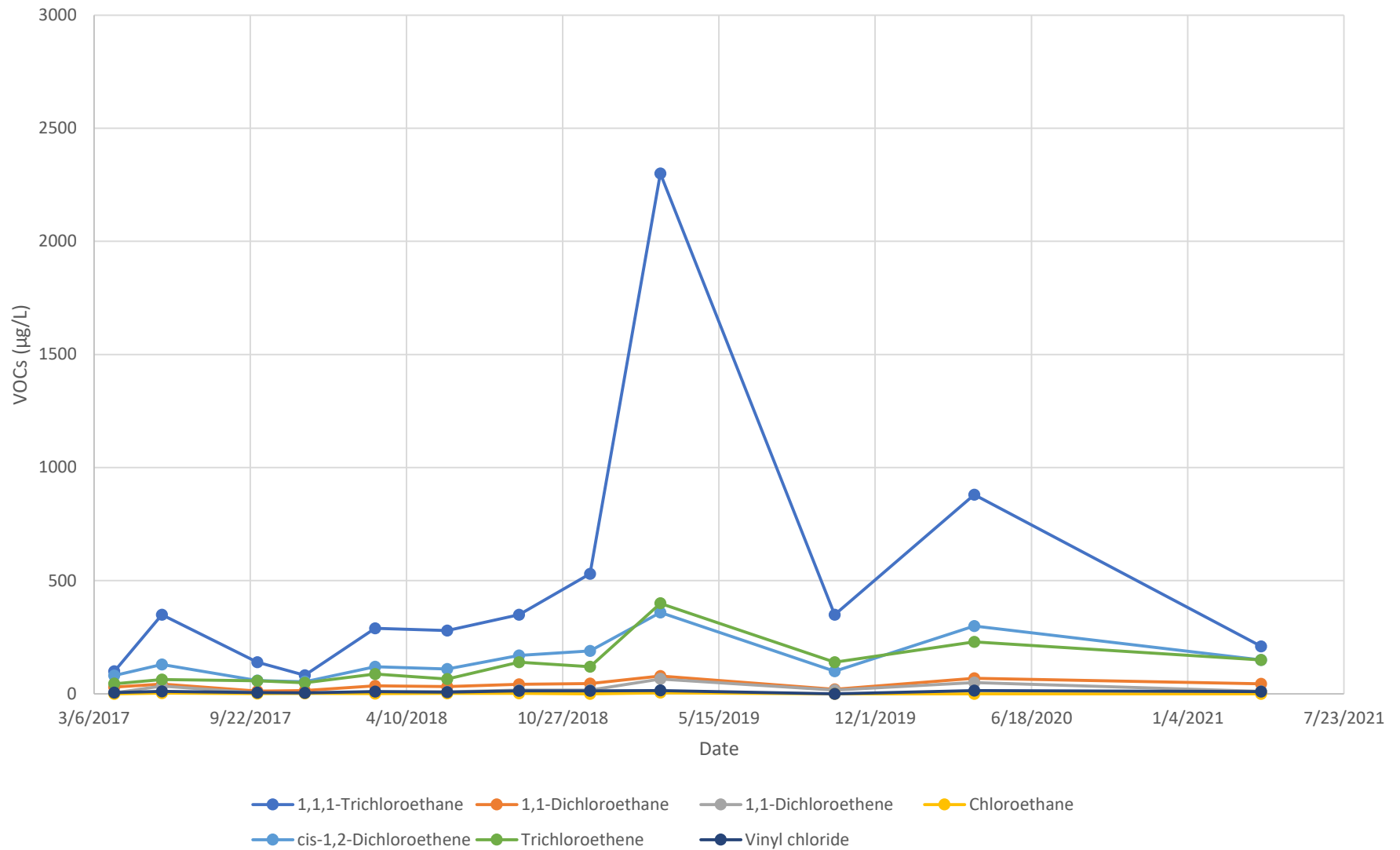
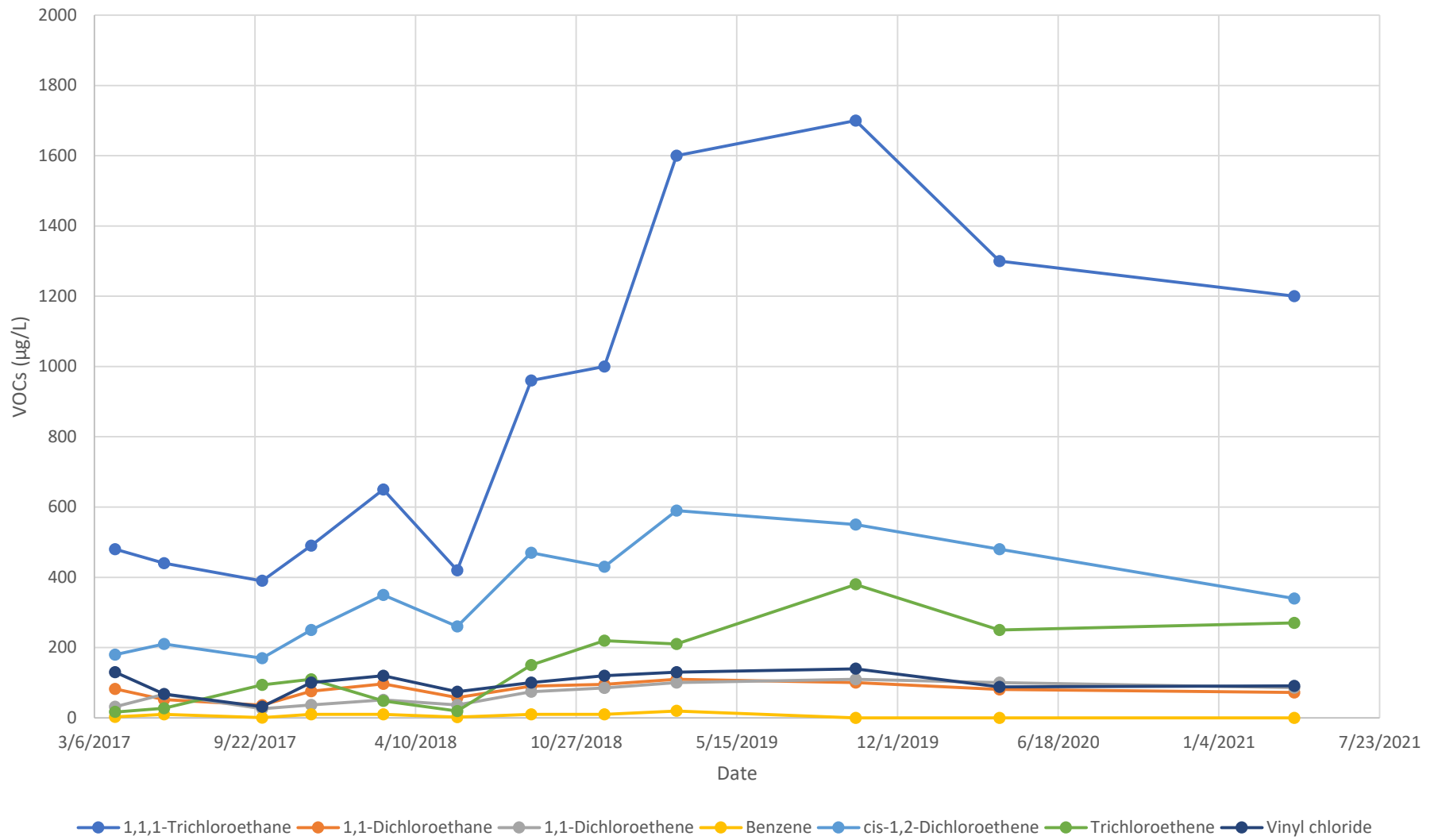
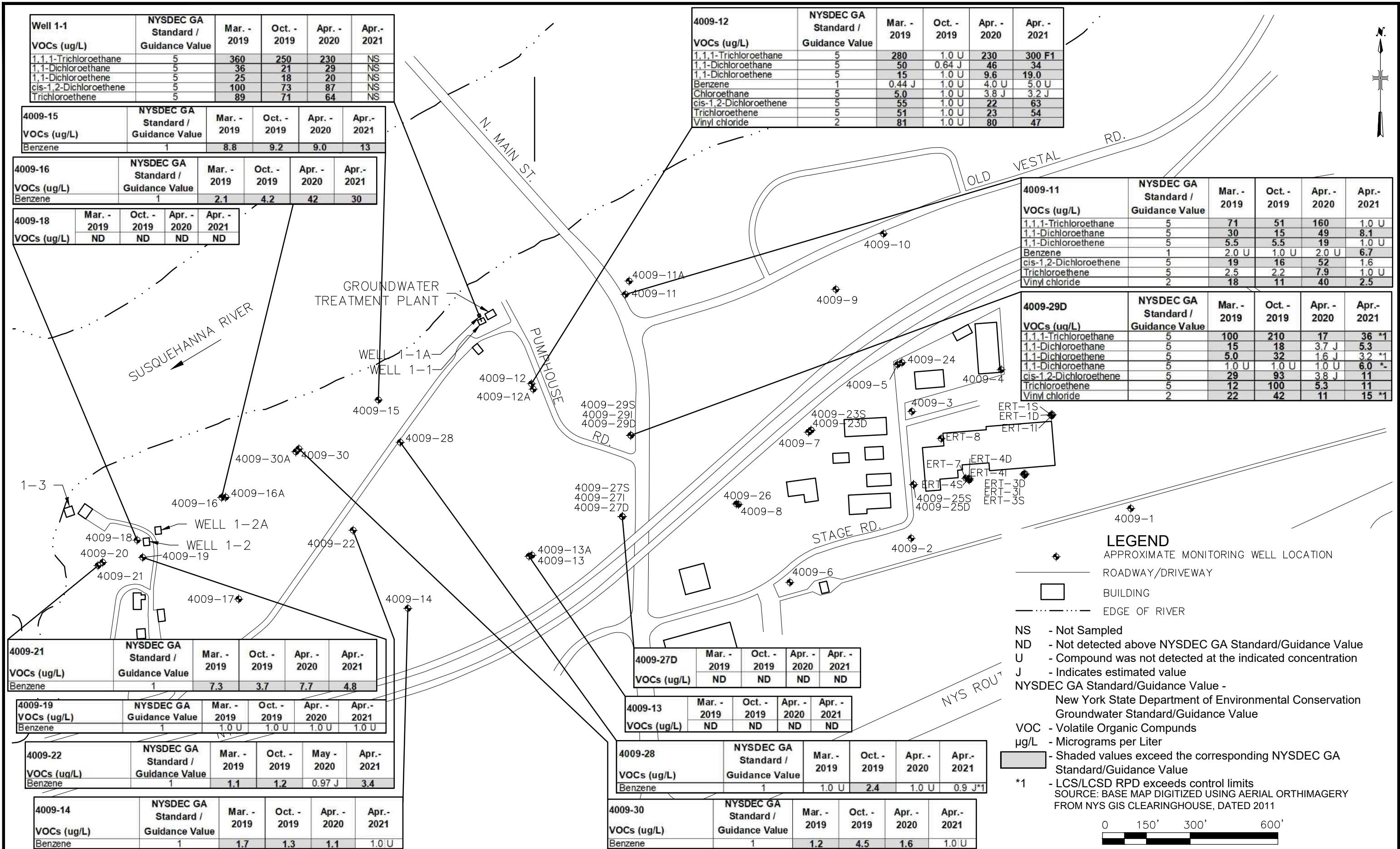


Figure 2-6
Vestal Water Supply Site
Site No. 7-04-009A
VOC Concentrations in Monitoring Well 4009-29S



CITY: SYRACUSE NY DIV/GRP: ENV/CAD DB: E. KRAHMER PIC: PN: TM: TR: LVR/Option="OFF"="REF" C:\Users\krahmer\OneDrive - ARCADIS\BIM 360 Docs\Temp-Data\Map\Map\F2-7 VOC DEEP 2019-2021.dwg LAYOUT: 2-7 PLOT: 8/2/2021 12:55 PM ACADVER: 24.05 (LMS TECH) PAGES: 27 PAGESETUP: --- PLOTSTYLETABLE: AUS-NCMOD FULL MONO.CTB PLOTTED: 8/2/2021 12:55 PM BY: KRAHMER, ERIC



NYSDEC STANDBY CONTRACT NO. D007618-7
NYSDEC SITE NO. 7-04-009
VESTAL WATER SUPPLY
VESTAL, NEW YORK

GROUNDWATER VOC RESULTS -
DEEP WELLS
SCALE: AS SHOWN

APRIL 2021
FIGURE 2-7



Appendix A

Analytical Reporting Forms (TestAmerica Laboratories, Inc. and Microbac Laboratory Services)

ANALYTICAL REPORT

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

Laboratory Job ID: 480-183110-1

Client Project/Site: Vestal Water Supply (Site 1-1) #704009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:
4/21/2021 4:21:44 PM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

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



Judy Stone
Senior Project Manager
4/21/2021 4:21:44 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	7
Client Sample Results	10
Surrogate Summary	32
Isotope Dilution Summary	33
QC Sample Results	35
QC Association Summary	42
Lab Chronicle	44
Certification Summary	47
Method Summary	48
Sample Summary	49
Chain of Custody	50
Receipt Checklists	53



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Job ID: 480-183110-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-183110-1

Comments

No additional comments.

Receipt

The samples were received on 4/9/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.9° C and 2.2° C.

GC/MS VOA

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: 4009-27S (480-183110-1), 4009-29I (480-183110-3) and 4009-29S (480-183110-4). Elevated reporting limits (RLs) are provided.

Method 8260C: Due to the coelution Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 575941. The following samples were affected: 4009-27S (480-183110-1), 4009-27I (480-183110-2), 4009-29I (480-183110-3), 4009-29S (480-183110-4), 4009-29D (480-183110-5), 4009-27D (480-183110-6), 4009-28 (480-183110-7), DUP-1 (480-183110-9) and TRIP BLANK (480-183110-10).

Method 8260C: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for analytical batch 480-575941 recovered outside control limits for the following analyte: Chloroethane. Chloroethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The following samples were affected : 4009-27S (480-183110-1), 4009-27I (480-183110-2), 4009-29I (480-183110-3), 4009-29S (480-183110-4), 4009-29D (480-183110-5), 4009-27D (480-183110-6), 4009-28 (480-183110-7), DUP-1 (480-183110-9) and TRIP BLANK (480-183110-10).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 480-575941 recovered outside control limits for the following analytes: 1,1,1-Trichloroethane, 1,1-Dichloroethene, Benzene, Carbon tetrachloride and Vinyl chloride. The following samples were affected: 4009-27S (480-183110-1), 4009-27I (480-183110-2), 4009-29I (480-183110-3), 4009-29S (480-183110-4), 4009-29D (480-183110-5), 4009-27D (480-183110-6), 4009-28 (480-183110-7), DUP-1 (480-183110-9) and TRIP BLANK (480-183110-10).

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

GC/MS Semi VOA

Method 8270D SIM ID: The 1,4-Dioxane result reported for samples 4009-29I (480-183110-3), 4009-29S (480-183110-4) and 4009-29D (480-183110-5) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

Method 8270D SIM ID: The following samples were diluted to bring the concentration of target analytes within the calibration range: 4009-29S (480-183110-4) and 4009-29D (480-183110-5). Elevated reporting limits (RLs) are provided.

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

LCMS

Method 537 (modified): Internal standard responses were outside of acceptance limits for the following samples: 4009-28 (480-183110-7) and DUP-1 (480-183110-9). The samples show evidence of matrix interference.

Method 537 (modified): M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: 4009-28 (480-183110-7). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): M2-6:2 FTS, M2-8:2 FTS and d3-NMeFOSAA Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: DUP-1 (480-183110-9). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Job ID: 480-183110-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

Method 537 (modified): The method blank for preparation batch 200-165862 and analytical batch 200-165905 contained Perfluoroheptanoic acid (PFHpA) and Perfluorohexanesulfonic acid (PFHxS) above the method detection limit. This target analyte concentrations were less than half the reporting limit (1/2RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 537 (modified): Method 537 (modified): The "I" qualifier associated with samples 4009-29D (480-183110-5), 4009-27D (480-183110-6), 4009-28 (480-183110-7) and DUP-1 (480-183110-9) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

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

Organic Prep

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-576004.

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27S

Lab Sample ID: 480-183110-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	73	*1	2.0	1.6	ug/L	2		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	2.2		2.0	0.62	ug/L	2		8260C	Total/NA
1,1-Dichloroethane	2.8		2.0	0.76	ug/L	2		8260C	Total/NA
1,1-Dichloroethene	4.5	*1	2.0	0.58	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	17		2.0	1.6	ug/L	2		8260C	Total/NA
Trichloroethene	15		2.0	0.92	ug/L	2		8260C	Total/NA
1,4-Dioxane	0.82		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	3.9	J	4.3	0.78	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.8		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.4		1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.6	J B	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.3		1.7	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.1		1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.4	J B	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.66	J	1.7	0.25	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-27I

Lab Sample ID: 480-183110-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.32	J	1.0	0.31	ug/L	1		8260C	Total/NA
Trichloroethene	2.2		1.0	0.46	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	6.5		4.5	0.80	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.1		1.8	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.8	0.41	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.6	J B	1.8	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.5		1.8	0.38	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.35	J	1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.4		1.8	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.2	B	1.8	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.66	J	1.8	0.26	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-29I

Lab Sample ID: 480-183110-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	930	*1	20	16	ug/L	20		8260C	Total/NA
1,1-Dichloroethane	52		20	7.6	ug/L	20		8260C	Total/NA
1,1-Dichloroethene	58	*1	20	5.8	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene	230		20	16	ug/L	20		8260C	Total/NA
Trichloroethene	230		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	44	*1	20	18	ug/L	20		8260C	Total/NA
1,4-Dioxane	2.5	E	0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	4.7		4.3	0.77	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.5		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.8		1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0	B	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	7.5		1.7	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.60	J	1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.2		1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.3	B	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.29	J	1.7	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.3		1.7	0.25	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-29S

Lab Sample ID: 480-183110-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1200	*1	20	16	ug/L	20		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	9.6	J	20	6.2	ug/L	20		8260C	Total/NA
1,1-Dichloroethane	72		20	7.6	ug/L	20		8260C	Total/NA
1,1-Dichloroethene	86	*1	20	5.8	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene	340		20	16	ug/L	20		8260C	Total/NA
Trichloroethene	270		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	91	*1	20	18	ug/L	20		8260C	Total/NA
1,4-Dioxane	6.0	E	0.95	0.48	ug/L	5		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	4.9		4.1	0.73	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.9		1.6	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.6		1.6	0.37	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.8	B	1.6	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	7.9		1.6	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.62	J	1.6	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.3		1.6	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.1	B	1.6	0.25	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.39	J	1.6	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	9.1		1.6	0.24	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-29D

Lab Sample ID: 480-183110-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	36	*1	1.0	0.82	ug/L	1		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	0.39	J	1.0	0.31	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	5.3		1.0	0.38	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	3.2	*1	1.0	0.29	ug/L	1		8260C	Total/NA
Chloroethane	6.0	*-	1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	11		1.0	0.81	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	1.2		1.0	0.16	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	15	*1	1.0	0.90	ug/L	1		8260C	Total/NA
1,4-Dioxane	150	E	19	9.5	ug/L	100		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	2.9	J	4.1	0.73	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.58	J	1.6	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.42	J	1.6	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.63	J	1.6	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.25	J I	1.6	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.29	J B	1.6	0.25	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-27D

Lab Sample ID: 480-183110-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.26	J	1.0	0.16	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	14		4.1	0.74	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.5	J	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.79	J	1.7	0.37	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.50	J B	1.7	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	10		1.7	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.94	J	1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.8		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.1	B	1.7	0.25	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27D (Continued)

Lab Sample ID: 480-183110-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	1.3	J I	1.7	0.24	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-28

Lab Sample ID: 480-183110-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.0	J	10	3.0	ug/L	1		8260C	Total/NA
Benzene	0.93	J *1	1.0	0.41	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.18	J	0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	3.8	J	4.3	0.77	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.7		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.0	B	1.7	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.5		1.7	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.8		1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.94	J	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.42	J I	1.7	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.43	J I	1.7	0.33	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.48	J I	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.2	J	1.7	0.25	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.6	J	4.3	0.94	ng/L	1		537 (modified)	Total/NA

Client Sample ID: EQUIP BLANK 1

Lab Sample ID: 480-183110-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.53	J	1.8	0.41	ng/L	1		537 (modified)	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 480-183110-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.0	J	10	3.0	ug/L	1		8260C	Total/NA
Benzene	0.96	J *1	1.0	0.41	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.32		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	3.8	J	4.4	0.79	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.5		1.8	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.2		1.8	0.40	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.9	B	1.8	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.5		1.8	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.8		1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.97	J	1.8	0.27	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.55	J I	1.8	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.33	J	1.8	0.22	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.21	J	1.8	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.2	J	1.8	0.26	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.4	J	4.4	0.97	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-183110-10

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27S

Lab Sample ID: 480-183110-1

Date Collected: 04/08/21 11:07

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	73	*1	2.0	1.6	ug/L			04/12/21 15:08	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			04/12/21 15:08	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.2		2.0	0.62	ug/L			04/12/21 15:08	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			04/12/21 15:08	2
1,1-Dichloroethane	2.8		2.0	0.76	ug/L			04/12/21 15:08	2
1,1-Dichloroethene	4.5	*1	2.0	0.58	ug/L			04/12/21 15:08	2
1,2,3-Trimethylbenzene	ND		2.0	0.52	ug/L			04/12/21 15:08	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			04/12/21 15:08	2
1,2,4-Trimethylbenzene	ND		2.0	1.5	ug/L			04/12/21 15:08	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			04/12/21 15:08	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			04/12/21 15:08	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			04/12/21 15:08	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			04/12/21 15:08	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			04/12/21 15:08	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			04/12/21 15:08	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			04/12/21 15:08	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			04/12/21 15:08	2
2-Butanone (MEK)	ND	*+	20	2.6	ug/L			04/12/21 15:08	2
2-Hexanone	ND		10	2.5	ug/L			04/12/21 15:08	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			04/12/21 15:08	2
Acetone	ND		20	6.0	ug/L			04/12/21 15:08	2
Benzene	ND	*1	2.0	0.82	ug/L			04/12/21 15:08	2
Bromodichloromethane	ND		2.0	0.78	ug/L			04/12/21 15:08	2
Bromoform	ND		2.0	0.52	ug/L			04/12/21 15:08	2
Bromomethane	ND		2.0	1.4	ug/L			04/12/21 15:08	2
Carbon disulfide	ND		2.0	0.38	ug/L			04/12/21 15:08	2
Carbon tetrachloride	ND	*1	2.0	0.54	ug/L			04/12/21 15:08	2
Chlorobenzene	ND		2.0	1.5	ug/L			04/12/21 15:08	2
Chloroethane	ND	*-	2.0	0.64	ug/L			04/12/21 15:08	2
Chloroform	ND		2.0	0.68	ug/L			04/12/21 15:08	2
Chloromethane	ND		2.0	0.70	ug/L			04/12/21 15:08	2
cis-1,2-Dichloroethene	17		2.0	1.6	ug/L			04/12/21 15:08	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			04/12/21 15:08	2
Cyclohexane	ND		2.0	0.36	ug/L			04/12/21 15:08	2
Dibromochloromethane	ND		2.0	0.64	ug/L			04/12/21 15:08	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			04/12/21 15:08	2
Ethylbenzene	ND		2.0	1.5	ug/L			04/12/21 15:08	2
Isopropylbenzene	ND		2.0	1.6	ug/L			04/12/21 15:08	2
Methyl acetate	ND		5.0	2.6	ug/L			04/12/21 15:08	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			04/12/21 15:08	2
Methylcyclohexane	ND		2.0	0.32	ug/L			04/12/21 15:08	2
Methylene Chloride	ND		2.0	0.88	ug/L			04/12/21 15:08	2
Styrene	ND		2.0	1.5	ug/L			04/12/21 15:08	2
Tetrachloroethene	ND		2.0	0.72	ug/L			04/12/21 15:08	2
Toluene	ND		2.0	1.0	ug/L			04/12/21 15:08	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			04/12/21 15:08	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			04/12/21 15:08	2
Trichloroethene	15		2.0	0.92	ug/L			04/12/21 15:08	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			04/12/21 15:08	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27S

Lab Sample ID: 480-183110-1

Date Collected: 04/08/21 11:07

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	*1	2.0	1.8	ug/L			04/12/21 15:08	2
Xylenes, Total	ND		4.0	1.3	ug/L			04/12/21 15:08	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		04/12/21 15:08	2
4-Bromofluorobenzene (Surr)	99		73 - 120		04/12/21 15:08	2
Dibromofluoromethane (Surr)	103		75 - 123		04/12/21 15:08	2
Toluene-d8 (Surr)	102		80 - 120		04/12/21 15:08	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.82		0.19	0.095	ug/L		04/12/21 12:01	04/13/21 15:36	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	27		15 - 110				04/12/21 12:01	04/13/21 15:36	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.9	J	4.3	0.78	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluoropentanoic acid (PFPeA)	3.8		1.7	0.41	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorohexanoic acid (PFHxA)	2.4		1.7	0.39	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluoroheptanoic acid (PFHpA)	1.6	J B	1.7	0.21	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorooctanoic acid (PFOA)	4.3		1.7	0.37	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.24	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.30	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.33	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.38	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.55	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorobutanesulfonic acid (PFBS)	2.1		1.7	0.22	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorohexanesulfonic acid (PFHxS)	1.4	J B	1.7	0.26	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorooctanesulfonic acid (PFOS)	0.66	J	1.7	0.25	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.27	ng/L		04/14/21 13:57	04/15/21 14:44	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		04/14/21 13:57	04/15/21 14:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.79	ng/L		04/14/21 13:57	04/15/21 14:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.65	ng/L		04/14/21 13:57	04/15/21 14:44	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.95	ng/L		04/14/21 13:57	04/15/21 14:44	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.34	ng/L		04/14/21 13:57	04/15/21 14:44	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	88		50 - 150				04/14/21 13:57	04/15/21 14:44	1
13C4 PFHpA	99		50 - 150				04/14/21 13:57	04/15/21 14:44	1
13C4 PFOA	94		50 - 150				04/14/21 13:57	04/15/21 14:44	1
13C4 PFOS	86		50 - 150				04/14/21 13:57	04/15/21 14:44	1
13C5 PFNA	98		50 - 150				04/14/21 13:57	04/15/21 14:44	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27S

Date Collected: 04/08/21 11:07

Date Received: 04/09/21 08:00

Lab Sample ID: 480-183110-1

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	80		25 - 150	04/14/21 13:57	04/15/21 14:44	1
13C2 PFHxA	94		50 - 150	04/14/21 13:57	04/15/21 14:44	1
13C2 PFDA	90		50 - 150	04/14/21 13:57	04/15/21 14:44	1
13C2 PFUnA	88		50 - 150	04/14/21 13:57	04/15/21 14:44	1
13C2 PFDaA	84		50 - 150	04/14/21 13:57	04/15/21 14:44	1
13C8 FOSA	79		25 - 150	04/14/21 13:57	04/15/21 14:44	1
13C5 PFPeA	88		25 - 150	04/14/21 13:57	04/15/21 14:44	1
13C2 PFTeDA	83		50 - 150	04/14/21 13:57	04/15/21 14:44	1
d3-NMeFOSAA	83		50 - 150	04/14/21 13:57	04/15/21 14:44	1
d5-NEtFOSAA	91		50 - 150	04/14/21 13:57	04/15/21 14:44	1
M2-6:2 FTS	89		25 - 150	04/14/21 13:57	04/15/21 14:44	1
M2-8:2 FTS	85		25 - 150	04/14/21 13:57	04/15/21 14:44	1
13C3 PFBS	88		50 - 150	04/14/21 13:57	04/15/21 14:44	1

Client Sample ID: 4009-27I

Date Collected: 04/08/21 12:10

Date Received: 04/09/21 08:00

Lab Sample ID: 480-183110-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*1	1.0	0.82	ug/L			04/12/21 15:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 15:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.32	J	1.0	0.31	ug/L			04/12/21 15:29	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 15:29	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 15:29	1
1,1-Dichloroethene	ND	*1	1.0	0.29	ug/L			04/12/21 15:29	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 15:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 15:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 15:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 15:29	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 15:29	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 15:29	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 15:29	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 15:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 15:29	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 15:29	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 15:29	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 15:29	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 15:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 15:29	1
Acetone	ND		10	3.0	ug/L			04/12/21 15:29	1
Benzene	ND	*1	1.0	0.41	ug/L			04/12/21 15:29	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 15:29	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 15:29	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 15:29	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 15:29	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/12/21 15:29	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 15:29	1
Chloroethane	ND	*-	1.0	0.32	ug/L			04/12/21 15:29	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-271

Lab Sample ID: 480-183110-2

Date Collected: 04/08/21 12:10

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.34	ug/L			04/12/21 15:29	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 15:29	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 15:29	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 15:29	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 15:29	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 15:29	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 15:29	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 15:29	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 15:29	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 15:29	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 15:29	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 15:29	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 15:29	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 15:29	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 15:29	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 15:29	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 15:29	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 15:29	1
Trichloroethene	2.2		1.0	0.46	ug/L			04/12/21 15:29	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 15:29	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/12/21 15:29	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 15:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		04/12/21 15:29	1
4-Bromofluorobenzene (Surr)	101		73 - 120		04/12/21 15:29	1
Dibromofluoromethane (Surr)	109		75 - 123		04/12/21 15:29	1
Toluene-d8 (Surr)	110		80 - 120		04/12/21 15:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		04/12/21 12:01	04/13/21 16:00	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110				04/12/21 12:01	04/13/21 16:00	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	6.5		4.5	0.80	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluoropentanoic acid (PFPeA)	4.1		1.8	0.42	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorohexanoic acid (PFHxA)	2.2		1.8	0.41	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluoroheptanoic acid (PFHpA)	1.6	J B	1.8	0.21	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorooctanoic acid (PFOA)	5.5		1.8	0.38	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorononanoic acid (PFNA)	0.35	J	1.8	0.25	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.27	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.31	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.34	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.39	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.57	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorobutanesulfonic acid (PFBS)	3.4		1.8	0.22	ng/L		04/14/21 13:57	04/15/21 14:53	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-271

Lab Sample ID: 480-183110-2

Date Collected: 04/08/21 12:10

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	2.2	B	1.8	0.27	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.21	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorooctanesulfonic acid (PFOS)	0.66	J	1.8	0.26	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.27	ng/L		04/14/21 13:57	04/15/21 14:53	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.52	ng/L		04/14/21 13:57	04/15/21 14:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	0.81	ng/L		04/14/21 13:57	04/15/21 14:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	0.67	ng/L		04/14/21 13:57	04/15/21 14:53	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.5	0.98	ng/L		04/14/21 13:57	04/15/21 14:53	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.35	ng/L		04/14/21 13:57	04/15/21 14:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	85		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C4 PFHpA	93		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C4 PFOA	91		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C4 PFOS	83		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C5 PFNA	92		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C4 PFBA	81		25 - 150				04/14/21 13:57	04/15/21 14:53	1
13C2 PFHxA	89		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C2 PFDA	92		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C2 PFUnA	87		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C2 PFDoA	79		50 - 150				04/14/21 13:57	04/15/21 14:53	1
13C8 FOSA	79		25 - 150				04/14/21 13:57	04/15/21 14:53	1
13C5 PFPeA	87		25 - 150				04/14/21 13:57	04/15/21 14:53	1
13C2 PFTeDA	84		50 - 150				04/14/21 13:57	04/15/21 14:53	1
d3-NMeFOSAA	87		50 - 150				04/14/21 13:57	04/15/21 14:53	1
d5-NEtFOSAA	83		50 - 150				04/14/21 13:57	04/15/21 14:53	1
M2-6:2 FTS	90		25 - 150				04/14/21 13:57	04/15/21 14:53	1
M2-8:2 FTS	89		25 - 150				04/14/21 13:57	04/15/21 14:53	1
13C3 PFBS	85		50 - 150				04/14/21 13:57	04/15/21 14:53	1

Client Sample ID: 4009-291

Lab Sample ID: 480-183110-3

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	930	*1	20	16	ug/L			04/12/21 15:51	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			04/12/21 15:51	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			04/12/21 15:51	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			04/12/21 15:51	20
1,1-Dichloroethane	52		20	7.6	ug/L			04/12/21 15:51	20
1,1-Dichloroethene	58	*1	20	5.8	ug/L			04/12/21 15:51	20
1,2,3-Trimethylbenzene	ND		20	5.2	ug/L			04/12/21 15:51	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			04/12/21 15:51	20
1,2,4-Trimethylbenzene	ND		20	15	ug/L			04/12/21 15:51	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-291

Lab Sample ID: 480-183110-3

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			04/12/21 15:51	20
1,2-Dibromoethane	ND		20	15	ug/L			04/12/21 15:51	20
1,2-Dichlorobenzene	ND		20	16	ug/L			04/12/21 15:51	20
1,2-Dichloroethane	ND		20	4.2	ug/L			04/12/21 15:51	20
1,2-Dichloropropane	ND		20	14	ug/L			04/12/21 15:51	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			04/12/21 15:51	20
1,3-Dichlorobenzene	ND		20	16	ug/L			04/12/21 15:51	20
1,4-Dichlorobenzene	ND		20	17	ug/L			04/12/21 15:51	20
2-Butanone (MEK)	ND	*+	200	26	ug/L			04/12/21 15:51	20
2-Hexanone	ND		100	25	ug/L			04/12/21 15:51	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			04/12/21 15:51	20
Acetone	ND		200	60	ug/L			04/12/21 15:51	20
Benzene	ND	*1	20	8.2	ug/L			04/12/21 15:51	20
Bromodichloromethane	ND		20	7.8	ug/L			04/12/21 15:51	20
Bromoform	ND		20	5.2	ug/L			04/12/21 15:51	20
Bromomethane	ND		20	14	ug/L			04/12/21 15:51	20
Carbon disulfide	ND		20	3.8	ug/L			04/12/21 15:51	20
Carbon tetrachloride	ND	*1	20	5.4	ug/L			04/12/21 15:51	20
Chlorobenzene	ND		20	15	ug/L			04/12/21 15:51	20
Chloroethane	ND	*-	20	6.4	ug/L			04/12/21 15:51	20
Chloroform	ND		20	6.8	ug/L			04/12/21 15:51	20
Chloromethane	ND		20	7.0	ug/L			04/12/21 15:51	20
cis-1,2-Dichloroethene	230		20	16	ug/L			04/12/21 15:51	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			04/12/21 15:51	20
Cyclohexane	ND		20	3.6	ug/L			04/12/21 15:51	20
Dibromochloromethane	ND		20	6.4	ug/L			04/12/21 15:51	20
Dichlorodifluoromethane	ND		20	14	ug/L			04/12/21 15:51	20
Ethylbenzene	ND		20	15	ug/L			04/12/21 15:51	20
Isopropylbenzene	ND		20	16	ug/L			04/12/21 15:51	20
Methyl acetate	ND		50	26	ug/L			04/12/21 15:51	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			04/12/21 15:51	20
Methylcyclohexane	ND		20	3.2	ug/L			04/12/21 15:51	20
Methylene Chloride	ND		20	8.8	ug/L			04/12/21 15:51	20
Styrene	ND		20	15	ug/L			04/12/21 15:51	20
Tetrachloroethene	ND		20	7.2	ug/L			04/12/21 15:51	20
Toluene	ND		20	10	ug/L			04/12/21 15:51	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			04/12/21 15:51	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			04/12/21 15:51	20
Trichloroethene	230		20	9.2	ug/L			04/12/21 15:51	20
Trichlorofluoromethane	ND		20	18	ug/L			04/12/21 15:51	20
Vinyl chloride	44	*1	20	18	ug/L			04/12/21 15:51	20
Xylenes, Total	ND		40	13	ug/L			04/12/21 15:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/12/21 15:51	20
4-Bromofluorobenzene (Surr)	103		73 - 120		04/12/21 15:51	20
Dibromofluoromethane (Surr)	101		75 - 123		04/12/21 15:51	20
Toluene-d8 (Surr)	105		80 - 120		04/12/21 15:51	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-291

Lab Sample ID: 480-183110-3

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.5	E	0.19	0.095	ug/L		04/12/21 12:01	04/13/21 16:25	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	47		15 - 110				04/12/21 12:01	04/13/21 16:25	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.7		4.3	0.77	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluoropentanoic acid (PFPeA)	3.5		1.7	0.41	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorohexanoic acid (PFHxA)	2.8		1.7	0.39	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluoroheptanoic acid (PFHpA)	2.0	B	1.7	0.21	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorooctanoic acid (PFOA)	7.5		1.7	0.37	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorononanoic acid (PFNA)	0.60	J	1.7	0.24	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.30	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.33	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.55	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorobutanesulfonic acid (PFBS)	2.2		1.7	0.22	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorohexanesulfonic acid (PFHxS)	3.3	B	1.7	0.26	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.29	J	1.7	0.20	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorooctanesulfonic acid (PFOS)	6.3		1.7	0.25	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/14/21 13:57	04/15/21 15:01	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		04/14/21 13:57	04/15/21 15:01	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.78	ng/L		04/14/21 13:57	04/15/21 15:01	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.64	ng/L		04/14/21 13:57	04/15/21 15:01	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.95	ng/L		04/14/21 13:57	04/15/21 15:01	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.34	ng/L		04/14/21 13:57	04/15/21 15:01	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	86		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C4 PFHpA	95		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C4 PFOA	94		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C4 PFOS	86		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C5 PFNA	101		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C4 PFBA	75		25 - 150				04/14/21 13:57	04/15/21 15:01	1
13C2 PFHxA	91		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C2 PFDA	94		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C2 PFUnA	90		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C2 PFDoA	87		50 - 150				04/14/21 13:57	04/15/21 15:01	1
13C8 FOSA	77		25 - 150				04/14/21 13:57	04/15/21 15:01	1
13C5 PFPeA	84		25 - 150				04/14/21 13:57	04/15/21 15:01	1
13C2 PFTeDA	88		50 - 150				04/14/21 13:57	04/15/21 15:01	1
d3-NMeFOSAA	93		50 - 150				04/14/21 13:57	04/15/21 15:01	1
d5-NEtFOSAA	88		50 - 150				04/14/21 13:57	04/15/21 15:01	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-291

Lab Sample ID: 480-183110-3

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	99		25 - 150	04/14/21 13:57	04/15/21 15:01	1
M2-8:2 FTS	101		25 - 150	04/14/21 13:57	04/15/21 15:01	1
13C3 PFBS	83		50 - 150	04/14/21 13:57	04/15/21 15:01	1

Client Sample ID: 4009-29S

Lab Sample ID: 480-183110-4

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1200	*1	20	16	ug/L			04/12/21 16:13	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			04/12/21 16:13	20
1,1,2-Trichloro-1,2,2-trifluoroethane	9.6	J	20	6.2	ug/L			04/12/21 16:13	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			04/12/21 16:13	20
1,1-Dichloroethane	72		20	7.6	ug/L			04/12/21 16:13	20
1,1-Dichloroethene	86	*1	20	5.8	ug/L			04/12/21 16:13	20
1,2,3-Trimethylbenzene	ND		20	5.2	ug/L			04/12/21 16:13	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			04/12/21 16:13	20
1,2,4-Trimethylbenzene	ND		20	15	ug/L			04/12/21 16:13	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			04/12/21 16:13	20
1,2-Dibromoethane	ND		20	15	ug/L			04/12/21 16:13	20
1,2-Dichlorobenzene	ND		20	16	ug/L			04/12/21 16:13	20
1,2-Dichloroethane	ND		20	4.2	ug/L			04/12/21 16:13	20
1,2-Dichloropropane	ND		20	14	ug/L			04/12/21 16:13	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			04/12/21 16:13	20
1,3-Dichlorobenzene	ND		20	16	ug/L			04/12/21 16:13	20
1,4-Dichlorobenzene	ND		20	17	ug/L			04/12/21 16:13	20
2-Butanone (MEK)	ND	*+	200	26	ug/L			04/12/21 16:13	20
2-Hexanone	ND		100	25	ug/L			04/12/21 16:13	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			04/12/21 16:13	20
Acetone	ND		200	60	ug/L			04/12/21 16:13	20
Benzene	ND	*1	20	8.2	ug/L			04/12/21 16:13	20
Bromodichloromethane	ND		20	7.8	ug/L			04/12/21 16:13	20
Bromoform	ND		20	5.2	ug/L			04/12/21 16:13	20
Bromomethane	ND		20	14	ug/L			04/12/21 16:13	20
Carbon disulfide	ND		20	3.8	ug/L			04/12/21 16:13	20
Carbon tetrachloride	ND	*1	20	5.4	ug/L			04/12/21 16:13	20
Chlorobenzene	ND		20	15	ug/L			04/12/21 16:13	20
Chloroethane	ND	*-	20	6.4	ug/L			04/12/21 16:13	20
Chloroform	ND		20	6.8	ug/L			04/12/21 16:13	20
Chloromethane	ND		20	7.0	ug/L			04/12/21 16:13	20
cis-1,2-Dichloroethene	340		20	16	ug/L			04/12/21 16:13	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			04/12/21 16:13	20
Cyclohexane	ND		20	3.6	ug/L			04/12/21 16:13	20
Dibromochloromethane	ND		20	6.4	ug/L			04/12/21 16:13	20
Dichlorodifluoromethane	ND		20	14	ug/L			04/12/21 16:13	20
Ethylbenzene	ND		20	15	ug/L			04/12/21 16:13	20
Isopropylbenzene	ND		20	16	ug/L			04/12/21 16:13	20
Methyl acetate	ND		50	26	ug/L			04/12/21 16:13	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-29S

Lab Sample ID: 480-183110-4

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		20	3.2	ug/L			04/12/21 16:13	20
Methylcyclohexane	ND		20	3.2	ug/L			04/12/21 16:13	20
Methylene Chloride	ND		20	8.8	ug/L			04/12/21 16:13	20
Styrene	ND		20	15	ug/L			04/12/21 16:13	20
Tetrachloroethene	ND		20	7.2	ug/L			04/12/21 16:13	20
Toluene	ND		20	10	ug/L			04/12/21 16:13	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			04/12/21 16:13	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			04/12/21 16:13	20
Trichloroethene	270		20	9.2	ug/L			04/12/21 16:13	20
Trichlorofluoromethane	ND		20	18	ug/L			04/12/21 16:13	20
Vinyl chloride	91	*1	20	18	ug/L			04/12/21 16:13	20
Xylenes, Total	ND		40	13	ug/L			04/12/21 16:13	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/12/21 16:13	20
4-Bromofluorobenzene (Surr)	97		73 - 120		04/12/21 16:13	20
Dibromofluoromethane (Surr)	102		75 - 123		04/12/21 16:13	20
Toluene-d8 (Surr)	103		80 - 120		04/12/21 16:13	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	6.0	E	0.95	0.48	ug/L	-	04/12/21 12:01	04/14/21 11:58	5
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	26		15 - 110				04/12/21 12:01	04/14/21 11:58	5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.9		4.1	0.73	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluoropentanoic acid (PFPeA)	2.9		1.6	0.39	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorohexanoic acid (PFHxA)	2.6		1.6	0.37	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluoroheptanoic acid (PFHpA)	1.8	B	1.6	0.20	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorooctanoic acid (PFOA)	7.9		1.6	0.35	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorononanoic acid (PFNA)	0.62	J	1.6	0.23	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.25	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.28	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.32	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.36	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.52	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorobutanesulfonic acid (PFBS)	2.3		1.6	0.21	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorohexanesulfonic acid (PFHxS)	3.1	B	1.6	0.25	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.39	J	1.6	0.19	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorooctanesulfonic acid (PFOS)	9.1		1.6	0.24	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.25	ng/L		04/14/21 13:57	04/15/21 15:09	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.47	ng/L		04/14/21 13:57	04/15/21 15:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.1	0.74	ng/L		04/14/21 13:57	04/15/21 15:09	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-29S

Lab Sample ID: 480-183110-4

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.1	0.61	ng/L		04/14/21 13:57	04/15/21 15:09	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.1	0.90	ng/L		04/14/21 13:57	04/15/21 15:09	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.6	0.32	ng/L		04/14/21 13:57	04/15/21 15:09	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	95		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C4 PFHpA	100		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C4 PFOA	99		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C4 PFOS	96		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C5 PFNA	102		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C4 PFBA	74		25 - 150				04/14/21 13:57	04/15/21 15:09	1
13C2 PFHxA	90		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C2 PFDA	92		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C2 PFUnA	101		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C2 PFDoA	92		50 - 150				04/14/21 13:57	04/15/21 15:09	1
13C8 FOSA	84		25 - 150				04/14/21 13:57	04/15/21 15:09	1
13C5 PFPeA	87		25 - 150				04/14/21 13:57	04/15/21 15:09	1
13C2 PFTeDA	95		50 - 150				04/14/21 13:57	04/15/21 15:09	1
d3-NMeFOSAA	91		50 - 150				04/14/21 13:57	04/15/21 15:09	1
d5-NEtFOSAA	95		50 - 150				04/14/21 13:57	04/15/21 15:09	1
M2-6:2 FTS	102		25 - 150				04/14/21 13:57	04/15/21 15:09	1
M2-8:2 FTS	108		25 - 150				04/14/21 13:57	04/15/21 15:09	1
13C3 PFBS	92		50 - 150				04/14/21 13:57	04/15/21 15:09	1

Client Sample ID: 4009-29D

Lab Sample ID: 480-183110-5

Date Collected: 04/08/21 11:05

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	36	*1	1.0	0.82	ug/L			04/12/21 16:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 16:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.39	J	1.0	0.31	ug/L			04/12/21 16:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 16:35	1
1,1-Dichloroethane	5.3		1.0	0.38	ug/L			04/12/21 16:35	1
1,1-Dichloroethene	3.2	*1	1.0	0.29	ug/L			04/12/21 16:35	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 16:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 16:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 16:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 16:35	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 16:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 16:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 16:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 16:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 16:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 16:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 16:35	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 16:35	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-29D

Lab Sample ID: 480-183110-5

Date Collected: 04/08/21 11:05

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 16:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 16:35	1
Acetone	ND		10	3.0	ug/L			04/12/21 16:35	1
Benzene	ND	*1	1.0	0.41	ug/L			04/12/21 16:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 16:35	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 16:35	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 16:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 16:35	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/12/21 16:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 16:35	1
Chloroethane	6.0	*-	1.0	0.32	ug/L			04/12/21 16:35	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 16:35	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 16:35	1
cis-1,2-Dichloroethene	11		1.0	0.81	ug/L			04/12/21 16:35	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 16:35	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 16:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 16:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 16:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 16:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 16:35	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 16:35	1
Methyl tert-butyl ether	1.2		1.0	0.16	ug/L			04/12/21 16:35	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 16:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 16:35	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 16:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 16:35	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 16:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 16:35	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 16:35	1
Trichloroethene	11		1.0	0.46	ug/L			04/12/21 16:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 16:35	1
Vinyl chloride	15	*1	1.0	0.90	ug/L			04/12/21 16:35	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		04/12/21 16:35	1
4-Bromofluorobenzene (Surr)	91		73 - 120		04/12/21 16:35	1
Dibromofluoromethane (Surr)	102		75 - 123		04/12/21 16:35	1
Toluene-d8 (Surr)	100		80 - 120		04/12/21 16:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	150	E	19	9.5	ug/L		04/12/21 12:01	04/14/21 12:22	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	27		15 - 110				04/12/21 12:01	04/14/21 12:22	100

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.9	J	4.1	0.73	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluoropentanoic acid (PFPeA)	0.58	J	1.6	0.39	ng/L		04/14/21 13:57	04/15/21 15:17	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-29D

Lab Sample ID: 480-183110-5

Date Collected: 04/08/21 11:05

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	0.42	J	1.6	0.37	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.20	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorooctanoic acid (PFOA)	0.63	J	1.6	0.35	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.23	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.25	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.28	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.32	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.36	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.52	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorobutanesulfonic acid (PFBS)	0.25	J I	1.6	0.21	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorohexanesulfonic acid (PFHxS)	0.29	J B	1.6	0.25	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.19	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.24	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.25	ng/L		04/14/21 13:57	04/15/21 15:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.47	ng/L		04/14/21 13:57	04/15/21 15:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.1	0.74	ng/L		04/14/21 13:57	04/15/21 15:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.1	0.61	ng/L		04/14/21 13:57	04/15/21 15:17	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.1	0.90	ng/L		04/14/21 13:57	04/15/21 15:17	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.6	0.32	ng/L		04/14/21 13:57	04/15/21 15:17	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	91		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C4 PFHpA	95		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C4 PFOA	95		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C4 PFOS	89		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C5 PFNA	100		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C4 PFBA	80		25 - 150				04/14/21 13:57	04/15/21 15:17	1
13C2 PFHxA	95		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C2 PFDA	94		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C2 PFUnA	90		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C2 PFDoA	85		50 - 150				04/14/21 13:57	04/15/21 15:17	1
13C8 FOSA	81		25 - 150				04/14/21 13:57	04/15/21 15:17	1
13C5 PFPeA	90		25 - 150				04/14/21 13:57	04/15/21 15:17	1
13C2 PFTeDA	91		50 - 150				04/14/21 13:57	04/15/21 15:17	1
d3-NMeFOSAA	80		50 - 150				04/14/21 13:57	04/15/21 15:17	1
d5-NEtFOSAA	88		50 - 150				04/14/21 13:57	04/15/21 15:17	1
M2-6:2 FTS	96		25 - 150				04/14/21 13:57	04/15/21 15:17	1
M2-8:2 FTS	90		25 - 150				04/14/21 13:57	04/15/21 15:17	1
13C3 PFBS	89		50 - 150				04/14/21 13:57	04/15/21 15:17	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27D

Lab Sample ID: 480-183110-6

Date Collected: 04/08/21 13:55

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*1	1.0	0.82	ug/L			04/12/21 16:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 16:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 16:56	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 16:56	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 16:56	1
1,1-Dichloroethene	ND	*1	1.0	0.29	ug/L			04/12/21 16:56	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 16:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 16:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 16:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 16:56	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 16:56	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 16:56	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 16:56	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 16:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 16:56	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 16:56	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 16:56	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 16:56	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 16:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 16:56	1
Acetone	ND		10	3.0	ug/L			04/12/21 16:56	1
Benzene	ND	*1	1.0	0.41	ug/L			04/12/21 16:56	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 16:56	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 16:56	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 16:56	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 16:56	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/12/21 16:56	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 16:56	1
Chloroethane	ND	*-	1.0	0.32	ug/L			04/12/21 16:56	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 16:56	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 16:56	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 16:56	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 16:56	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 16:56	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 16:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 16:56	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 16:56	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 16:56	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 16:56	1
Methyl tert-butyl ether	0.26	J	1.0	0.16	ug/L			04/12/21 16:56	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 16:56	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 16:56	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 16:56	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 16:56	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 16:56	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 16:56	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 16:56	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 16:56	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 16:56	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27D

Lab Sample ID: 480-183110-6

Date Collected: 04/08/21 13:55

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/12/21 16:56	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 16:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120					04/12/21 16:56	1
4-Bromofluorobenzene (Surr)	98		73 - 120					04/12/21 16:56	1
Dibromofluoromethane (Surr)	101		75 - 123					04/12/21 16:56	1
Toluene-d8 (Surr)	102		80 - 120					04/12/21 16:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		04/12/21 12:01	04/13/21 17:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	30		15 - 110				04/12/21 12:01	04/13/21 17:38	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	14		4.1	0.74	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluoropentanoic acid (PFPeA)	1.5	J	1.7	0.39	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorohexanoic acid (PFHxA)	0.79	J	1.7	0.37	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluoroheptanoic acid (PFHpA)	0.50	J B	1.7	0.20	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorooctanoic acid (PFOA)	10		1.7	0.35	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorononanoic acid (PFNA)	0.94	J	1.7	0.23	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.25	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.28	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.32	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.52	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorobutanesulfonic acid (PFBS)	9.8		1.7	0.21	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorohexanesulfonic acid (PFHxS)	7.1	B	1.7	0.25	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.19	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorooctanesulfonic acid (PFOS)	1.3	J I	1.7	0.24	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.25	ng/L		04/14/21 13:57	04/15/21 15:34	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48	ng/L		04/14/21 13:57	04/15/21 15:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.1	0.75	ng/L		04/14/21 13:57	04/15/21 15:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.1	0.61	ng/L		04/14/21 13:57	04/15/21 15:34	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.1	0.91	ng/L		04/14/21 13:57	04/15/21 15:34	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.32	ng/L		04/14/21 13:57	04/15/21 15:34	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		50 - 150				04/14/21 13:57	04/15/21 15:34	1
13C4 PFHpA	93		50 - 150				04/14/21 13:57	04/15/21 15:34	1
13C4 PFOA	96		50 - 150				04/14/21 13:57	04/15/21 15:34	1
13C4 PFOS	87		50 - 150				04/14/21 13:57	04/15/21 15:34	1
13C5 PFNA	100		50 - 150				04/14/21 13:57	04/15/21 15:34	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27D

Date Collected: 04/08/21 13:55

Date Received: 04/09/21 08:00

Lab Sample ID: 480-183110-6

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	78		25 - 150	04/14/21 13:57	04/15/21 15:34	1
13C2 PFHxA	93		50 - 150	04/14/21 13:57	04/15/21 15:34	1
13C2 PFDA	90		50 - 150	04/14/21 13:57	04/15/21 15:34	1
13C2 PFUnA	93		50 - 150	04/14/21 13:57	04/15/21 15:34	1
13C2 PFDoA	90		50 - 150	04/14/21 13:57	04/15/21 15:34	1
13C8 FOSA	83		25 - 150	04/14/21 13:57	04/15/21 15:34	1
13C5 PFPeA	87		25 - 150	04/14/21 13:57	04/15/21 15:34	1
13C2 PFTeDA	93		50 - 150	04/14/21 13:57	04/15/21 15:34	1
d3-NMeFOSAA	84		50 - 150	04/14/21 13:57	04/15/21 15:34	1
d5-NEtFOSAA	89		50 - 150	04/14/21 13:57	04/15/21 15:34	1
M2-6:2 FTS	98		25 - 150	04/14/21 13:57	04/15/21 15:34	1
M2-8:2 FTS	92		25 - 150	04/14/21 13:57	04/15/21 15:34	1
13C3 PFBS	89		50 - 150	04/14/21 13:57	04/15/21 15:34	1

Client Sample ID: 4009-28

Date Collected: 04/08/21 14:25

Date Received: 04/09/21 08:00

Lab Sample ID: 480-183110-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*1	1.0	0.82	ug/L			04/12/21 17:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 17:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 17:18	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 17:18	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 17:18	1
1,1-Dichloroethene	ND	*1	1.0	0.29	ug/L			04/12/21 17:18	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 17:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 17:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 17:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 17:18	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 17:18	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 17:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 17:18	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 17:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 17:18	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 17:18	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 17:18	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 17:18	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 17:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 17:18	1
Acetone	5.0	J	10	3.0	ug/L			04/12/21 17:18	1
Benzene	0.93	J *1	1.0	0.41	ug/L			04/12/21 17:18	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 17:18	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 17:18	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 17:18	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 17:18	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/12/21 17:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 17:18	1
Chloroethane	ND	*-	1.0	0.32	ug/L			04/12/21 17:18	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 17:18	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-28

Lab Sample ID: 480-183110-7

Date Collected: 04/08/21 14:25

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 17:18	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 17:18	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 17:18	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 17:18	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 17:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 17:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 17:18	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 17:18	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 17:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 17:18	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 17:18	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 17:18	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 17:18	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 17:18	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 17:18	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 17:18	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 17:18	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 17:18	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 17:18	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/12/21 17:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		77 - 120		04/12/21 17:18	1
4-Bromofluorobenzene (Surr)	107		73 - 120		04/12/21 17:18	1
Dibromofluoromethane (Surr)	114		75 - 123		04/12/21 17:18	1
Toluene-d8 (Surr)	113		80 - 120		04/12/21 17:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.18	J	0.19	0.095	ug/L		04/12/21 12:01	04/13/21 18:02	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	15		15 - 110				04/12/21 12:01	04/13/21 18:02	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.8	J	4.3	0.77	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluoropentanoic acid (PFPeA)	3.7		1.7	0.41	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorohexanoic acid (PFHxA)	3.0		1.7	0.39	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluoroheptanoic acid (PFHpA)	3.0	B	1.7	0.20	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorooctanoic acid (PFOA)	5.5		1.7	0.36	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorononanoic acid (PFNA)	2.8		1.7	0.24	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorodecanoic acid (PFDA)	0.94	J	1.7	0.26	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluoroundecanoic acid (PFUnA)	0.42	J I	1.7	0.30	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorododecanoic acid (PFDoA)	0.43	J I	1.7	0.33	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.54	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorobutanesulfonic acid (PFBS)	0.48	J I	1.7	0.21	ng/L		04/14/21 13:57	04/15/21 15:42	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-28

Date Collected: 04/08/21 14:25

Date Received: 04/09/21 08:00

Lab Sample ID: 480-183110-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.26	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorooctanesulfonic acid (PFOS)	1.2	J	1.7	0.25	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/14/21 13:57	04/15/21 15:42	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		04/14/21 13:57	04/15/21 15:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.77	ng/L		04/14/21 13:57	04/15/21 15:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.64	ng/L		04/14/21 13:57	04/15/21 15:42	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.6	J	4.3	0.94	ng/L		04/14/21 13:57	04/15/21 15:42	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.33	ng/L		04/14/21 13:57	04/15/21 15:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	54		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C4 PFHpA	74		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C4 PFOA	96		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C4 PFOS	55		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C5 PFNA	107		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C4 PFBA	40		25 - 150	04/14/21 13:57	04/15/21 15:42	1
13C2 PFHxA	61		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C2 PFDA	107		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C2 PFUnA	86		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C2 PFDoA	71		50 - 150	04/14/21 13:57	04/15/21 15:42	1
13C8 FOSA	50		25 - 150	04/14/21 13:57	04/15/21 15:42	1
13C5 PFPeA	63		25 - 150	04/14/21 13:57	04/15/21 15:42	1
13C2 PFTeDA	63		50 - 150	04/14/21 13:57	04/15/21 15:42	1
d3-NMeFOSAA	146		50 - 150	04/14/21 13:57	04/15/21 15:42	1
d5-NEtFOSAA	107		50 - 150	04/14/21 13:57	04/15/21 15:42	1
M2-6:2 FTS	358	*5+	25 - 150	04/14/21 13:57	04/15/21 15:42	1
M2-8:2 FTS	336	*5+	25 - 150	04/14/21 13:57	04/15/21 15:42	1
13C3 PFBS	55		50 - 150	04/14/21 13:57	04/15/21 15:42	1

Client Sample ID: EQUIP BLANK 1

Date Collected: 04/08/21 13:00

Date Received: 04/09/21 08:00

Lab Sample ID: 480-183110-8

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5	0.81	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.43	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorohexanoic acid (PFHxA)	0.53	J	1.8	0.41	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.22	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorooctanoic acid (PFOA)	ND		1.8	0.39	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.26	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.28	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.31	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.35	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.39	ng/L		04/14/21 13:57	04/15/21 15:51	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: EQUIP BLANK 1

Lab Sample ID: 480-183110-8

Date Collected: 04/08/21 13:00

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.57	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.23	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	0.27	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.21	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.26	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.28	ng/L		04/14/21 13:57	04/15/21 15:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.52	ng/L		04/14/21 13:57	04/15/21 15:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	0.82	ng/L		04/14/21 13:57	04/15/21 15:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	0.68	ng/L		04/14/21 13:57	04/15/21 15:51	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.5	1.0	ng/L		04/14/21 13:57	04/15/21 15:51	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.35	ng/L		04/14/21 13:57	04/15/21 15:51	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	85		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C4 PFHpA	94		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C4 PFOA	97		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C4 PFOS	85		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C5 PFNA	101		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C4 PFBA	93		25 - 150				04/14/21 13:57	04/15/21 15:51	1
13C2 PFHxA	98		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C2 PFDA	101		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C2 PFUnA	107		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C2 PFDoA	96		50 - 150				04/14/21 13:57	04/15/21 15:51	1
13C8 FOSA	74		25 - 150				04/14/21 13:57	04/15/21 15:51	1
13C5 PFPeA	93		25 - 150				04/14/21 13:57	04/15/21 15:51	1
13C2 PFTeDA	108		50 - 150				04/14/21 13:57	04/15/21 15:51	1
d3-NMeFOSAA	92		50 - 150				04/14/21 13:57	04/15/21 15:51	1
d5-NEtFOSAA	84		50 - 150				04/14/21 13:57	04/15/21 15:51	1
M2-6:2 FTS	105		25 - 150				04/14/21 13:57	04/15/21 15:51	1
M2-8:2 FTS	128		25 - 150				04/14/21 13:57	04/15/21 15:51	1
13C3 PFBS	86		50 - 150				04/14/21 13:57	04/15/21 15:51	1

Client Sample ID: DUP-1

Lab Sample ID: 480-183110-9

Date Collected: 04/08/21 12:00

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*1	1.0	0.82	ug/L			04/12/21 17:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 17:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 17:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 17:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 17:40	1
1,1-Dichloroethene	ND	*1	1.0	0.29	ug/L			04/12/21 17:40	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 17:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 17:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 17:40	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: DUP-1

Lab Sample ID: 480-183110-9

Date Collected: 04/08/21 12:00

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 17:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 17:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 17:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 17:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 17:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 17:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 17:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 17:40	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 17:40	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 17:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 17:40	1
Acetone	4.0	J	10	3.0	ug/L			04/12/21 17:40	1
Benzene	0.96	J *1	1.0	0.41	ug/L			04/12/21 17:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 17:40	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 17:40	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 17:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 17:40	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/12/21 17:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 17:40	1
Chloroethane	ND	*-	1.0	0.32	ug/L			04/12/21 17:40	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 17:40	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 17:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 17:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 17:40	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 17:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 17:40	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 17:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 17:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 17:40	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 17:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 17:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 17:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 17:40	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 17:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 17:40	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 17:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 17:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 17:40	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 17:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 17:40	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/12/21 17:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 17:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		04/12/21 17:40	1
4-Bromofluorobenzene (Surr)	105		73 - 120		04/12/21 17:40	1
Dibromofluoromethane (Surr)	109		75 - 123		04/12/21 17:40	1
Toluene-d8 (Surr)	109		80 - 120		04/12/21 17:40	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: DUP-1

Lab Sample ID: 480-183110-9

Date Collected: 04/08/21 12:00

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.32		0.19	0.095	ug/L		04/12/21 12:01	04/13/21 18:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	17		15 - 110				04/12/21 12:01	04/13/21 18:27	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.8	J	4.4	0.79	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluoropentanoic acid (PFPeA)	3.5		1.8	0.42	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorohexanoic acid (PFHxA)	3.2		1.8	0.40	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluoroheptanoic acid (PFHpA)	2.9	B	1.8	0.21	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorooctanoic acid (PFOA)	5.5		1.8	0.37	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorononanoic acid (PFNA)	2.8		1.8	0.25	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorodecanoic acid (PFDA)	0.97	J	1.8	0.27	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluoroundecanoic acid (PFUnA)	0.55	J I	1.8	0.30	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.34	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.38	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.56	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorobutanesulfonic acid (PFBS)	0.33	J	1.8	0.22	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	0.27	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.21	J	1.8	0.21	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorooctanesulfonic acid (PFOS)	1.2	J	1.8	0.26	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.27	ng/L		04/14/21 13:57	04/15/21 15:59	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.51	ng/L		04/14/21 13:57	04/15/21 15:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.79	ng/L		04/14/21 13:57	04/15/21 15:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.65	ng/L		04/14/21 13:57	04/15/21 15:59	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.4	J	4.4	0.97	ng/L		04/14/21 13:57	04/15/21 15:59	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.34	ng/L		04/14/21 13:57	04/15/21 15:59	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	54		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C4 PFHpA	77		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C4 PFOA	97		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C4 PFOS	57		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C5 PFNA	108		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C4 PFBA	39		25 - 150				04/14/21 13:57	04/15/21 15:59	1
13C2 PFHxA	60		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C2 PFDA	111		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C2 PFUnA	87		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C2 PFDoA	72		50 - 150				04/14/21 13:57	04/15/21 15:59	1
13C8 FOSA	53		25 - 150				04/14/21 13:57	04/15/21 15:59	1
13C5 PFPeA	63		25 - 150				04/14/21 13:57	04/15/21 15:59	1
13C2 PFTeDA	70		50 - 150				04/14/21 13:57	04/15/21 15:59	1
d3-NMeFOSAA	164	*5+	50 - 150				04/14/21 13:57	04/15/21 15:59	1
d5-NEtFOSAA	111		50 - 150				04/14/21 13:57	04/15/21 15:59	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: DUP-1

Date Collected: 04/08/21 12:00

Date Received: 04/09/21 08:00

Lab Sample ID: 480-183110-9

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	377	*5+	25 - 150	04/14/21 13:57	04/15/21 15:59	1
M2-8:2 FTS	388	*5+	25 - 150	04/14/21 13:57	04/15/21 15:59	1
13C3 PFBS	55		50 - 150	04/14/21 13:57	04/15/21 15:59	1

Client Sample ID: TRIP BLANK

Date Collected: 04/08/21 00:00

Date Received: 04/09/21 08:00

Lab Sample ID: 480-183110-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*1	1.0	0.82	ug/L			04/12/21 18:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 18:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 18:02	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 18:02	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 18:02	1
1,1-Dichloroethene	ND	*1	1.0	0.29	ug/L			04/12/21 18:02	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 18:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 18:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 18:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 18:02	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 18:02	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 18:02	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 18:02	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 18:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 18:02	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 18:02	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 18:02	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 18:02	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 18:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 18:02	1
Acetone	ND		10	3.0	ug/L			04/12/21 18:02	1
Benzene	ND	*1	1.0	0.41	ug/L			04/12/21 18:02	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 18:02	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 18:02	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 18:02	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 18:02	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/12/21 18:02	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 18:02	1
Chloroethane	ND	*-	1.0	0.32	ug/L			04/12/21 18:02	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 18:02	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 18:02	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 18:02	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 18:02	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 18:02	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 18:02	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 18:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 18:02	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 18:02	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 18:02	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 18:02	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-183110-10

Date Collected: 04/08/21 00:00

Matrix: Water

Date Received: 04/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 18:02	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 18:02	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 18:02	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 18:02	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 18:02	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 18:02	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 18:02	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 18:02	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 18:02	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/12/21 18:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		04/12/21 18:02	1
4-Bromofluorobenzene (Surr)	97		73 - 120		04/12/21 18:02	1
Dibromofluoromethane (Surr)	103		75 - 123		04/12/21 18:02	1
Toluene-d8 (Surr)	106		80 - 120		04/12/21 18:02	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-183110-1	4009-27S	103	99	103	102
480-183110-2	4009-27I	108	101	109	110
480-183110-3	4009-29I	105	103	101	105
480-183110-4	4009-29S	104	97	102	103
480-183110-5	4009-29D	102	91	102	100
480-183110-6	4009-27D	103	98	101	102
480-183110-7	4009-28	116	107	114	113
480-183110-9	DUP-1	112	105	109	109
480-183110-10	TRIP BLANK	107	97	103	106
LCS 480-575941/5	Lab Control Sample	96	110	98	105
LCSD 480-575941/6	Lab Control Sample Dup	94	97	95	102
MB 480-575941/8	Method Blank	105	109	100	106

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-183110-1	4009-27S	27
480-183110-2	4009-27I	28
480-183110-3	4009-29I	47
480-183110-4	4009-29S	26
480-183110-5	4009-29D	27
480-183110-6	4009-27D	30
480-183110-7	4009-28	15
480-183110-9	DUP-1	17
LCS 480-576004/2-A	Lab Control Sample	31
LCSD 480-576004/3-A	Lab Control Sample Dup	33
MB 480-576004/1-A	Method Blank	31

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
480-183110-1	4009-27S	88	99	94	86	98	80	94	90
480-183110-2	4009-27I	85	93	91	83	92	81	89	92
480-183110-3	4009-29I	86	95	94	86	101	75	91	94
480-183110-4	4009-29S	95	100	99	96	102	74	90	92
480-183110-5	4009-29D	91	95	95	89	100	80	95	94
480-183110-6	4009-27D	89	93	96	87	100	78	93	90
480-183110-7	4009-28	54	74	96	55	107	40	61	107
480-183110-8	EQUIP BLANK 1	85	94	97	85	101	93	98	101
480-183110-9	DUP-1	54	77	97	57	108	39	60	111
LCS 200-165862/2-A	Lab Control Sample	88	96	93	88	97	96	97	94
MB 200-165862/1-A	Method Blank	91	94	91	90	100	96	95	93

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
480-183110-1	4009-27S	88	84	79	88	83	83	91	89
480-183110-2	4009-27I	87	79	79	87	84	87	83	90
480-183110-3	4009-29I	90	87	77	84	88	93	88	99
480-183110-4	4009-29S	101	92	84	87	95	91	95	102
480-183110-5	4009-29D	90	85	81	90	91	80	88	96
480-183110-6	4009-27D	93	90	83	87	93	84	89	98
480-183110-7	4009-28	86	71	50	63	63	146	107	358 *5+
480-183110-8	EQUIP BLANK 1	107	96	74	93	108	92	84	105
480-183110-9	DUP-1	87	72	53	63	70	164 *5+	111	377 *5+
LCS 200-165862/2-A	Lab Control Sample	95	91	78	94	92	97	97	91
MB 200-165862/1-A	Method Blank	90	86	75	94	89	89	89	94

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	C3PFBS (50-150)
480-183110-1	4009-27S	85	88

Eurofins TestAmerica, Buffalo

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	C3PFBS (50-150)
480-183110-2	4009-27I	89	85
480-183110-3	4009-29I	101	83
480-183110-4	4009-29S	108	92
480-183110-5	4009-29D	90	89
480-183110-6	4009-27D	92	89
480-183110-7	4009-28	336 *5+	55
480-183110-8	EQUIP BLANK 1	128	86
480-183110-9	DUP-1	388 *5+	55
LCS 200-165862/2-A	Lab Control Sample	104	90
MB 200-165862/1-A	Method Blank	103	88

Surrogate Legend

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

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Lab Sample ID: MB 480-575941/8

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/12/21 10:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 10:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 10:56	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 10:56	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 10:56	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/12/21 10:56	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 10:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 10:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 10:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 10:56	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 10:56	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 10:56	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 10:56	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 10:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 10:56	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 10:56	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 10:56	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/12/21 10:56	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 10:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 10:56	1
Acetone	ND		10	3.0	ug/L			04/12/21 10:56	1
Benzene	ND		1.0	0.41	ug/L			04/12/21 10:56	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 10:56	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 10:56	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 10:56	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 10:56	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/12/21 10:56	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 10:56	1
Chloroethane	ND		1.0	0.32	ug/L			04/12/21 10:56	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 10:56	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 10:56	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 10:56	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 10:56	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 10:56	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 10:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 10:56	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 10:56	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 10:56	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 10:56	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 10:56	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 10:56	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 10:56	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 10:56	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 10:56	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 10:56	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 10:56	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 10:56	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 10:56	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Lab Sample ID: MB 480-575941/8

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 10:56	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/12/21 10:56	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 10:56	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120					04/12/21 10:56	1
4-Bromofluorobenzene (Surr)	109		73 - 120					04/12/21 10:56	1
Dibromofluoromethane (Surr)	100		75 - 123					04/12/21 10:56	1
Toluene-d8 (Surr)	106		80 - 120					04/12/21 10:56	1

Lab Sample ID: LCS 480-575941/5

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.9		ug/L		96	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.2		ug/L		105	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.6		ug/L		91	61 - 148
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	76 - 122
1,1-Dichloroethane	25.0	23.0		ug/L		92	77 - 120
1,1-Dichloroethene	25.0	22.4		ug/L		89	66 - 127
1,2,3-Trimethylbenzene	25.0	29.5		ug/L		118	78 - 120
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		101	79 - 122
1,2,4-Trimethylbenzene	25.0	26.8		ug/L		107	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	28.8		ug/L		115	56 - 134
1,2-Dibromoethane	25.0	25.6		ug/L		102	77 - 120
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	20.6		ug/L		82	75 - 120
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120
1,3,5-Trimethylbenzene	25.0	27.1		ug/L		108	77 - 121
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	80 - 120
2-Butanone (MEK)	125	201	*+	ug/L		161	57 - 140
2-Hexanone	125	124		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	115		ug/L		92	71 - 125
Acetone	125	123		ug/L		99	56 - 142
Benzene	25.0	22.9		ug/L		92	71 - 124
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122
Bromoform	25.0	27.6		ug/L		110	61 - 132
Bromomethane	25.0	18.2		ug/L		73	55 - 144
Carbon disulfide	25.0	23.2		ug/L		93	59 - 134
Carbon tetrachloride	25.0	25.9		ug/L		104	72 - 134
Chlorobenzene	25.0	24.4		ug/L		98	80 - 120
Chloroethane	25.0	19.5		ug/L		78	69 - 136
Chloroform	25.0	21.8		ug/L		87	73 - 127
Chloromethane	25.0	20.7		ug/L		83	68 - 124
cis-1,2-Dichloroethene	25.0	22.7		ug/L		91	74 - 124
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Lab Sample ID: LCS 480-575941/5

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	23.5		ug/L		94	59 - 135
Dibromochloromethane	25.0	26.2		ug/L		105	75 - 125
Dichlorodifluoromethane	25.0	24.1		ug/L		96	59 - 135
Ethylbenzene	25.0	25.1		ug/L		101	77 - 123
Isopropylbenzene	25.0	27.2		ug/L		109	77 - 122
Methyl acetate	50.0	42.0		ug/L		84	74 - 133
Methyl tert-butyl ether	25.0	23.7		ug/L		95	77 - 120
Methylcyclohexane	25.0	25.9		ug/L		103	68 - 134
Methylene Chloride	25.0	23.8		ug/L		95	75 - 124
Styrene	25.0	27.2		ug/L		109	80 - 120
Tetrachloroethene	25.0	24.1		ug/L		96	74 - 122
Toluene	25.0	24.8		ug/L		99	80 - 122
trans-1,2-Dichloroethene	25.0	22.7		ug/L		91	73 - 127
trans-1,3-Dichloropropene	25.0	26.8		ug/L		107	80 - 120
Trichloroethene	25.0	23.0		ug/L		92	74 - 123
Trichlorofluoromethane	25.0	23.4		ug/L		94	62 - 150
Vinyl chloride	25.0	22.8		ug/L		91	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		77 - 120
4-Bromofluorobenzene (Surr)	110		73 - 120
Dibromofluoromethane (Surr)	98		75 - 123
Toluene-d8 (Surr)	105		80 - 120

Lab Sample ID: LCSD 480-575941/6

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	20.3	*1	ug/L		81	73 - 126	16	15
1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	76 - 120	9	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	19.2		ug/L		77	61 - 148	17	20
1,1,2-Trichloroethane	25.0	22.9		ug/L		91	76 - 122	12	15
1,1-Dichloroethane	25.0	19.8		ug/L		79	77 - 120	15	20
1,1-Dichloroethene	25.0	18.9	*1	ug/L		75	66 - 127	17	16
1,2,3-Trimethylbenzene	25.0	27.2		ug/L		109	78 - 120	8	20
1,2,4-Trichlorobenzene	25.0	23.6		ug/L		94	79 - 122	6	20
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		98	76 - 121	9	20
1,2-Dibromo-3-Chloropropane	25.0	26.4		ug/L		106	56 - 134	9	15
1,2-Dibromoethane	25.0	23.0		ug/L		92	77 - 120	10	15
1,2-Dichlorobenzene	25.0	22.6		ug/L		90	80 - 124	9	20
1,2-Dichloroethane	25.0	18.8		ug/L		75	75 - 120	9	20
1,2-Dichloropropane	25.0	20.5		ug/L		82	76 - 120	16	20
1,3,5-Trimethylbenzene	25.0	24.4		ug/L		98	77 - 121	10	20
1,3-Dichlorobenzene	25.0	22.5		ug/L		90	77 - 120	10	20
1,4-Dichlorobenzene	25.0	21.7		ug/L		87	80 - 120	11	20
2-Butanone (MEK)	125	174		ug/L		139	57 - 140	15	20
2-Hexanone	125	108		ug/L		87	65 - 127	14	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Lab Sample ID: LCSD 480-575941/6

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	125	105		ug/L		84	71 - 125	10	35
Acetone	125	111		ug/L		88	56 - 142	11	15
Benzene	25.0	19.8	*1	ug/L		79	71 - 124	15	13
Bromodichloromethane	25.0	21.3		ug/L		85	80 - 122	13	15
Bromoform	25.0	25.2		ug/L		101	61 - 132	9	15
Bromomethane	25.0	16.2		ug/L		65	55 - 144	12	15
Carbon disulfide	25.0	20.3		ug/L		81	59 - 134	14	15
Carbon tetrachloride	25.0	21.9	*1	ug/L		88	72 - 134	17	15
Chlorobenzene	25.0	21.5		ug/L		86	80 - 120	13	25
Chloroethane	25.0	17.0	*-	ug/L		68	69 - 136	13	15
Chloroform	25.0	19.1		ug/L		77	73 - 127	13	20
Chloromethane	25.0	18.0		ug/L		72	68 - 124	14	15
cis-1,2-Dichloroethene	25.0	20.1		ug/L		80	74 - 124	12	15
cis-1,3-Dichloropropene	25.0	23.1		ug/L		93	74 - 124	14	15
Cyclohexane	25.0	19.8		ug/L		79	59 - 135	17	20
Dibromochloromethane	25.0	23.8		ug/L		95	75 - 125	9	15
Dichlorodifluoromethane	25.0	21.0		ug/L		84	59 - 135	14	20
Ethylbenzene	25.0	21.9		ug/L		88	77 - 123	14	15
Isopropylbenzene	25.0	24.1		ug/L		96	77 - 122	12	20
Methyl acetate	50.0	37.6		ug/L		75	74 - 133	11	20
Methyl tert-butyl ether	25.0	22.0		ug/L		88	77 - 120	8	37
Methylcyclohexane	25.0	21.6		ug/L		86	68 - 134	18	20
Methylene Chloride	25.0	21.4		ug/L		86	75 - 124	11	15
Styrene	25.0	23.6		ug/L		95	80 - 120	14	20
Tetrachloroethene	25.0	21.0		ug/L		84	74 - 122	14	20
Toluene	25.0	21.7		ug/L		87	80 - 122	13	15
trans-1,2-Dichloroethene	25.0	19.9		ug/L		80	73 - 127	13	20
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	80 - 120	10	15
Trichloroethene	25.0	20.2		ug/L		81	74 - 123	13	16
Trichlorofluoromethane	25.0	20.0		ug/L		80	62 - 150	16	20
Vinyl chloride	25.0	19.5	*1	ug/L		78	65 - 133	16	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		77 - 120
4-Bromofluorobenzene (Surr)	97		73 - 120
Dibromofluoromethane (Surr)	95		75 - 123
Toluene-d8 (Surr)	102		80 - 120

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

Lab Sample ID: MB 480-576004/1-A

Matrix: Water

Analysis Batch: 576141

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 576004

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/12/21 12:01	04/13/21 13:58	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				04/12/21 12:01	04/13/21 13:58	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Lab Sample ID: LCS 480-576004/2-A

Matrix: Water

Analysis Batch: 576141

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 576004

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			1.00	1.06		ug/L		106	40 - 140		
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits								
1,4-Dioxane-d8	31		15 - 110								

Lab Sample ID: LCSD 480-576004/3-A

Matrix: Water

Analysis Batch: 576141

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 576004

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,4-Dioxane			1.00	1.05		ug/L		105	40 - 140	1	20
	LCSD	LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	33		15 - 110								

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-165862/1-A

Matrix: Water

Analysis Batch: 165905

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165862

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	0.89	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.47	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.45	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluoroheptanoic acid (PFHpA)	0.281	J	2.0	0.24	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.42	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.28	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.30	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.34	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.39	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.43	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.63	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.25	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorohexanesulfonic acid (PFHxS)	0.318	J	2.0	0.30	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.23	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.29	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.31	ng/L		04/14/21 13:57	04/15/21 13:46	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.58	ng/L		04/14/21 13:57	04/15/21 13:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	0.90	ng/L		04/14/21 13:57	04/15/21 13:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	0.74	ng/L		04/14/21 13:57	04/15/21 13:46	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		5.0	1.1	ng/L		04/14/21 13:57	04/15/21 13:46	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		2.0	0.39	ng/L		04/14/21 13:57	04/15/21 13:46	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
18O2 PFHxS	91		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C4 PFHpA	94		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C4 PFOA	91		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C4 PFOS	90		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C5 PFNA	100		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C4 PFBA	96		25 - 150	04/14/21 13:57	04/15/21 13:46	1
13C2 PFHxA	95		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C2 PFDA	93		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C2 PFUnA	90		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C2 PFDoA	86		50 - 150	04/14/21 13:57	04/15/21 13:46	1
13C8 FOSA	75		25 - 150	04/14/21 13:57	04/15/21 13:46	1
13C5 PFPeA	94		25 - 150	04/14/21 13:57	04/15/21 13:46	1
13C2 PFTeDA	89		50 - 150	04/14/21 13:57	04/15/21 13:46	1
d3-NMeFOSAA	89		50 - 150	04/14/21 13:57	04/15/21 13:46	1
d5-NEtFOSAA	89		50 - 150	04/14/21 13:57	04/15/21 13:46	1
M2-6:2 FTS	94		25 - 150	04/14/21 13:57	04/15/21 13:46	1
M2-8:2 FTS	103		25 - 150	04/14/21 13:57	04/15/21 13:46	1
13C3 PFBS	88		50 - 150	04/14/21 13:57	04/15/21 13:46	1

Lab Sample ID: LCS 200-165862/2-A

Matrix: Water

Analysis Batch: 165905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	42.1		ng/L		105	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	44.1		ng/L		110	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	42.2		ng/L		105	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	43.4		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	42.2		ng/L		105	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.7		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	42.1		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	42.9		ng/L		107	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		102	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	38.1		ng/L		95	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	38.2		ng/L		95	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	37.9		ng/L		107	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	38.7		ng/L		106	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.9		ng/L		105	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	39.7		ng/L		107	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	37.7		ng/L		98	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	39.1		ng/L		98	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.8		ng/L		100	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.0		ng/L		100	70 - 130

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

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

Lab Sample ID: LCS 200-165862/2-A

Matrix: Water

Analysis Batch: 165905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	42.7		ng/L		113	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	38.4		ng/L		100	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	88		50 - 150
13C4 PFHpA	96		50 - 150
13C4 PFOA	93		50 - 150
13C4 PFOS	88		50 - 150
13C5 PFNA	97		50 - 150
13C4 PFBA	96		25 - 150
13C2 PFHxA	97		50 - 150
13C2 PFDA	94		50 - 150
13C2 PFUnA	95		50 - 150
13C2 PFDoA	91		50 - 150
13C8 FOSA	78		25 - 150
13C5 PFPeA	94		25 - 150
13C2 PFTeDA	92		50 - 150
d3-NMeFOSAA	97		50 - 150
d5-NEtFOSAA	97		50 - 150
M2-6:2 FTS	91		25 - 150
M2-8:2 FTS	104		25 - 150
13C3 PFBS	90		50 - 150

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

GC/MS VOA

Analysis Batch: 575941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183110-1	4009-27S	Total/NA	Water	8260C	
480-183110-2	4009-27I	Total/NA	Water	8260C	
480-183110-3	4009-29I	Total/NA	Water	8260C	
480-183110-4	4009-29S	Total/NA	Water	8260C	
480-183110-5	4009-29D	Total/NA	Water	8260C	
480-183110-6	4009-27D	Total/NA	Water	8260C	
480-183110-7	4009-28	Total/NA	Water	8260C	
480-183110-9	DUP-1	Total/NA	Water	8260C	
480-183110-10	TRIP BLANK	Total/NA	Water	8260C	
MB 480-575941/8	Method Blank	Total/NA	Water	8260C	
LCS 480-575941/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-575941/6	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 576004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183110-1	4009-27S	Total/NA	Water	3510C	
480-183110-2	4009-27I	Total/NA	Water	3510C	
480-183110-3	4009-29I	Total/NA	Water	3510C	
480-183110-4	4009-29S	Total/NA	Water	3510C	
480-183110-5	4009-29D	Total/NA	Water	3510C	
480-183110-6	4009-27D	Total/NA	Water	3510C	
480-183110-7	4009-28	Total/NA	Water	3510C	
480-183110-9	DUP-1	Total/NA	Water	3510C	
MB 480-576004/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-576004/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-576004/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 576141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183110-1	4009-27S	Total/NA	Water	8270D SIM ID	576004
480-183110-2	4009-27I	Total/NA	Water	8270D SIM ID	576004
480-183110-3	4009-29I	Total/NA	Water	8270D SIM ID	576004
480-183110-6	4009-27D	Total/NA	Water	8270D SIM ID	576004
480-183110-7	4009-28	Total/NA	Water	8270D SIM ID	576004
480-183110-9	DUP-1	Total/NA	Water	8270D SIM ID	576004
MB 480-576004/1-A	Method Blank	Total/NA	Water	8270D SIM ID	576004
LCS 480-576004/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	576004
LCSD 480-576004/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	576004

Analysis Batch: 576293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183110-4	4009-29S	Total/NA	Water	8270D SIM ID	576004
480-183110-5	4009-29D	Total/NA	Water	8270D SIM ID	576004

LCMS

Prep Batch: 165862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183110-1	4009-27S	Total/NA	Water	3535	
480-183110-2	4009-27I	Total/NA	Water	3535	

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

LCMS (Continued)

Prep Batch: 165862 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183110-3	4009-29I	Total/NA	Water	3535	
480-183110-4	4009-29S	Total/NA	Water	3535	
480-183110-5	4009-29D	Total/NA	Water	3535	
480-183110-6	4009-27D	Total/NA	Water	3535	
480-183110-7	4009-28	Total/NA	Water	3535	
480-183110-8	EQUIP BLANK 1	Total/NA	Water	3535	
480-183110-9	DUP-1	Total/NA	Water	3535	
MB 200-165862/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-165862/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 165905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183110-1	4009-27S	Total/NA	Water	537 (modified)	165862
480-183110-2	4009-27I	Total/NA	Water	537 (modified)	165862
480-183110-3	4009-29I	Total/NA	Water	537 (modified)	165862
480-183110-4	4009-29S	Total/NA	Water	537 (modified)	165862
480-183110-5	4009-29D	Total/NA	Water	537 (modified)	165862
480-183110-6	4009-27D	Total/NA	Water	537 (modified)	165862
480-183110-7	4009-28	Total/NA	Water	537 (modified)	165862
480-183110-8	EQUIP BLANK 1	Total/NA	Water	537 (modified)	165862
480-183110-9	DUP-1	Total/NA	Water	537 (modified)	165862
MB 200-165862/1-A	Method Blank	Total/NA	Water	537 (modified)	165862
LCS 200-165862/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	165862

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-27S

Lab Sample ID: 480-183110-1

Date Collected: 04/08/21 11:07

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	575941	04/12/21 15:08	OMI	TAL BUF
Total/NA	Prep	3510C			576004	04/12/21 12:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576141	04/13/21 15:36	PJQ	TAL BUF
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 14:44	ND	TAL BUR

Client Sample ID: 4009-27I

Lab Sample ID: 480-183110-2

Date Collected: 04/08/21 12:10

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	575941	04/12/21 15:29	OMI	TAL BUF
Total/NA	Prep	3510C			576004	04/12/21 12:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576141	04/13/21 16:00	PJQ	TAL BUF
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 14:53	ND	TAL BUR

Client Sample ID: 4009-29I

Lab Sample ID: 480-183110-3

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	575941	04/12/21 15:51	OMI	TAL BUF
Total/NA	Prep	3510C			576004	04/12/21 12:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576141	04/13/21 16:25	PJQ	TAL BUF
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 15:01	ND	TAL BUR

Client Sample ID: 4009-29S

Lab Sample ID: 480-183110-4

Date Collected: 04/08/21 09:50

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	575941	04/12/21 16:13	OMI	TAL BUF
Total/NA	Prep	3510C			576004	04/12/21 12:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		5	576293	04/14/21 11:58	PJQ	TAL BUF
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 15:09	ND	TAL BUR

Client Sample ID: 4009-29D

Lab Sample ID: 480-183110-5

Date Collected: 04/08/21 11:05

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	575941	04/12/21 16:35	OMI	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: 4009-29D

Lab Sample ID: 480-183110-5

Date Collected: 04/08/21 11:05

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			576004	04/12/21 12:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		100	576293	04/14/21 12:22	PJQ	TAL BUF
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 15:17	ND	TAL BUR

Client Sample ID: 4009-27D

Lab Sample ID: 480-183110-6

Date Collected: 04/08/21 13:55

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	575941	04/12/21 16:56	OMI	TAL BUF
Total/NA	Prep	3510C			576004	04/12/21 12:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576141	04/13/21 17:38	PJQ	TAL BUF
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 15:34	ND	TAL BUR

Client Sample ID: 4009-28

Lab Sample ID: 480-183110-7

Date Collected: 04/08/21 14:25

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	575941	04/12/21 17:18	OMI	TAL BUF
Total/NA	Prep	3510C			576004	04/12/21 12:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576141	04/13/21 18:02	PJQ	TAL BUF
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 15:42	ND	TAL BUR

Client Sample ID: EQUIP BLANK 1

Lab Sample ID: 480-183110-8

Date Collected: 04/08/21 13:00

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 15:51	ND	TAL BUR

Client Sample ID: DUP-1

Lab Sample ID: 480-183110-9

Date Collected: 04/08/21 12:00

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	575941	04/12/21 17:40	OMI	TAL BUF
Total/NA	Prep	3510C			576004	04/12/21 12:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576141	04/13/21 18:27	PJQ	TAL BUF
Total/NA	Prep	3535			165862	04/14/21 13:57	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165905	04/15/21 15:59	ND	TAL BUR

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-183110-10

Date Collected: 04/08/21 00:00

Matrix: Water

Date Received: 04/09/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	575941	04/12/21 18:02	OMI	TAL BUF

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Laboratory: Eurofins TestAmerica, Burlington

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183110-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: New York State D.E.C.

Job ID: 480-183110-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-183110-1	4009-27S	Water	04/08/21 11:07	04/09/21 08:00	
480-183110-2	4009-27I	Water	04/08/21 12:10	04/09/21 08:00	
480-183110-3	4009-29I	Water	04/08/21 09:50	04/09/21 08:00	
480-183110-4	4009-29S	Water	04/08/21 09:50	04/09/21 08:00	
480-183110-5	4009-29D	Water	04/08/21 11:05	04/09/21 08:00	
480-183110-6	4009-27D	Water	04/08/21 13:55	04/09/21 08:00	
480-183110-7	4009-28	Water	04/08/21 14:25	04/09/21 08:00	
480-183110-8	EQUIP BLANK 1	Water	04/08/21 13:00	04/09/21 08:00	
480-183110-9	DUP-1	Water	04/08/21 12:00	04/09/21 08:00	
480-183110-10	TRIP BLANK	Water	04/08/21 00:00	04/09/21 08:00	

Chain of Custody Record

Sample: S. Duggett Lab PM: Stone, Judy L Carried to Lab No: 480-159103-35000.2
Phone: 518 769 8487 E-Mail: Judy.Stone@Eurofinstest.com State of Origin: #225 Page: 2 of 4
PWSID:

Due Date Requested:
TAT Requested (days): 5TD
Compliance Project: Yes No
PO #: 138000
Callout: 138000
W/O #:
Project #: 48023280
SSOW#:

Sample Identification

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=overseal, A=air)	Field Filtered Sample (Yes or No)	Performance MS/MSD (Yes or No)	PC, LDA - PFAS, Standard List (21 analytes)	8260C - (MOD) TCL list OLM04.2	8270D - SIM, MS, ID - SIM List	Total Number	Special Instructions/Note:
4009-275	4/8/21	1107	G	Water							
4009-276		1210		Water							
4009-277		0950		Water							
4009-278		950		Water							
4009-279		1105		Water							
4009-280		1355		Water							
4009-281		1425		Water							
4009-282		1300		Water							
4009-283		1200		Water							
4009-284				Water							
4009-285				Water							
4009-286				Water							
4009-287				Water							
4009-288				Water							
4009-289				Water							
4009-290				Water							
4009-291				Water							
4009-292				Water							
4009-293				Water							
4009-294				Water							
4009-295				Water							
4009-296				Water							
4009-297				Water							
4009-298				Water							
4009-299				Water							
4009-300				Water							
4009-301				Water							
4009-302				Water							
4009-303				Water							
4009-304				Water							
4009-305				Water							
4009-306				Water							
4009-307				Water							
4009-308				Water							
4009-309				Water							
4009-310				Water							
4009-311				Water							
4009-312				Water							
4009-313				Water							
4009-314				Water							
4009-315				Water							
4009-316				Water							
4009-317				Water							
4009-318				Water							
4009-319				Water							
4009-320				Water							
4009-321				Water							
4009-322				Water							
4009-323				Water							
4009-324				Water							
4009-325				Water							
4009-326				Water							
4009-327				Water							
4009-328				Water							
4009-329				Water							
4009-330				Water							
4009-331				Water							
4009-332				Water							
4009-333				Water							
4009-334				Water							
4009-335				Water							
4009-336				Water							
4009-337				Water							
4009-338				Water							
4009-339				Water							
4009-340				Water							
4009-341				Water							
4009-342				Water							
4009-343				Water							
4009-344				Water							
4009-345				Water							
4009-346				Water							
4009-347				Water							
4009-348				Water							
4009-349				Water							
4009-350				Water							
4009-351				Water							
4009-352				Water							
4009-353				Water							
4009-354				Water							
4009-355				Water							
4009-356				Water							
4009-357				Water							
4009-358				Water							
4009-359				Water							
4009-360				Water							
4009-361				Water							
4009-362				Water							
4009-363				Water							
4009-364				Water							
4009-365				Water							
4009-366				Water							
4009-367				Water							
4009-368				Water							
4009-369				Water							
4009-370				Water							
4009-371				Water							
4009-372				Water							
4009-373				Water							
4009-374				Water							
4009-375				Water							
4009-376				Water							
4009-377				Water							
4009-378				Water							
4009-379				Water							
4009-380				Water							
4009-381				Water							
4009-382				Water							
4009-383				Water							
4009-384				Water							
4009-385				Water							
4009-386				Water							
4009-387				Water							
4009-388				Water							
4009-389				Water							
4009-390				Water							
4009-391				Water							
4009-392				Water							
4009-393				Water							
4009-394				Water							
4009-395				Water							
4009-396				Water							
4009-397				Water							
4009-398				Water							
4009-399				Water							
4009-400				Water							
4009-401				Water							
4009-402				Water							
4009-403				Water							
4009-404				Water							
4009-405				Water							
4009-406				Water							
4009-407				Water							
4009-408				Water							
4009-409				Water							
4009-410				Water							
4009-411				Water							
4009-412				Water							
4009-413				Water							
4009-414				Water							
4009-415				Water							
4009-416				Water							
4009-417				Water							
4009-418				Water							
4009-419				Water							
4009-420				Water							
4009-421				Water							
4009-422				Water							
4009-423				Water							
4009-424				Water							
4009-425				Water							
4009-426				Water							
4009-427				Water							
4009-428				Water							
4009-429				Water							
4009-430				Water							
4009-431				Water							
4009-432				Water							
4009-433				Water							
4009-434				Water							
4009-435				Water							
4009-436				Water							
4009-437				Water							
4009-438				Water							
4009-439				Water							
4009-440				Water							
4009-441				Water							
4009-442				Water							
4009-443				Water							
4009-444				Water							
4009-445				Water							
4009-446				Water							
4009-447				Water							
4009-448				Water							
4009-449				Water							
4009-450				Water							
4009-451				Water							
4009-452				Water							
4009-453				Water							
4009-454				Water							
4009-455				Water							
4009-456				Water							
4009-457				Water							
4009-458				Water							
4009-459				Water							
4009-460				Water							

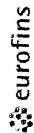
Eurofins TestAmerica, Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

Environment Testing
America

Client Information

Client Contact: Ms. Kati Lioia
Company: ARCADIS U.S. Inc.
Address: 855 Route 146 Suite 210
City: Clifton Park
State, Zip: NY, 12065
Phone: 518-402-9625 (Tel)
Email: kati.lioia@arcadis.com
Project Name: Vestal Water Supply (Site 1-1) #704009A
Site:

Lab P.M.: Stone, Judy L
E-Mail: Judy.Stone@Eurofins.com

Carrier: **Syracuse**
Carrier No.: 480-159103-35000.2
State of Origin: **#225**
Page: Page 2 of 4
Job #:

Analysis Requested

Due Date Requested: **5/18/21**
TAT Requested (days): **5**
Compliance Project: **Δ** Yes **Δ** No
PO #: **138000**
Callout: **138000**
WG #: **48023280**
Project #: **48023280**
SSOW#: **480-183110**

Sample Identification

Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air)	Field Filtered Sample (Yes or No)	PFC, IDA - PFAS, Standard List (21 analytes)	8270D - SIM, MS, ID - SIM List	Total Number of Containers	Special Instructions/Note:
4009-275	4/18/21	1107	G	Water	✓	✓	✓		
4009-276		1210		Water	✓	✓	✓		
4009-277		0950		Water	✓	✓	✓		
4009-278		0950		Water	✓	✓	✓		
4009-279		1165		Water	✓	✓	✓		
4009-280		1355		Water	✓	✓	✓		
4009-281		1425		Water	✓	✓	✓		
4009-282		1300		Water	✓	✓	✓		
4009-283		1200		Water	✓	✓	✓		
4009-284				Water	✓	✓	✓		
4009-285				Water	✓	✓	✓		
4009-286				Water	✓	✓	✓		
4009-287				Water	✓	✓	✓		
4009-288				Water	✓	✓	✓		
4009-289				Water	✓	✓	✓		
4009-290				Water	✓	✓	✓		
4009-291				Water	✓	✓	✓		
4009-292				Water	✓	✓	✓		
4009-293				Water	✓	✓	✓		
4009-294				Water	✓	✓	✓		
4009-295				Water	✓	✓	✓		
4009-296				Water	✓	✓	✓		
4009-297				Water	✓	✓	✓		
4009-298				Water	✓	✓	✓		
4009-299				Water	✓	✓	✓		
4009-300				Water	✓	✓	✓		
4009-301				Water	✓	✓	✓		
4009-302				Water	✓	✓	✓		
4009-303				Water	✓	✓	✓		
4009-304				Water	✓	✓	✓		
4009-305				Water	✓	✓	✓		
4009-306				Water	✓	✓	✓		
4009-307				Water	✓	✓	✓		
4009-308				Water	✓	✓	✓		
4009-309				Water	✓	✓	✓		
4009-310				Water	✓	✓	✓		
4009-311				Water	✓	✓	✓		
4009-312				Water	✓	✓	✓		
4009-313				Water	✓	✓	✓		
4009-314				Water	✓	✓	✓		
4009-315				Water	✓	✓	✓		
4009-316				Water	✓	✓	✓		
4009-317				Water	✓	✓	✓		
4009-318				Water	✓	✓	✓		
4009-319				Water	✓	✓	✓		
4009-320				Water	✓	✓	✓		
4009-321				Water	✓	✓	✓		
4009-322				Water	✓	✓	✓		
4009-323				Water	✓	✓	✓		
4009-324				Water	✓	✓	✓		
4009-325				Water	✓	✓	✓		
4009-326				Water	✓	✓	✓		
4009-327				Water	✓	✓	✓		
4009-328				Water	✓	✓	✓		
4009-329				Water	✓	✓	✓		
4009-330				Water	✓	✓	✓		
4009-331				Water	✓	✓	✓		
4009-332				Water	✓	✓	✓		
4009-333				Water	✓	✓	✓		
4009-334				Water	✓	✓	✓		
4009-335				Water	✓	✓	✓		
4009-336				Water	✓	✓	✓		
4009-337				Water	✓	✓	✓		
4009-338				Water	✓	✓	✓		
4009-339				Water	✓	✓	✓		
4009-340				Water	✓	✓	✓		
4009-341				Water	✓	✓	✓		
4009-342				Water	✓	✓	✓		
4009-343				Water	✓	✓	✓		
4009-344				Water	✓	✓	✓		
4009-345				Water	✓	✓	✓		
4009-346				Water	✓	✓	✓		
4009-347				Water	✓	✓	✓		
4009-348				Water	✓	✓	✓		
4009-349				Water	✓	✓	✓		
4009-350				Water	✓	✓	✓		
4009-351				Water	✓	✓	✓		
4009-352				Water	✓	✓	✓		
4009-353				Water	✓	✓	✓		
4009-354				Water	✓	✓	✓		
4009-355				Water	✓	✓	✓		
4009-356				Water	✓	✓	✓		
4009-357				Water	✓	✓	✓		
4009-358				Water	✓	✓	✓		
4009-359				Water	✓	✓	✓		
4009-360				Water	✓	✓	✓		
4009-361				Water	✓	✓	✓		
4009-362				Water	✓	✓	✓		
4009-363				Water	✓	✓	✓		
4009-364				Water	✓	✓	✓		
4009-365				Water	✓	✓	✓		
4009-366				Water	✓	✓	✓		
4009-367				Water	✓	✓	✓		
4009-368				Water	✓	✓	✓		
4009-369				Water	✓	✓	✓		
4009-370				Water	✓	✓	✓		
4009-371				Water	✓	✓	✓		
4009-372				Water	✓	✓	✓		
4009-373				Water	✓	✓	✓		
4009-374				Water	✓	✓	✓		
4009-375				Water	✓	✓	✓		
4009-376				Water	✓	✓	✓		
4009-377				Water	✓	✓	✓		
4009-378				Water	✓	✓	✓		
4009-379				Water	✓	✓	✓		
4009-380				Water	✓	✓	✓		
4009-381				Water	✓	✓	✓		
4009-382				Water	✓	✓	✓		
4009-383				Water	✓	✓	✓		
4009-384				Water	✓	✓	✓		
4009-385				Water	✓	✓	✓		
4009-386				Water	✓	✓	✓		
4009-387				Water	✓	✓	✓		
4009-388				Water	✓	✓	✓		
4009-389				Water	✓	✓	✓		
4009-390				Water	✓	✓	✓		
4009-391				Water	✓	✓	✓		
4009-392				Water	✓	✓	✓		
4009-393				Water	✓	✓	✓		
4009-394				Water	✓	✓	✓		
4009-395				Water	✓	✓	✓		
4009-396				Water	✓	✓	✓		
4009-397				Water	✓	✓	✓		
4009-398				Water	✓	✓	✓		
4009-399				Water	✓	✓	✓		
4009-400				Water	✓	✓	✓		
4009-401				Water	✓	✓	✓		
4009-402				Water	✓	✓	✓		
4009-403				Water	✓	✓	✓		
4009-404				Water	✓	✓	✓		
4009-405				Water	✓	✓	✓		
4009-406				Water	✓	✓	✓		
4009-407				Water	✓	✓	✓		
4009-408				Water	✓	✓	✓		
4009-409				Water	✓	✓	✓		
4009-410				Water	✓	✓	✓		
4009-411				Water	✓	✓	✓		
4009-412				Water	✓	✓	✓		
4009-413				Water	✓	✓	✓		
4009-414				Water	✓	✓	✓		
4009-415				Water	✓	✓	✓		
4009-416				Water	✓	✓	✓		
4009-417				Water	✓	✓	✓		
4009-418				Water	✓	✓	✓		
4009-419				Water	✓	✓	✓		
4009-420				Water	✓	✓	✓		
4009-421				Water	✓	✓	✓		
4009-422				Water	✓	✓	✓		
4009-423				Water	✓	✓	✓		
4009-424				Water	✓	✓	✓		
4009-425				Water	✓	✓	✓		
4009-426				Water	✓	✓	✓		
4009-427				Water	✓	✓	✓		
4009-428				Water	✓	✓	✓		
4009-429				Water	✓				

RT 916
FZ 915

1 10:30
A 5999
04.09



Environment Testing
TestAmerica

ORIGIN ID:SYRA (315) 431-0171
SYR SERVICE CENTER
EUROFINS TESTAMERICA
118 BOSS RD

SHIP DATE: 08APR21
ACTWGT: 19.00 LB MAN
CAD: 0883373/CAFE3409

SYRACUSE, NY 13211
UNITED STATES US

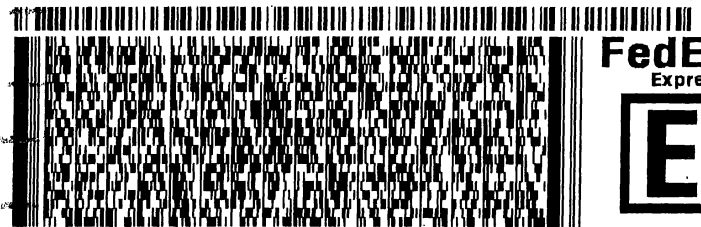
BILL RECIPIENT

TO **SAMPLE RECEIVING**
TESTAMERICA BURLINGTON
530 COMMUNITY DRIVE SUITE 11

SOUTH BURLINGTON VT 05403

(802) 680-1990

REF: ARCADIS VESTAL 1COOLER

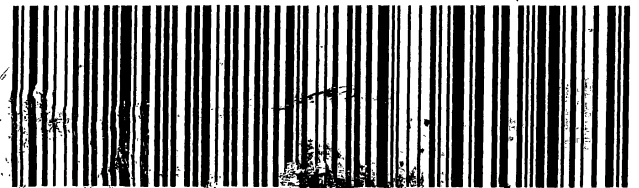


TRK# 9735 8146 5999
0201

FRI - 09 APR 10:30
PRIORITY OVERNIGHT

NL BTVA

05403
VT-US BTVA



Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183110-1

Login Number: 183110

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Wallace, Cameron

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

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183110-1

Login Number: 183110

List Number: 2

Creator: Cunningham, Caroline R

List Source: Eurofins TestAmerica, Burlington

List Creation: 04/09/21 04:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1521084
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.7°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

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

Laboratory Job ID: 480-183122-1

Client Project/Site: Vestal Water Supply (Site 1-1) #704009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:

4/23/2021 10:13:03 AM

Wyatt Watson, Project Management Assistant I

Wyatt.Watson@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager

(484)685-0868

Judy.Stone@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

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



Wyatt Watson
Project Management Assistant I
4/23/2021 10:13:03 AM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	7
Client Sample Results	10
Surrogate Summary	29
Isotope Dilution Summary	30
QC Sample Results	32
QC Association Summary	43
Lab Chronicle	45
Certification Summary	48
Method Summary	49
Sample Summary	50
Chain of Custody	51
Receipt Checklists	54



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Job ID: 480-183122-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-183122-1

Comments

No additional comments.

Receipt

The samples were received on 4/10/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.1° C and 3.4° C.

GC/MS VOA

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: 4009-12 (480-183122-3), 4009-12 (480-183122-3[MS]) and 4009-12 (480-183122-3[MSD]). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: 4009-15 (480-183122-4). Elevated reporting limits (RLs) are provided.

Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) associated with batch 576027. The following samples were affected : 4009-18 (480-183122-1), 4009-16 (480-183122-2), 4009-12 (480-183122-3), 4009-15 (480-183122-4), 4009-19 (480-183122-5), DUP-2 (480-183122-6), 4009-21 (480-183122-8) and TRIP BLANK (480-183122-9).

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-576027 were outside control limits. Sample matrix interference is suspected.

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

GC/MS Semi VOA

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

Method 8270D SIM ID: The 1,4-Dioxane result reported for samples 4009-12 (480-183122-3), 4009-12 (480-183122-3[MS]) and 4009-12 (480-183122-3[MSD]) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

LCMS

Method 537 (modified): Internal standard responses were outside of acceptance limits for the following samples: 4009-16 (480-183122-2) and 4009-15 (480-183122-4). The samples shows evidence of matrix interference.

Method 537 (modified): d3-NMeFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: 4009-16 (480-183122-2). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): 13C3 PFBS and 18O2 PFHxS Isotope Dilution Analyte (IDA) recoveries associated with the following sample are below the method recommended limit: 4009-15 (480-183122-4). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): Method 537 (modified): The "I" qualifier associated with samples 4009-19 (480-183122-5) and 4009-21 (480-183122-8) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Job ID: 480-183122-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

Method 537 (modified): M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: 4009-15 (480-183122-4). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

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

Organic Prep

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-18

Lab Sample ID: 480-183122-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.44	J	1.0	0.38	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.36		0.19	0.096	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	1.3	J	4.7	0.84	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.9		1.9	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.5	J	1.9	0.42	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		1.9	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.0		1.9	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.3		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.54	J	1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.32	J	1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.82	J	1.9	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.4	J	1.9	0.27	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-16

Lab Sample ID: 480-183122-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.3	J *	10	1.3	ug/L	1		8260C	Total/NA
Acetone	160		10	3.0	ug/L	1		8260C	Total/NA
Benzene	30		1.0	0.41	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.69		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	1.1	J	4.5	0.80	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.67	J	1.8	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.99	J	1.8	0.40	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.32	J	1.8	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.8	0.38	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.8		1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.28	J	1.8	0.27	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.44	J	1.8	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.36	J	1.8	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.90	J	1.8	0.26	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.6	J	4.5	0.98	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-12

Lab Sample ID: 480-183122-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	300	F1	5.0	4.1	ug/L	5		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	J	5.0	1.6	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	34		5.0	1.9	ug/L	5		8260C	Total/NA
1,1-Dichloroethene	19		5.0	1.5	ug/L	5		8260C	Total/NA
Chloroethane	3.2	J	5.0	1.6	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	63		5.0	4.1	ug/L	5		8260C	Total/NA
Trichloroethene	54		5.0	2.3	ug/L	5		8260C	Total/NA
Vinyl chloride	47		5.0	4.5	ug/L	5		8260C	Total/NA
1,4-Dioxane	2.9	E	0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	4.8		4.0	0.72	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.0		1.6	0.38	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.6	0.36	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.9		1.6	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	6.5		1.6	0.34	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.36	J	1.6	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.8		1.6	0.20	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-12 (Continued)

Lab Sample ID: 480-183122-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	3.1		1.6	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		1.6	0.23	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-15

Lab Sample ID: 480-183122-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	190		80	24	ug/L	8		8260C	Total/NA
Benzene	13		8.0	3.3	ug/L	8		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	11		4.2	0.75	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.6		1.7	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4.1		1.7	0.38	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.3		1.7	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	11		1.7	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.7		1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.29	J	1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.37	J	1.7	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.54	J	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.74	J	1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.7		1.7	0.24	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.2	J	4.2	0.92	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-19

Lab Sample ID: 480-183122-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.88		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorononanoic acid (PFNA)	0.23	J I	1.7	0.23	ng/L	1		537 (modified)	Total/NA

Client Sample ID: DUP-2

Lab Sample ID: 480-183122-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.89		0.20	0.099	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: EQUIP BLANK 2

Lab Sample ID: 480-183122-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.53	J	1.7	0.37	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-21

Lab Sample ID: 480-183122-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.8		1.0	0.41	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.99		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluoropentanoic acid (PFPeA)	0.69	J	1.8	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.99	J	1.8	0.41	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.33	J	1.8	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.0	J	1.8	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.27	J	1.8	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.49	J I	1.8	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.37	J	1.8	0.27	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.4	J	4.6	0.68	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.1	J	4.6	1.0	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: New York State D.E.C.

Job ID: 480-183122-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-183122-9

☐ No Detections.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-18

Lab Sample ID: 480-183122-1

Date Collected: 04/09/21 12:20

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/12/21 22:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 22:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 22:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 22:03	1
1,1-Dichloroethane	0.44	J	1.0	0.38	ug/L			04/12/21 22:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/12/21 22:03	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 22:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 22:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 22:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 22:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 22:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 22:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 22:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 22:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 22:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 22:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 22:03	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 22:03	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 22:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 22:03	1
Acetone	ND		10	3.0	ug/L			04/12/21 22:03	1
Benzene	ND		1.0	0.41	ug/L			04/12/21 22:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 22:03	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 22:03	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 22:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 22:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/12/21 22:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 22:03	1
Chloroethane	ND		1.0	0.32	ug/L			04/12/21 22:03	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 22:03	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 22:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 22:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 22:03	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 22:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 22:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 22:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 22:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 22:03	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 22:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 22:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 22:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 22:03	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 22:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 22:03	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 22:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 22:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 22:03	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 22:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 22:03	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-18

Lab Sample ID: 480-183122-1

Date Collected: 04/09/21 12:20

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.90	ug/L			04/12/21 22:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 22:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		04/12/21 22:03	1
4-Bromofluorobenzene (Surr)	101		73 - 120		04/12/21 22:03	1
Dibromofluoromethane (Surr)	99		75 - 123		04/12/21 22:03	1
Toluene-d8 (Surr)	104		80 - 120		04/12/21 22:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.36		0.19	0.096	ug/L	-	04/14/21 08:07	04/15/21 18:19	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	29		15 - 110				04/14/21 08:07	04/15/21 18:19	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.3	J	4.7	0.84	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluoropentanoic acid (PFPeA)	1.9		1.9	0.45	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorohexanoic acid (PFHxA)	1.5	J	1.9	0.42	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluoroheptanoic acid (PFHpA)	2.0		1.9	0.22	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorooctanoic acid (PFOA)	2.0		1.9	0.40	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorononanoic acid (PFNA)	5.3		1.9	0.26	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorodecanoic acid (PFDA)	0.54	J	1.9	0.29	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	0.32	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.36	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	0.41	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.59	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorobutanesulfonic acid (PFBS)	0.32	J	1.9	0.23	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorohexanesulfonic acid (PFHxS)	0.82	J	1.9	0.28	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.22	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorooctanesulfonic acid (PFOS)	1.4	J	1.9	0.27	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.29	ng/L		04/19/21 12:37	04/19/21 17:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.9	0.54	ng/L		04/19/21 12:37	04/19/21 17:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	0.85	ng/L		04/19/21 12:37	04/19/21 17:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	0.70	ng/L		04/19/21 12:37	04/19/21 17:06	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.7	1.0	ng/L		04/19/21 12:37	04/19/21 17:06	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.9	0.37	ng/L		04/19/21 12:37	04/19/21 17:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	83		50 - 150				04/19/21 12:37	04/19/21 17:06	1
13C4 PFHpA	98		50 - 150				04/19/21 12:37	04/19/21 17:06	1
13C4 PFOA	93		50 - 150				04/19/21 12:37	04/19/21 17:06	1
13C4 PFOS	81		50 - 150				04/19/21 12:37	04/19/21 17:06	1
13C5 PFNA	105		50 - 150				04/19/21 12:37	04/19/21 17:06	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-18

Date Collected: 04/09/21 12:20

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-1

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	94		25 - 150	04/19/21 12:37	04/19/21 17:06	1
13C2 PFHxA	95		50 - 150	04/19/21 12:37	04/19/21 17:06	1
13C2 PFDA	90		50 - 150	04/19/21 12:37	04/19/21 17:06	1
13C2 PFUnA	84		50 - 150	04/19/21 12:37	04/19/21 17:06	1
13C2 PFDoA	81		50 - 150	04/19/21 12:37	04/19/21 17:06	1
13C8 FOSA	77		25 - 150	04/19/21 12:37	04/19/21 17:06	1
13C5 PFPeA	92		25 - 150	04/19/21 12:37	04/19/21 17:06	1
13C2 PFTeDA	83		50 - 150	04/19/21 12:37	04/19/21 17:06	1
d3-NMeFOSAA	77		50 - 150	04/19/21 12:37	04/19/21 17:06	1
d5-NEtFOSAA	83		50 - 150	04/19/21 12:37	04/19/21 17:06	1
M2-6:2 FTS	106		25 - 150	04/19/21 12:37	04/19/21 17:06	1
M2-8:2 FTS	105		25 - 150	04/19/21 12:37	04/19/21 17:06	1
13C3 PFBS	83		50 - 150	04/19/21 12:37	04/19/21 17:06	1

Client Sample ID: 4009-16

Date Collected: 04/09/21 09:40

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/12/21 22:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 22:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 22:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 22:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 22:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/12/21 22:25	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 22:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 22:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 22:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 22:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 22:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 22:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 22:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 22:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 22:25	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 22:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 22:25	1
2-Butanone (MEK)	3.3	J **	10	1.3	ug/L			04/12/21 22:25	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 22:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 22:25	1
Acetone	160		10	3.0	ug/L			04/12/21 22:25	1
Benzene	30		1.0	0.41	ug/L			04/12/21 22:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 22:25	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 22:25	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 22:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 22:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/12/21 22:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 22:25	1
Chloroethane	ND		1.0	0.32	ug/L			04/12/21 22:25	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 22:25	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-16

Lab Sample ID: 480-183122-2

Date Collected: 04/09/21 09:40

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 22:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 22:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 22:25	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 22:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 22:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 22:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 22:25	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 22:25	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 22:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 22:25	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 22:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 22:25	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 22:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 22:25	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 22:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 22:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 22:25	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 22:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 22:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/12/21 22:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 22:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		04/12/21 22:25	1
4-Bromofluorobenzene (Surr)	101		73 - 120		04/12/21 22:25	1
Dibromofluoromethane (Surr)	100		75 - 123		04/12/21 22:25	1
Toluene-d8 (Surr)	103		80 - 120		04/12/21 22:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.69		0.19	0.095	ug/L		04/14/21 08:07	04/15/21 18:43	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110				04/14/21 08:07	04/15/21 18:43	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.1	J	4.5	0.80	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluoropentanoic acid (PFPeA)	0.67	J	1.8	0.42	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorohexanoic acid (PFHxA)	0.99	J	1.8	0.40	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluoroheptanoic acid (PFHpA)	0.32	J	1.8	0.21	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorooctanoic acid (PFOA)	1.9		1.8	0.38	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorononanoic acid (PFNA)	1.8		1.8	0.25	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorodecanoic acid (PFDA)	0.28	J	1.8	0.27	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluoroundecanoic acid (PFUnA)	0.44	J	1.8	0.31	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.34	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.39	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.57	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.22	ng/L		04/19/21 12:37	04/19/21 17:14	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-16

Date Collected: 04/09/21 09:40

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	0.36	J	1.8	0.27	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.21	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorooctanesulfonic acid (PFOS)	0.90	J	1.8	0.26	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.27	ng/L		04/19/21 12:37	04/19/21 17:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.52	ng/L		04/19/21 12:37	04/19/21 17:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	0.81	ng/L		04/19/21 12:37	04/19/21 17:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	0.67	ng/L		04/19/21 12:37	04/19/21 17:14	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.6	J	4.5	0.98	ng/L		04/19/21 12:37	04/19/21 17:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.35	ng/L		04/19/21 12:37	04/19/21 17:14	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	51		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C4 PFHpA	74		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C4 PFOA	93		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C4 PFOS	53		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C5 PFNA	109		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C4 PFBA	38		25 - 150				04/19/21 12:37	04/19/21 17:14	1
13C2 PFHxA	65		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C2 PFDA	101		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C2 PFUnA	97		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C2 PFDoA	88		50 - 150				04/19/21 12:37	04/19/21 17:14	1
13C8 FOSA	54		25 - 150				04/19/21 12:37	04/19/21 17:14	1
13C5 PFPeA	65		25 - 150				04/19/21 12:37	04/19/21 17:14	1
13C2 PFTeDA	80		50 - 150				04/19/21 12:37	04/19/21 17:14	1
d3-NMeFOSAA	152	*5+	50 - 150				04/19/21 12:37	04/19/21 17:14	1
d5-NEtFOSAA	123		50 - 150				04/19/21 12:37	04/19/21 17:14	1
M2-6:2 FTS	296	*5+	25 - 150				04/19/21 12:37	04/19/21 17:14	1
M2-8:2 FTS	332	*5+	25 - 150				04/19/21 12:37	04/19/21 17:14	1
13C3 PFBS	50		50 - 150				04/19/21 12:37	04/19/21 17:14	1

Client Sample ID: 4009-12

Date Collected: 04/08/21 16:15

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	300	F1	5.0	4.1	ug/L			04/12/21 22:47	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			04/12/21 22:47	5
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	J	5.0	1.6	ug/L			04/12/21 22:47	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/12/21 22:47	5
1,1-Dichloroethane	34		5.0	1.9	ug/L			04/12/21 22:47	5
1,1-Dichloroethene	19		5.0	1.5	ug/L			04/12/21 22:47	5
1,2,3-Trimethylbenzene	ND		5.0	1.3	ug/L			04/12/21 22:47	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			04/12/21 22:47	5
1,2,4-Trimethylbenzene	ND		5.0	3.8	ug/L			04/12/21 22:47	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-12

Lab Sample ID: 480-183122-3

Date Collected: 04/08/21 16:15

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			04/12/21 22:47	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			04/12/21 22:47	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			04/12/21 22:47	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/12/21 22:47	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			04/12/21 22:47	5
1,3,5-Trimethylbenzene	ND		5.0	3.9	ug/L			04/12/21 22:47	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			04/12/21 22:47	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			04/12/21 22:47	5
2-Butanone (MEK)	ND	*+ F1	50	6.6	ug/L			04/12/21 22:47	5
2-Hexanone	ND		25	6.2	ug/L			04/12/21 22:47	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			04/12/21 22:47	5
Acetone	ND		50	15	ug/L			04/12/21 22:47	5
Benzene	ND		5.0	2.1	ug/L			04/12/21 22:47	5
Bromodichloromethane	ND		5.0	2.0	ug/L			04/12/21 22:47	5
Bromoform	ND		5.0	1.3	ug/L			04/12/21 22:47	5
Bromomethane	ND		5.0	3.5	ug/L			04/12/21 22:47	5
Carbon disulfide	ND		5.0	0.95	ug/L			04/12/21 22:47	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/12/21 22:47	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/12/21 22:47	5
Chloroethane	3.2	J	5.0	1.6	ug/L			04/12/21 22:47	5
Chloroform	ND		5.0	1.7	ug/L			04/12/21 22:47	5
Chloromethane	ND		5.0	1.8	ug/L			04/12/21 22:47	5
cis-1,2-Dichloroethene	63		5.0	4.1	ug/L			04/12/21 22:47	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			04/12/21 22:47	5
Cyclohexane	ND		5.0	0.90	ug/L			04/12/21 22:47	5
Dibromochloromethane	ND		5.0	1.6	ug/L			04/12/21 22:47	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			04/12/21 22:47	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/12/21 22:47	5
Isopropylbenzene	ND		5.0	4.0	ug/L			04/12/21 22:47	5
Methyl acetate	ND		13	6.5	ug/L			04/12/21 22:47	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			04/12/21 22:47	5
Methylcyclohexane	ND		5.0	0.80	ug/L			04/12/21 22:47	5
Methylene Chloride	ND		5.0	2.2	ug/L			04/12/21 22:47	5
Styrene	ND		5.0	3.7	ug/L			04/12/21 22:47	5
Tetrachloroethene	ND		5.0	1.8	ug/L			04/12/21 22:47	5
Toluene	ND		5.0	2.6	ug/L			04/12/21 22:47	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			04/12/21 22:47	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			04/12/21 22:47	5
Trichloroethene	54		5.0	2.3	ug/L			04/12/21 22:47	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			04/12/21 22:47	5
Vinyl chloride	47		5.0	4.5	ug/L			04/12/21 22:47	5
Xylenes, Total	ND		10	3.3	ug/L			04/12/21 22:47	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		04/12/21 22:47	5
4-Bromofluorobenzene (Surr)	104		73 - 120		04/12/21 22:47	5
Dibromofluoromethane (Surr)	102		75 - 123		04/12/21 22:47	5
Toluene-d8 (Surr)	106		80 - 120		04/12/21 22:47	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-12

Lab Sample ID: 480-183122-3

Date Collected: 04/08/21 16:15

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.9	E	0.19	0.095	ug/L		04/14/21 08:07	04/15/21 17:55	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	29		15 - 110				04/14/21 08:07	04/15/21 17:55	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.8		4.0	0.72	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluoropentanoic acid (PFPeA)	3.0		1.6	0.38	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorohexanoic acid (PFHxA)	2.2		1.6	0.36	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluoroheptanoic acid (PFHpA)	1.9		1.6	0.19	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorooctanoic acid (PFOA)	6.5		1.6	0.34	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorononanoic acid (PFNA)	0.36	J	1.6	0.23	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.25	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.28	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.31	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.35	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.51	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorobutanesulfonic acid (PFBS)	2.8		1.6	0.20	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorohexanesulfonic acid (PFHxS)	3.1		1.6	0.24	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.19	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorooctanesulfonic acid (PFOS)	2.1		1.6	0.23	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.25	ng/L		04/19/21 12:37	04/19/21 17:23	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.47	ng/L		04/19/21 12:37	04/19/21 17:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.0	0.73	ng/L		04/19/21 12:37	04/19/21 17:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.0	0.60	ng/L		04/19/21 12:37	04/19/21 17:23	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.0	0.88	ng/L		04/19/21 12:37	04/19/21 17:23	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.6	0.31	ng/L		04/19/21 12:37	04/19/21 17:23	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	83		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C4 PFHpA	89		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C4 PFOA	88		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C4 PFOS	85		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C5 PFNA	95		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C4 PFBA	71		25 - 150				04/19/21 12:37	04/19/21 17:23	1
13C2 PFHxA	89		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C2 PFDA	88		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C2 PFUnA	92		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C2 PFDoA	87		50 - 150				04/19/21 12:37	04/19/21 17:23	1
13C8 FOSA	82		25 - 150				04/19/21 12:37	04/19/21 17:23	1
13C5 PFPeA	79		25 - 150				04/19/21 12:37	04/19/21 17:23	1
13C2 PFTeDA	90		50 - 150				04/19/21 12:37	04/19/21 17:23	1
d3-NMeFOSAA	87		50 - 150				04/19/21 12:37	04/19/21 17:23	1
d5-NEtFOSAA	88		50 - 150				04/19/21 12:37	04/19/21 17:23	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-12

Date Collected: 04/08/21 16:15

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-3

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	99		25 - 150	04/19/21 12:37	04/19/21 17:23	1
M2-8:2 FTS	105		25 - 150	04/19/21 12:37	04/19/21 17:23	1
13C3 PFBS	84		50 - 150	04/19/21 12:37	04/19/21 17:23	1

Client Sample ID: 4009-15

Date Collected: 04/09/21 09:40

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			04/12/21 23:09	8
1,1,2,2-Tetrachloroethane	ND		8.0	1.7	ug/L			04/12/21 23:09	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.0	2.5	ug/L			04/12/21 23:09	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			04/12/21 23:09	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			04/12/21 23:09	8
1,1-Dichloroethene	ND		8.0	2.3	ug/L			04/12/21 23:09	8
1,2,3-Trimethylbenzene	ND		8.0	2.1	ug/L			04/12/21 23:09	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			04/12/21 23:09	8
1,2,4-Trimethylbenzene	ND		8.0	6.0	ug/L			04/12/21 23:09	8
1,2-Dibromo-3-Chloropropane	ND		8.0	3.1	ug/L			04/12/21 23:09	8
1,2-Dibromoethane	ND		8.0	5.8	ug/L			04/12/21 23:09	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			04/12/21 23:09	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			04/12/21 23:09	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			04/12/21 23:09	8
1,3,5-Trimethylbenzene	ND		8.0	6.2	ug/L			04/12/21 23:09	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			04/12/21 23:09	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			04/12/21 23:09	8
2-Butanone (MEK)	ND	+	80	11	ug/L			04/12/21 23:09	8
2-Hexanone	ND		40	9.9	ug/L			04/12/21 23:09	8
4-Methyl-2-pentanone (MIBK)	ND		40	17	ug/L			04/12/21 23:09	8
Acetone	190		80	24	ug/L			04/12/21 23:09	8
Benzene	13		8.0	3.3	ug/L			04/12/21 23:09	8
Bromodichloromethane	ND		8.0	3.1	ug/L			04/12/21 23:09	8
Bromoform	ND		8.0	2.1	ug/L			04/12/21 23:09	8
Bromomethane	ND		8.0	5.5	ug/L			04/12/21 23:09	8
Carbon disulfide	ND		8.0	1.5	ug/L			04/12/21 23:09	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			04/12/21 23:09	8
Chlorobenzene	ND		8.0	6.0	ug/L			04/12/21 23:09	8
Chloroethane	ND		8.0	2.6	ug/L			04/12/21 23:09	8
Chloroform	ND		8.0	2.7	ug/L			04/12/21 23:09	8
Chloromethane	ND		8.0	2.8	ug/L			04/12/21 23:09	8
cis-1,2-Dichloroethene	ND		8.0	6.5	ug/L			04/12/21 23:09	8
cis-1,3-Dichloropropene	ND		8.0	2.9	ug/L			04/12/21 23:09	8
Cyclohexane	ND		8.0	1.4	ug/L			04/12/21 23:09	8
Dibromochloromethane	ND		8.0	2.6	ug/L			04/12/21 23:09	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			04/12/21 23:09	8
Ethylbenzene	ND		8.0	5.9	ug/L			04/12/21 23:09	8
Isopropylbenzene	ND		8.0	6.3	ug/L			04/12/21 23:09	8
Methyl acetate	ND		20	10	ug/L			04/12/21 23:09	8
Methyl tert-butyl ether	ND		8.0	1.3	ug/L			04/12/21 23:09	8

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-15

Lab Sample ID: 480-183122-4

Date Collected: 04/09/21 09:40

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		8.0	1.3	ug/L			04/12/21 23:09	8
Methylene Chloride	ND		8.0	3.5	ug/L			04/12/21 23:09	8
Styrene	ND		8.0	5.8	ug/L			04/12/21 23:09	8
Tetrachloroethene	ND		8.0	2.9	ug/L			04/12/21 23:09	8
Toluene	ND		8.0	4.1	ug/L			04/12/21 23:09	8
trans-1,2-Dichloroethene	ND		8.0	7.2	ug/L			04/12/21 23:09	8
trans-1,3-Dichloropropene	ND		8.0	3.0	ug/L			04/12/21 23:09	8
Trichloroethene	ND		8.0	3.7	ug/L			04/12/21 23:09	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			04/12/21 23:09	8
Vinyl chloride	ND		8.0	7.2	ug/L			04/12/21 23:09	8
Xylenes, Total	ND		16	5.3	ug/L			04/12/21 23:09	8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/12/21 23:09	8
4-Bromofluorobenzene (Surr)	103		73 - 120		04/12/21 23:09	8
Dibromofluoromethane (Surr)	101		75 - 123		04/12/21 23:09	8
Toluene-d8 (Surr)	105		80 - 120		04/12/21 23:09	8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		04/14/21 08:07	04/15/21 19:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	27		15 - 110				04/14/21 08:07	04/15/21 19:07	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	11		4.2	0.75	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluoropentanoic acid (PFPeA)	4.6		1.7	0.40	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorohexanoic acid (PFHxA)	4.1		1.7	0.38	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluoroheptanoic acid (PFHpA)	3.3		1.7	0.20	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorooctanoic acid (PFOA)	11		1.7	0.36	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorononanoic acid (PFNA)	1.7		1.7	0.24	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorodecanoic acid (PFDA)	0.29 J		1.7	0.25	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluoroundecanoic acid (PFUnA)	0.37 J		1.7	0.29	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.32	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.53	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorobutanesulfonic acid (PFBS)	0.54 J		1.7	0.21	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorohexanesulfonic acid (PFHxS)	0.74 J		1.7	0.25	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorooctanesulfonic acid (PFOS)	1.7		1.7	0.24	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/19/21 12:37	04/19/21 17:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48	ng/L		04/19/21 12:37	04/19/21 17:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.76	ng/L		04/19/21 12:37	04/19/21 17:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.62	ng/L		04/19/21 12:37	04/19/21 17:47	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-15

Date Collected: 04/09/21 09:40

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.2	J	4.2	0.92	ng/L		04/19/21 12:37	04/19/21 17:47	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.33	ng/L		04/19/21 12:37	04/19/21 17:47	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	48	*5-	50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C4 PFHpA	74		50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C4 PFOA	91		50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C4 PFOS	52		50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C5 PFNA	100		50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C4 PFBA	37		25 - 150				04/19/21 12:37	04/19/21 17:47	1
13C2 PFHxA	55		50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C2 PFDA	96		50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C2 PFUnA	84		50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C2 PFDoA	88		50 - 150				04/19/21 12:37	04/19/21 17:47	1
13C8 FOSA	46		25 - 150				04/19/21 12:37	04/19/21 17:47	1
13C5 PFPeA	60		25 - 150				04/19/21 12:37	04/19/21 17:47	1
13C2 PFTeDA	80		50 - 150				04/19/21 12:37	04/19/21 17:47	1
d3-NMeFOSAA	138		50 - 150				04/19/21 12:37	04/19/21 17:47	1
d5-NEtFOSAA	117		50 - 150				04/19/21 12:37	04/19/21 17:47	1
M2-6:2 FTS	319	*5+	25 - 150				04/19/21 12:37	04/19/21 17:47	1
M2-8:2 FTS	326	*5+	25 - 150				04/19/21 12:37	04/19/21 17:47	1
13C3 PFBS	47	*5-	50 - 150				04/19/21 12:37	04/19/21 17:47	1

Client Sample ID: 4009-19

Date Collected: 04/09/21 11:45

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/12/21 23:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 23:31	1
1,1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 23:31	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 23:31	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 23:31	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/12/21 23:31	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 23:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 23:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 23:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 23:31	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 23:31	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 23:31	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 23:31	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 23:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 23:31	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 23:31	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 23:31	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 23:31	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 23:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 23:31	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-19

Lab Sample ID: 480-183122-5

Date Collected: 04/09/21 11:45

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			04/12/21 23:31	1
Benzene	ND		1.0	0.41	ug/L			04/12/21 23:31	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 23:31	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 23:31	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 23:31	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 23:31	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/12/21 23:31	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 23:31	1
Chloroethane	ND		1.0	0.32	ug/L			04/12/21 23:31	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 23:31	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 23:31	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 23:31	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 23:31	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 23:31	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 23:31	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 23:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 23:31	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 23:31	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 23:31	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 23:31	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 23:31	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 23:31	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 23:31	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 23:31	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 23:31	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 23:31	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 23:31	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 23:31	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 23:31	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/12/21 23:31	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 23:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/12/21 23:31	1
4-Bromofluorobenzene (Surr)	98		73 - 120		04/12/21 23:31	1
Dibromofluoromethane (Surr)	103		75 - 123		04/12/21 23:31	1
Toluene-d8 (Surr)	105		80 - 120		04/12/21 23:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.88		0.19	0.095	ug/L		04/14/21 08:07	04/15/21 19:30	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				04/14/21 08:07	04/15/21 19:30	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.2	0.75	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.40	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.38	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.20	ng/L		04/19/21 12:37	04/19/21 17:56	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-19

Lab Sample ID: 480-183122-5

Date Collected: 04/09/21 11:45

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		1.7	0.35	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorononanoic acid (PFNA)	0.23	J I	1.7	0.23	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.25	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.29	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.32	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.53	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.21	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.25	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.24	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/19/21 12:37	04/19/21 17:56	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48	ng/L		04/19/21 12:37	04/19/21 17:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.75	ng/L		04/19/21 12:37	04/19/21 17:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.62	ng/L		04/19/21 12:37	04/19/21 17:56	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.2	0.92	ng/L		04/19/21 12:37	04/19/21 17:56	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.33	ng/L		04/19/21 12:37	04/19/21 17:56	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	80		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C4 PFHpA	95		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C4 PFOA	94		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C4 PFOS	86		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C5 PFNA	97		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C4 PFBA	84		25 - 150				04/19/21 12:37	04/19/21 17:56	1
13C2 PFHxA	93		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C2 PFDA	93		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C2 PFUnA	93		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C2 PFDoA	80		50 - 150				04/19/21 12:37	04/19/21 17:56	1
13C8 FOSA	83		25 - 150				04/19/21 12:37	04/19/21 17:56	1
13C5 PFPeA	93		25 - 150				04/19/21 12:37	04/19/21 17:56	1
13C2 PFTeDA	83		50 - 150				04/19/21 12:37	04/19/21 17:56	1
d3-NMeFOSAA	83		50 - 150				04/19/21 12:37	04/19/21 17:56	1
d5-NEtFOSAA	86		50 - 150				04/19/21 12:37	04/19/21 17:56	1
M2-6:2 FTS	94		25 - 150				04/19/21 12:37	04/19/21 17:56	1
M2-8:2 FTS	100		25 - 150				04/19/21 12:37	04/19/21 17:56	1
13C3 PFBS	80		50 - 150				04/19/21 12:37	04/19/21 17:56	1

Client Sample ID: DUP-2

Lab Sample ID: 480-183122-6

Date Collected: 04/09/21 08:00

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/12/21 23:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 23:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 23:53	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: DUP-2

Lab Sample ID: 480-183122-6

Date Collected: 04/09/21 08:00

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 23:53	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 23:53	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/12/21 23:53	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 23:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 23:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 23:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 23:53	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 23:53	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 23:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 23:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 23:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 23:53	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 23:53	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 23:53	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 23:53	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 23:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 23:53	1
Acetone	ND		10	3.0	ug/L			04/12/21 23:53	1
Benzene	ND		1.0	0.41	ug/L			04/12/21 23:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 23:53	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 23:53	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 23:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 23:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/12/21 23:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 23:53	1
Chloroethane	ND		1.0	0.32	ug/L			04/12/21 23:53	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 23:53	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 23:53	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 23:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 23:53	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 23:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 23:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 23:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 23:53	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 23:53	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 23:53	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 23:53	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 23:53	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 23:53	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 23:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 23:53	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 23:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 23:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 23:53	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 23:53	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 23:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/12/21 23:53	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 23:53	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: DUP-2

Lab Sample ID: 480-183122-6

Date Collected: 04/09/21 08:00

Matrix: Water

Date Received: 04/10/21 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/12/21 23:53	1
4-Bromofluorobenzene (Surr)	101		73 - 120		04/12/21 23:53	1
Dibromofluoromethane (Surr)	102		75 - 123		04/12/21 23:53	1
Toluene-d8 (Surr)	105		80 - 120		04/12/21 23:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.89		0.20	0.099	ug/L		04/14/21 08:07	04/15/21 19:54	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	30		15 - 110				04/14/21 08:07	04/15/21 19:54	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.3	0.76	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.40	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.38	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.20	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.36	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.24	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.29	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.33	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.54	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.21	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.26	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.25	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/19/21 12:37	04/19/21 18:04	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.49	ng/L		04/19/21 12:37	04/19/21 18:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.77	ng/L		04/19/21 12:37	04/19/21 18:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.63	ng/L		04/19/21 12:37	04/19/21 18:04	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.93	ng/L		04/19/21 12:37	04/19/21 18:04	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.33	ng/L		04/19/21 12:37	04/19/21 18:04	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	85		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C4 PFHpA	92		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C4 PFOA	90		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C4 PFOS	84		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C5 PFNA	98		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C4 PFBA	85		25 - 150				04/19/21 12:37	04/19/21 18:04	1
13C2 PFHxA	89		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C2 PFDA	88		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C2 PFUnA	88		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C2 PFDoA	82		50 - 150				04/19/21 12:37	04/19/21 18:04	1
13C8 FOSA	81		25 - 150				04/19/21 12:37	04/19/21 18:04	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: DUP-2

Date Collected: 04/09/21 08:00

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-6

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	89		25 - 150	04/19/21 12:37	04/19/21 18:04	1
13C2 PFTeDA	83		50 - 150	04/19/21 12:37	04/19/21 18:04	1
d3-NMeFOSAA	83		50 - 150	04/19/21 12:37	04/19/21 18:04	1
d5-NEtFOSAA	88		50 - 150	04/19/21 12:37	04/19/21 18:04	1
M2-6:2 FTS	90		25 - 150	04/19/21 12:37	04/19/21 18:04	1
M2-8:2 FTS	97		25 - 150	04/19/21 12:37	04/19/21 18:04	1
13C3 PFBS	84		50 - 150	04/19/21 12:37	04/19/21 18:04	1

Client Sample ID: EQUIP BLANK 2

Date Collected: 04/09/21 13:30

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183122-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.097	ug/L		04/14/21 08:07	04/15/21 20:18	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	30		15 - 110				04/14/21 08:07	04/15/21 20:18	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.1	0.74	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.39	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorohexanoic acid (PFHxA)	0.53	J	1.7	0.37	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.20	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.35	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.23	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.25	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.28	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.32	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorotridecanoic acid (PFTrIA)	ND		1.7	0.36	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.52	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.21	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.25	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.19	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.24	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.25	ng/L		04/19/21 12:37	04/19/21 18:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48	ng/L		04/19/21 12:37	04/19/21 18:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.1	0.75	ng/L		04/19/21 12:37	04/19/21 18:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.1	0.61	ng/L		04/19/21 12:37	04/19/21 18:12	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.1	0.91	ng/L		04/19/21 12:37	04/19/21 18:12	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.32	ng/L		04/19/21 12:37	04/19/21 18:12	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	84		50 - 150				04/19/21 12:37	04/19/21 18:12	1
13C4 PFHpA	92		50 - 150				04/19/21 12:37	04/19/21 18:12	1
13C4 PFOA	89		50 - 150				04/19/21 12:37	04/19/21 18:12	1
13C4 PFOS	85		50 - 150				04/19/21 12:37	04/19/21 18:12	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: EQUIP BLANK 2

Lab Sample ID: 480-183122-7

Date Collected: 04/09/21 13:30

Matrix: Water

Date Received: 04/10/21 08:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	94		50 - 150	04/19/21 12:37	04/19/21 18:12	1
13C4 PFBA	91		25 - 150	04/19/21 12:37	04/19/21 18:12	1
13C2 PFHxA	89		50 - 150	04/19/21 12:37	04/19/21 18:12	1
13C2 PFDA	90		50 - 150	04/19/21 12:37	04/19/21 18:12	1
13C2 PFUnA	89		50 - 150	04/19/21 12:37	04/19/21 18:12	1
13C2 PFDoA	82		50 - 150	04/19/21 12:37	04/19/21 18:12	1
13C8 FOSA	75		25 - 150	04/19/21 12:37	04/19/21 18:12	1
13C5 PFPeA	91		25 - 150	04/19/21 12:37	04/19/21 18:12	1
13C2 PFTeDA	86		50 - 150	04/19/21 12:37	04/19/21 18:12	1
d3-NMeFOSAA	85		50 - 150	04/19/21 12:37	04/19/21 18:12	1
d5-NEtFOSAA	92		50 - 150	04/19/21 12:37	04/19/21 18:12	1
M2-6:2 FTS	91		25 - 150	04/19/21 12:37	04/19/21 18:12	1
M2-8:2 FTS	94		25 - 150	04/19/21 12:37	04/19/21 18:12	1
13C3 PFBS	89		50 - 150	04/19/21 12:37	04/19/21 18:12	1

Client Sample ID: 4009-21

Lab Sample ID: 480-183122-8

Date Collected: 04/09/21 14:20

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/13/21 00:15	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/13/21 00:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/13/21 00:15	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/13/21 00:15	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/13/21 00:15	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/13/21 00:15	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/13/21 00:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/13/21 00:15	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/13/21 00:15	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/13/21 00:15	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/13/21 00:15	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/13/21 00:15	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/13/21 00:15	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/13/21 00:15	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/13/21 00:15	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/13/21 00:15	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/13/21 00:15	1
2-Butanone (MEK)	ND	+	10	1.3	ug/L			04/13/21 00:15	1
2-Hexanone	ND		5.0	1.2	ug/L			04/13/21 00:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/13/21 00:15	1
Acetone	ND		10	3.0	ug/L			04/13/21 00:15	1
Benzene	4.8		1.0	0.41	ug/L			04/13/21 00:15	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/13/21 00:15	1
Bromoform	ND		1.0	0.26	ug/L			04/13/21 00:15	1
Bromomethane	ND		1.0	0.69	ug/L			04/13/21 00:15	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/13/21 00:15	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/13/21 00:15	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/13/21 00:15	1
Chloroethane	ND		1.0	0.32	ug/L			04/13/21 00:15	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-21

Lab Sample ID: 480-183122-8

Date Collected: 04/09/21 14:20

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.34	ug/L			04/13/21 00:15	1
Chloromethane	ND		1.0	0.35	ug/L			04/13/21 00:15	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/13/21 00:15	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/13/21 00:15	1
Cyclohexane	ND		1.0	0.18	ug/L			04/13/21 00:15	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/13/21 00:15	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/13/21 00:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/13/21 00:15	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/13/21 00:15	1
Methyl acetate	ND		2.5	1.3	ug/L			04/13/21 00:15	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/13/21 00:15	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/13/21 00:15	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/13/21 00:15	1
Styrene	ND		1.0	0.73	ug/L			04/13/21 00:15	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/13/21 00:15	1
Toluene	ND		1.0	0.51	ug/L			04/13/21 00:15	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/13/21 00:15	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/13/21 00:15	1
Trichloroethene	ND		1.0	0.46	ug/L			04/13/21 00:15	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/13/21 00:15	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/13/21 00:15	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/13/21 00:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/13/21 00:15	1
4-Bromofluorobenzene (Surr)	94		73 - 120		04/13/21 00:15	1
Dibromofluoromethane (Surr)	101		75 - 123		04/13/21 00:15	1
Toluene-d8 (Surr)	99		80 - 120		04/13/21 00:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.99		0.19	0.095	ug/L		04/14/21 08:07	04/15/21 20:41	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110				04/14/21 08:07	04/15/21 20:41	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6	0.82	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluoropentanoic acid (PFPeA)	0.69	J	1.8	0.43	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorohexanoic acid (PFHxA)	0.99	J	1.8	0.41	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluoroheptanoic acid (PFHpA)	0.33	J	1.8	0.22	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorooctanoic acid (PFOA)	1.0	J	1.8	0.39	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorononanoic acid (PFNA)	0.27	J	1.8	0.26	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.28	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.31	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.35	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.40	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.58	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.23	ng/L		04/19/21 12:37	04/19/21 18:21	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-21

Lab Sample ID: 480-183122-8

Date Collected: 04/09/21 14:20

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	0.49	J I	1.8	0.28	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.21	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorooctanesulfonic acid (PFOS)	0.37	J	1.8	0.27	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.28	ng/L		04/19/21 12:37	04/19/21 18:21	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.53	ng/L		04/19/21 12:37	04/19/21 18:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	0.83	ng/L		04/19/21 12:37	04/19/21 18:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.4	J	4.6	0.68	ng/L		04/19/21 12:37	04/19/21 18:21	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.1	J	4.6	1.0	ng/L		04/19/21 12:37	04/19/21 18:21	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.36	ng/L		04/19/21 12:37	04/19/21 18:21	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	79		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C4 PFHpA	91		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C4 PFOA	96		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C4 PFOS	82		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C5 PFNA	103		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C4 PFBA	70		25 - 150				04/19/21 12:37	04/19/21 18:21	1
13C2 PFHxA	89		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C2 PFDA	93		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C2 PFUnA	80		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C2 PFDoA	80		50 - 150				04/19/21 12:37	04/19/21 18:21	1
13C8 FOSA	76		25 - 150				04/19/21 12:37	04/19/21 18:21	1
13C5 PFPeA	91		25 - 150				04/19/21 12:37	04/19/21 18:21	1
13C2 PFTeDA	76		50 - 150				04/19/21 12:37	04/19/21 18:21	1
d3-NMeFOSAA	84		50 - 150				04/19/21 12:37	04/19/21 18:21	1
d5-NEtFOSAA	77		50 - 150				04/19/21 12:37	04/19/21 18:21	1
M2-6:2 FTS	118		25 - 150				04/19/21 12:37	04/19/21 18:21	1
M2-8:2 FTS	107		25 - 150				04/19/21 12:37	04/19/21 18:21	1
13C3 PFBS	77		50 - 150				04/19/21 12:37	04/19/21 18:21	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-183122-9

Date Collected: 04/09/21 00:00

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/13/21 00:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/13/21 00:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/13/21 00:37	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/13/21 00:37	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/13/21 00:37	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/13/21 00:37	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/13/21 00:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/13/21 00:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/13/21 00:37	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-183122-9

Date Collected: 04/09/21 00:00

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/13/21 00:37	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/13/21 00:37	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/13/21 00:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/13/21 00:37	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/13/21 00:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/13/21 00:37	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/13/21 00:37	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/13/21 00:37	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/13/21 00:37	1
2-Hexanone	ND		5.0	1.2	ug/L			04/13/21 00:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/13/21 00:37	1
Acetone	ND		10	3.0	ug/L			04/13/21 00:37	1
Benzene	ND		1.0	0.41	ug/L			04/13/21 00:37	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/13/21 00:37	1
Bromoform	ND		1.0	0.26	ug/L			04/13/21 00:37	1
Bromomethane	ND		1.0	0.69	ug/L			04/13/21 00:37	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/13/21 00:37	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/13/21 00:37	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/13/21 00:37	1
Chloroethane	ND		1.0	0.32	ug/L			04/13/21 00:37	1
Chloroform	ND		1.0	0.34	ug/L			04/13/21 00:37	1
Chloromethane	ND		1.0	0.35	ug/L			04/13/21 00:37	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/13/21 00:37	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/13/21 00:37	1
Cyclohexane	ND		1.0	0.18	ug/L			04/13/21 00:37	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/13/21 00:37	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/13/21 00:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/13/21 00:37	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/13/21 00:37	1
Methyl acetate	ND		2.5	1.3	ug/L			04/13/21 00:37	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/13/21 00:37	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/13/21 00:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/13/21 00:37	1
Styrene	ND		1.0	0.73	ug/L			04/13/21 00:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/13/21 00:37	1
Toluene	ND		1.0	0.51	ug/L			04/13/21 00:37	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/13/21 00:37	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/13/21 00:37	1
Trichloroethene	ND		1.0	0.46	ug/L			04/13/21 00:37	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/13/21 00:37	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/13/21 00:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/13/21 00:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/13/21 00:37	1
4-Bromofluorobenzene (Surr)	94		73 - 120		04/13/21 00:37	1
Dibromofluoromethane (Surr)	103		75 - 123		04/13/21 00:37	1
Toluene-d8 (Surr)	102		80 - 120		04/13/21 00:37	1

Eurofins TestAmerica, Buffalo

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-183122-1	4009-18	102	101	99	104
480-183122-2	4009-16	103	101	100	103
480-183122-3	4009-12	107	104	102	106
480-183122-3 MS	4009-12	96	107	98	103
480-183122-3 MSD	4009-12	95	107	98	106
480-183122-4	4009-15	104	103	101	105
480-183122-5	4009-19	106	98	103	105
480-183122-6	DUP-2	105	101	102	105
480-183122-8	4009-21	104	94	101	99
480-183122-9	TRIP BLANK	105	94	103	102
LCS 480-576027/6	Lab Control Sample	95	110	99	106
MB 480-576027/8	Method Blank	104	108	101	110

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-183122-1	4009-18	29
480-183122-2	4009-16	28
480-183122-3	4009-12	29
480-183122-3 MS	4009-12	30
480-183122-3 MSD	4009-12	30
480-183122-4	4009-15	27
480-183122-5	4009-19	31
480-183122-6	DUP-2	30
480-183122-7	EQUIP BLANK 2	30
480-183122-8	4009-21	28
LCS 480-576255/2-A	Lab Control Sample	33
MB 480-576255/1-A	Method Blank	33

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
480-183122-1	4009-18	83	98	93	81	105	94	95	90
480-183122-2	4009-16	51	74	93	53	109	38	65	101
480-183122-3	4009-12	83	89	88	85	95	71	89	88
480-183122-3 MS	4009-12	83	84	87	82	92	67	86	85
480-183122-3 MSD	4009-12	86	91	92	86	99	72	90	88
480-183122-4	4009-15	48 *5-	74	91	52	100	37	55	96
480-183122-5	4009-19	80	95	94	86	97	84	93	93
480-183122-6	DUP-2	85	92	90	84	98	85	89	88
480-183122-7	EQUIP BLANK 2	84	92	89	85	94	91	89	90
480-183122-8	4009-21	79	91	96	82	103	70	89	93
LCS 200-165994/2-A	Lab Control Sample	80	90	91	83	94	91	91	88
MB 200-165994/1-A	Method Blank	83	97	93	89	100	92	93	86

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
480-183122-1	4009-18	84	81	77	92	83	77	83	106
480-183122-2	4009-16	97	88	54	65	80	152 *5+	123	296 *5+
480-183122-3	4009-12	92	87	82	79	90	87	88	99
480-183122-3 MS	4009-12	83	80	77	80	85	85	84	91
480-183122-3 MSD	4009-12	86	92	81	87	85	86	87	94
480-183122-4	4009-15	84	88	46	60	80	138	117	319 *5+
480-183122-5	4009-19	93	80	83	93	83	83	86	94
480-183122-6	DUP-2	88	82	81	89	83	83	88	90
480-183122-7	EQUIP BLANK 2	89	82	75	91	86	85	92	91
480-183122-8	4009-21	80	80	76	91	76	84	77	118
LCS 200-165994/2-A	Lab Control Sample	92	88	71	92	86	85	87	81
MB 200-165994/1-A	Method Blank	91	88	70	94	84	89	91	90

Eurofins TestAmerica, Buffalo

Isotope Dilution Summary

Client: New York State D.E.C.

Job ID: 480-183122-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)	
		M282FTS (25-150)	C3PFBS (50-150)
480-183122-1	4009-18	105	83
480-183122-2	4009-16	332 *5+	50
480-183122-3	4009-12	105	84
480-183122-3 MS	4009-12	91	80
480-183122-3 MSD	4009-12	92	80
480-183122-4	4009-15	326 *5+	47 *5-
480-183122-5	4009-19	100	80
480-183122-6	DUP-2	97	84
480-183122-7	EQUIP BLANK 2	94	89
480-183122-8	4009-21	107	77
LCS 200-165994/2-A	Lab Control Sample	90	80
MB 200-165994/1-A	Method Blank	105	86

Surrogate Legend

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

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: MB 480-576027/8

Matrix: Water

Analysis Batch: 576027

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/12/21 21:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 21:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 21:41	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 21:41	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 21:41	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/12/21 21:41	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 21:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 21:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 21:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 21:41	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 21:41	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 21:41	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 21:41	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 21:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 21:41	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 21:41	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 21:41	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/12/21 21:41	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 21:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 21:41	1
Acetone	ND		10	3.0	ug/L			04/12/21 21:41	1
Benzene	ND		1.0	0.41	ug/L			04/12/21 21:41	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 21:41	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 21:41	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 21:41	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 21:41	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/12/21 21:41	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 21:41	1
Chloroethane	ND		1.0	0.32	ug/L			04/12/21 21:41	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 21:41	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 21:41	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 21:41	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 21:41	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 21:41	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 21:41	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 21:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 21:41	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 21:41	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 21:41	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 21:41	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 21:41	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 21:41	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 21:41	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 21:41	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 21:41	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 21:41	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 21:41	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 21:41	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: MB 480-576027/8

Matrix: Water

Analysis Batch: 576027

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 21:41	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/12/21 21:41	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 21:41	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					04/12/21 21:41	1
4-Bromofluorobenzene (Surr)	108		73 - 120					04/12/21 21:41	1
Dibromofluoromethane (Surr)	101		75 - 123					04/12/21 21:41	1
Toluene-d8 (Surr)	110		80 - 120					04/12/21 21:41	1

Lab Sample ID: LCS 480-576027/6

Matrix: Water

Analysis Batch: 576027

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.2		ug/L		93	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.4		ug/L		102	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.4		ug/L		94	61 - 148
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	76 - 122
1,1-Dichloroethane	25.0	23.1		ug/L		92	77 - 120
1,1-Dichloroethene	25.0	22.6		ug/L		90	66 - 127
1,2,3-Trimethylbenzene	25.0	29.5		ug/L		118	78 - 120
1,2,4-Trichlorobenzene	25.0	24.5		ug/L		98	79 - 122
1,2,4-Trimethylbenzene	25.0	26.9		ug/L		108	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	56 - 134
1,2-Dibromoethane	25.0	24.3		ug/L		97	77 - 120
1,2-Dichlorobenzene	25.0	24.1		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	20.3		ug/L		81	75 - 120
1,2-Dichloropropane	25.0	23.3		ug/L		93	76 - 120
1,3,5-Trimethylbenzene	25.0	26.9		ug/L		107	77 - 121
1,3-Dichlorobenzene	25.0	24.4		ug/L		98	77 - 120
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	80 - 120
2-Butanone (MEK)	125	186	*+	ug/L		149	57 - 140
2-Hexanone	125	113		ug/L		90	65 - 127
4-Methyl-2-pentanone (MIBK)	125	108		ug/L		86	71 - 125
Acetone	125	111		ug/L		89	56 - 142
Benzene	25.0	23.0		ug/L		92	71 - 124
Bromodichloromethane	25.0	23.4		ug/L		94	80 - 122
Bromoform	25.0	25.7		ug/L		103	61 - 132
Bromomethane	25.0	17.1		ug/L		68	55 - 144
Carbon disulfide	25.0	23.0		ug/L		92	59 - 134
Carbon tetrachloride	25.0	25.9		ug/L		103	72 - 134
Chlorobenzene	25.0	23.8		ug/L		95	80 - 120
Chloroethane	25.0	19.5		ug/L		78	69 - 136
Chloroform	25.0	21.6		ug/L		86	73 - 127
Chloromethane	25.0	21.7		ug/L		87	68 - 124
cis-1,2-Dichloroethene	25.0	22.6		ug/L		90	74 - 124
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: LCS 480-576027/6

Matrix: Water

Analysis Batch: 576027

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	24.1		ug/L		96	59 - 135
Dibromochloromethane	25.0	24.9		ug/L		99	75 - 125
Dichlorodifluoromethane	25.0	25.3		ug/L		101	59 - 135
Ethylbenzene	25.0	24.5		ug/L		98	77 - 123
Isopropylbenzene	25.0	27.2		ug/L		109	77 - 122
Methyl acetate	50.0	39.9		ug/L		80	74 - 133
Methyl tert-butyl ether	25.0	23.3		ug/L		93	77 - 120
Methylcyclohexane	25.0	26.1		ug/L		104	68 - 134
Methylene Chloride	25.0	23.4		ug/L		94	75 - 124
Styrene	25.0	26.1		ug/L		104	80 - 120
Tetrachloroethene	25.0	24.9		ug/L		100	74 - 122
Toluene	25.0	24.4		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	23.2		ug/L		93	73 - 127
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	80 - 120
Trichloroethene	25.0	23.5		ug/L		94	74 - 123
Trichlorofluoromethane	25.0	23.6		ug/L		94	62 - 150
Vinyl chloride	25.0	22.8		ug/L		91	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		77 - 120
4-Bromofluorobenzene (Surr)	110		73 - 120
Dibromofluoromethane (Surr)	99		75 - 123
Toluene-d8 (Surr)	106		80 - 120

Lab Sample ID: 480-183122-3 MS

Matrix: Water

Analysis Batch: 576027

Client Sample ID: 4009-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	300	F1	125	372	F1	ug/L		59	73 - 126
1,1,2,2-Tetrachloroethane	ND		125	128		ug/L		103	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	J	125	116		ug/L		89	61 - 148
1,1,2-Trichloroethane	ND		125	130		ug/L		104	76 - 122
1,1-Dichloroethane	34		125	150		ug/L		93	77 - 120
1,1-Dichloroethene	19		125	131		ug/L		90	66 - 127
1,2,3-Trimethylbenzene	ND		125	146		ug/L		117	78 - 120
1,2,4-Trichlorobenzene	ND		125	117		ug/L		93	79 - 122
1,2,4-Trimethylbenzene	ND		125	130		ug/L		104	76 - 121
1,2-Dibromo-3-Chloropropane	ND		125	134		ug/L		107	56 - 134
1,2-Dibromoethane	ND		125	128		ug/L		102	77 - 120
1,2-Dichlorobenzene	ND		125	120		ug/L		96	80 - 124
1,2-Dichloroethane	ND		125	107		ug/L		86	75 - 120
1,2-Dichloropropane	ND		125	123		ug/L		98	76 - 120
1,3,5-Trimethylbenzene	ND		125	130		ug/L		104	77 - 121
1,3-Dichlorobenzene	ND		125	120		ug/L		96	77 - 120
1,4-Dichlorobenzene	ND		125	118		ug/L		94	78 - 124
2-Butanone (MEK)	ND	*+ F1	625	1020	F1	ug/L		163	57 - 140
2-Hexanone	ND		625	605		ug/L		97	65 - 127

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: 480-183122-3 MS

Matrix: Water

Analysis Batch: 576027

Client Sample ID: 4009-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Methyl-2-pentanone (MIBK)	ND		625	574		ug/L		92	71 - 125
Acetone	ND		625	571		ug/L		91	56 - 142
Benzene	ND		125	121		ug/L		97	71 - 124
Bromodichloromethane	ND		125	119		ug/L		95	80 - 122
Bromoform	ND		125	117		ug/L		94	61 - 132
Bromomethane	ND		125	91.4		ug/L		73	55 - 144
Carbon disulfide	ND		125	109		ug/L		87	59 - 134
Carbon tetrachloride	ND		125	129		ug/L		103	72 - 134
Chlorobenzene	ND		125	122		ug/L		98	80 - 120
Chloroethane	3.2	J	125	107		ug/L		83	69 - 136
Chloroform	ND		125	113		ug/L		91	73 - 127
Chloromethane	ND		125	101		ug/L		80	68 - 124
cis-1,2-Dichloroethene	63		125	178		ug/L		92	74 - 124
cis-1,3-Dichloropropene	ND		125	127		ug/L		101	74 - 124
Cyclohexane	ND		125	118		ug/L		95	59 - 135
Dibromochloromethane	ND		125	120		ug/L		96	75 - 125
Dichlorodifluoromethane	ND		125	127		ug/L		102	59 - 135
Ethylbenzene	ND		125	125		ug/L		100	77 - 123
Isopropylbenzene	ND		125	130		ug/L		104	77 - 122
Methyl acetate	ND		250	213		ug/L		85	74 - 133
Methyl tert-butyl ether	ND		125	121		ug/L		97	77 - 120
Methylcyclohexane	ND		125	123		ug/L		98	68 - 134
Methylene Chloride	ND		125	124		ug/L		99	75 - 124
Styrene	ND		125	134		ug/L		107	80 - 120
Tetrachloroethene	ND		125	117		ug/L		94	74 - 122
Toluene	ND		125	126		ug/L		101	80 - 122
trans-1,2-Dichloroethene	ND		125	120		ug/L		96	73 - 127
trans-1,3-Dichloropropene	ND		125	124		ug/L		100	80 - 120
Trichloroethene	54		125	172		ug/L		94	74 - 123
Trichlorofluoromethane	ND		125	119		ug/L		95	62 - 150
Vinyl chloride	47		125	154		ug/L		86	65 - 133

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		77 - 120
4-Bromofluorobenzene (Surr)	107		73 - 120
Dibromofluoromethane (Surr)	98		75 - 123
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: 480-183122-3 MSD

Matrix: Water

Analysis Batch: 576027

Client Sample ID: 4009-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	300	F1	125	343	F1	ug/L		36	73 - 126	8	15
1,1,2,2-Tetrachloroethane	ND		125	136		ug/L		109	76 - 120	6	15
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	J	125	109		ug/L		83	61 - 148	6	20
1,1,2-Trichloroethane	ND		125	123		ug/L		98	76 - 122	6	15
1,1-Dichloroethane	34		125	140		ug/L		85	77 - 120	7	20

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: 480-183122-3 MSD

Matrix: Water

Analysis Batch: 576027

Client Sample ID: 4009-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	19		125	122		ug/L		82	66 - 127	7	16
1,2,3-Trimethylbenzene	ND		125	150		ug/L		120	78 - 120	3	20
1,2,4-Trichlorobenzene	ND		125	122		ug/L		98	79 - 122	5	20
1,2,4-Trimethylbenzene	ND		125	134		ug/L		107	76 - 121	3	20
1,2-Dibromo-3-Chloropropane	ND		125	142		ug/L		114	56 - 134	6	15
1,2-Dibromoethane	ND		125	126		ug/L		101	77 - 120	1	15
1,2-Dichlorobenzene	ND		125	124		ug/L		99	80 - 124	3	20
1,2-Dichloroethane	ND		125	102		ug/L		82	75 - 120	5	20
1,2-Dichloropropane	ND		125	116		ug/L		93	76 - 120	6	20
1,3,5-Trimethylbenzene	ND		125	133		ug/L		107	77 - 121	3	20
1,3-Dichlorobenzene	ND		125	123		ug/L		99	77 - 120	2	20
1,4-Dichlorobenzene	ND		125	120		ug/L		96	78 - 124	2	20
2-Butanone (MEK)	ND	*+ F1	625	969	F1	ug/L		155	57 - 140	5	20
2-Hexanone	ND		625	588		ug/L		94	65 - 127	3	15
4-Methyl-2-pentanone (MIBK)	ND		625	564		ug/L		90	71 - 125	2	35
Acetone	ND		625	556		ug/L		89	56 - 142	3	15
Benzene	ND		125	113		ug/L		90	71 - 124	7	13
Bromodichloromethane	ND		125	114		ug/L		91	80 - 122	5	15
Bromoform	ND		125	117		ug/L		94	61 - 132	0	15
Bromomethane	ND		125	81.6		ug/L		65	55 - 144	11	15
Carbon disulfide	ND		125	99.8		ug/L		80	59 - 134	9	15
Carbon tetrachloride	ND		125	118		ug/L		95	72 - 134	9	15
Chlorobenzene	ND		125	119		ug/L		95	80 - 120	3	25
Chloroethane	3.2	J	125	96.9		ug/L		75	69 - 136	10	15
Chloroform	ND		125	105		ug/L		84	73 - 127	8	20
Chloromethane	ND		125	97.5		ug/L		78	68 - 124	3	15
cis-1,2-Dichloroethene	63		125	167		ug/L		82	74 - 124	7	15
cis-1,3-Dichloropropene	ND		125	122		ug/L		98	74 - 124	4	15
Cyclohexane	ND		125	109		ug/L		87	59 - 135	8	20
Dibromochloromethane	ND		125	119		ug/L		96	75 - 125	0	15
Dichlorodifluoromethane	ND		125	122		ug/L		98	59 - 135	4	20
Ethylbenzene	ND		125	120		ug/L		96	77 - 123	5	15
Isopropylbenzene	ND		125	135		ug/L		108	77 - 122	4	20
Methyl acetate	ND		250	209		ug/L		84	74 - 133	2	20
Methyl tert-butyl ether	ND		125	118		ug/L		94	77 - 120	2	37
Methylcyclohexane	ND		125	118		ug/L		94	68 - 134	5	20
Methylene Chloride	ND		125	117		ug/L		93	75 - 124	6	15
Styrene	ND		125	129		ug/L		103	80 - 120	4	20
Tetrachloroethene	ND		125	113		ug/L		90	74 - 122	4	20
Toluene	ND		125	120		ug/L		96	80 - 122	4	15
trans-1,2-Dichloroethene	ND		125	112		ug/L		90	73 - 127	7	20
trans-1,3-Dichloropropene	ND		125	124		ug/L		99	80 - 120	1	15
Trichloroethene	54		125	158		ug/L		83	74 - 123	8	16
Trichlorofluoromethane	ND		125	109		ug/L		87	62 - 150	9	20
Vinyl chloride	47		125	145		ug/L		79	65 - 133	6	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		77 - 120

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: 480-183122-3 MSD

Matrix: Water

Analysis Batch: 576027

Client Sample ID: 4009-12

Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		73 - 120
Dibromofluoromethane (Surr)	98		75 - 123
Toluene-d8 (Surr)	106		80 - 120

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

Lab Sample ID: MB 480-576255/1-A

Matrix: Water

Analysis Batch: 576490

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 576255

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/14/21 08:07	04/15/21 16:21	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 110				04/14/21 08:07	04/15/21 16:21	1

Lab Sample ID: LCS 480-576255/2-A

Matrix: Water

Analysis Batch: 576490

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 576255

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane		1.00	1.05		ug/L		105	40 - 140
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits					
1,4-Dioxane-d8	33		15 - 110					

Lab Sample ID: 480-183122-3 MS

Matrix: Water

Analysis Batch: 576490

Client Sample ID: 4009-12

Prep Type: Total/NA

Prep Batch: 576255

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.9	E	0.952	3.45	E	ug/L		62	40 - 140
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
1,4-Dioxane-d8	30		15 - 110						

Lab Sample ID: 480-183122-3 MSD

Matrix: Water

Analysis Batch: 576490

Client Sample ID: 4009-12

Prep Type: Total/NA

Prep Batch: 576255

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.9	E	0.980	3.86	E	ug/L		102	40 - 140	11	20
Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits								
1,4-Dioxane-d8	30		15 - 110								

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-165994/1-A

Matrix: Water

Analysis Batch: 166001

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165994

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	0.89	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.47	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.45	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.24	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.42	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.28	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.30	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.34	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.39	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.43	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.63	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.25	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.30	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.23	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.29	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.31	ng/L		04/19/21 12:37	04/19/21 16:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.58	ng/L		04/19/21 12:37	04/19/21 16:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	0.90	ng/L		04/19/21 12:37	04/19/21 16:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	0.74	ng/L		04/19/21 12:37	04/19/21 16:49	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		5.0	1.1	ng/L		04/19/21 12:37	04/19/21 16:49	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		2.0	0.39	ng/L		04/19/21 12:37	04/19/21 16:49	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	83		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C4 PFHpA	97		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C4 PFOA	93		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C4 PFOS	89		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C5 PFNA	100		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C4 PFBA	92		25 - 150	04/19/21 12:37	04/19/21 16:49	1
13C2 PFHxA	93		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C2 PFDA	86		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C2 PFUnA	91		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C2 PFDoA	88		50 - 150	04/19/21 12:37	04/19/21 16:49	1
13C8 FOSA	70		25 - 150	04/19/21 12:37	04/19/21 16:49	1
13C5 PFPeA	94		25 - 150	04/19/21 12:37	04/19/21 16:49	1
13C2 PFTeDA	84		50 - 150	04/19/21 12:37	04/19/21 16:49	1
d3-NMeFOSAA	89		50 - 150	04/19/21 12:37	04/19/21 16:49	1
d5-NEtFOSAA	91		50 - 150	04/19/21 12:37	04/19/21 16:49	1
M2-6:2 FTS	90		25 - 150	04/19/21 12:37	04/19/21 16:49	1
M2-8:2 FTS	105		25 - 150	04/19/21 12:37	04/19/21 16:49	1
13C3 PFBS	86		50 - 150	04/19/21 12:37	04/19/21 16:49	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: LCS 200-165994/2-A

Matrix: Water

Analysis Batch: 166001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	42.0		ng/L		105	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	41.4		ng/L		103	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	41.1		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	45.2		ng/L		113	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	41.7		ng/L		104	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.6		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	43.7		ng/L		109	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	41.5		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	40.0		ng/L		100	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	38.7		ng/L		97	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	39.6		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	37.6		ng/L		106	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	39.4		ng/L		108	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.5		ng/L		104	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	41.0		ng/L		111	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	38.1		ng/L		99	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	38.1		ng/L		95	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	43.5		ng/L		109	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	45.8		ng/L		115	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	48.7		ng/L		128	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	44.3		ng/L		116	50 - 150

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	80		50 - 150
13C4 PFHpA	90		50 - 150
13C4 PFOA	91		50 - 150
13C4 PFOS	83		50 - 150
13C5 PFNA	94		50 - 150
13C4 PFBA	91		25 - 150
13C2 PFHxA	91		50 - 150
13C2 PFDA	88		50 - 150
13C2 PFUnA	92		50 - 150
13C2 PFDoA	88		50 - 150
13C8 FOSA	71		25 - 150
13C5 PFPeA	92		25 - 150
13C2 PFTeDA	86		50 - 150
d3-NMeFOSAA	85		50 - 150
d5-NEtFOSAA	87		50 - 150

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: LCS 200-165994/2-A

Matrix: Water

Analysis Batch: 166001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165994

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
M2-6:2 FTS	81		25 - 150
M2-8:2 FTS	90		25 - 150
13C3 PFBS	80		50 - 150

Lab Sample ID: 480-183122-3 MS

Matrix: Water

Analysis Batch: 166001

Client Sample ID: 4009-12

Prep Type: Total/NA

Prep Batch: 165994

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Perfluorobutanoic acid (PFBA)	4.8		34.8	41.9		ng/L		107	40 - 160
Perfluoropentanoic acid (PFPeA)	3.0		34.8	42.6		ng/L		114	40 - 160
Perfluorohexanoic acid (PFHxA)	2.2		34.8	39.9		ng/L		109	40 - 160
Perfluoroheptanoic acid (PFHpA)	1.9		34.8	43.6		ng/L		120	40 - 160
Perfluorooctanoic acid (PFOA)	6.5		34.8	44.9		ng/L		110	40 - 160
Perfluorononanoic acid (PFNA)	0.36	J	34.8	35.9		ng/L		102	40 - 160
Perfluorodecanoic acid (PFDA)	ND		34.8	37.5		ng/L		108	40 - 160
Perfluoroundecanoic acid (PFUnA)	ND		34.8	34.7		ng/L		100	40 - 160
Perfluorododecanoic acid (PFDoA)	ND		34.8	33.3		ng/L		96	40 - 160
Perfluorotridecanoic acid (PFTriA)	ND		34.8	35.2		ng/L		101	40 - 160
Perfluorotetradecanoic acid (PFTeA)	ND		34.8	33.7		ng/L		97	40 - 160
Perfluorobutanesulfonic acid (PFBS)	2.8		30.7	38.5		ng/L		116	40 - 160
Perfluorohexanesulfonic acid (PFHxS)	3.1		31.6	35.8		ng/L		103	40 - 160
Perfluoroheptanesulfonic Acid (PFHpS)	ND		33.1	36.3		ng/L		110	40 - 160
Perfluorooctanesulfonic acid (PFOS)	2.1		32.3	37.7		ng/L		110	40 - 160
Perfluorodecanesulfonic acid (PFDS)	ND		33.5	30.0		ng/L		89	40 - 160
Perfluorooctanesulfonamide (PFOSA)	ND		34.8	37.5		ng/L		108	40 - 160
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		34.8	31.5		ng/L		91	40 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		34.8	33.2		ng/L		95	40 - 160
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		33.0	38.5		ng/L		117	40 - 160
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		33.3	35.0		ng/L		105	40 - 160

Isotope Dilution	MS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	83		50 - 150
13C4 PFHpA	84		50 - 150
13C4 PFOA	87		50 - 150
13C4 PFOS	82		50 - 150
13C5 PFNA	92		50 - 150
13C4 PFBA	67		25 - 150

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: 480-183122-3 MS

Matrix: Water

Analysis Batch: 166001

Client Sample ID: 4009-12

Prep Type: Total/NA

Prep Batch: 165994

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2 PFHxA	86		50 - 150
13C2 PFDA	85		50 - 150
13C2 PFUnA	83		50 - 150
13C2 PFDoA	80		50 - 150
13C8 FOSA	77		25 - 150
13C5 PFPeA	80		25 - 150
13C2 PFTeDA	85		50 - 150
d3-NMeFOSAA	85		50 - 150
d5-NEtFOSAA	84		50 - 150
M2-6:2 FTS	91		25 - 150
M2-8:2 FTS	91		25 - 150
13C3 PFBS	80		50 - 150

Lab Sample ID: 480-183122-3 MSD

Matrix: Water

Analysis Batch: 166001

Client Sample ID: 4009-12

Prep Type: Total/NA

Prep Batch: 165994

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	4.8		35.7	41.1		ng/L		102	40 - 160	2	30
Perfluoropentanoic acid (PFPeA)	3.0		35.7	39.4		ng/L		102	40 - 160	8	30
Perfluorohexanoic acid (PFHxA)	2.2		35.7	38.7		ng/L		102	40 - 160	3	20
Perfluoroheptanoic acid (PFHpA)	1.9		35.7	40.3		ng/L		108	40 - 160	8	20
Perfluorooctanoic acid (PFOA)	6.5		35.7	42.8		ng/L		102	40 - 160	5	20
Perfluorononanoic acid (PFNA)	0.36	J	35.7	34.7		ng/L		96	40 - 160	4	20
Perfluorodecanoic acid (PFDA)	ND		35.7	36.2		ng/L		101	40 - 160	4	20
Perfluoroundecanoic acid (PFUnA)	ND		35.7	33.9		ng/L		95	40 - 160	3	20
Perfluorododecanoic acid (PFDoA)	ND		35.7	31.3		ng/L		88	40 - 160	6	20
Perfluorotridecanoic acid (PFTriA)	ND		35.7	31.3		ng/L		88	40 - 160	12	20
Perfluorotetradecanoic acid (PFTeA)	ND		35.7	33.0		ng/L		92	40 - 160	2	20
Perfluorobutanesulfonic acid (PFBS)	2.8		31.6	37.7		ng/L		110	40 - 160	2	20
Perfluorohexanesulfonic acid (PFHxS)	3.1		32.5	36.3		ng/L		102	40 - 160	1	20
Perfluoroheptanesulfonic Acid (PFHpS)	ND		34.0	36.9		ng/L		109	40 - 160	2	30
Perfluorooctanesulfonic acid (PFOS)	2.1		33.1	34.7		ng/L		99	40 - 160	8	20
Perfluorodecanesulfonic acid (PFDS)	ND		34.4	29.3		ng/L		85	40 - 160	2	30
Perfluorooctanesulfonamide (PFOSA)	ND		35.7	35.6		ng/L		100	40 - 160	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		35.7	35.1		ng/L		98	40 - 160	11	20
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		35.7	34.7		ng/L		97	40 - 160	4	20
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		33.8	37.8		ng/L		112	40 - 160	2	30

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

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

Lab Sample ID: 480-183122-3 MSD

Matrix: Water

Analysis Batch: 166001

Client Sample ID: 4009-12

Prep Type: Total/NA

Prep Batch: 165994

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		34.2	35.4		ng/L		104	40 - 160	1	30
Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits								
18O2 PFHxS	86		50 - 150								
13C4 PFHpA	91		50 - 150								
13C4 PFOA	92		50 - 150								
13C4 PFOS	86		50 - 150								
13C5 PFNA	99		50 - 150								
13C4 PFBA	72		25 - 150								
13C2 PFHxA	90		50 - 150								
13C2 PFDA	88		50 - 150								
13C2 PFUnA	86		50 - 150								
13C2 PFDoA	92		50 - 150								
13C8 FOSA	81		25 - 150								
13C5 PFPeA	87		25 - 150								
13C2 PFTeDA	85		50 - 150								
d3-NMeFOSAA	86		50 - 150								
d5-NEtFOSAA	87		50 - 150								
M2-6:2 FTS	94		25 - 150								
M2-8:2 FTS	92		25 - 150								
13C3 PFBS	80		50 - 150								

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

GC/MS VOA

Analysis Batch: 576027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183122-1	4009-18	Total/NA	Water	8260C	
480-183122-2	4009-16	Total/NA	Water	8260C	
480-183122-3	4009-12	Total/NA	Water	8260C	
480-183122-4	4009-15	Total/NA	Water	8260C	
480-183122-5	4009-19	Total/NA	Water	8260C	
480-183122-6	DUP-2	Total/NA	Water	8260C	
480-183122-8	4009-21	Total/NA	Water	8260C	
480-183122-9	TRIP BLANK	Total/NA	Water	8260C	
MB 480-576027/8	Method Blank	Total/NA	Water	8260C	
LCS 480-576027/6	Lab Control Sample	Total/NA	Water	8260C	
480-183122-3 MS	4009-12	Total/NA	Water	8260C	
480-183122-3 MSD	4009-12	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 576255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183122-1	4009-18	Total/NA	Water	3510C	
480-183122-2	4009-16	Total/NA	Water	3510C	
480-183122-3	4009-12	Total/NA	Water	3510C	
480-183122-4	4009-15	Total/NA	Water	3510C	
480-183122-5	4009-19	Total/NA	Water	3510C	
480-183122-6	DUP-2	Total/NA	Water	3510C	
480-183122-7	EQUIP BLANK 2	Total/NA	Water	3510C	
480-183122-8	4009-21	Total/NA	Water	3510C	
MB 480-576255/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-576255/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-183122-3 MS	4009-12	Total/NA	Water	3510C	
480-183122-3 MSD	4009-12	Total/NA	Water	3510C	

Analysis Batch: 576490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183122-1	4009-18	Total/NA	Water	8270D SIM ID	576255
480-183122-2	4009-16	Total/NA	Water	8270D SIM ID	576255
480-183122-3	4009-12	Total/NA	Water	8270D SIM ID	576255
480-183122-4	4009-15	Total/NA	Water	8270D SIM ID	576255
480-183122-5	4009-19	Total/NA	Water	8270D SIM ID	576255
480-183122-6	DUP-2	Total/NA	Water	8270D SIM ID	576255
480-183122-7	EQUIP BLANK 2	Total/NA	Water	8270D SIM ID	576255
480-183122-8	4009-21	Total/NA	Water	8270D SIM ID	576255
MB 480-576255/1-A	Method Blank	Total/NA	Water	8270D SIM ID	576255
LCS 480-576255/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	576255
480-183122-3 MS	4009-12	Total/NA	Water	8270D SIM ID	576255
480-183122-3 MSD	4009-12	Total/NA	Water	8270D SIM ID	576255

LCMS

Prep Batch: 165994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183122-1	4009-18	Total/NA	Water	3535	
480-183122-2	4009-16	Total/NA	Water	3535	
480-183122-3	4009-12	Total/NA	Water	3535	

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

LCMS (Continued)

Prep Batch: 165994 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183122-4	4009-15	Total/NA	Water	3535	
480-183122-5	4009-19	Total/NA	Water	3535	
480-183122-6	DUP-2	Total/NA	Water	3535	
480-183122-7	EQUIP BLANK 2	Total/NA	Water	3535	
480-183122-8	4009-21	Total/NA	Water	3535	
MB 200-165994/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-165994/2-A	Lab Control Sample	Total/NA	Water	3535	
480-183122-3 MS	4009-12	Total/NA	Water	3535	
480-183122-3 MSD	4009-12	Total/NA	Water	3535	

Analysis Batch: 166001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183122-1	4009-18	Total/NA	Water	537 (modified)	165994
480-183122-2	4009-16	Total/NA	Water	537 (modified)	165994
480-183122-3	4009-12	Total/NA	Water	537 (modified)	165994
480-183122-4	4009-15	Total/NA	Water	537 (modified)	165994
480-183122-5	4009-19	Total/NA	Water	537 (modified)	165994
480-183122-6	DUP-2	Total/NA	Water	537 (modified)	165994
480-183122-7	EQUIP BLANK 2	Total/NA	Water	537 (modified)	165994
480-183122-8	4009-21	Total/NA	Water	537 (modified)	165994
MB 200-165994/1-A	Method Blank	Total/NA	Water	537 (modified)	165994
LCS 200-165994/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	165994
480-183122-3 MS	4009-12	Total/NA	Water	537 (modified)	165994
480-183122-3 MSD	4009-12	Total/NA	Water	537 (modified)	165994

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-18

Lab Sample ID: 480-183122-1

Date Collected: 04/09/21 12:20

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576027	04/12/21 22:03	CRL	TAL BUF
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 18:19	JMM	TAL BUF
Total/NA	Prep	3535			165994	04/19/21 12:37	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	166001	04/19/21 17:06	BWC	TAL BUR

Client Sample ID: 4009-16

Lab Sample ID: 480-183122-2

Date Collected: 04/09/21 09:40

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576027	04/12/21 22:25	CRL	TAL BUF
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 18:43	JMM	TAL BUF
Total/NA	Prep	3535			165994	04/19/21 12:37	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	166001	04/19/21 17:14	BWC	TAL BUR

Client Sample ID: 4009-12

Lab Sample ID: 480-183122-3

Date Collected: 04/08/21 16:15

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	576027	04/12/21 22:47	CRL	TAL BUF
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 17:55	JMM	TAL BUF
Total/NA	Prep	3535			165994	04/19/21 12:37	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	166001	04/19/21 17:23	BWC	TAL BUR

Client Sample ID: 4009-15

Lab Sample ID: 480-183122-4

Date Collected: 04/09/21 09:40

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		8	576027	04/12/21 23:09	CRL	TAL BUF
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 19:07	JMM	TAL BUF
Total/NA	Prep	3535			165994	04/19/21 12:37	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	166001	04/19/21 17:47	BWC	TAL BUR

Client Sample ID: 4009-19

Lab Sample ID: 480-183122-5

Date Collected: 04/09/21 11:45

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576027	04/12/21 23:31	CRL	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Client Sample ID: 4009-19

Lab Sample ID: 480-183122-5

Date Collected: 04/09/21 11:45

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 19:30	JMM	TAL BUF
Total/NA	Prep	3535			165994	04/19/21 12:37	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	166001	04/19/21 17:56	BWC	TAL BUR

Client Sample ID: DUP-2

Lab Sample ID: 480-183122-6

Date Collected: 04/09/21 08:00

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576027	04/12/21 23:53	CRL	TAL BUF
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 19:54	JMM	TAL BUF
Total/NA	Prep	3535			165994	04/19/21 12:37	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	166001	04/19/21 18:04	BWC	TAL BUR

Client Sample ID: EQUIP BLANK 2

Lab Sample ID: 480-183122-7

Date Collected: 04/09/21 13:30

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 20:18	JMM	TAL BUF
Total/NA	Prep	3535			165994	04/19/21 12:37	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	166001	04/19/21 18:12	BWC	TAL BUR

Client Sample ID: 4009-21

Lab Sample ID: 480-183122-8

Date Collected: 04/09/21 14:20

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576027	04/13/21 00:15	CRL	TAL BUF
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 20:41	JMM	TAL BUF
Total/NA	Prep	3535			165994	04/19/21 12:37	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	166001	04/19/21 18:21	BWC	TAL BUR

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-183122-9

Date Collected: 04/09/21 00:00

Matrix: Water

Date Received: 04/10/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576027	04/13/21 00:37	CRL	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	06-30-21
Minnesota	NELAP	050-999-436	12-31-21
New Hampshire	NELAP	2006	12-18-21
New Jersey	NELAP	VT972	06-30-21
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-22
Virginia	NELAP	460209	12-14-21
Wisconsin	State	399133350	08-31-21

Method Summary

Client: New York State D.E.C.

Job ID: 480-183122-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183122-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-183122-1	4009-18	Water	04/09/21 12:20	04/10/21 08:00	
480-183122-2	4009-16	Water	04/09/21 09:40	04/10/21 08:00	
480-183122-3	4009-12	Water	04/08/21 16:15	04/10/21 08:00	
480-183122-4	4009-15	Water	04/09/21 09:40	04/10/21 08:00	
480-183122-5	4009-19	Water	04/09/21 11:45	04/10/21 08:00	
480-183122-6	DUP-2	Water	04/09/21 08:00	04/10/21 08:00	
480-183122-7	EQUIP BLANK 2	Water	04/09/21 13:30	04/10/21 08:00	
480-183122-8	4009-21	Water	04/09/21 14:20	04/10/21 08:00	
480-183122-9	TRIP BLANK	Water	04/09/21 00:00	04/10/21 08:00	

Client Information Client Contact: Ms. Kati Lilioia Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Phone: 518-402-9625 (Tel) Email: kati.lilioia@arcadis.com		Lab PM: Stone, Judy L Stone, Judy L E-Mail: Judy.Stone@Eurofinset.com Camer Tracking No(s): 480-159103-35000.1 State of Origin: Page 1 of 1		Due Date Requested: TAT Requested (days): Compliance Project: PO #: Callout: 138000 WO #: Project #: 48023280 SSOW#:																			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=soil, BT=tissue, A=air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		PFC, IDA - PFAS, Standard List (21 analytes)		8260C - (MOD) TCL list OLM04.2		8270D - SIM, MS, ID - SIM List		Total Number of containers		Special Instructions/Note:	
4009-18		4/9/21		1220		G		Water															
4009-16		4/9/21		0940		G		Water															
4009-12		4/8/21		0615		G		Water															
4009-15		4/9/21		0940		G		Water															
4009-19		4/9/21		1140		G		Water															
DUP-2		4/9/21		0800		G		Water															
EQU.P Blank 2		4/9/21		1330		G		Water															
4009-21		4/9/21		1420		G		Water															
Trip Blank								Water															
4009-12-MS		4/8/21		1615		G		Water															
4009-12-MSD		4/8/21		1615		G		Water															

Possible Hazard Identification

☐ Non-Hazard
 ☐ Flammable
 ☐ Skin Irritant
 ☐ Poison B
 ☐ Unknown
 ☐ Radiological

Deliverable Requested: I, II, III (Other (specify))

Empty Kit Relinquished by: Relinquished by: Relinquished by: Relinquished by:		Date: Date/Time: Date/Time: Date/Time:		Method of Shipment: Received by: Received by: Received by:		Date/Time: Date/Time: Date/Time:		Company: Company: Company:	
Relinquished by: Relinquished by: Relinquished by:		Date: Date/Time: Date/Time:		Method of Shipment: Received by: Received by:		Date/Time: Date/Time: Date/Time:		Company: Company: Company:	
Relinquished by: Relinquished by: Relinquished by:		Date: Date/Time: Date/Time:		Method of Shipment: Received by: Received by:		Date/Time: Date/Time: Date/Time:		Company: Company: Company:	

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client
 ☐ Disposal By Lab
 ☐ Archive For _____ Months

Special Instructions/QC Requirements:

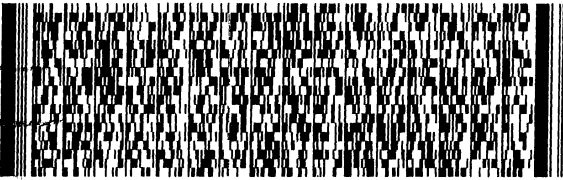
Analysis Requested

Preservation Codes:
 A - HCL
 M - Hexane
 N - None
 102
 103
 303
 3203
 34
 Dodecahydrate
 one
 4A
 4-5
 4 - water (specify)

480-183122 Chain of Custody

[illegible]

Do Not Lift Using This Tag

FROM: (518) 438-8140 TIM KNOLLMEYER TESTAMERICA LAB INC 25 KRAFT AVE ALBANY NY 12205 US		TO: 12APR21 ACTWGT: 30.80 LB CAD: 0886598/CAFE3409 BILL 3rd PARTY	
TO SAMPLE RECEIVING TESTAMERICA - BURLINGTON 30 COMMUNITY DRIVE, SUITE 11.			
BURLINGTON VT 05403 (802) 660-1990 REF: ARCADIS PFAS		(US)	
		FedEx Ground 	
TRK# 5013 1604 7521		05403	

56DC2/SEF2/05R2
J201120121801W

Client: New York State D.E.C.

Job Number: 480-183122-1

Login Number: 183122

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Stopa, Erik S

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

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183122-1

Login Number: 183122

List Number: 2

Creator: Cunningham, Caroline R

List Source: Eurofins TestAmerica, Burlington

List Creation: 04/13/21 01:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1479197
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

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

Laboratory Job ID: 480-183361-1

Client Project/Site: Vestal Water Supply (Site 1-1) #704009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:
4/27/2021 2:37:39 PM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

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



Judy Stone
Senior Project Manager
4/27/2021 2:37:39 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	7
Client Sample Results	11
Surrogate Summary	35
Isotope Dilution Summary	36
QC Sample Results	38
QC Association Summary	53
Lab Chronicle	55
Certification Summary	58
Method Summary	59
Sample Summary	60
Chain of Custody	61
Receipt Checklists	66



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Job ID: 480-183361-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-183361-1

Receipt

The samples were received on 4/15/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 2.9° C.

GC/MS VOA

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: 4009-8 (480-183361-2), 4009-26 (480-183361-3), 4009-26 (480-183361-3[MS]) and 4009-26 (480-183361-3[MSD]). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: 4009-22 (480-183361-7). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-576576 recovered above the upper control limit for 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated samples are impacted: 4009-7 (480-183361-1), 4009-8 (480-183361-2), 4009-9 (480-183361-4), 4009-16A (480-183361-6), 4009-22 (480-183361-7), 4009-30 (480-183361-8), 4009-13 (480-183361-9) and 4009-14 (480-183361-10).

Method 8260C: The RPD of the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) for analytical batch 480-576576 recovered outside control limits for the following analytes: Carbon disulfide, Carbon tetrachloride, Vinyl chloride, Chloromethane and Bromomethane.

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-576576 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : 4009-7 (480-183361-1), 4009-8 (480-183361-2), 4009-9 (480-183361-4), 4009-16A (480-183361-6), 4009-22 (480-183361-7), 4009-30 (480-183361-8), 4009-13 (480-183361-9) and 4009-14 (480-183361-10).

Method 8260C: The following samples were collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The samples were analyzed within the 7-day holding time specified for unpreserved samples: 4009-8 (480-183361-2) and 4009-13 (480-183361-9).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-577345 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: 4009-26 (480-183361-3).

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-577345 were outside control limits. Sample matrix interference is suspected. The associated samples are impacted: 4009-26 (480-183361-3[MS]) and 4009-26 (480-183361-3[MSD]).

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

GC/MS Semi VOA

Method 8270D SIM ID: The 1,4-Dioxane result reported for samples 4009-8 (480-183361-2), 4009-26 (480-183361-3), 4009-26 (480-183361-3[MS]), 4009-26 (480-183361-3[MSD]) and 4009-9 (480-183361-4) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Job ID: 480-183361-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

LCMS

Method 537 (modified): Internal standard responses were outside acceptance limits for the following sample: 4009-22 (480-183361-7). The sample shows evidence of matrix interference.

Method 537 (modified): The method blank for preparation batch 200-166055 and analytical batch 200-166074 contained Perfluorobutanoic acid (PFBA), Perfluorobutanesulfonic acid (PFBS), Perfluorohexanoic acid (PFHxA), Perfluorohexanesulfonic acid (PFHxS), Perfluoroheptanoic acid (PFHpA), Perfluoroheptanesulfonic Acid (PFHpS), Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), Perfluorononanoic acid (PFNA), Perfluorodecanoic acid (PFDA), Perfluoroundecanoic acid (PFUnA), Perfluorododecanoic acid (PFDoA), Perfluorotridecanoic acid (PFTriA), Perfluorooctanesulfonamide (PFOSA) and Perfluorodecanesulfonic acid (PFDS) above the method detection limit. The target analyte concentrations were less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

Method 537 (modified): ¹³C₄ PFOS Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: 4009-22 (480-183361-7). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: 4009-22 (480-183361-7). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Method 537 (modified): The "I" qualifier associated with samples 4009-7 (480-183361-1), 4009-9 (480-183361-4) and (MB 200-166055/1-A) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

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

Organic Prep

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-7

Lab Sample ID: 480-183361-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	7.8		1.0	0.82	ug/L	1		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	0.60	J	1.0	0.31	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	7.1		1.0	0.38	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.6		1.0	0.29	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	48		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	2.1		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	29	*1	1.0	0.90	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.65		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	40	B	4.3	0.77	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.44	J	1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1	B	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.6	B	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.1	B	1.7	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.5	B	1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.27	J B	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.9	B	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.2	J B	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.20	J B	1.7	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.6	I B	1.7	0.25	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-8

Lab Sample ID: 480-183361-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	560		8.0	6.6	ug/L	8		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	10		8.0	2.5	ug/L	8		8260C	Total/NA
1,1-Dichloroethane	43		8.0	3.0	ug/L	8		8260C	Total/NA
1,1-Dichloroethene	32		8.0	2.3	ug/L	8		8260C	Total/NA
Chloroethane	5.0	J	8.0	2.6	ug/L	8		8260C	Total/NA
cis-1,2-Dichloroethene	200		8.0	6.5	ug/L	8		8260C	Total/NA
Trichloroethene	390		8.0	3.7	ug/L	8		8260C	Total/NA
1,4-Dioxane	2.0	E	0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	6.6	B	4.1	0.73	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.9		1.6	0.38	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.5	B	1.6	0.37	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.3	B	1.6	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	7.3	B	1.6	0.34	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.40	J B	1.6	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.3	B	1.6	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.9	B	1.6	0.25	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.32	J B	1.6	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	13	B	1.6	0.24	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-26

Lab Sample ID: 480-183361-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	210		5.0	4.1	ug/L	5		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	10		5.0	1.6	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	44		5.0	1.9	ug/L	5		8260C	Total/NA
1,1-Dichloroethene	11		5.0	1.5	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	150		5.0	4.1	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-26 (Continued)

Lab Sample ID: 480-183361-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	7.0		5.0	2.2	ug/L	5		8260C	Total/NA
Trichloroethene	150		5.0	2.3	ug/L	5		8260C	Total/NA
Vinyl chloride	10		5.0	4.5	ug/L	5		8260C	Total/NA
1,4-Dioxane	2.9	E	0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	6.3	B	4.1	0.73	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.8		1.6	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2	J B	1.6	0.37	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7	B	1.6	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	6.8	B	1.6	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.81	J B	1.6	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.7	B	1.6	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.1	B	1.6	0.25	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.31	J B	1.6	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.5	B	1.6	0.24	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-9

Lab Sample ID: 480-183361-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.2		1.0	0.34	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	13		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	1.2		1.0	0.46	ug/L	1		8260C	Total/NA
1,4-Dioxane	2.0	E	0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	3.1	J B	4.3	0.76	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.0		1.7	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.8	B	1.7	0.38	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4	J B	1.7	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.4	B	1.7	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.70	J I B	1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.8	B	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.3	J B	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.3	B	1.7	0.25	ng/L	1		537 (modified)	Total/NA

Client Sample ID: Equipment Blank 4

Lab Sample ID: 480-183361-5

No Detections.

Client Sample ID: 4009-16A

Lab Sample ID: 480-183361-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.53	J	1.0	0.34	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	2.3	J B	4.3	0.77	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.7		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0	B	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7	B	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.2	B	1.7	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.3	B	1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.1	B	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.3	B	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	9.5	B	1.7	0.25	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-22

Lab Sample ID: 480-183361-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	20	6.0	ug/L	2		8260C	Total/NA
Benzene	3.4		2.0	0.82	ug/L	2		8260C	Total/NA
1,4-Dioxane	0.80		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	3.5	J B	4.4	0.78	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.1	J	1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2	J B	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.59	J B	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.6	J B	1.7	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.38	J B	1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.33	J B	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.80	J B	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.76	J B	1.7	0.25	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.0	J	4.4	0.96	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-30

Lab Sample ID: 480-183361-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.0		1.0	0.82	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.12	J	0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	2.1	J B	4.2	0.75	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.74	J B	1.7	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.57	J B	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.78	J B	1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.41	J B	1.7	0.25	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-13

Lab Sample ID: 480-183361-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.4	J B	4.2	0.74	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.3	J	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.3	J B	1.7	0.38	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4	J B	1.7	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.6	B	1.7	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.94	J B	1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.91	J B	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.60	J B	1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.8	B	1.7	0.24	ng/L	1		537 (modified)	Total/NA

Client Sample ID: 4009-14

Lab Sample ID: 480-183361-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.3	J B	4.0	0.72	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.7		1.6	0.38	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.7	B	1.6	0.37	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.0	J B	1.6	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.0	B	1.6	0.34	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.38	J B	1.6	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.0	B	1.6	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.63	J B	1.6	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.9	B	1.6	0.24	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: Equipment Blank 3

Lab Sample ID: 480-183361-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.56	J B	1.7	0.38	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-7

Lab Sample ID: 480-183361-1

Date Collected: 04/13/21 10:25

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	7.8		1.0	0.82	ug/L			04/16/21 12:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/16/21 12:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.60	J	1.0	0.31	ug/L			04/16/21 12:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/21 12:32	1
1,1-Dichloroethane	7.1		1.0	0.38	ug/L			04/16/21 12:32	1
1,1-Dichloroethene	1.6		1.0	0.29	ug/L			04/16/21 12:32	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/16/21 12:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/21 12:32	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/21 12:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/16/21 12:32	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/16/21 12:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/21 12:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/21 12:32	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/21 12:32	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/21 12:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/21 12:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/21 12:32	1
2-Butanone (MEK)	ND	+	10	1.3	ug/L			04/16/21 12:32	1
2-Hexanone	ND		5.0	1.2	ug/L			04/16/21 12:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/16/21 12:32	1
Acetone	ND		10	3.0	ug/L			04/16/21 12:32	1
Benzene	ND		1.0	0.41	ug/L			04/16/21 12:32	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/16/21 12:32	1
Bromoform	ND		1.0	0.26	ug/L			04/16/21 12:32	1
Bromomethane	ND	*1	1.0	0.69	ug/L			04/16/21 12:32	1
Carbon disulfide	ND	*1	1.0	0.19	ug/L			04/16/21 12:32	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/16/21 12:32	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/21 12:32	1
Chloroethane	ND		1.0	0.32	ug/L			04/16/21 12:32	1
Chloroform	ND		1.0	0.34	ug/L			04/16/21 12:32	1
Chloromethane	ND	*1	1.0	0.35	ug/L			04/16/21 12:32	1
cis-1,2-Dichloroethene	48		1.0	0.81	ug/L			04/16/21 12:32	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/16/21 12:32	1
Cyclohexane	ND		1.0	0.18	ug/L			04/16/21 12:32	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/16/21 12:32	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/16/21 12:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/21 12:32	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/16/21 12:32	1
Methyl acetate	ND		2.5	1.3	ug/L			04/16/21 12:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/16/21 12:32	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/16/21 12:32	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/21 12:32	1
Styrene	ND		1.0	0.73	ug/L			04/16/21 12:32	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/21 12:32	1
Toluene	ND		1.0	0.51	ug/L			04/16/21 12:32	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/16/21 12:32	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/16/21 12:32	1
Trichloroethene	2.1		1.0	0.46	ug/L			04/16/21 12:32	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/16/21 12:32	1

Euofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-7

Lab Sample ID: 480-183361-1

Date Collected: 04/13/21 10:25

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	29	*1	1.0	0.90	ug/L			04/16/21 12:32	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/16/21 12:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		77 - 120					04/16/21 12:32	1
4-Bromofluorobenzene (Surr)	99		73 - 120					04/16/21 12:32	1
Dibromofluoromethane (Surr)	83		75 - 123					04/16/21 12:32	1
Toluene-d8 (Surr)	103		80 - 120					04/16/21 12:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.65		0.19	0.095	ug/L		04/16/21 08:41	04/20/21 15:12	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				04/16/21 08:41	04/20/21 15:12	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	40	B	4.3	0.77	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluoropentanoic acid (PFPeA)	0.44	J	1.7	0.41	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorohexanoic acid (PFHxA)	3.1	B	1.7	0.39	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluoroheptanoic acid (PFHpA)	2.6	B	1.7	0.21	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorooctanoic acid (PFOA)	5.1	B	1.7	0.37	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorononanoic acid (PFNA)	2.5	B	1.7	0.24	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorodecanoic acid (PFDA)	0.27	J B	1.7	0.26	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.30	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.33	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.54	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorobutanesulfonic acid (PFBS)	1.9	B	1.7	0.22	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorohexanesulfonic acid (PFHxS)	1.2	J B	1.7	0.26	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.20	J B	1.7	0.20	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorooctanesulfonic acid (PFOS)	5.6	I B	1.7	0.25	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 20:36	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		04/21/21 12:02	04/21/21 20:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.78	ng/L		04/21/21 12:02	04/21/21 20:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.64	ng/L		04/21/21 12:02	04/21/21 20:36	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.95	ng/L		04/21/21 12:02	04/21/21 20:36	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.34	ng/L		04/21/21 12:02	04/21/21 20:36	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	75		50 - 150				04/21/21 12:02	04/21/21 20:36	1
13C4 PFHpA	79		50 - 150				04/21/21 12:02	04/21/21 20:36	1
13C4 PFOA	84		50 - 150				04/21/21 12:02	04/21/21 20:36	1
13C4 PFOS	81		50 - 150				04/21/21 12:02	04/21/21 20:36	1
13C5 PFNA	97		50 - 150				04/21/21 12:02	04/21/21 20:36	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-7

Date Collected: 04/13/21 10:25

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-1

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	42		25 - 150	04/21/21 12:02	04/21/21 20:36	1
13C2 PFHxA	74		50 - 150	04/21/21 12:02	04/21/21 20:36	1
13C2 PFDA	95		50 - 150	04/21/21 12:02	04/21/21 20:36	1
13C2 PFUnA	90		50 - 150	04/21/21 12:02	04/21/21 20:36	1
13C2 PFDaA	95		50 - 150	04/21/21 12:02	04/21/21 20:36	1
13C8 FOSA	76		25 - 150	04/21/21 12:02	04/21/21 20:36	1
13C5 PFPeA	63		25 - 150	04/21/21 12:02	04/21/21 20:36	1
13C2 PFTeDA	97		50 - 150	04/21/21 12:02	04/21/21 20:36	1
d3-NMeFOSAA	95		50 - 150	04/21/21 12:02	04/21/21 20:36	1
d5-NEtFOSAA	111		50 - 150	04/21/21 12:02	04/21/21 20:36	1
M2-6:2 FTS	118		25 - 150	04/21/21 12:02	04/21/21 20:36	1
M2-8:2 FTS	121		25 - 150	04/21/21 12:02	04/21/21 20:36	1
13C3 PFBS	71		50 - 150	04/21/21 12:02	04/21/21 20:36	1

Client Sample ID: 4009-8

Date Collected: 04/13/21 12:35

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	560		8.0	6.6	ug/L			04/16/21 12:54	8
1,1,2,2-Tetrachloroethane	ND		8.0	1.7	ug/L			04/16/21 12:54	8
1,1,2-Trichloro-1,2,2-trifluoroethane	10		8.0	2.5	ug/L			04/16/21 12:54	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			04/16/21 12:54	8
1,1-Dichloroethane	43		8.0	3.0	ug/L			04/16/21 12:54	8
1,1-Dichloroethene	32		8.0	2.3	ug/L			04/16/21 12:54	8
1,2,3-Trimethylbenzene	ND		8.0	2.1	ug/L			04/16/21 12:54	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			04/16/21 12:54	8
1,2,4-Trimethylbenzene	ND		8.0	6.0	ug/L			04/16/21 12:54	8
1,2-Dibromo-3-Chloropropane	ND		8.0	3.1	ug/L			04/16/21 12:54	8
1,2-Dibromoethane	ND		8.0	5.8	ug/L			04/16/21 12:54	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			04/16/21 12:54	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			04/16/21 12:54	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			04/16/21 12:54	8
1,3,5-Trimethylbenzene	ND		8.0	6.2	ug/L			04/16/21 12:54	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			04/16/21 12:54	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			04/16/21 12:54	8
2-Butanone (MEK)	ND *	+	80	11	ug/L			04/16/21 12:54	8
2-Hexanone	ND		40	9.9	ug/L			04/16/21 12:54	8
4-Methyl-2-pentanone (MIBK)	ND		40	17	ug/L			04/16/21 12:54	8
Acetone	ND		80	24	ug/L			04/16/21 12:54	8
Benzene	ND		8.0	3.3	ug/L			04/16/21 12:54	8
Bromodichloromethane	ND		8.0	3.1	ug/L			04/16/21 12:54	8
Bromoform	ND		8.0	2.1	ug/L			04/16/21 12:54	8
Bromomethane	ND *	1	8.0	5.5	ug/L			04/16/21 12:54	8
Carbon disulfide	ND *	1	8.0	1.5	ug/L			04/16/21 12:54	8
Carbon tetrachloride	ND *	1	8.0	2.2	ug/L			04/16/21 12:54	8
Chlorobenzene	ND		8.0	6.0	ug/L			04/16/21 12:54	8
Chloroethane	5.0	J	8.0	2.6	ug/L			04/16/21 12:54	8

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-8

Lab Sample ID: 480-183361-2

Date Collected: 04/13/21 12:35

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		8.0	2.7	ug/L			04/16/21 12:54	8
Chloromethane	ND	*1	8.0	2.8	ug/L			04/16/21 12:54	8
cis-1,2-Dichloroethene	200		8.0	6.5	ug/L			04/16/21 12:54	8
cis-1,3-Dichloropropene	ND		8.0	2.9	ug/L			04/16/21 12:54	8
Cyclohexane	ND		8.0	1.4	ug/L			04/16/21 12:54	8
Dibromochloromethane	ND		8.0	2.6	ug/L			04/16/21 12:54	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			04/16/21 12:54	8
Ethylbenzene	ND		8.0	5.9	ug/L			04/16/21 12:54	8
Isopropylbenzene	ND		8.0	6.3	ug/L			04/16/21 12:54	8
Methyl acetate	ND		20	10	ug/L			04/16/21 12:54	8
Methyl tert-butyl ether	ND		8.0	1.3	ug/L			04/16/21 12:54	8
Methylcyclohexane	ND		8.0	1.3	ug/L			04/16/21 12:54	8
Methylene Chloride	ND		8.0	3.5	ug/L			04/16/21 12:54	8
Styrene	ND		8.0	5.8	ug/L			04/16/21 12:54	8
Tetrachloroethene	ND		8.0	2.9	ug/L			04/16/21 12:54	8
Toluene	ND		8.0	4.1	ug/L			04/16/21 12:54	8
trans-1,2-Dichloroethene	ND		8.0	7.2	ug/L			04/16/21 12:54	8
trans-1,3-Dichloropropene	ND		8.0	3.0	ug/L			04/16/21 12:54	8
Trichloroethene	390		8.0	3.7	ug/L			04/16/21 12:54	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			04/16/21 12:54	8
Vinyl chloride	ND	*1	8.0	7.2	ug/L			04/16/21 12:54	8
Xylenes, Total	ND		16	5.3	ug/L			04/16/21 12:54	8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		04/16/21 12:54	8
4-Bromofluorobenzene (Surr)	101		73 - 120		04/16/21 12:54	8
Dibromofluoromethane (Surr)	107		75 - 123		04/16/21 12:54	8
Toluene-d8 (Surr)	110		80 - 120		04/16/21 12:54	8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	E	0.19	0.095	ug/L		04/16/21 08:41	04/19/21 18:18	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	29		15 - 110				04/16/21 08:41	04/19/21 18:18	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	6.6	B	4.1	0.73	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluoropentanoic acid (PFPeA)	2.9		1.6	0.38	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorohexanoic acid (PFHxA)	2.5	B	1.6	0.37	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluoroheptanoic acid (PFHpA)	2.3	B	1.6	0.19	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorooctanoic acid (PFOA)	7.3	B	1.6	0.34	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorononanoic acid (PFNA)	0.40	J B	1.6	0.23	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.28	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.31	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.35	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.51	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorobutanesulfonic acid (PFBS)	3.3	B	1.6	0.20	ng/L		04/21/21 12:02	04/21/21 20:44	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-8

Date Collected: 04/13/21 12:35

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	2.9	B	1.6	0.25	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.32	J B	1.6	0.19	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorooctanesulfonic acid (PFOS)	13	B	1.6	0.24	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 20:44	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.47	ng/L		04/21/21 12:02	04/21/21 20:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.1	0.73	ng/L		04/21/21 12:02	04/21/21 20:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.1	0.60	ng/L		04/21/21 12:02	04/21/21 20:44	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.1	0.89	ng/L		04/21/21 12:02	04/21/21 20:44	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.6	0.32	ng/L		04/21/21 12:02	04/21/21 20:44	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	84		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C4 PFHpA	87		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C4 PFOA	90		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C4 PFOS	79		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C5 PFNA	94		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C4 PFBA	66		25 - 150				04/21/21 12:02	04/21/21 20:44	1
13C2 PFHxA	88		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C2 PFDA	87		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C2 PFUnA	82		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C2 PFDoA	79		50 - 150				04/21/21 12:02	04/21/21 20:44	1
13C8 FOSA	78		25 - 150				04/21/21 12:02	04/21/21 20:44	1
13C5 PFPeA	79		25 - 150				04/21/21 12:02	04/21/21 20:44	1
13C2 PFTeDA	89		50 - 150				04/21/21 12:02	04/21/21 20:44	1
d3-NMeFOSAA	81		50 - 150				04/21/21 12:02	04/21/21 20:44	1
d5-NEtFOSAA	87		50 - 150				04/21/21 12:02	04/21/21 20:44	1
M2-6:2 FTS	96		25 - 150				04/21/21 12:02	04/21/21 20:44	1
M2-8:2 FTS	93		25 - 150				04/21/21 12:02	04/21/21 20:44	1
13C3 PFBS	80		50 - 150				04/21/21 12:02	04/21/21 20:44	1

Client Sample ID: 4009-26

Date Collected: 04/13/21 10:25

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	210		5.0	4.1	ug/L			04/22/21 14:12	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			04/22/21 14:12	5
1,1,2-Trichloro-1,2,2-trifluoroethane	10		5.0	1.6	ug/L			04/22/21 14:12	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/22/21 14:12	5
1,1-Dichloroethane	44		5.0	1.9	ug/L			04/22/21 14:12	5
1,1-Dichloroethene	11		5.0	1.5	ug/L			04/22/21 14:12	5
1,2,3-Trimethylbenzene	ND		5.0	1.3	ug/L			04/22/21 14:12	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			04/22/21 14:12	5
1,2,4-Trimethylbenzene	ND		5.0	3.8	ug/L			04/22/21 14:12	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-26

Lab Sample ID: 480-183361-3

Date Collected: 04/13/21 10:25

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			04/22/21 14:12	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			04/22/21 14:12	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			04/22/21 14:12	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/22/21 14:12	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			04/22/21 14:12	5
1,3,5-Trimethylbenzene	ND		5.0	3.9	ug/L			04/22/21 14:12	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			04/22/21 14:12	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			04/22/21 14:12	5
2-Butanone (MEK)	ND	F1	50	6.6	ug/L			04/22/21 14:12	5
2-Hexanone	ND		25	6.2	ug/L			04/22/21 14:12	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			04/22/21 14:12	5
Acetone	ND		50	15	ug/L			04/22/21 14:12	5
Benzene	ND		5.0	2.1	ug/L			04/22/21 14:12	5
Bromodichloromethane	ND		5.0	2.0	ug/L			04/22/21 14:12	5
Bromoform	ND		5.0	1.3	ug/L			04/22/21 14:12	5
Bromomethane	ND		5.0	3.5	ug/L			04/22/21 14:12	5
Carbon disulfide	ND		5.0	0.95	ug/L			04/22/21 14:12	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/22/21 14:12	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/22/21 14:12	5
Chloroethane	ND		5.0	1.6	ug/L			04/22/21 14:12	5
Chloroform	ND		5.0	1.7	ug/L			04/22/21 14:12	5
Chloromethane	ND		5.0	1.8	ug/L			04/22/21 14:12	5
cis-1,2-Dichloroethene	150		5.0	4.1	ug/L			04/22/21 14:12	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			04/22/21 14:12	5
Cyclohexane	ND		5.0	0.90	ug/L			04/22/21 14:12	5
Dibromochloromethane	ND		5.0	1.6	ug/L			04/22/21 14:12	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			04/22/21 14:12	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/22/21 14:12	5
Isopropylbenzene	ND		5.0	4.0	ug/L			04/22/21 14:12	5
Methyl acetate	ND		13	6.5	ug/L			04/22/21 14:12	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			04/22/21 14:12	5
Methylcyclohexane	ND		5.0	0.80	ug/L			04/22/21 14:12	5
Methylene Chloride	7.0		5.0	2.2	ug/L			04/22/21 14:12	5
Styrene	ND		5.0	3.7	ug/L			04/22/21 14:12	5
Tetrachloroethene	ND		5.0	1.8	ug/L			04/22/21 14:12	5
Toluene	ND		5.0	2.6	ug/L			04/22/21 14:12	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			04/22/21 14:12	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			04/22/21 14:12	5
Trichloroethene	150		5.0	2.3	ug/L			04/22/21 14:12	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			04/22/21 14:12	5
Vinyl chloride	10		5.0	4.5	ug/L			04/22/21 14:12	5
Xylenes, Total	ND		10	3.3	ug/L			04/22/21 14:12	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		04/22/21 14:12	5
4-Bromofluorobenzene (Surr)	111		73 - 120		04/22/21 14:12	5
Dibromofluoromethane (Surr)	111		75 - 123		04/22/21 14:12	5
Toluene-d8 (Surr)	97		80 - 120		04/22/21 14:12	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-26

Lab Sample ID: 480-183361-3

Date Collected: 04/13/21 10:25

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.9	E	0.19	0.095	ug/L		04/16/21 08:41	04/19/21 17:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				04/16/21 08:41	04/19/21 17:07	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	6.3	B	4.1	0.73	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluoropentanoic acid (PFPeA)	1.8		1.6	0.39	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorohexanoic acid (PFHxA)	1.2	J B	1.6	0.37	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluoroheptanoic acid (PFHpA)	1.7	B	1.6	0.20	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorooctanoic acid (PFOA)	6.8	B	1.6	0.35	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorononanoic acid (PFNA)	0.81	J B	1.6	0.23	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.28	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.32	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.36	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.52	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorobutanesulfonic acid (PFBS)	3.7	B	1.6	0.21	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorohexanesulfonic acid (PFHxS)	4.1	B	1.6	0.25	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.31	J B	1.6	0.19	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorooctanesulfonic acid (PFOS)	8.5	B	1.6	0.24	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 20:53	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.47	ng/L		04/21/21 12:02	04/21/21 20:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.1	0.74	ng/L		04/21/21 12:02	04/21/21 20:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.1	0.61	ng/L		04/21/21 12:02	04/21/21 20:53	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.1	0.90	ng/L		04/21/21 12:02	04/21/21 20:53	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.6	0.32	ng/L		04/21/21 12:02	04/21/21 20:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	81		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C4 PFHpA	93		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C4 PFOA	89		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C4 PFOS	85		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C5 PFNA	95		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C4 PFBA	73		25 - 150				04/21/21 12:02	04/21/21 20:53	1
13C2 PFHxA	87		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C2 PFDA	85		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C2 PFUnA	87		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C2 PFDoA	81		50 - 150				04/21/21 12:02	04/21/21 20:53	1
13C8 FOSA	76		25 - 150				04/21/21 12:02	04/21/21 20:53	1
13C5 PFPeA	82		25 - 150				04/21/21 12:02	04/21/21 20:53	1
13C2 PFTeDA	84		50 - 150				04/21/21 12:02	04/21/21 20:53	1
d3-NMeFOSAA	82		50 - 150				04/21/21 12:02	04/21/21 20:53	1
d5-NEtFOSAA	78		50 - 150				04/21/21 12:02	04/21/21 20:53	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-26

Date Collected: 04/13/21 10:25

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-3

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	94		25 - 150	04/21/21 12:02	04/21/21 20:53	1
M2-8:2 FTS	92		25 - 150	04/21/21 12:02	04/21/21 20:53	1
13C3 PFBS	81		50 - 150	04/21/21 12:02	04/21/21 20:53	1

Client Sample ID: 4009-9

Date Collected: 04/13/21 15:10

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/16/21 13:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/16/21 13:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/16/21 13:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/21 13:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/21 13:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/21 13:16	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/16/21 13:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/21 13:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/21 13:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/16/21 13:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/16/21 13:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/21 13:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/21 13:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/21 13:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/21 13:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/21 13:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/21 13:16	1
2-Butanone (MEK)	ND	+	10	1.3	ug/L			04/16/21 13:16	1
2-Hexanone	ND		5.0	1.2	ug/L			04/16/21 13:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/16/21 13:16	1
Acetone	ND		10	3.0	ug/L			04/16/21 13:16	1
Benzene	ND		1.0	0.41	ug/L			04/16/21 13:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/16/21 13:16	1
Bromoform	ND		1.0	0.26	ug/L			04/16/21 13:16	1
Bromomethane	ND	*1	1.0	0.69	ug/L			04/16/21 13:16	1
Carbon disulfide	ND	*1	1.0	0.19	ug/L			04/16/21 13:16	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/16/21 13:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/21 13:16	1
Chloroethane	ND		1.0	0.32	ug/L			04/16/21 13:16	1
Chloroform	1.2		1.0	0.34	ug/L			04/16/21 13:16	1
Chloromethane	ND	*1	1.0	0.35	ug/L			04/16/21 13:16	1
cis-1,2-Dichloroethene	13		1.0	0.81	ug/L			04/16/21 13:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/16/21 13:16	1
Cyclohexane	ND		1.0	0.18	ug/L			04/16/21 13:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/16/21 13:16	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/16/21 13:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/21 13:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/16/21 13:16	1
Methyl acetate	ND		2.5	1.3	ug/L			04/16/21 13:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/16/21 13:16	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-9

Lab Sample ID: 480-183361-4

Date Collected: 04/13/21 15:10

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			04/16/21 13:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/21 13:16	1
Styrene	ND		1.0	0.73	ug/L			04/16/21 13:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/21 13:16	1
Toluene	ND		1.0	0.51	ug/L			04/16/21 13:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/16/21 13:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/16/21 13:16	1
Trichloroethene	1.2		1.0	0.46	ug/L			04/16/21 13:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/16/21 13:16	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/16/21 13:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/16/21 13:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		04/16/21 13:16	1
4-Bromofluorobenzene (Surr)	93		73 - 120		04/16/21 13:16	1
Dibromofluoromethane (Surr)	93		75 - 123		04/16/21 13:16	1
Toluene-d8 (Surr)	104		80 - 120		04/16/21 13:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	E	0.19	0.095	ug/L		04/16/21 08:41	04/19/21 18:42	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	27		15 - 110				04/16/21 08:41	04/19/21 18:42	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.1	J B	4.3	0.76	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluoropentanoic acid (PFPeA)	2.0		1.7	0.40	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorohexanoic acid (PFHxA)	1.8	B	1.7	0.38	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluoroheptanoic acid (PFHpA)	1.4	J B	1.7	0.20	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorooctanoic acid (PFOA)	3.4	B	1.7	0.36	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorononanoic acid (PFNA)	0.70	J I B	1.7	0.24	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.29	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.33	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.54	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorobutanesulfonic acid (PFBS)	1.8	B	1.7	0.21	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorohexanesulfonic acid (PFHxS)	1.3	J B	1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorooctanesulfonic acid (PFOS)	3.3	B	1.7	0.25	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.49	ng/L		04/21/21 12:02	04/21/21 21:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.77	ng/L		04/21/21 12:02	04/21/21 21:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.63	ng/L		04/21/21 12:02	04/21/21 21:17	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-9

Date Collected: 04/13/21 15:10

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.93	ng/L		04/21/21 12:02	04/21/21 21:17	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.33	ng/L		04/21/21 12:02	04/21/21 21:17	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	81		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C4 PFHpA	91		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C4 PFOA	93		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C4 PFOS	85		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C5 PFNA	96		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C4 PFBA	73		25 - 150				04/21/21 12:02	04/21/21 21:17	1
13C2 PFHxA	88		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C2 PFDA	90		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C2 PFUnA	95		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C2 PFDoA	86		50 - 150				04/21/21 12:02	04/21/21 21:17	1
13C8 FOSA	79		25 - 150				04/21/21 12:02	04/21/21 21:17	1
13C5 PFPeA	81		25 - 150				04/21/21 12:02	04/21/21 21:17	1
13C2 PFTeDA	91		50 - 150				04/21/21 12:02	04/21/21 21:17	1
d3-NMeFOSAA	87		50 - 150				04/21/21 12:02	04/21/21 21:17	1
d5-NEtFOSAA	89		50 - 150				04/21/21 12:02	04/21/21 21:17	1
M2-6:2 FTS	98		25 - 150				04/21/21 12:02	04/21/21 21:17	1
M2-8:2 FTS	97		25 - 150				04/21/21 12:02	04/21/21 21:17	1
13C3 PFBS	84		50 - 150				04/21/21 12:02	04/21/21 21:17	1

Client Sample ID: Equipment Blank 4

Date Collected: 04/13/21 10:50

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		04/16/21 08:41	04/19/21 19:05	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	34		15 - 110				04/16/21 08:41	04/19/21 19:05	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.1	0.74	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.39	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.37	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.20	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.35	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.23	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.28	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.32	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.36	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.52	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.21	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 21:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: Equipment Blank 4

Lab Sample ID: 480-183361-5

Date Collected: 04/13/21 10:50

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.19	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.24	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 21:26	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.48	ng/L		04/21/21 12:02	04/21/21 21:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.1	0.74	ng/L		04/21/21 12:02	04/21/21 21:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.1	0.61	ng/L		04/21/21 12:02	04/21/21 21:26	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.1	0.90	ng/L		04/21/21 12:02	04/21/21 21:26	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.6	0.32	ng/L		04/21/21 12:02	04/21/21 21:26	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	87		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C4 PFHpA	95		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C4 PFOA	95		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C4 PFOS	84		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C5 PFNA	95		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C4 PFBA	98		25 - 150				04/21/21 12:02	04/21/21 21:26	1
13C2 PFHxA	95		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C2 PFDA	90		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C2 PFUnA	92		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C2 PFDoA	84		50 - 150				04/21/21 12:02	04/21/21 21:26	1
13C8 FOSA	74		25 - 150				04/21/21 12:02	04/21/21 21:26	1
13C5 PFPeA	97		25 - 150				04/21/21 12:02	04/21/21 21:26	1
13C2 PFTeDA	88		50 - 150				04/21/21 12:02	04/21/21 21:26	1
d3-NMeFOSAA	92		50 - 150				04/21/21 12:02	04/21/21 21:26	1
d5-NEtFOSAA	90		50 - 150				04/21/21 12:02	04/21/21 21:26	1
M2-6:2 FTS	90		25 - 150				04/21/21 12:02	04/21/21 21:26	1
M2-8:2 FTS	94		25 - 150				04/21/21 12:02	04/21/21 21:26	1
13C3 PFBS	84		50 - 150				04/21/21 12:02	04/21/21 21:26	1

Client Sample ID: 4009-16A

Lab Sample ID: 480-183361-6

Date Collected: 04/12/21 16:55

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/16/21 13:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/16/21 13:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/16/21 13:39	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/21 13:39	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/21 13:39	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/21 13:39	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/16/21 13:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/21 13:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/21 13:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/16/21 13:39	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/16/21 13:39	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/21 13:39	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-16A

Lab Sample ID: 480-183361-6

Date Collected: 04/12/21 16:55

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/21 13:39	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/21 13:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/21 13:39	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/21 13:39	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/21 13:39	1
2-Butanone (MEK)	ND	+	10	1.3	ug/L			04/16/21 13:39	1
2-Hexanone	ND		5.0	1.2	ug/L			04/16/21 13:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/16/21 13:39	1
Acetone	ND		10	3.0	ug/L			04/16/21 13:39	1
Benzene	ND		1.0	0.41	ug/L			04/16/21 13:39	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/16/21 13:39	1
Bromoform	ND		1.0	0.26	ug/L			04/16/21 13:39	1
Bromomethane	ND	*1	1.0	0.69	ug/L			04/16/21 13:39	1
Carbon disulfide	ND	*1	1.0	0.19	ug/L			04/16/21 13:39	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/16/21 13:39	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/21 13:39	1
Chloroethane	ND		1.0	0.32	ug/L			04/16/21 13:39	1
Chloroform	0.53	J	1.0	0.34	ug/L			04/16/21 13:39	1
Chloromethane	ND	*1	1.0	0.35	ug/L			04/16/21 13:39	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/16/21 13:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/16/21 13:39	1
Cyclohexane	ND		1.0	0.18	ug/L			04/16/21 13:39	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/16/21 13:39	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/16/21 13:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/21 13:39	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/16/21 13:39	1
Methyl acetate	ND		2.5	1.3	ug/L			04/16/21 13:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/16/21 13:39	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/16/21 13:39	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/21 13:39	1
Styrene	ND		1.0	0.73	ug/L			04/16/21 13:39	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/21 13:39	1
Toluene	ND		1.0	0.51	ug/L			04/16/21 13:39	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/16/21 13:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/16/21 13:39	1
Trichloroethene	ND		1.0	0.46	ug/L			04/16/21 13:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/16/21 13:39	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/16/21 13:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/16/21 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 120		04/16/21 13:39	1
4-Bromofluorobenzene (Surr)	94		73 - 120		04/16/21 13:39	1
Dibromofluoromethane (Surr)	88		75 - 123		04/16/21 13:39	1
Toluene-d8 (Surr)	103		80 - 120		04/16/21 13:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		04/16/21 08:41	04/19/21 19:29	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-16A

Lab Sample ID: 480-183361-6

Date Collected: 04/12/21 16:55

Matrix: Water

Date Received: 04/15/21 08:00

Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	25		15 - 110				04/16/21 08:41	04/19/21 19:29	1
Method: 537 (modified) - Fluorinated Alkyl Substances									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.3	J B	4.3	0.77	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluoropentanoic acid (PFPeA)	2.7		1.7	0.41	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorohexanoic acid (PFHxA)	2.0	B	1.7	0.39	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluoroheptanoic acid (PFHpA)	1.7	B	1.7	0.21	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorooctanoic acid (PFOA)	4.2	B	1.7	0.37	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorononanoic acid (PFNA)	2.3	B	1.7	0.24	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.30	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.33	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.38	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.55	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorobutanesulfonic acid (PFBS)	3.1	B	1.7	0.22	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorohexanesulfonic acid (PFHxS)	2.3	B	1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorooctanesulfonic acid (PFOS)	9.5	B	1.7	0.25	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:34	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		04/21/21 12:02	04/21/21 21:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.78	ng/L		04/21/21 12:02	04/21/21 21:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.64	ng/L		04/21/21 12:02	04/21/21 21:34	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.95	ng/L		04/21/21 12:02	04/21/21 21:34	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.34	ng/L		04/21/21 12:02	04/21/21 21:34	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	75		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C4 PFHpA	83		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C4 PFOA	82		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C4 PFOS	76		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C5 PFNA	87		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C4 PFBA	73		25 - 150				04/21/21 12:02	04/21/21 21:34	1
13C2 PFHxA	82		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C2 PFDA	78		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C2 PFUnA	81		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C2 PFDoA	80		50 - 150				04/21/21 12:02	04/21/21 21:34	1
13C8 FOSA	72		25 - 150				04/21/21 12:02	04/21/21 21:34	1
13C5 PFPeA	77		25 - 150				04/21/21 12:02	04/21/21 21:34	1
13C2 PFTeDA	83		50 - 150				04/21/21 12:02	04/21/21 21:34	1
d3-NMeFOSAA	73		50 - 150				04/21/21 12:02	04/21/21 21:34	1
d5-NEtFOSAA	82		50 - 150				04/21/21 12:02	04/21/21 21:34	1
M2-6:2 FTS	82		25 - 150				04/21/21 12:02	04/21/21 21:34	1
M2-8:2 FTS	89		25 - 150				04/21/21 12:02	04/21/21 21:34	1
13C3 PFBS	77		50 - 150				04/21/21 12:02	04/21/21 21:34	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-22

Lab Sample ID: 480-183361-7

Date Collected: 04/12/21 13:20

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			04/16/21 14:01	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			04/16/21 14:01	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			04/16/21 14:01	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			04/16/21 14:01	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			04/16/21 14:01	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			04/16/21 14:01	2
1,2,3-Trimethylbenzene	ND		2.0	0.52	ug/L			04/16/21 14:01	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			04/16/21 14:01	2
1,2,4-Trimethylbenzene	ND		2.0	1.5	ug/L			04/16/21 14:01	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			04/16/21 14:01	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			04/16/21 14:01	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			04/16/21 14:01	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			04/16/21 14:01	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			04/16/21 14:01	2
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			04/16/21 14:01	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			04/16/21 14:01	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			04/16/21 14:01	2
2-Butanone (MEK)	ND	*+	20	2.6	ug/L			04/16/21 14:01	2
2-Hexanone	ND		10	2.5	ug/L			04/16/21 14:01	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			04/16/21 14:01	2
Acetone	13	J	20	6.0	ug/L			04/16/21 14:01	2
Benzene	3.4		2.0	0.82	ug/L			04/16/21 14:01	2
Bromodichloromethane	ND		2.0	0.78	ug/L			04/16/21 14:01	2
Bromoform	ND		2.0	0.52	ug/L			04/16/21 14:01	2
Bromomethane	ND	*1	2.0	1.4	ug/L			04/16/21 14:01	2
Carbon disulfide	ND	*1	2.0	0.38	ug/L			04/16/21 14:01	2
Carbon tetrachloride	ND	*1	2.0	0.54	ug/L			04/16/21 14:01	2
Chlorobenzene	ND		2.0	1.5	ug/L			04/16/21 14:01	2
Chloroethane	ND		2.0	0.64	ug/L			04/16/21 14:01	2
Chloroform	ND		2.0	0.68	ug/L			04/16/21 14:01	2
Chloromethane	ND	*1	2.0	0.70	ug/L			04/16/21 14:01	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			04/16/21 14:01	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			04/16/21 14:01	2
Cyclohexane	ND		2.0	0.36	ug/L			04/16/21 14:01	2
Dibromochloromethane	ND		2.0	0.64	ug/L			04/16/21 14:01	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			04/16/21 14:01	2
Ethylbenzene	ND		2.0	1.5	ug/L			04/16/21 14:01	2
Isopropylbenzene	ND		2.0	1.6	ug/L			04/16/21 14:01	2
Methyl acetate	ND		5.0	2.6	ug/L			04/16/21 14:01	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			04/16/21 14:01	2
Methylcyclohexane	ND		2.0	0.32	ug/L			04/16/21 14:01	2
Methylene Chloride	ND		2.0	0.88	ug/L			04/16/21 14:01	2
Styrene	ND		2.0	1.5	ug/L			04/16/21 14:01	2
Tetrachloroethene	ND		2.0	0.72	ug/L			04/16/21 14:01	2
Toluene	ND		2.0	1.0	ug/L			04/16/21 14:01	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			04/16/21 14:01	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			04/16/21 14:01	2
Trichloroethene	ND		2.0	0.92	ug/L			04/16/21 14:01	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			04/16/21 14:01	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-22

Lab Sample ID: 480-183361-7

Date Collected: 04/12/21 13:20

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	*1	2.0	1.8	ug/L			04/16/21 14:01	2
Xylenes, Total	ND		4.0	1.3	ug/L			04/16/21 14:01	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 120					04/16/21 14:01	2
4-Bromofluorobenzene (Surr)	95		73 - 120					04/16/21 14:01	2
Dibromofluoromethane (Surr)	98		75 - 123					04/16/21 14:01	2
Toluene-d8 (Surr)	103		80 - 120					04/16/21 14:01	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.80		0.19	0.095	ug/L		04/16/21 08:41	04/19/21 19:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	27		15 - 110				04/16/21 08:41	04/19/21 19:53	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.5	J B	4.4	0.78	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluoropentanoic acid (PFPeA)	1.1	J	1.7	0.41	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorohexanoic acid (PFHxA)	1.2	J B	1.7	0.39	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluoroheptanoic acid (PFHpA)	0.59	J B	1.7	0.21	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorooctanoic acid (PFOA)	1.6	J B	1.7	0.37	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorononanoic acid (PFNA)	0.38	J B	1.7	0.24	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.30	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.34	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.38	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.55	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorobutanesulfonic acid (PFBS)	0.33	J B	1.7	0.22	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorohexanesulfonic acid (PFHxS)	0.80	J B	1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorooctanesulfonic acid (PFOS)	0.76	J B	1.7	0.25	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.27	ng/L		04/21/21 12:02	04/21/21 21:42	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		04/21/21 12:02	04/21/21 21:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.79	ng/L		04/21/21 12:02	04/21/21 21:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.65	ng/L		04/21/21 12:02	04/21/21 21:42	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.0	J	4.4	0.96	ng/L		04/21/21 12:02	04/21/21 21:42	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.34	ng/L		04/21/21 12:02	04/21/21 21:42	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	50		50 - 150				04/21/21 12:02	04/21/21 21:42	1
13C4 PFHpA	75		50 - 150				04/21/21 12:02	04/21/21 21:42	1
13C4 PFOA	91		50 - 150				04/21/21 12:02	04/21/21 21:42	1
13C4 PFOS	49	*5-	50 - 150				04/21/21 12:02	04/21/21 21:42	1
13C5 PFNA	105		50 - 150				04/21/21 12:02	04/21/21 21:42	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-22

Date Collected: 04/12/21 13:20

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-7

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	42		25 - 150	04/21/21 12:02	04/21/21 21:42	1
13C2 PFHxA	69		50 - 150	04/21/21 12:02	04/21/21 21:42	1
13C2 PFDA	96		50 - 150	04/21/21 12:02	04/21/21 21:42	1
13C2 PFUnA	80		50 - 150	04/21/21 12:02	04/21/21 21:42	1
13C2 PFDoA	74		50 - 150	04/21/21 12:02	04/21/21 21:42	1
13C8 FOA	41		25 - 150	04/21/21 12:02	04/21/21 21:42	1
13C5 PFPeA	68		25 - 150	04/21/21 12:02	04/21/21 21:42	1
13C2 PFTeDA	78		50 - 150	04/21/21 12:02	04/21/21 21:42	1
d3-NMeFOSAA	96		50 - 150	04/21/21 12:02	04/21/21 21:42	1
d5-NEtFOSAA	92		50 - 150	04/21/21 12:02	04/21/21 21:42	1
M2-6:2 FTS	218	*5+	25 - 150	04/21/21 12:02	04/21/21 21:42	1
M2-8:2 FTS	235	*5+	25 - 150	04/21/21 12:02	04/21/21 21:42	1
13C3 PFBS	50		50 - 150	04/21/21 12:02	04/21/21 21:42	1

Client Sample ID: 4009-30

Date Collected: 04/12/21 11:55

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.0		1.0	0.82	ug/L			04/16/21 14:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/16/21 14:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/16/21 14:23	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/21 14:23	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/21 14:23	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/21 14:23	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/16/21 14:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/21 14:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/21 14:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/16/21 14:23	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/16/21 14:23	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/21 14:23	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/21 14:23	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/21 14:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/21 14:23	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/21 14:23	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/21 14:23	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/16/21 14:23	1
2-Hexanone	ND		5.0	1.2	ug/L			04/16/21 14:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/16/21 14:23	1
Acetone	ND		10	3.0	ug/L			04/16/21 14:23	1
Benzene	ND		1.0	0.41	ug/L			04/16/21 14:23	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/16/21 14:23	1
Bromoform	ND		1.0	0.26	ug/L			04/16/21 14:23	1
Bromomethane	ND	*1	1.0	0.69	ug/L			04/16/21 14:23	1
Carbon disulfide	ND	*1	1.0	0.19	ug/L			04/16/21 14:23	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/16/21 14:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/21 14:23	1
Chloroethane	ND		1.0	0.32	ug/L			04/16/21 14:23	1
Chloroform	ND		1.0	0.34	ug/L			04/16/21 14:23	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-30

Lab Sample ID: 480-183361-8

Date Collected: 04/12/21 11:55

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	*1	1.0	0.35	ug/L			04/16/21 14:23	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/16/21 14:23	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/16/21 14:23	1
Cyclohexane	ND		1.0	0.18	ug/L			04/16/21 14:23	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/16/21 14:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/16/21 14:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/21 14:23	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/16/21 14:23	1
Methyl acetate	ND		2.5	1.3	ug/L			04/16/21 14:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/16/21 14:23	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/16/21 14:23	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/21 14:23	1
Styrene	ND		1.0	0.73	ug/L			04/16/21 14:23	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/21 14:23	1
Toluene	ND		1.0	0.51	ug/L			04/16/21 14:23	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/16/21 14:23	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/16/21 14:23	1
Trichloroethene	ND		1.0	0.46	ug/L			04/16/21 14:23	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/16/21 14:23	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/16/21 14:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/16/21 14:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		04/16/21 14:23	1
4-Bromofluorobenzene (Surr)	98		73 - 120		04/16/21 14:23	1
Dibromofluoromethane (Surr)	90		75 - 123		04/16/21 14:23	1
Toluene-d8 (Surr)	102		80 - 120		04/16/21 14:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.12	J	0.19	0.095	ug/L		04/16/21 08:41	04/19/21 20:16	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110				04/16/21 08:41	04/19/21 20:16	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.1	J B	4.2	0.75	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.40	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.38	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.20	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorooctanoic acid (PFOA)	0.74	J B	1.7	0.36	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.24	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.29	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.32	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.53	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorobutanesulfonic acid (PFBS)	0.57	J B	1.7	0.21	ng/L		04/21/21 12:02	04/21/21 21:51	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-30

Date Collected: 04/12/21 11:55

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	0.78	J B	1.7	0.25	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorooctanesulfonic acid (PFOS)	0.41	J B	1.7	0.25	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 21:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.49	ng/L		04/21/21 12:02	04/21/21 21:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.76	ng/L		04/21/21 12:02	04/21/21 21:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.63	ng/L		04/21/21 12:02	04/21/21 21:51	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.2	0.92	ng/L		04/21/21 12:02	04/21/21 21:51	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.33	ng/L		04/21/21 12:02	04/21/21 21:51	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	76		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C4 PFHpA	87		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C4 PFOA	91		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C4 PFOS	77		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C5 PFNA	96		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C4 PFBA	66		25 - 150				04/21/21 12:02	04/21/21 21:51	1
13C2 PFHxA	85		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C2 PFDA	86		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C2 PFUnA	81		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C2 PFDoA	77		50 - 150				04/21/21 12:02	04/21/21 21:51	1
13C8 FOSA	72		25 - 150				04/21/21 12:02	04/21/21 21:51	1
13C5 PFPeA	89		25 - 150				04/21/21 12:02	04/21/21 21:51	1
13C2 PFTeDA	87		50 - 150				04/21/21 12:02	04/21/21 21:51	1
d3-NMeFOSAA	75		50 - 150				04/21/21 12:02	04/21/21 21:51	1
d5-NEtFOSAA	78		50 - 150				04/21/21 12:02	04/21/21 21:51	1
M2-6:2 FTS	97		25 - 150				04/21/21 12:02	04/21/21 21:51	1
M2-8:2 FTS	97		25 - 150				04/21/21 12:02	04/21/21 21:51	1
13C3 PFBS	78		50 - 150				04/21/21 12:02	04/21/21 21:51	1

Client Sample ID: 4009-13

Date Collected: 04/12/21 16:25

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/16/21 14:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/16/21 14:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/16/21 14:46	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/21 14:46	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/21 14:46	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/21 14:46	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/16/21 14:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/21 14:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/21 14:46	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-13

Lab Sample ID: 480-183361-9

Date Collected: 04/12/21 16:25

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/16/21 14:46	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/16/21 14:46	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/21 14:46	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/21 14:46	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/21 14:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/21 14:46	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/21 14:46	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/21 14:46	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/16/21 14:46	1
2-Hexanone	ND		5.0	1.2	ug/L			04/16/21 14:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/16/21 14:46	1
Acetone	ND		10	3.0	ug/L			04/16/21 14:46	1
Benzene	ND		1.0	0.41	ug/L			04/16/21 14:46	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/16/21 14:46	1
Bromoform	ND		1.0	0.26	ug/L			04/16/21 14:46	1
Bromomethane	ND	*1	1.0	0.69	ug/L			04/16/21 14:46	1
Carbon disulfide	ND	*1	1.0	0.19	ug/L			04/16/21 14:46	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/16/21 14:46	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/21 14:46	1
Chloroethane	ND		1.0	0.32	ug/L			04/16/21 14:46	1
Chloroform	ND		1.0	0.34	ug/L			04/16/21 14:46	1
Chloromethane	ND	*1	1.0	0.35	ug/L			04/16/21 14:46	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/16/21 14:46	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/16/21 14:46	1
Cyclohexane	ND		1.0	0.18	ug/L			04/16/21 14:46	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/16/21 14:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/16/21 14:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/21 14:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/16/21 14:46	1
Methyl acetate	ND		2.5	1.3	ug/L			04/16/21 14:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/16/21 14:46	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/16/21 14:46	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/21 14:46	1
Styrene	ND		1.0	0.73	ug/L			04/16/21 14:46	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/21 14:46	1
Toluene	ND		1.0	0.51	ug/L			04/16/21 14:46	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/16/21 14:46	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/16/21 14:46	1
Trichloroethene	ND		1.0	0.46	ug/L			04/16/21 14:46	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/16/21 14:46	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/16/21 14:46	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/16/21 14:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 120		04/16/21 14:46	1
4-Bromofluorobenzene (Surr)	95		73 - 120		04/16/21 14:46	1
Dibromofluoromethane (Surr)	86		75 - 123		04/16/21 14:46	1
Toluene-d8 (Surr)	102		80 - 120		04/16/21 14:46	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-13

Lab Sample ID: 480-183361-9

Date Collected: 04/12/21 16:25

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		04/16/21 08:41	04/19/21 20:40	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	29		15 - 110				04/16/21 08:41	04/19/21 20:40	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.4	J B	4.2	0.74	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluoropentanoic acid (PFPeA)	1.3	J	1.7	0.39	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorohexanoic acid (PFHxA)	1.3	J B	1.7	0.38	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluoroheptanoic acid (PFHpA)	1.4	J B	1.7	0.20	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorooctanoic acid (PFOA)	2.6	B	1.7	0.35	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorononanoic acid (PFNA)	0.94	J B	1.7	0.23	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.25	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.29	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.32	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.52	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorobutanesulfonic acid (PFBS)	0.91	J B	1.7	0.21	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorohexanesulfonic acid (PFHxS)	0.60	J B	1.7	0.25	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.19	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorooctanesulfonic acid (PFOS)	3.8	B	1.7	0.24	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.25	ng/L		04/21/21 12:02	04/21/21 21:59	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48	ng/L		04/21/21 12:02	04/21/21 21:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.75	ng/L		04/21/21 12:02	04/21/21 21:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.62	ng/L		04/21/21 12:02	04/21/21 21:59	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.2	0.91	ng/L		04/21/21 12:02	04/21/21 21:59	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.32	ng/L		04/21/21 12:02	04/21/21 21:59	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	79		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C4 PFHpA	90		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C4 PFOA	92		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C4 PFOS	83		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C5 PFNA	98		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C4 PFBA	82		25 - 150				04/21/21 12:02	04/21/21 21:59	1
13C2 PFHxA	89		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C2 PFDA	87		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C2 PFUnA	85		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C2 PFDoA	83		50 - 150				04/21/21 12:02	04/21/21 21:59	1
13C8 FOSA	81		25 - 150				04/21/21 12:02	04/21/21 21:59	1
13C5 PFPeA	88		25 - 150				04/21/21 12:02	04/21/21 21:59	1
13C2 PFTeDA	72		50 - 150				04/21/21 12:02	04/21/21 21:59	1
d3-NMeFOSAA	78		50 - 150				04/21/21 12:02	04/21/21 21:59	1
d5-NEtFOSAA	77		50 - 150				04/21/21 12:02	04/21/21 21:59	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-13

Date Collected: 04/12/21 16:25

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-9

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	108		25 - 150	04/21/21 12:02	04/21/21 21:59	1
M2-8:2 FTS	104		25 - 150	04/21/21 12:02	04/21/21 21:59	1
13C3 PFBS	77		50 - 150	04/21/21 12:02	04/21/21 21:59	1

Client Sample ID: 4009-14

Date Collected: 04/12/21 14:00

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/16/21 15:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/16/21 15:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/16/21 15:08	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/21 15:08	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/21 15:08	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/21 15:08	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/16/21 15:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/21 15:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/21 15:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/16/21 15:08	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/16/21 15:08	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/21 15:08	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/21 15:08	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/21 15:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/21 15:08	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/21 15:08	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/21 15:08	1
2-Butanone (MEK)	ND	+	10	1.3	ug/L			04/16/21 15:08	1
2-Hexanone	ND		5.0	1.2	ug/L			04/16/21 15:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/16/21 15:08	1
Acetone	ND		10	3.0	ug/L			04/16/21 15:08	1
Benzene	ND		1.0	0.41	ug/L			04/16/21 15:08	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/16/21 15:08	1
Bromoform	ND		1.0	0.26	ug/L			04/16/21 15:08	1
Bromomethane	ND	*1	1.0	0.69	ug/L			04/16/21 15:08	1
Carbon disulfide	ND	*1	1.0	0.19	ug/L			04/16/21 15:08	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/16/21 15:08	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/21 15:08	1
Chloroethane	ND		1.0	0.32	ug/L			04/16/21 15:08	1
Chloroform	ND		1.0	0.34	ug/L			04/16/21 15:08	1
Chloromethane	ND	*1	1.0	0.35	ug/L			04/16/21 15:08	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/16/21 15:08	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/16/21 15:08	1
Cyclohexane	ND		1.0	0.18	ug/L			04/16/21 15:08	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/16/21 15:08	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/16/21 15:08	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/21 15:08	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/16/21 15:08	1
Methyl acetate	ND		2.5	1.3	ug/L			04/16/21 15:08	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/16/21 15:08	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-14

Lab Sample ID: 480-183361-10

Date Collected: 04/12/21 14:00

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			04/16/21 15:08	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/21 15:08	1
Styrene	ND		1.0	0.73	ug/L			04/16/21 15:08	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/21 15:08	1
Toluene	ND		1.0	0.51	ug/L			04/16/21 15:08	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/16/21 15:08	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/16/21 15:08	1
Trichloroethene	ND		1.0	0.46	ug/L			04/16/21 15:08	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/16/21 15:08	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/16/21 15:08	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/16/21 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 120		04/16/21 15:08	1
4-Bromofluorobenzene (Surr)	96		73 - 120		04/16/21 15:08	1
Dibromofluoromethane (Surr)	93		75 - 123		04/16/21 15:08	1
Toluene-d8 (Surr)	106		80 - 120		04/16/21 15:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		04/16/21 08:41	04/19/21 21:04	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110				04/16/21 08:41	04/19/21 21:04	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.3	J B	4.0	0.72	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluoropentanoic acid (PFPeA)	1.7		1.6	0.38	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorohexanoic acid (PFHxA)	1.7	B	1.6	0.37	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluoroheptanoic acid (PFHpA)	1.0	J B	1.6	0.19	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorooctanoic acid (PFOA)	3.0	B	1.6	0.34	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorononanoic acid (PFNA)	0.38	J B	1.6	0.23	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.28	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.31	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.35	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.51	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorobutanesulfonic acid (PFBS)	3.0	B	1.6	0.20	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorohexanesulfonic acid (PFHxS)	0.63	J B	1.6	0.24	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.19	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorooctanesulfonic acid (PFOS)	5.9	B	1.6	0.24	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.25	ng/L		04/21/21 12:02	04/21/21 22:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.47	ng/L		04/21/21 12:02	04/21/21 22:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.0	0.73	ng/L		04/21/21 12:02	04/21/21 22:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.0	0.60	ng/L		04/21/21 12:02	04/21/21 22:07	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-14

Date Collected: 04/12/21 14:00

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.0	0.89	ng/L		04/21/21 12:02	04/21/21 22:07	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.6	0.32	ng/L		04/21/21 12:02	04/21/21 22:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	73		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C4 PFHpA	87		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C4 PFOA	90		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C4 PFOS	74		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C5 PFNA	95		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C4 PFBA	61		25 - 150				04/21/21 12:02	04/21/21 22:07	1
13C2 PFHxA	84		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C2 PFDA	86		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C2 PFUnA	77		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C2 PFDoA	73		50 - 150				04/21/21 12:02	04/21/21 22:07	1
13C8 FOSA	70		25 - 150				04/21/21 12:02	04/21/21 22:07	1
13C5 PFPeA	86		25 - 150				04/21/21 12:02	04/21/21 22:07	1
13C2 PFTeDA	73		50 - 150				04/21/21 12:02	04/21/21 22:07	1
d3-NMeFOSAA	73		50 - 150				04/21/21 12:02	04/21/21 22:07	1
d5-NEtFOSAA	71		50 - 150				04/21/21 12:02	04/21/21 22:07	1
M2-6:2 FTS	104		25 - 150				04/21/21 12:02	04/21/21 22:07	1
M2-8:2 FTS	102		25 - 150				04/21/21 12:02	04/21/21 22:07	1
13C3 PFBS	76		50 - 150				04/21/21 12:02	04/21/21 22:07	1

Client Sample ID: Equipment Blank 3

Date Collected: 04/12/21 08:45

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.096	ug/L		04/16/21 08:41	04/19/21 21:28	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	35		15 - 110				04/16/21 08:41	04/19/21 21:28	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.2	0.76	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.40	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorohexanoic acid (PFHxA)	0.56	J B	1.7	0.38	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.20	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.36	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.24	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.29	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.33	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.54	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.21	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 22:24	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: Equipment Blank 3

Lab Sample ID: 480-183361-11

Date Collected: 04/12/21 08:45

Matrix: Water

Date Received: 04/15/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.25	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/21/21 12:02	04/21/21 22:24	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.49	ng/L		04/21/21 12:02	04/21/21 22:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.77	ng/L		04/21/21 12:02	04/21/21 22:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.63	ng/L		04/21/21 12:02	04/21/21 22:24	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.2	0.93	ng/L		04/21/21 12:02	04/21/21 22:24	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.33	ng/L		04/21/21 12:02	04/21/21 22:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	90		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C4 PFHpA	96		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C4 PFOA	94		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C4 PFOS	90		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C5 PFNA	99		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C4 PFBA	95		25 - 150				04/21/21 12:02	04/21/21 22:24	1
13C2 PFHxA	96		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C2 PFDA	96		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C2 PFUnA	97		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C2 PFDoA	91		50 - 150				04/21/21 12:02	04/21/21 22:24	1
13C8 FOSA	79		25 - 150				04/21/21 12:02	04/21/21 22:24	1
13C5 PFPeA	96		25 - 150				04/21/21 12:02	04/21/21 22:24	1
13C2 PFTeDA	90		50 - 150				04/21/21 12:02	04/21/21 22:24	1
d3-NMeFOSAA	99		50 - 150				04/21/21 12:02	04/21/21 22:24	1
d5-NEtFOSAA	98		50 - 150				04/21/21 12:02	04/21/21 22:24	1
M2-6:2 FTS	90		25 - 150				04/21/21 12:02	04/21/21 22:24	1
M2-8:2 FTS	103		25 - 150				04/21/21 12:02	04/21/21 22:24	1
13C3 PFBS	88		50 - 150				04/21/21 12:02	04/21/21 22:24	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-183361-1	4009-7	89	99	83	103
480-183361-2	4009-8	99	101	107	110
480-183361-3	4009-26	108	111	111	97
480-183361-3 MS	4009-26	111	113	111	95
480-183361-3 MSD	4009-26	103	110	104	96
480-183361-4	4009-9	96	93	93	104
480-183361-6	4009-16A	93	94	88	103
480-183361-7	4009-22	94	95	98	103
480-183361-8	4009-30	96	98	90	102
480-183361-9	4009-13	92	95	86	102
480-183361-10	4009-14	92	96	93	106
LCS 480-576576/5	Lab Control Sample	92	93	88	103
LCS 480-577345/5	Lab Control Sample	103	114	105	99
LCSD 480-576576/6	Lab Control Sample Dup	94	95	89	105
MB 480-576576/8	Method Blank	93	97	101	105
MB 480-577345/7	Method Blank	104	112	109	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-183361-1	4009-7	31
480-183361-2	4009-8	29
480-183361-3	4009-26	31
480-183361-3 MS	4009-26	29
480-183361-3 MSD	4009-26	29
480-183361-4	4009-9	27
480-183361-5	Equipment Blank 4	34
480-183361-6	4009-16A	25
480-183361-7	4009-22	27
480-183361-8	4009-30	28
480-183361-9	4009-13	29
480-183361-10	4009-14	28
480-183361-11	Equipment Blank 3	35
LCS 480-576587/2-A	Lab Control Sample	31
MB 480-576587/1-A	Method Blank	32

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
480-183361-1	4009-7	75	79	84	81	97	42	74	95
480-183361-2	4009-8	84	87	90	79	94	66	88	87
480-183361-3	4009-26	81	93	89	85	95	73	87	85
480-183361-3 MS	4009-26	84	93	93	86	99	75	88	89
480-183361-3 MSD	4009-26	85	91	93	83	97	73	83	87
480-183361-4	4009-9	81	91	93	85	96	73	88	90
480-183361-5	Equipment Blank 4	87	95	95	84	95	98	95	90
480-183361-6	4009-16A	75	83	82	76	87	73	82	78
480-183361-7	4009-22	50	75	91	49 *5-	105	42	69	96
480-183361-8	4009-30	76	87	91	77	96	66	85	86
480-183361-9	4009-13	79	90	92	83	98	82	89	87
480-183361-10	4009-14	73	87	90	74	95	61	84	86
480-183361-11	Equipment Blank 3	90	96	94	90	99	95	96	96
LCS 200-166055/2-A	Lab Control Sample	84	98	94	86	96	96	94	92
MB 200-166055/1-A	Method Blank	80	88	90	83	94	89	91	90

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
480-183361-1	4009-7	90	95	76	63	97	95	111	118
480-183361-2	4009-8	82	79	78	79	89	81	87	96
480-183361-3	4009-26	87	81	76	82	84	82	78	94
480-183361-3 MS	4009-26	85	80	81	86	89	84	80	95
480-183361-3 MSD	4009-26	83	83	82	83	86	87	85	101
480-183361-4	4009-9	95	86	79	81	91	87	89	98
480-183361-5	Equipment Blank 4	92	84	74	97	88	92	90	90

Eurofins TestAmerica, Buffalo

Isotope Dilution Summary

Client: New York State D.E.C.

Job ID: 480-183361-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PfUnA (50-150)	PfDoA (50-150)	PfOSA (25-150)	PfPeA (25-150)	PfTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
480-183361-6	4009-16A	81	80	72	77	83	73	82	82
480-183361-7	4009-22	80	74	41	68	78	96	92	218 *5+
480-183361-8	4009-30	81	77	72	89	87	75	78	97
480-183361-9	4009-13	85	83	81	88	72	78	77	108
480-183361-10	4009-14	77	73	70	86	73	73	71	104
480-183361-11	Equipment Blank 3	97	91	79	96	90	99	98	90
LCS 200-166055/2-A	Lab Control Sample	89	90	76	98	88	90	97	87
MB 200-166055/1-A	Method Blank	88	87	77	89	82	94	89	89

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M282FTS (25-150)	C3PFBS (50-150)
480-183361-1	4009-7	121	71
480-183361-2	4009-8	93	80
480-183361-3	4009-26	92	81
480-183361-3 MS	4009-26	101	86
480-183361-3 MSD	4009-26	98	86
480-183361-4	4009-9	97	84
480-183361-5	Equipment Blank 4	94	84
480-183361-6	4009-16A	89	77
480-183361-7	4009-22	235 *5+	50
480-183361-8	4009-30	97	78
480-183361-9	4009-13	104	77
480-183361-10	4009-14	102	76
480-183361-11	Equipment Blank 3	103	88
LCS 200-166055/2-A	Lab Control Sample	106	90
MB 200-166055/1-A	Method Blank	94	81

Surrogate Legend

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

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: MB 480-576576/8

Matrix: Water

Analysis Batch: 576576

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/16/21 11:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/16/21 11:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/16/21 11:57	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/21 11:57	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/21 11:57	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/21 11:57	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/16/21 11:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/21 11:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/21 11:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/16/21 11:57	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/16/21 11:57	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/21 11:57	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/21 11:57	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/21 11:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/21 11:57	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/21 11:57	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/21 11:57	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/16/21 11:57	1
2-Hexanone	ND		5.0	1.2	ug/L			04/16/21 11:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/16/21 11:57	1
Acetone	ND		10	3.0	ug/L			04/16/21 11:57	1
Benzene	ND		1.0	0.41	ug/L			04/16/21 11:57	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/16/21 11:57	1
Bromoform	ND		1.0	0.26	ug/L			04/16/21 11:57	1
Bromomethane	ND		1.0	0.69	ug/L			04/16/21 11:57	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/16/21 11:57	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/16/21 11:57	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/21 11:57	1
Chloroethane	ND		1.0	0.32	ug/L			04/16/21 11:57	1
Chloroform	ND		1.0	0.34	ug/L			04/16/21 11:57	1
Chloromethane	ND		1.0	0.35	ug/L			04/16/21 11:57	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/16/21 11:57	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/16/21 11:57	1
Cyclohexane	ND		1.0	0.18	ug/L			04/16/21 11:57	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/16/21 11:57	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/16/21 11:57	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/21 11:57	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/16/21 11:57	1
Methyl acetate	ND		2.5	1.3	ug/L			04/16/21 11:57	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/16/21 11:57	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/16/21 11:57	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/21 11:57	1
Styrene	ND		1.0	0.73	ug/L			04/16/21 11:57	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/21 11:57	1
Toluene	ND		1.0	0.51	ug/L			04/16/21 11:57	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/16/21 11:57	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/16/21 11:57	1
Trichloroethene	ND		1.0	0.46	ug/L			04/16/21 11:57	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: MB 480-576576/8

Matrix: Water

Analysis Batch: 576576

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/16/21 11:57	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/16/21 11:57	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/16/21 11:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 120					04/16/21 11:57	1
4-Bromofluorobenzene (Surr)	97		73 - 120					04/16/21 11:57	1
Dibromofluoromethane (Surr)	101		75 - 123					04/16/21 11:57	1
Toluene-d8 (Surr)	105		80 - 120					04/16/21 11:57	1

Lab Sample ID: LCS 480-576576/5

Matrix: Water

Analysis Batch: 576576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	21.7		ug/L		87	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.8		ug/L		107	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.6		ug/L		94	61 - 148
1,1,2-Trichloroethane	25.0	27.5		ug/L		110	76 - 122
1,1-Dichloroethane	25.0	24.7		ug/L		99	77 - 120
1,1-Dichloroethene	25.0	21.6		ug/L		87	66 - 127
1,2,3-Trimethylbenzene	25.0	28.2		ug/L		113	78 - 120
1,2,4-Trichlorobenzene	25.0	24.4		ug/L		98	79 - 122
1,2,4-Trimethylbenzene	25.0	26.4		ug/L		106	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	26.2		ug/L		105	56 - 134
1,2-Dibromoethane	25.0	25.5		ug/L		102	77 - 120
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	21.9		ug/L		88	75 - 120
1,2-Dichloropropane	25.0	26.0		ug/L		104	76 - 120
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		104	77 - 121
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	77 - 120
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	80 - 120
2-Butanone (MEK)	125	238	*+	ug/L		191	57 - 140
2-Hexanone	125	140		ug/L		112	65 - 127
4-Methyl-2-pentanone (MIBK)	125	138		ug/L		111	71 - 125
Acetone	125	114		ug/L		91	56 - 142
Benzene	25.0	23.7		ug/L		95	71 - 124
Bromodichloromethane	25.0	25.0		ug/L		100	80 - 122
Bromoform	25.0	24.4		ug/L		98	61 - 132
Bromomethane	25.0	18.2		ug/L		73	55 - 144
Carbon disulfide	25.0	23.4		ug/L		94	59 - 134
Carbon tetrachloride	25.0	21.8		ug/L		87	72 - 134
Chlorobenzene	25.0	25.7		ug/L		103	80 - 120
Chloroethane	25.0	19.7		ug/L		79	69 - 136
Chloroform	25.0	23.0		ug/L		92	73 - 127
Chloromethane	25.0	23.1		ug/L		92	68 - 124
cis-1,2-Dichloroethene	25.0	22.5		ug/L		90	74 - 124
cis-1,3-Dichloropropene	25.0	27.6		ug/L		111	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: LCS 480-576576/5

Matrix: Water

Analysis Batch: 576576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	26.8		ug/L		107	59 - 135
Dibromochloromethane	25.0	25.9		ug/L		104	75 - 125
Dichlorodifluoromethane	25.0	18.4		ug/L		73	59 - 135
Ethylbenzene	25.0	25.7		ug/L		103	77 - 123
Isopropylbenzene	25.0	26.5		ug/L		106	77 - 122
Methyl acetate	50.0	50.8		ug/L		102	74 - 133
Methyl tert-butyl ether	25.0	22.5		ug/L		90	77 - 120
Methylcyclohexane	25.0	25.5		ug/L		102	68 - 134
Methylene Chloride	25.0	24.8		ug/L		99	75 - 124
Styrene	25.0	26.1		ug/L		104	80 - 120
Tetrachloroethene	25.0	25.7		ug/L		103	74 - 122
Toluene	25.0	26.1		ug/L		104	80 - 122
trans-1,2-Dichloroethene	25.0	22.3		ug/L		89	73 - 127
trans-1,3-Dichloropropene	25.0	26.1		ug/L		105	80 - 120
Trichloroethene	25.0	24.5		ug/L		98	74 - 123
Trichlorofluoromethane	25.0	19.4		ug/L		78	62 - 150
Vinyl chloride	25.0	20.5		ug/L		82	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		77 - 120
4-Bromofluorobenzene (Surr)	93		73 - 120
Dibromofluoromethane (Surr)	88		75 - 123
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: LCSD 480-576576/6

Matrix: Water

Analysis Batch: 576576

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	18.9		ug/L		76	73 - 126	14	15
1,1,2,2-Tetrachloroethane	25.0	25.6		ug/L		102	76 - 120	5	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	19.6		ug/L		79	61 - 148	18	20
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	76 - 122	8	15
1,1-Dichloroethane	25.0	21.5		ug/L		86	77 - 120	14	20
1,1-Dichloroethene	25.0	18.7		ug/L		75	66 - 127	15	16
1,2,3-Trimethylbenzene	25.0	26.7		ug/L		107	78 - 120	6	20
1,2,4-Trichlorobenzene	25.0	22.3		ug/L		89	79 - 122	9	20
1,2,4-Trimethylbenzene	25.0	23.8		ug/L		95	76 - 121	10	20
1,2-Dibromo-3-Chloropropane	25.0	25.4		ug/L		102	56 - 134	3	15
1,2-Dibromoethane	25.0	23.8		ug/L		95	77 - 120	7	15
1,2-Dichlorobenzene	25.0	22.7		ug/L		91	80 - 124	6	20
1,2-Dichloroethane	25.0	20.3		ug/L		81	75 - 120	7	20
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120	8	20
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		93	77 - 121	10	20
1,3-Dichlorobenzene	25.0	23.6		ug/L		95	77 - 120	6	20
1,4-Dichlorobenzene	25.0	23.1		ug/L		92	80 - 120	6	20
2-Butanone (MEK)	125	220	+	ug/L		176	57 - 140	8	20
2-Hexanone	125	131		ug/L		105	65 - 127	7	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: LCSD 480-576576/6

Matrix: Water

Analysis Batch: 576576

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	125	127		ug/L		101	71 - 125	9	35
Acetone	125	97.8		ug/L		78	56 - 142	15	15
Benzene	25.0	21.5		ug/L		86	71 - 124	10	13
Bromodichloromethane	25.0	22.3		ug/L		89	80 - 122	11	15
Bromoform	25.0	23.7		ug/L		95	61 - 132	3	15
Bromomethane	25.0	15.1	*1	ug/L		60	55 - 144	19	15
Carbon disulfide	25.0	19.5	*1	ug/L		78	59 - 134	18	15
Carbon tetrachloride	25.0	18.6	*1	ug/L		74	72 - 134	16	15
Chlorobenzene	25.0	23.3		ug/L		93	80 - 120	10	25
Chloroethane	25.0	17.3		ug/L		69	69 - 136	13	15
Chloroform	25.0	19.7		ug/L		79	73 - 127	16	20
Chloromethane	25.0	19.7	*1	ug/L		79	68 - 124	16	15
cis-1,2-Dichloroethene	25.0	19.7		ug/L		79	74 - 124	13	15
cis-1,3-Dichloropropene	25.0	25.5		ug/L		102	74 - 124	8	15
Cyclohexane	25.0	22.7		ug/L		91	59 - 135	17	20
Dibromochloromethane	25.0	23.6		ug/L		94	75 - 125	10	15
Dichlorodifluoromethane	25.0	15.6		ug/L		63	59 - 135	16	20
Ethylbenzene	25.0	23.2		ug/L		93	77 - 123	10	15
Isopropylbenzene	25.0	24.0		ug/L		96	77 - 122	10	20
Methyl acetate	50.0	43.8		ug/L		88	74 - 133	15	20
Methyl tert-butyl ether	25.0	20.0		ug/L		80	77 - 120	12	37
Methylcyclohexane	25.0	21.4		ug/L		85	68 - 134	18	20
Methylene Chloride	25.0	21.9		ug/L		88	75 - 124	12	15
Styrene	25.0	24.0		ug/L		96	80 - 120	8	20
Tetrachloroethene	25.0	23.2		ug/L		93	74 - 122	10	20
Toluene	25.0	23.6		ug/L		94	80 - 122	10	15
trans-1,2-Dichloroethene	25.0	19.1		ug/L		76	73 - 127	15	20
trans-1,3-Dichloropropene	25.0	25.4		ug/L		101	80 - 120	3	15
Trichloroethene	25.0	21.0		ug/L		84	74 - 123	15	16
Trichlorofluoromethane	25.0	16.0		ug/L		64	62 - 150	19	20
Vinyl chloride	25.0	17.4	*1	ug/L		70	65 - 133	16	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		77 - 120
4-Bromofluorobenzene (Surr)	95		73 - 120
Dibromofluoromethane (Surr)	89		75 - 123
Toluene-d8 (Surr)	105		80 - 120

Lab Sample ID: MB 480-577345/7

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/22/21 12:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/22/21 12:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/22/21 12:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/22/21 12:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/22/21 12:03	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: MB 480-577345/7

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/22/21 12:03	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/22/21 12:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/22/21 12:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/22/21 12:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/22/21 12:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/22/21 12:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/22/21 12:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/22/21 12:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/22/21 12:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/22/21 12:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/22/21 12:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/22/21 12:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/22/21 12:03	1
2-Hexanone	ND		5.0	1.2	ug/L			04/22/21 12:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/22/21 12:03	1
Acetone	ND		10	3.0	ug/L			04/22/21 12:03	1
Benzene	ND		1.0	0.41	ug/L			04/22/21 12:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/22/21 12:03	1
Bromoform	ND		1.0	0.26	ug/L			04/22/21 12:03	1
Bromomethane	ND		1.0	0.69	ug/L			04/22/21 12:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/22/21 12:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/22/21 12:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/22/21 12:03	1
Chloroethane	ND		1.0	0.32	ug/L			04/22/21 12:03	1
Chloroform	ND		1.0	0.34	ug/L			04/22/21 12:03	1
Chloromethane	ND		1.0	0.35	ug/L			04/22/21 12:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/22/21 12:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/22/21 12:03	1
Cyclohexane	ND		1.0	0.18	ug/L			04/22/21 12:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/22/21 12:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/22/21 12:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/22/21 12:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/22/21 12:03	1
Methyl acetate	ND		2.5	1.3	ug/L			04/22/21 12:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/22/21 12:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/22/21 12:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/22/21 12:03	1
Styrene	ND		1.0	0.73	ug/L			04/22/21 12:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/22/21 12:03	1
Toluene	ND		1.0	0.51	ug/L			04/22/21 12:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/22/21 12:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/22/21 12:03	1
Trichloroethene	ND		1.0	0.46	ug/L			04/22/21 12:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/22/21 12:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/22/21 12:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/22/21 12:03	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: MB 480-577345/7

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/22/21 12:03	1
4-Bromofluorobenzene (Surr)	112		73 - 120		04/22/21 12:03	1
Dibromofluoromethane (Surr)	109		75 - 123		04/22/21 12:03	1
Toluene-d8 (Surr)	96		80 - 120		04/22/21 12:03	1

Lab Sample ID: LCS 480-577345/5

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	24.3		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	25.0	21.9		ug/L		88	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.5		ug/L		98	61 - 148
1,1,2-Trichloroethane	25.0	24.5		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	23.7		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	24.8		ug/L		99	66 - 127
1,2,3-Trimethylbenzene	25.0	25.0		ug/L		100	78 - 120
1,2,4-Trichlorobenzene	25.0	25.0		ug/L		100	79 - 122
1,2,4-Trimethylbenzene	25.0	21.7		ug/L		87	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	19.2		ug/L		77	56 - 134
1,2-Dibromoethane	25.0	26.0		ug/L		104	77 - 120
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	80 - 124
1,2-Dichloroethane	25.0	25.1		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	25.7		ug/L		103	76 - 120
1,3,5-Trimethylbenzene	25.0	21.7		ug/L		87	77 - 121
1,3-Dichlorobenzene	25.0	24.1		ug/L		96	77 - 120
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	80 - 120
2-Butanone (MEK)	125	155		ug/L		124	57 - 140
2-Hexanone	125	137		ug/L		109	65 - 127
4-Methyl-2-pentanone (MIBK)	125	119		ug/L		95	71 - 125
Acetone	125	160		ug/L		128	56 - 142
Benzene	25.0	23.6		ug/L		95	71 - 124
Bromodichloromethane	25.0	24.7		ug/L		99	80 - 122
Bromoform	25.0	28.9		ug/L		116	61 - 132
Bromomethane	25.0	25.3		ug/L		101	55 - 144
Carbon disulfide	25.0	23.5		ug/L		94	59 - 134
Carbon tetrachloride	25.0	23.8		ug/L		95	72 - 134
Chlorobenzene	25.0	25.3		ug/L		101	80 - 120
Chloroethane	25.0	24.4		ug/L		98	69 - 136
Chloroform	25.0	24.4		ug/L		98	73 - 127
Chloromethane	25.0	25.5		ug/L		102	68 - 124
cis-1,2-Dichloroethene	25.0	23.9		ug/L		96	74 - 124
cis-1,3-Dichloropropene	25.0	25.2		ug/L		101	74 - 124
Cyclohexane	25.0	20.2		ug/L		81	59 - 135
Dibromochloromethane	25.0	26.7		ug/L		107	75 - 125
Dichlorodifluoromethane	25.0	19.8		ug/L		79	59 - 135
Ethylbenzene	25.0	23.0		ug/L		92	77 - 123
Isopropylbenzene	25.0	20.8		ug/L		83	77 - 122

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: LCS 480-577345/5

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	50.0	53.5		ug/L		107	74 - 133
Methyl tert-butyl ether	25.0	23.5		ug/L		94	77 - 120
Methylcyclohexane	25.0	20.2		ug/L		81	68 - 134
Methylene Chloride	25.0	23.5		ug/L		94	75 - 124
Styrene	25.0	23.8		ug/L		95	80 - 120
Tetrachloroethene	25.0	27.7		ug/L		111	74 - 122
Toluene	25.0	24.1		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	24.1		ug/L		96	73 - 127
trans-1,3-Dichloropropene	25.0	24.3		ug/L		97	80 - 120
Trichloroethene	25.0	25.2		ug/L		101	74 - 123
Trichlorofluoromethane	25.0	25.7		ug/L		103	62 - 150
Vinyl chloride	25.0	22.1		ug/L		88	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	114		73 - 120
Dibromofluoromethane (Surr)	105		75 - 123
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: 480-183361-3 MS

Matrix: Water

Analysis Batch: 577345

Client Sample ID: 4009-26

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	210		125	329		ug/L		95	73 - 126
1,1,2,2-Tetrachloroethane	ND		125	110		ug/L		88	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	10		125	141		ug/L		105	61 - 148
1,1,2-Trichloroethane	ND		125	122		ug/L		97	76 - 122
1,1-Dichloroethane	44		125	167		ug/L		99	77 - 120
1,1-Dichloroethene	11		125	137		ug/L		101	66 - 127
1,2,3-Trimethylbenzene	ND		125	125		ug/L		100	78 - 120
1,2,4-Trichlorobenzene	ND		125	133		ug/L		107	79 - 122
1,2,4-Trimethylbenzene	ND		125	114		ug/L		92	76 - 121
1,2-Dibromo-3-Chloropropane	ND		125	108		ug/L		87	56 - 134
1,2-Dibromoethane	ND		125	123		ug/L		99	77 - 120
1,2-Dichlorobenzene	ND		125	130		ug/L		104	80 - 124
1,2-Dichloroethane	ND		125	138		ug/L		110	75 - 120
1,2-Dichloropropane	ND		125	133		ug/L		107	76 - 120
1,3,5-Trimethylbenzene	ND		125	113		ug/L		90	77 - 121
1,3-Dichlorobenzene	ND		125	132		ug/L		106	77 - 120
1,4-Dichlorobenzene	ND		125	130		ug/L		104	78 - 124
2-Butanone (MEK)	ND F1		625	1260 F1		ug/L		202	57 - 140
2-Hexanone	ND		625	664		ug/L		106	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		625	580		ug/L		93	71 - 125
Acetone	ND		625	644		ug/L		103	56 - 142
Benzene	ND		125	131		ug/L		105	71 - 124
Bromodichloromethane	ND		125	131		ug/L		105	80 - 122
Bromoform	ND		125	139		ug/L		112	61 - 132

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: 480-183361-3 MS

Matrix: Water

Analysis Batch: 577345

Client Sample ID: 4009-26

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	ND		125	131		ug/L		105	55 - 144
Carbon disulfide	ND		125	106		ug/L		85	59 - 134
Carbon tetrachloride	ND		125	142		ug/L		114	72 - 134
Chlorobenzene	ND		125	126		ug/L		101	80 - 120
Chloroethane	ND		125	133		ug/L		107	69 - 136
Chloroform	ND		125	129		ug/L		103	73 - 127
Chloromethane	ND		125	143		ug/L		114	68 - 124
cis-1,2-Dichloroethene	150		125	267		ug/L		91	74 - 124
cis-1,3-Dichloropropene	ND		125	123		ug/L		98	74 - 124
Cyclohexane	ND		125	128		ug/L		103	59 - 135
Dibromochloromethane	ND		125	133		ug/L		107	75 - 125
Dichlorodifluoromethane	ND		125	117		ug/L		93	59 - 135
Ethylbenzene	ND		125	118		ug/L		94	77 - 123
Isopropylbenzene	ND		125	112		ug/L		89	77 - 122
Methyl acetate	ND		250	276		ug/L		110	74 - 133
Methyl tert-butyl ether	ND		125	118		ug/L		95	77 - 120
Methylcyclohexane	ND		125	126		ug/L		101	68 - 134
Methylene Chloride	7.0		125	128		ug/L		97	75 - 124
Styrene	ND		125	119		ug/L		95	80 - 120
Tetrachloroethene	ND		125	151		ug/L		121	74 - 122
Toluene	ND		125	121		ug/L		97	80 - 122
trans-1,2-Dichloroethene	ND		125	131		ug/L		105	73 - 127
trans-1,3-Dichloropropene	ND		125	116		ug/L		93	80 - 120
Trichloroethene	150		125	265		ug/L		94	74 - 123
Trichlorofluoromethane	ND		125	160		ug/L		128	62 - 150
Vinyl chloride	10		125	139		ug/L		103	65 - 133

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		77 - 120
4-Bromofluorobenzene (Surr)	113		73 - 120
Dibromofluoromethane (Surr)	111		75 - 123
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: 480-183361-3 MSD

Matrix: Water

Analysis Batch: 577345

Client Sample ID: 4009-26

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	210		125	303		ug/L		74	73 - 126	8	15
1,1,2,2-Tetrachloroethane	ND		125	112		ug/L		90	76 - 120	2	15
1,1,2-Trichloro-1,2,2-trifluoroethane	10		125	125		ug/L		92	61 - 148	12	20
1,1,2-Trichloroethane	ND		125	121		ug/L		97	76 - 122	1	15
1,1-Dichloroethane	44		125	160		ug/L		93	77 - 120	4	20
1,1-Dichloroethene	11		125	127		ug/L		93	66 - 127	8	16
1,2,3-Trimethylbenzene	ND		125	126		ug/L		100	78 - 120	1	20
1,2,4-Trichlorobenzene	ND		125	131		ug/L		105	79 - 122	2	20
1,2,4-Trimethylbenzene	ND		125	116		ug/L		93	76 - 121	1	20
1,2-Dibromo-3-Chloropropane	ND		125	110		ug/L		88	56 - 134	1	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: 480-183361-3 MSD

Matrix: Water

Analysis Batch: 577345

Client Sample ID: 4009-26

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		125	126		ug/L		101	77 - 120	2	15
1,2-Dichlorobenzene	ND		125	128		ug/L		103	80 - 124	1	20
1,2-Dichloroethane	ND		125	126		ug/L		101	75 - 120	9	20
1,2-Dichloropropane	ND		125	128		ug/L		102	76 - 120	5	20
1,3,5-Trimethylbenzene	ND		125	112		ug/L		90	77 - 121	0	20
1,3-Dichlorobenzene	ND		125	132		ug/L		105	77 - 120	0	20
1,4-Dichlorobenzene	ND		125	126		ug/L		101	78 - 124	3	20
2-Butanone (MEK)	ND	F1	625	1240	F1	ug/L		198	57 - 140	2	20
2-Hexanone	ND		625	679		ug/L		109	65 - 127	2	15
4-Methyl-2-pentanone (MIBK)	ND		625	597		ug/L		96	71 - 125	3	35
Acetone	ND		625	640		ug/L		102	56 - 142	1	15
Benzene	ND		125	122		ug/L		98	71 - 124	7	13
Bromodichloromethane	ND		125	123		ug/L		98	80 - 122	7	15
Bromoform	ND		125	137		ug/L		110	61 - 132	2	15
Bromomethane	ND		125	121		ug/L		97	55 - 144	8	15
Carbon disulfide	ND		125	97.9		ug/L		78	59 - 134	8	15
Carbon tetrachloride	ND		125	135		ug/L		108	72 - 134	6	15
Chlorobenzene	ND		125	124		ug/L		99	80 - 120	2	25
Chloroethane	ND		125	125		ug/L		100	69 - 136	6	15
Chloroform	ND		125	124		ug/L		99	73 - 127	5	20
Chloromethane	ND		125	127		ug/L		101	68 - 124	12	15
cis-1,2-Dichloroethene	150		125	256		ug/L		82	74 - 124	4	15
cis-1,3-Dichloropropene	ND		125	119		ug/L		95	74 - 124	3	15
Cyclohexane	ND		125	119		ug/L		96	59 - 135	7	20
Dibromochloromethane	ND		125	128		ug/L		102	75 - 125	4	15
Dichlorodifluoromethane	ND		125	99.3		ug/L		79	59 - 135	16	20
Ethylbenzene	ND		125	118		ug/L		94	77 - 123	0	15
Isopropylbenzene	ND		125	114		ug/L		91	77 - 122	2	20
Methyl acetate	ND		250	270		ug/L		108	74 - 133	2	20
Methyl tert-butyl ether	ND		125	116		ug/L		93	77 - 120	2	37
Methylcyclohexane	ND		125	120		ug/L		96	68 - 134	5	20
Methylene Chloride	7.0		125	119		ug/L		89	75 - 124	8	15
Styrene	ND		125	119		ug/L		96	80 - 120	0	20
Tetrachloroethene	ND		125	141		ug/L		113	74 - 122	7	20
Toluene	ND		125	122		ug/L		98	80 - 122	1	15
trans-1,2-Dichloroethene	ND		125	124		ug/L		99	73 - 127	6	20
trans-1,3-Dichloropropene	ND		125	118		ug/L		95	80 - 120	2	15
Trichloroethene	150		125	252		ug/L		84	74 - 123	5	16
Trichlorofluoromethane	ND		125	141		ug/L		113	62 - 150	12	20
Vinyl chloride	10		125	140		ug/L		104	65 - 133	0	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	110		73 - 120
Dibromofluoromethane (Surr)	104		75 - 123
Toluene-d8 (Surr)	96		80 - 120

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: MB 480-576587/1-A

Matrix: Water

Analysis Batch: 576897

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 576587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/16/21 08:41	04/19/21 15:32	1
Isotope Dilution	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	32		15 - 110				04/16/21 08:41	04/19/21 15:32	1

Lab Sample ID: LCS 480-576587/2-A

Matrix: Water

Analysis Batch: 576897

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 576587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	1.00	1.04		ug/L		104	40 - 140
Isotope Dilution	%Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8	31		15 - 110				

Lab Sample ID: 480-183361-3 MS

Matrix: Water

Analysis Batch: 576897

Client Sample ID: 4009-26

Prep Type: Total/NA

Prep Batch: 576587

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.9	E	0.952	3.93	E	ug/L		106	40 - 140
Isotope Dilution	%Recovery	MS Qualifier	Limits						
1,4-Dioxane-d8	29		15 - 110						

Lab Sample ID: 480-183361-3 MSD

Matrix: Water

Analysis Batch: 576897

Client Sample ID: 4009-26

Prep Type: Total/NA

Prep Batch: 576587

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,4-Dioxane	2.9	E	0.952	3.89	E	ug/L		102	40 - 140	1	20
Isotope Dilution	%Recovery	MSD Qualifier	Limits								
1,4-Dioxane-d8	29		15 - 110								

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-166055/1-A

Matrix: Water

Analysis Batch: 166074

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 166055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.08	J	5.0	0.89	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.47	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorohexanoic acid (PFHxA)	0.561	J	2.0	0.45	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluoroheptanoic acid (PFHpA)	0.594	J	2.0	0.24	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorooctanoic acid (PFOA)	0.427	J	2.0	0.42	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorononanoic acid (PFNA)	0.379	J	2.0	0.28	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorodecanoic acid (PFDA)	0.443	J	2.0	0.30	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluoroundecanoic acid (PFUnA)	0.480	J I	2.0	0.34	ng/L		04/21/21 12:02	04/21/21 20:19	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: MB 200-166055/1-A

Matrix: Water

Analysis Batch: 166074

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 166055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	0.524	J	2.0	0.39	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorotridecanoic acid (PFTriA)	0.448	J	2.0	0.43	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.63	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorobutanesulfonic acid (PFBS)	0.503	J	2.0	0.25	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorohexanesulfonic acid (PFHxS)	0.594	J	2.0	0.30	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.389	J	2.0	0.23	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorooctanesulfonic acid (PFOS)	0.895	J	2.0	0.29	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorodecanesulfonic acid (PFDS)	0.384	J	2.0	0.31	ng/L		04/21/21 12:02	04/21/21 20:19	1
Perfluorooctanesulfonamide (PFOSA)	0.582	J	2.0	0.58	ng/L		04/21/21 12:02	04/21/21 20:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	0.90	ng/L		04/21/21 12:02	04/21/21 20:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	0.74	ng/L		04/21/21 12:02	04/21/21 20:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		5.0	1.1	ng/L		04/21/21 12:02	04/21/21 20:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		2.0	0.39	ng/L		04/21/21 12:02	04/21/21 20:19	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	80		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C4 PFHpA	88		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C4 PFOA	90		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C4 PFOS	83		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C5 PFNA	94		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C4 PFBA	89		25 - 150	04/21/21 12:02	04/21/21 20:19	1
13C2 PFHxA	91		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C2 PFDA	90		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C2 PFUnA	88		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C2 PFDoA	87		50 - 150	04/21/21 12:02	04/21/21 20:19	1
13C8 FOSA	77		25 - 150	04/21/21 12:02	04/21/21 20:19	1
13C5 PFPeA	89		25 - 150	04/21/21 12:02	04/21/21 20:19	1
13C2 PFTeDA	82		50 - 150	04/21/21 12:02	04/21/21 20:19	1
d3-NMeFOSAA	94		50 - 150	04/21/21 12:02	04/21/21 20:19	1
d5-NEtFOSAA	89		50 - 150	04/21/21 12:02	04/21/21 20:19	1
M2-6:2 FTS	89		25 - 150	04/21/21 12:02	04/21/21 20:19	1
M2-8:2 FTS	94		25 - 150	04/21/21 12:02	04/21/21 20:19	1
13C3 PFBS	81		50 - 150	04/21/21 12:02	04/21/21 20:19	1

Lab Sample ID: LCS 200-166055/2-A

Matrix: Water

Analysis Batch: 166074

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	40.7		ng/L		102	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	40.6		ng/L		101	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	40.5		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	40.8		ng/L		102	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	40.7		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	40.0	39.0		ng/L		98	70 - 130

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: LCS 200-166055/2-A

Matrix: Water

Analysis Batch: 166074

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorodecanoic acid (PFDA)	40.0	40.9		ng/L		102	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	41.0		ng/L		103	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	40.9		ng/L		102	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	38.6		ng/L		96	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	38.2		ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	36.1		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	39.5		ng/L		109	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.0		ng/L		102	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	37.4		ng/L		101	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	37.8		ng/L		98	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	39.2		ng/L		98	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.6		ng/L		99	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.6		ng/L		99	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	45.4		ng/L		120	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	38.6		ng/L		101	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	84		50 - 150
13C4 PFHpA	98		50 - 150
13C4 PFOA	94		50 - 150
13C4 PFOS	86		50 - 150
13C5 PFNA	96		50 - 150
13C4 PFBA	96		25 - 150
13C2 PFHxA	94		50 - 150
13C2 PFDA	92		50 - 150
13C2 PFUnA	89		50 - 150
13C2 PFDoA	90		50 - 150
13C8 FOSA	76		25 - 150
13C5 PFPeA	98		25 - 150
13C2 PFTeDA	88		50 - 150
d3-NMeFOSAA	90		50 - 150
d5-NEtFOSAA	97		50 - 150
M2-6:2 FTS	87		25 - 150
M2-8:2 FTS	106		25 - 150
13C3 PFBS	90		50 - 150

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: 480-183361-3 MS

Matrix: Water

Analysis Batch: 166074

Client Sample ID: 4009-26

Prep Type: Total/NA

Prep Batch: 166055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	6.3	B	33.7	40.4		ng/L		101	40 - 160
Perfluoropentanoic acid (PFPeA)	1.8		33.7	37.6		ng/L		106	40 - 160
Perfluorohexanoic acid (PFHxA)	1.2	J B	33.7	36.5		ng/L		105	40 - 160
Perfluoroheptanoic acid (PFHpA)	1.7	B	33.7	38.1		ng/L		108	40 - 160
Perfluorooctanoic acid (PFOA)	6.8	B	33.7	41.1		ng/L		102	40 - 160
Perfluorononanoic acid (PFNA)	0.81	J B	33.7	33.3		ng/L		96	40 - 160
Perfluorodecanoic acid (PFDA)	ND		33.7	36.8		ng/L		109	40 - 160
Perfluoroundecanoic acid (PFUnA)	ND		33.7	35.3		ng/L		105	40 - 160
Perfluorododecanoic acid (PFDoA)	ND		33.7	35.6		ng/L		106	40 - 160
Perfluorotridecanoic acid (PFTriA)	ND		33.7	36.4		ng/L		108	40 - 160
Perfluorotetradecanoic acid (PFTeA)	ND		33.7	36.2		ng/L		107	40 - 160
Perfluorobutanesulfonic acid (PFBS)	3.7	B	29.8	34.9		ng/L		105	40 - 160
Perfluorohexanesulfonic acid (PFHxS)	4.1	B	30.7	37.3		ng/L		108	40 - 160
Perfluoroheptanesulfonic Acid (PFHpS)	0.31	J B	32.1	34.6		ng/L		107	40 - 160
Perfluorooctanesulfonic acid (PFOS)	8.5	B	31.3	41.6		ng/L		106	40 - 160
Perfluorodecanesulfonic acid (PFDS)	ND		32.5	29.3		ng/L		90	40 - 160
Perfluorooctanesulfonamide (PFOSA)	ND		33.7	36.7		ng/L		109	40 - 160
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		33.7	32.9		ng/L		97	40 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		33.7	37.5		ng/L		111	40 - 160
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		32.0	36.8		ng/L		115	40 - 160
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		32.3	34.9		ng/L		108	40 - 160

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
18O2 PFHxS	84		50 - 150
13C4 PFHpA	93		50 - 150
13C4 PFOA	93		50 - 150
13C4 PFOS	86		50 - 150
13C5 PFNA	99		50 - 150
13C4 PFBA	75		25 - 150
13C2 PFHxA	88		50 - 150
13C2 PFDA	89		50 - 150
13C2 PFUnA	85		50 - 150
13C2 PFDoA	80		50 - 150
13C8 FOSA	81		25 - 150
13C5 PFPeA	86		25 - 150
13C2 PFTeDA	89		50 - 150
d3-NMeFOSAA	84		50 - 150
d5-NEtFOSAA	80		50 - 150

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: 480-183361-3 MS

Matrix: Water

Analysis Batch: 166074

Client Sample ID: 4009-26

Prep Type: Total/NA

Prep Batch: 166055

<i>Isotope Dilution</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
M2-6:2 FTS	95		25 - 150
M2-8:2 FTS	101		25 - 150
13C3 PFBS	86		50 - 150

Lab Sample ID: 480-183361-3 MSD

Matrix: Water

Analysis Batch: 166074

Client Sample ID: 4009-26

Prep Type: Total/NA

Prep Batch: 166055

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
Perfluorobutanoic acid (PFBA)	6.3	B	32.5	38.2		ng/L		98	40 - 160	5	30
Perfluoropentanoic acid (PFPeA)	1.8		32.5	37.1		ng/L		109	40 - 160	1	30
Perfluorohexanoic acid (PFHxA)	1.2	J B	32.5	37.2		ng/L		111	40 - 160	2	20
Perfluoroheptanoic acid (PFHpA)	1.7	B	32.5	35.4		ng/L		104	40 - 160	7	20
Perfluorooctanoic acid (PFOA)	6.8	B	32.5	39.8		ng/L		101	40 - 160	3	20
Perfluorononanoic acid (PFNA)	0.81	J B	32.5	33.7		ng/L		101	40 - 160	1	20
Perfluorodecanoic acid (PFDA)	ND		32.5	34.7		ng/L		107	40 - 160	6	20
Perfluoroundecanoic acid (PFUnA)	ND		32.5	34.6		ng/L		107	40 - 160	2	20
Perfluorododecanoic acid (PFDoA)	ND		32.5	32.5		ng/L		100	40 - 160	9	20
Perfluorotridecanoic acid (PFTriA)	ND		32.5	32.7		ng/L		101	40 - 160	11	20
Perfluorotetradecanoic acid (PFTeA)	ND		32.5	32.4		ng/L		100	40 - 160	11	20
Perfluorobutanesulfonic acid (PFBS)	3.7	B	28.7	31.5		ng/L		97	40 - 160	10	20
Perfluorohexanesulfonic acid (PFHxS)	4.1	B	29.6	34.7		ng/L		103	40 - 160	7	20
Perfluoroheptanesulfonic Acid (PFHpS)	0.31	J B	30.9	35.3		ng/L		113	40 - 160	2	30
Perfluorooctanesulfonic acid (PFOS)	8.5	B	30.2	43.1		ng/L		115	40 - 160	3	20
Perfluorodecanesulfonic acid (PFDS)	ND		31.3	28.6		ng/L		91	40 - 160	2	30
Perfluorooctanesulfonamide (PFOSA)	ND		32.5	33.1		ng/L		102	40 - 160	10	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		32.5	30.0		ng/L		92	40 - 160	9	20
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		32.5	34.9		ng/L		107	40 - 160	7	20
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		30.8	33.8		ng/L		110	40 - 160	9	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		31.1	30.7		ng/L		99	40 - 160	13	30

<i>Isotope Dilution</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
18O2 PFHxS	85		50 - 150
13C4 PFHpA	91		50 - 150
13C4 PFOA	93		50 - 150
13C4 PFOS	83		50 - 150
13C5 PFNA	97		50 - 150
13C4 PFBA	73		25 - 150

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

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

Lab Sample ID: 480-183361-3 MSD

Matrix: Water

Analysis Batch: 166074

Client Sample ID: 4009-26

Prep Type: Total/NA

Prep Batch: 166055

Isotope Dilution	MSD	MSD	Limits
	%Recovery	Qualifier	
13C2 PFHxA	83		50 - 150
13C2 PFDA	87		50 - 150
13C2 PFUnA	83		50 - 150
13C2 PFDoA	83		50 - 150
13C8 FOSA	82		25 - 150
13C5 PFPeA	83		25 - 150
13C2 PFTeDA	86		50 - 150
d3-NMeFOSAA	87		50 - 150
d5-NEtFOSAA	85		50 - 150
M2-6:2 FTS	101		25 - 150
M2-8:2 FTS	98		25 - 150
13C3 PFBS	86		50 - 150

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

GC/MS VOA

Analysis Batch: 576576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183361-1	4009-7	Total/NA	Water	8260C	
480-183361-2	4009-8	Total/NA	Water	8260C	
480-183361-4	4009-9	Total/NA	Water	8260C	
480-183361-6	4009-16A	Total/NA	Water	8260C	
480-183361-7	4009-22	Total/NA	Water	8260C	
480-183361-8	4009-30	Total/NA	Water	8260C	
480-183361-9	4009-13	Total/NA	Water	8260C	
480-183361-10	4009-14	Total/NA	Water	8260C	
MB 480-576576/8	Method Blank	Total/NA	Water	8260C	
LCS 480-576576/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-576576/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 577345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183361-3	4009-26	Total/NA	Water	8260C	
MB 480-577345/7	Method Blank	Total/NA	Water	8260C	
LCS 480-577345/5	Lab Control Sample	Total/NA	Water	8260C	
480-183361-3 MS	4009-26	Total/NA	Water	8260C	
480-183361-3 MSD	4009-26	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 576587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183361-1	4009-7	Total/NA	Water	3510C	
480-183361-2	4009-8	Total/NA	Water	3510C	
480-183361-3	4009-26	Total/NA	Water	3510C	
480-183361-4	4009-9	Total/NA	Water	3510C	
480-183361-5	Equipment Blank 4	Total/NA	Water	3510C	
480-183361-6	4009-16A	Total/NA	Water	3510C	
480-183361-7	4009-22	Total/NA	Water	3510C	
480-183361-8	4009-30	Total/NA	Water	3510C	
480-183361-9	4009-13	Total/NA	Water	3510C	
480-183361-10	4009-14	Total/NA	Water	3510C	
480-183361-11	Equipment Blank 3	Total/NA	Water	3510C	
MB 480-576587/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-576587/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-183361-3 MS	4009-26	Total/NA	Water	3510C	
480-183361-3 MSD	4009-26	Total/NA	Water	3510C	

Analysis Batch: 576897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183361-2	4009-8	Total/NA	Water	8270D SIM ID	576587
480-183361-3	4009-26	Total/NA	Water	8270D SIM ID	576587
480-183361-4	4009-9	Total/NA	Water	8270D SIM ID	576587
480-183361-5	Equipment Blank 4	Total/NA	Water	8270D SIM ID	576587
480-183361-6	4009-16A	Total/NA	Water	8270D SIM ID	576587
480-183361-7	4009-22	Total/NA	Water	8270D SIM ID	576587
480-183361-8	4009-30	Total/NA	Water	8270D SIM ID	576587
480-183361-9	4009-13	Total/NA	Water	8270D SIM ID	576587
480-183361-10	4009-14	Total/NA	Water	8270D SIM ID	576587

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

GC/MS Semi VOA (Continued)

Analysis Batch: 576897 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183361-11	Equipment Blank 3	Total/NA	Water	8270D SIM ID	576587
MB 480-576587/1-A	Method Blank	Total/NA	Water	8270D SIM ID	576587
LCS 480-576587/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	576587
480-183361-3 MS	4009-26	Total/NA	Water	8270D SIM ID	576587
480-183361-3 MSD	4009-26	Total/NA	Water	8270D SIM ID	576587

Analysis Batch: 577051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183361-1	4009-7	Total/NA	Water	8270D SIM ID	576587

LCMS

Prep Batch: 166055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183361-1	4009-7	Total/NA	Water	3535	
480-183361-2	4009-8	Total/NA	Water	3535	
480-183361-3	4009-26	Total/NA	Water	3535	
480-183361-4	4009-9	Total/NA	Water	3535	
480-183361-5	Equipment Blank 4	Total/NA	Water	3535	
480-183361-6	4009-16A	Total/NA	Water	3535	
480-183361-7	4009-22	Total/NA	Water	3535	
480-183361-8	4009-30	Total/NA	Water	3535	
480-183361-9	4009-13	Total/NA	Water	3535	
480-183361-10	4009-14	Total/NA	Water	3535	
480-183361-11	Equipment Blank 3	Total/NA	Water	3535	
MB 200-166055/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-166055/2-A	Lab Control Sample	Total/NA	Water	3535	
480-183361-3 MS	4009-26	Total/NA	Water	3535	
480-183361-3 MSD	4009-26	Total/NA	Water	3535	

Analysis Batch: 166074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183361-1	4009-7	Total/NA	Water	537 (modified)	166055
480-183361-2	4009-8	Total/NA	Water	537 (modified)	166055
480-183361-3	4009-26	Total/NA	Water	537 (modified)	166055
480-183361-4	4009-9	Total/NA	Water	537 (modified)	166055
480-183361-5	Equipment Blank 4	Total/NA	Water	537 (modified)	166055
480-183361-6	4009-16A	Total/NA	Water	537 (modified)	166055
480-183361-7	4009-22	Total/NA	Water	537 (modified)	166055
480-183361-8	4009-30	Total/NA	Water	537 (modified)	166055
480-183361-9	4009-13	Total/NA	Water	537 (modified)	166055
480-183361-10	4009-14	Total/NA	Water	537 (modified)	166055
480-183361-11	Equipment Blank 3	Total/NA	Water	537 (modified)	166055
MB 200-166055/1-A	Method Blank	Total/NA	Water	537 (modified)	166055
LCS 200-166055/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	166055
480-183361-3 MS	4009-26	Total/NA	Water	537 (modified)	166055
480-183361-3 MSD	4009-26	Total/NA	Water	537 (modified)	166055

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-7

Date Collected: 04/13/21 10:25

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576576	04/16/21 12:32	CRL	TAL BUF
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	577051	04/20/21 15:12	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 20:36	BWC	TAL BUR

Client Sample ID: 4009-8

Date Collected: 04/13/21 12:35

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		8	576576	04/16/21 12:54	CRL	TAL BUF
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 18:18	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 20:44	BWC	TAL BUR

Client Sample ID: 4009-26

Date Collected: 04/13/21 10:25

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	577345	04/22/21 14:12	CRL	TAL BUF
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 17:07	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 20:53	BWC	TAL BUR

Client Sample ID: 4009-9

Date Collected: 04/13/21 15:10

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576576	04/16/21 13:16	CRL	TAL BUF
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 18:42	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 21:17	BWC	TAL BUR

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: Equipment Blank 4

Lab Sample ID: 480-183361-5

Date Collected: 04/13/21 10:50

Matrix: Water

Date Received: 04/15/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 19:05	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 21:26	BWC	TAL BUR

Client Sample ID: 4009-16A

Lab Sample ID: 480-183361-6

Date Collected: 04/12/21 16:55

Matrix: Water

Date Received: 04/15/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576576	04/16/21 13:39	CRL	TAL BUF
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 19:29	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 21:34	BWC	TAL BUR

Client Sample ID: 4009-22

Lab Sample ID: 480-183361-7

Date Collected: 04/12/21 13:20

Matrix: Water

Date Received: 04/15/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	576576	04/16/21 14:01	CRL	TAL BUF
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 19:53	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 21:42	BWC	TAL BUR

Client Sample ID: 4009-30

Lab Sample ID: 480-183361-8

Date Collected: 04/12/21 11:55

Matrix: Water

Date Received: 04/15/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576576	04/16/21 14:23	CRL	TAL BUF
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 20:16	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 21:51	BWC	TAL BUR

Client Sample ID: 4009-13

Lab Sample ID: 480-183361-9

Date Collected: 04/12/21 16:25

Matrix: Water

Date Received: 04/15/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576576	04/16/21 14:46	CRL	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Client Sample ID: 4009-13

Date Collected: 04/12/21 16:25

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 20:40	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 21:59	BWC	TAL BUR

Client Sample ID: 4009-14

Date Collected: 04/12/21 14:00

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	576576	04/16/21 15:08	CRL	TAL BUF
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 21:04	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 22:07	BWC	TAL BUR

Client Sample ID: Equipment Blank 3

Date Collected: 04/12/21 08:45

Date Received: 04/15/21 08:00

Lab Sample ID: 480-183361-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			576587	04/16/21 08:41	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576897	04/19/21 21:28	PJQ	TAL BUF
Total/NA	Prep	3535			166055	04/21/21 12:02	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166074	04/21/21 22:24	BWC	TAL BUR

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Laboratory: Eurofins TestAmerica, Burlington

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: New York State D.E.C.

Job ID: 480-183361-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183361-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-183361-1	4009-7	Water	04/13/21 10:25	04/15/21 08:00	
480-183361-2	4009-8	Water	04/13/21 12:35	04/15/21 08:00	
480-183361-3	4009-26	Water	04/13/21 10:25	04/15/21 08:00	
480-183361-4	4009-9	Water	04/13/21 15:10	04/15/21 08:00	
480-183361-5	Equipment Blank 4	Water	04/13/21 10:50	04/15/21 08:00	
480-183361-6	4009-16A	Water	04/12/21 16:55	04/15/21 08:00	
480-183361-7	4009-22	Water	04/12/21 13:20	04/15/21 08:00	
480-183361-8	4009-30	Water	04/12/21 11:55	04/15/21 08:00	
480-183361-9	4009-13	Water	04/12/21 16:25	04/15/21 08:00	
480-183361-10	4009-14	Water	04/12/21 14:00	04/15/21 08:00	
480-183361-11	Equipment Blank 3	Water	04/12/21 08:45	04/15/21 08:00	

Chain of Custody Record



Environment Testing
America

#222

Client Information		Lab PM: Stone, Judy L		COC No: 480-159103-35000.4	
Client Contact: Ms. Kati Lilioia		Phone: 518-572-0864		Page: Page 4 of 4	
Company: ARCADIS U.S. Inc		E-Mail: Judy.Stone@Eurofinset.com		Job #:	
Address: 855 Route 146 Suite 210		City: Clifton Park		State of Origin:	
State, Zip: NY, 12065		Phone: 518-402-9625 (Tel)		Preservation Codes:	
Email: kati.lilioia@arcadis.com		Project #: 48023280		M - Hexane - None - AsNaO2 - Na2O4S - Na2SO3 - Na2SO4 - TSP Dodecahydrate - ICAAA - w - pH 4-5 - Z - other (specify)	
Site: Vestal Water Supply (Site 1-1) #704009A		SSOW#:		Barcode: 480-183361 Chain of Custody	
Due Date Requested:		TAT Requested (days): Standard		Analysis Requested	
Compliance Project: Δ Yes Δ No		Callout: 138000		Field Filtered Sample (Yes or No)	
PO #: 518-402-9625 (Tel)		WO #:		Perform MS/MSD (Yes or No)	
Project Name: Vestal Water Supply (Site 1-1) #704009A		Sample Date		Sample Time	
Sample Identification		Sample Type (C=Comp, G=Grab)		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	
4009-7		6		Water	
4009-8		6		Water	
4009-9		6		Water	
4009-10		6		Water	
4009-11		6		Water	
4009-12		6		Water	
4009-13		6		Water	
4009-14		6		Water	
4009-15		6		Water	
4009-16		6		Water	
4009-17		6		Water	
4009-18		6		Water	
4009-19		6		Water	
4009-20		6		Water	
4009-21		6		Water	
4009-22		6		Water	
4009-23		6		Water	
4009-24		6		Water	
4009-25		6		Water	
4009-26		6		Water	
4009-27		6		Water	
4009-28		6		Water	
4009-29		6		Water	
4009-30		6		Water	
Equipment Blank 4		6		Water	
Equipment Blank 5		6		Water	
Equipment Blank 6		6		Water	
Equipment Blank 7		6		Water	
Equipment Blank 8		6		Water	
Equipment Blank 9		6		Water	
Equipment Blank 10		6		Water	
Equipment Blank 11		6		Water	
Equipment Blank 12		6		Water	
Equipment Blank 13		6		Water	
Equipment Blank 14		6		Water	
Equipment Blank 15		6		Water	
Equipment Blank 16		6		Water	
Equipment Blank 17		6		Water	
Equipment Blank 18		6		Water	
Equipment Blank 19		6		Water	
Equipment Blank 20		6		Water	
Equipment Blank 21		6		Water	
Equipment Blank 22		6		Water	
Equipment Blank 23		6		Water	
Equipment Blank 24		6		Water	
Equipment Blank 25		6		Water	
Equipment Blank 26		6		Water	
Equipment Blank 27		6		Water	
Equipment Blank 28		6		Water	
Equipment Blank 29		6		Water	
Equipment Blank 30		6		Water	
Equipment Blank 31		6		Water	
Equipment Blank 32		6		Water	
Equipment Blank 33		6		Water	
Equipment Blank 34		6		Water	
Equipment Blank 35		6		Water	
Equipment Blank 36		6		Water	
Equipment Blank 37		6		Water	
Equipment Blank 38		6		Water	
Equipment Blank 39		6		Water	
Equipment Blank 40		6		Water	
Equipment Blank 41		6		Water	
Equipment Blank 42		6		Water	
Equipment Blank 43		6		Water	
Equipment Blank 44		6		Water	
Equipment Blank 45		6		Water	
Equipment Blank 46		6		Water	
Equipment Blank 47		6		Water	
Equipment Blank 48		6		Water	
Equipment Blank 49		6		Water	
Equipment Blank 50		6		Water	
Equipment Blank 51		6		Water	
Equipment Blank 52		6		Water	
Equipment Blank 53		6		Water	
Equipment Blank 54		6		Water	
Equipment Blank 55		6		Water	
Equipment Blank 56		6		Water	
Equipment Blank 57		6		Water	
Equipment Blank 58		6		Water	
Equipment Blank 59		6		Water	
Equipment Blank 60		6		Water	
Equipment Blank 61		6		Water	
Equipment Blank 62		6		Water	
Equipment Blank 63		6		Water	
Equipment Blank 64		6		Water	
Equipment Blank 65		6		Water	
Equipment Blank 66		6		Water	
Equipment Blank 67		6		Water	
Equipment Blank 68		6		Water	
Equipment Blank 69		6		Water	
Equipment Blank 70		6		Water	
Equipment Blank 71		6		Water	
Equipment Blank 72		6		Water	
Equipment Blank 73		6		Water	
Equipment Blank 74		6		Water	
Equipment Blank 75		6		Water	
Equipment Blank 76		6		Water	
Equipment Blank 77		6		Water	
Equipment Blank 78		6		Water	
Equipment Blank 79		6		Water	
Equipment Blank 80		6		Water	
Equipment Blank 81		6		Water	
Equipment Blank 82		6		Water	
Equipment Blank 83		6		Water	
Equipment Blank 84		6		Water	
Equipment Blank 85		6		Water	
Equipment Blank 86		6		Water	
Equipment Blank 87		6		Water	
Equipment Blank 88		6		Water	
Equipment Blank 89		6		Water	
Equipment Blank 90		6		Water	
Equipment Blank 91		6		Water	
Equipment Blank 92		6		Water	
Equipment Blank 93		6		Water	
Equipment Blank 94		6		Water	
Equipment Blank 95		6		Water	
Equipment Blank 96		6		Water	
Equipment Blank 97		6		Water	
Equipment Blank 98		6		Water	
Equipment Blank 99		6		Water	
Equipment Blank 100		6		Water	
Equipment Blank 101		6		Water	
Equipment Blank 102		6		Water	
Equipment Blank 103		6		Water	
Equipment Blank 104		6		Water	
Equipment Blank 105		6		Water	
Equipment Blank 106		6		Water	
Equipment Blank 107		6		Water	
Equipment Blank 108		6		Water	
Equipment Blank 109		6		Water	
Equipment Blank 110		6		Water	
Equipment Blank 111		6		Water	
Equipment Blank 112		6		Water	
Equipment Blank 113		6		Water	
Equipment Blank 114		6		Water	
Equipment Blank 115		6		Water	
Equipment Blank 116		6		Water	
Equipment Blank 117		6		Water	
Equipment Blank 118		6		Water	
Equipment Blank 119		6		Water	
Equipment Blank 120		6		Water	
Equipment Blank 121		6		Water	
Equipment Blank 122		6		Water	
Equipment Blank 123		6		Water	
Equipment Blank 124		6		Water	
Equipment Blank 125		6		Water	
Equipment Blank 126		6		Water	
Equipment Blank 127		6		Water	
Equipment Blank 128		6		Water	
Equipment Blank 129		6		Water	
Equipment Blank 130		6		Water	
Equipment Blank 131		6		Water	
Equipment Blank 132		6		Water	
Equipment Blank 133		6		Water	
Equipment Blank 134		6		Water	
Equipment Blank 135		6		Water	
Equipment Blank 136		6		Water	
Equipment Blank 137		6		Water	
Equipment Blank 138		6		Water	
Equipment Blank 139		6		Water	
Equipment Blank 140		6		Water	
Equipment Blank 141		6		Water	
Equipment Blank 142		6		Water	
Equipment Blank 143		6		Water	
Equipment Blank 144		6		Water	
Equipment Blank 145		6		Water	
Equipment Blank 146		6		Water	
Equipment Blank 147		6		Water	
Equipment Blank 148		6		Water	
Equipment Blank 149		6		Water	
Equipment Blank 150		6		Water	
Equipment Blank 151		6		Water	
Equipment Blank 152		6		Water	
Equipment Blank 153		6		Water	
Equipment Blank 154		6		Water	
Equipment Blank 155		6		Water	
Equipment Blank 156		6		Water	
Equipment Blank 157		6		Water	
Equipment Blank 158		6		Water	
Equipment Blank 159		6		Water	
Equipment Blank 160		6		Water	
Equipment Blank 161		6		Water	
Equipment Blank 162		6		Water	
Equipment Blank 163		6		Water	
Equipment Blank 164		6		Water	
Equipment Blank 165		6		Water	
Equipment Blank 166		6		Water	
Equipment Blank 167		6		Water	
Equipment Blank 168		6		Water	
Equipment Blank 169		6		Water	
Equipment Blank 170		6		Water	
Equipment Blank 171		6		Water	
Equipment Blank 172		6		Water	
Equipment Blank 173		6		Water	
Equipment Blank 174		6		Water	
Equipment Blank 175		6		Water	
Equipment Blank 176		6		Water	
Equipment Blank 177		6		Water	
Equipment Blank 178		6		Water	
Equipment Blank 179		6		Water	
Equipment Blank 180		6		Water	
Equipment Blank 181		6		Water	
Equipment Blank 182		6		Water	
Equipment Blank 183		6		Water	
Equipment Blank 184		6		Water	
Equipment Blank 185		6		Water	
Equipment Blank 186		6		Water	
Equipment Blank 187		6		Water	
Equipment Blank 188		6		Water	
Equipment Blank 189		6		Water	
Equipment Blank 190		6		Water	
Equipment Blank 191		6		Water	
Equipment Blank 192		6		Water	
Equipment Blank 193		6		Water	
Equipment Blank 194		6		Water	
Equipment Blank 195		6		Water	
Equipment Blank 196		6		Water	
Equipment Blank 197		6		Water	
Equipment Blank 198		6		Water	
Equipment Blank 199		6		Water	
Equipment Blank 200		6		Water	
Equipment Blank 201		6		Water	
Equipment Blank 202		6		Water	
Equipment Blank 203		6		Water	
Equipment Blank 204		6		Water	
Equipment Blank 205		6		Water	
Equipment Blank 206		6		Water	
Equipment Blank 207		6		Water	
Equipment Blank 208		6		Water	
Equipment Blank 209		6		Water	
Equipment Blank 210		6		Water	
Equipment Blank 211		6		Water	
Equipment Blank 212		6		Water	
Equipment Blank 213		6		Water	
Equipment Blank 214		6		Water	
Equipment Blank 215		6		Water	
Equipment Blank 216		6		Water	
Equipment Blank 217		6		Water	
Equipment Blank 218		6		Water	
Equipment Blank 219		6		Water	
Equipment Blank 220		6		Water	
Equipment Blank 221		6		Water	
Equipment Blank 222		6		Water	
Equipment Blank 223		6		Water	
Equipment Blank 224		6		Water	
Equipment Blank 225		6		Water	
Equipment Blank 226		6		Water	
Equipment Blank 227		6		Water	
Equipment Blank 228		6		Water	
Equipment Blank 229		6		Water	
Equipment Blank 230		6		Water	
Equipment Blank 231		6		Water	
Equipment Blank 232		6		Water	
Equipment Blank 233		6		Water	
Equipment Blank 234		6		Water	
Equipment Blank 235		6		Water	
Equipment Blank 236		6		Water	
Equipment Blank 237		6		Water	
Equipment Blank 238		6		Water	
Equipment Blank 239		6		Water	
Equipment Blank 240		6		Water	
Equipment Blank 241		6		Water	
Equipment Blank 242		6		Water	
Equipment Blank 243		6		Water	
Equipment Blank 244		6		Water	
Equipment Blank 245		6		Water	
Equipment Blank 246		6		Water	
Equipment Blank 247		6		Water	
Equipment Blank 248		6		Water	
Equipment Blank 249		6		Water	
Equipment Blank 250		6		Water	
Equipment Blank 251		6		Water	
Equipment Blank 252		6		Water	
Equipment Blank 253		6		Water	
Equipment Blank 254		6		Water	
Equipment Blank 255		6		Water	
Equipment Blank 256		6		Water	
Equipment Blank 257		6		Water	
Equipment Blank 258		6		Water	
Equipment Blank 259		6		Water	
Equipment Blank 260		6		Water	
Equipment Blank 261		6		Water	
Equipment Blank 262		6		Water	
Equipment Blank 263		6		Water	
Equipment Blank 264		6		Water	
Equipment Blank 265		6		Water	
Equipment Blank 266		6		Water	
Equipment Blank 267		6		Water	
Equipment Blank 268		6		Water	
Equipment Blank 269		6		Water	
Equipment Blank 270		6		Water	
Equipment Blank 271		6		Water	
Equipment Blank 272		6		Water	
Equipment Blank 273		6		Water	
Equipment Blank 274		6		Water	
Equipment Blank 275		6		Water	
Equipment Blank 276		6		Water	
Equipment Blank 277		6		Water	
Equipment Blank 278		6		Water	
Equipment Blank 279		6		Water	
Equipment Blank 280		6		Water	
Equipment Blank 281		6		Water	
Equipment Blank 282		6		Water	
Equipment Blank 283		6		Water	
Equipment Blank 284		6		Water	
Equipment Blank 285		6		Water	
Equipment Blank 286		6		Water	
Equipment Blank 287		6		Water	
Equipment Blank 288		6		Water	
Equipment Blank 289		6		Water	
Equipment Blank 290		6		Water	
Equipment Blank 291		6		Water	
Equipment Blank 292		6		Water	
Equipment Blank 293		6		Water	
Equipment Blank 294		6		Water	
Equipment Blank 295		6		Water	
Equipment Blank 296		6		Water	
Equipment Blank 297		6		Water	

Albany Chain of Custody Record



Environment Testing America

Client Information Client Contact: Ms. Kati Lilia Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State: NY Zip: 12065 Phone: 518-402-9625(Tel) Email: kati.lilia@arcadis.com Project Name: Vestal Water Supply (Site 1-1) #704009A Site:		Lab PM: Stone, Judy L E-Mail: Judy.Stone@Eurofinset.com Carrier Tracking No(s): State of Origin: Page: Page 4 of 4 Job #:	
Due Date Requested: TAT Requested (days): Standard Compliance Project: ☐ Yes ☒ No PO #: 138000 Callout: 138000 WO #: 48023280 Project #: 48023280 SOW#:		Analysis Requested PFC IDA - PFA's, Standard List (21 analytes) 8260C - (MOD) TCL list OLM4.2 8270D - SIM, MS, ID - SIM List 1,4-Dioxane	
Sample Identification 4009-16A 4009-22 4009-30 4009-13 4009-14 Egoport blank 3#		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) PFC IDA - PFA's, Standard List (21 analytes) 8260C - (MOD) TCL list OLM4.2 8270D - SIM, MS, ID - SIM List 1,4-Dioxane	
Sample Date 4-12-21 1320 1155 1635 1400 0815		Sample Time 655 6 6 6 6 6	
Matrix (W=water, S=solid, O=water, A=air) Water Water Water Water Water Water		Preservation Code: Water Water Water Water Water Water	
Total Number of Containers 7 7 7 7 7 4		Special Instructions/Note: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - other (specify)	
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months			
Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:	
Relinquished by: <i>Colin Lilia</i>		Date: 4-14-21 1035	
Relinquished by: <i>Paul Lilia</i>		Date: 4/14/21 1700	
Relinquished by:		Date:	
Custody Seals Intact: ☐ Yes ☒ No		Custody Seal No.:	
Cooler Temperature(s) °C and Other Remarks:		Received by: <i>Paul Lilia</i> Date/Time: 4/14/21 1035 Company: <i>Albany</i> Received by: <i>Colin Lilia</i> Date/Time: 4/15/21 0800 Company: <i>Albany</i>	

[illegible]

Albany Chain of Custody Record



Client Information Client Contact: Ms. Kati Lilioia Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Phone: 518-402-9625 (Tel) Email: kati.lilioia@arcadis.com Project Name: Vestal Water Supply (Site 1-1) #704009A Site:		Lab PM: Stone, Judy L. E-Mail: Judy.Stone@Eurofins.com Carrier Tracking No(s): 480-159103-35000.4 State of Origin:		COC No.: 480-159103-35000.4 Page: Page 4 of 4 Job #:	
Due Date Requested: TAT Requested (days): Standard Compliance Project: ☐ Yes ☒ No PO #: 518-402-9625 (Tel) WO #: 518-402-9625 (Tel) Project #: 48023280 SSOW#:		Analysis Requested PFC, IDA - PFA's, Standard List (21 analytes) 8260C - (MOD) TCL list of M04.2 8270D - SIM, MS, ID - SIM List 1,4-Dioxane			
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=water, A=air) Preservation Code Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)		Total Number of Containers Special Instructions/Note:			
4009-16A 4009-22 4009-30 4009-13 4009-14 Equipment blank 3B		4-12-21 1655 1320 1155 1635 1400 0815 Water Water Water Water Water Water Water Water Water			
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by: <i>Kati Lilioia</i> Date/Time: 4-14-21 1035 Company: Arcadis		Relinquished by: <i>Kati Lilioia</i> Date/Time: 4/14/21 1035 Company: Arcadis			
Relinquished by: <i>Kati Lilioia</i> Date/Time: 4/14/21 1700 Company: Arcadis		Relinquished by: <i>Kati Lilioia</i> Date/Time: 4/15/21 12:55 Company: Arcadis			
Custody Seals Intact: ☐ Yes ☒ No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Do Not Lift Using This Tag

RT 916 1 10:30 A
EZ 915 7576 04.15

ORIGIN ID:DSVA (518) 438-5540
TIM KNOLLMAYER
TESTAMERICA LAB INC
25 KRAFT AVE
ALBANY, NY 12205
UNITED STATES US

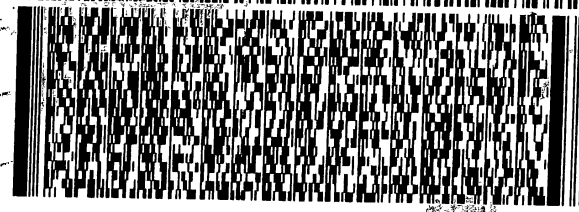
SHIP DATE: 14APR21
ACTWGT: 50.00 LB
CAD: 0886598/CAFE3409
BILL THIRD PARTY

TO SAMPLE RECEIVING
TESTAMERICA-BURLINGTON
30 COMMUNITY DRIVE, SUITE 11

BURLINGTON VT 05403

(802) 660-1990

REF: ECOLOGY PFAS

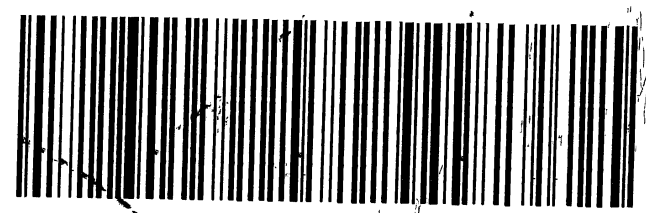


TRK# 5013 1604 7576
0201

THU - 15 APR 10:30A
PRIORITY OVERNIGHT

XH BTVA

05403
VT-US BTV



Part # 136148-434 RIT EXP 1/21

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183361-1

Login Number: 183361

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6 2.9 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183361-1

Login Number: 183361

List Number: 2

Creator: Khudaier, Zahraa

List Source: Eurofins TestAmerica, Burlington

List Creation: 04/15/21 03:16 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1979209
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	CC
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

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

Laboratory Job ID: 480-183403-1

Client Project/Site: Vestal Water Supply (Site 1-1) #704009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:
4/28/2021 4:32:21 PM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

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



Judy Stone
Senior Project Manager
4/28/2021 4:32:21 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	12
Isotope Dilution Summary	13
QC Sample Results	15
QC Association Summary	22
Lab Chronicle	23
Certification Summary	24
Method Summary	25
Sample Summary	26
Chain of Custody	27
Receipt Checklists	30



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Job ID: 480-183403-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-183403-1

Receipt

The samples were received on 4/16/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-577345 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: 4009-11 (480-183403-1).

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

GC/MS Semi VOA

Method 8270D SIM ID: The following sample was diluted to bring the concentration of target analytes within the calibration range: 4009-11 (480-183403-1). Elevated reporting limits (RLs) are provided.

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

LCMS

Method 537 (modified): Internal standard responses were outside of acceptance limits for the following samples: 4009-11 (480-183403-1). The sample shows evidence of matrix interference.

Method 537 (modified): The following samples exhibited elevated noise or matrix interferences for Perfluoroundecanoic acid (PFUnA) causing elevation of the detection limit (EDL): 4009-11 (480-183403-1). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

Method 537 (modified): Method 537 (modified): The "I" qualifier associated with sample 4009-11 (480-183403-1) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Method 537 (modified): 13C4 PFBA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: 4009-11 (480-183403-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): d3-NMeFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: 4009-11 (480-183403-1). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

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

Organic Prep

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Client Sample ID: 4009-11

Lab Sample ID: 480-183403-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	8.1		1.0	0.38	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	6.2	J	10	1.3	ug/L	1		8260C	Total/NA
Acetone	160		10	3.0	ug/L	1		8260C	Total/NA
Benzene	6.7		1.0	0.41	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.6		1.0	0.81	ug/L	1		8260C	Total/NA
Vinyl chloride	2.5		1.0	0.90	ug/L	1		8260C	Total/NA
1,4-Dioxane	4.1		2.1	1.0	ug/L	10		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	5.3		5.2	0.93	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.7		2.1	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.5	J	2.1	0.47	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.5	J	2.1	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.3		2.1	0.44	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.3	J	2.1	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.92	J	2.1	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.40	J	2.1	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.0	J I	2.1	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.86	J	2.1	0.30	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.3	J	5.2	1.1	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.51	J	2.1	0.41	ng/L	1		537 (modified)	Total/NA

Client Sample ID: EQUIP BLANK 5

Lab Sample ID: 480-183403-2

No Detections.

Client Sample ID: FIELD BLANK

Lab Sample ID: 480-183403-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.54	J	1.8	0.41	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Client Sample ID: 4009-11

Lab Sample ID: 480-183403-1

Date Collected: 04/14/21 15:05

Matrix: Water

Date Received: 04/16/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/22/21 14:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/22/21 14:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/22/21 14:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/22/21 14:36	1
1,1-Dichloroethane	8.1		1.0	0.38	ug/L			04/22/21 14:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/22/21 14:36	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/22/21 14:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/22/21 14:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/22/21 14:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/22/21 14:36	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/22/21 14:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/22/21 14:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/22/21 14:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/22/21 14:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/22/21 14:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/22/21 14:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/22/21 14:36	1
2-Butanone (MEK)	6.2 J		10	1.3	ug/L			04/22/21 14:36	1
2-Hexanone	ND		5.0	1.2	ug/L			04/22/21 14:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/22/21 14:36	1
Acetone	160		10	3.0	ug/L			04/22/21 14:36	1
Benzene	6.7		1.0	0.41	ug/L			04/22/21 14:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/22/21 14:36	1
Bromoform	ND		1.0	0.26	ug/L			04/22/21 14:36	1
Bromomethane	ND		1.0	0.69	ug/L			04/22/21 14:36	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/22/21 14:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/22/21 14:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/22/21 14:36	1
Chloroethane	ND		1.0	0.32	ug/L			04/22/21 14:36	1
Chloroform	ND		1.0	0.34	ug/L			04/22/21 14:36	1
Chloromethane	ND		1.0	0.35	ug/L			04/22/21 14:36	1
cis-1,2-Dichloroethene	1.6		1.0	0.81	ug/L			04/22/21 14:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/22/21 14:36	1
Cyclohexane	ND		1.0	0.18	ug/L			04/22/21 14:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/22/21 14:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/22/21 14:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/22/21 14:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/22/21 14:36	1
Methyl acetate	ND		2.5	1.3	ug/L			04/22/21 14:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/22/21 14:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/22/21 14:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/22/21 14:36	1
Styrene	ND		1.0	0.73	ug/L			04/22/21 14:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/22/21 14:36	1
Toluene	ND		1.0	0.51	ug/L			04/22/21 14:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/22/21 14:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/22/21 14:36	1
Trichloroethene	ND		1.0	0.46	ug/L			04/22/21 14:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/22/21 14:36	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Client Sample ID: 4009-11

Lab Sample ID: 480-183403-1

Date Collected: 04/14/21 15:05

Matrix: Water

Date Received: 04/16/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	2.5		1.0	0.90	ug/L			04/22/21 14:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/22/21 14:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		77 - 120					04/22/21 14:36	1
4-Bromofluorobenzene (Surr)	104		73 - 120					04/22/21 14:36	1
Dibromofluoromethane (Surr)	104		75 - 123					04/22/21 14:36	1
Toluene-d8 (Surr)	92		80 - 120					04/22/21 14:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.1		2.1	1.0	ug/L		04/19/21 09:25	04/20/21 18:25	10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	29		15 - 110				04/19/21 09:25	04/20/21 18:25	10

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.3		5.2	0.93	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluoropentanoic acid (PFPeA)	2.7		2.1	0.50	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorohexanoic acid (PFHxA)	1.5 J		2.1	0.47	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluoroheptanoic acid (PFHpA)	1.5 J		2.1	0.25	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorooctanoic acid (PFOA)	2.3		2.1	0.44	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorononanoic acid (PFNA)	1.3 J		2.1	0.29	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorodecanoic acid (PFDA)	0.92 J		2.1	0.32	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluoroundecanoic acid (PFUnA)	ND	G	2.8	2.8	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorododecanoic acid (PFDoA)	ND		2.1	0.40	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorotridecanoic acid (PFTriA)	ND		2.1	0.45	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.1	0.66	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorobutanesulfonic acid (PFBS)	0.40 J		2.1	0.26	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorohexanesulfonic acid (PFHxS)	1.0 J I		2.1	0.32	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.1	0.24	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorooctanesulfonic acid (PFOS)	0.86 J		2.1	0.30	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.1	0.32	ng/L		04/23/21 12:56	04/23/21 18:56	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.1	0.60	ng/L		04/23/21 12:56	04/23/21 18:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.2	0.94	ng/L		04/23/21 12:56	04/23/21 18:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.2	0.78	ng/L		04/23/21 12:56	04/23/21 18:56	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.3 J		5.2	1.1	ng/L		04/23/21 12:56	04/23/21 18:56	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.51 J		2.1	0.41	ng/L		04/23/21 12:56	04/23/21 18:56	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	65		50 - 150				04/23/21 12:56	04/23/21 18:56	1
13C4 PFHpA	83		50 - 150				04/23/21 12:56	04/23/21 18:56	1
13C4 PFOA	101		50 - 150				04/23/21 12:56	04/23/21 18:56	1
13C4 PFOS	68		50 - 150				04/23/21 12:56	04/23/21 18:56	1
13C5 PFNA	125		50 - 150				04/23/21 12:56	04/23/21 18:56	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Client Sample ID: 4009-11

Lab Sample ID: 480-183403-1

Date Collected: 04/14/21 15:05

Matrix: Water

Date Received: 04/16/21 08:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	11	*5-	25 - 150	04/23/21 12:56	04/23/21 18:56	1
13C2 PFHxA	64		50 - 150	04/23/21 12:56	04/23/21 18:56	1
13C2 PFDA	116		50 - 150	04/23/21 12:56	04/23/21 18:56	1
13C2 PFUnA	69		50 - 150	04/23/21 12:56	04/23/21 18:56	1
13C2 PFDoA	88		50 - 150	04/23/21 12:56	04/23/21 18:56	1
13C8 FOSA	64		25 - 150	04/23/21 12:56	04/23/21 18:56	1
13C5 PFPeA	64		25 - 150	04/23/21 12:56	04/23/21 18:56	1
13C2 PFTeDA	92		50 - 150	04/23/21 12:56	04/23/21 18:56	1
d3-NMeFOSAA	165	*5+	50 - 150	04/23/21 12:56	04/23/21 18:56	1
d5-NEtFOSAA	105		50 - 150	04/23/21 12:56	04/23/21 18:56	1
M2-6:2 FTS	254	*5+	25 - 150	04/23/21 12:56	04/23/21 18:56	1
M2-8:2 FTS	347	*5+	25 - 150	04/23/21 12:56	04/23/21 18:56	1
13C3 PFBS	61		50 - 150	04/23/21 12:56	04/23/21 18:56	1

Client Sample ID: EQUIP BLANK 5

Lab Sample ID: 480-183403-2

Date Collected: 04/14/21 14:05

Matrix: Water

Date Received: 04/16/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/19/21 09:25	04/20/21 18:49	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				04/19/21 09:25	04/20/21 18:49	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.9	0.87	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.46	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.44	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.23	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.41	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.27	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.30	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	0.33	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.37	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	0.42	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.61	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.24	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.29	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.23	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.28	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		04/23/21 12:56	04/23/21 19:04	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.9	0.56	ng/L		04/23/21 12:56	04/23/21 19:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9	0.88	ng/L		04/23/21 12:56	04/23/21 19:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.9	0.72	ng/L		04/23/21 12:56	04/23/21 19:04	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.9	1.1	ng/L		04/23/21 12:56	04/23/21 19:04	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Client Sample ID: EQUIP BLANK 5

Lab Sample ID: 480-183403-2

Date Collected: 04/14/21 14:05

Matrix: Water

Date Received: 04/16/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.9	0.38	ng/L		04/23/21 12:56	04/23/21 19:04	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	92		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C4 PFHpA	103		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C4 PFOA	101		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C4 PFOS	97		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C5 PFNA	105		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C4 PFBA	93		25 - 150				04/23/21 12:56	04/23/21 19:04	1
13C2 PFHxA	101		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C2 PFDA	101		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C2 PFUnA	100		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C2 PFDoA	96		50 - 150				04/23/21 12:56	04/23/21 19:04	1
13C8 FOSA	77		25 - 150				04/23/21 12:56	04/23/21 19:04	1
13C5 PFPeA	102		25 - 150				04/23/21 12:56	04/23/21 19:04	1
13C2 PFTeDA	104		50 - 150				04/23/21 12:56	04/23/21 19:04	1
d3-NMeFOSAA	96		50 - 150				04/23/21 12:56	04/23/21 19:04	1
d5-NEtFOSAA	92		50 - 150				04/23/21 12:56	04/23/21 19:04	1
M2-6:2 FTS	101		25 - 150				04/23/21 12:56	04/23/21 19:04	1
M2-8:2 FTS	128		25 - 150				04/23/21 12:56	04/23/21 19:04	1
13C3 PFBS	93		50 - 150				04/23/21 12:56	04/23/21 19:04	1

Client Sample ID: FIELD BLANK

Lab Sample ID: 480-183403-3

Date Collected: 04/14/21 14:00

Matrix: Water

Date Received: 04/16/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.096	ug/L		04/19/21 09:25	04/20/21 19:13	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 110				04/19/21 09:25	04/20/21 19:13	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6	0.82	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.43	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorohexanoic acid (PFHxA)	0.54	J	1.8	0.41	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.22	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorooctanoic acid (PFOA)	ND		1.8	0.39	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.26	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.28	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.31	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.35	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.40	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.58	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.23	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	0.28	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.21	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.27	ng/L		04/23/21 12:56	04/23/21 19:13	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Client Sample ID: FIELD BLANK

Lab Sample ID: 480-183403-3

Date Collected: 04/14/21 14:00

Matrix: Water

Date Received: 04/16/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.28	ng/L		04/23/21 12:56	04/23/21 19:13	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.53	ng/L		04/23/21 12:56	04/23/21 19:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	0.83	ng/L		04/23/21 12:56	04/23/21 19:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	0.68	ng/L		04/23/21 12:56	04/23/21 19:13	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.6	1.0	ng/L		04/23/21 12:56	04/23/21 19:13	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.36	ng/L		04/23/21 12:56	04/23/21 19:13	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	94		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C4 PFHpA	106		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C4 PFOA	101		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C4 PFOS	97		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C5 PFNA	109		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C4 PFBA	99		25 - 150				04/23/21 12:56	04/23/21 19:13	1
13C2 PFHxA	102		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C2 PFDA	98		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C2 PFUnA	103		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C2 PFDoA	93		50 - 150				04/23/21 12:56	04/23/21 19:13	1
13C8 FOSA	84		25 - 150				04/23/21 12:56	04/23/21 19:13	1
13C5 PFPeA	104		25 - 150				04/23/21 12:56	04/23/21 19:13	1
13C2 PFTeDA	91		50 - 150				04/23/21 12:56	04/23/21 19:13	1
d3-NMeFOSAA	98		50 - 150				04/23/21 12:56	04/23/21 19:13	1
d5-NEtFOSAA	99		50 - 150				04/23/21 12:56	04/23/21 19:13	1
M2-6:2 FTS	99		25 - 150				04/23/21 12:56	04/23/21 19:13	1
M2-8:2 FTS	117		25 - 150				04/23/21 12:56	04/23/21 19:13	1
13C3 PFBS	96		50 - 150				04/23/21 12:56	04/23/21 19:13	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-183403-1	4009-11	97	104	104	92
LCS 480-577345/5	Lab Control Sample	103	114	105	99
MB 480-577345/7	Method Blank	104	112	109	96

Surrogate Legend

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

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DXE (15-110)
480-183403-1	4009-11	29
480-183403-2	EQUIP BLANK 5	31
480-183403-3	FIELD BLANK	33
LCS 480-576820/2-A	Lab Control Sample	36
MB 480-576820/1-A	Method Blank	31
Surrogate Legend		
DXE = 1,4-Dioxane-d8		

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
480-183403-1	4009-11	65	83	101	68	125	11 *5-	64	116
480-183403-2	EQUIP BLANK 5	92	103	101	97	105	93	101	101
480-183403-3	FIELD BLANK	94	106	101	97	109	99	102	98
LCS 200-166136/2-A	Lab Control Sample	93	103	98	94	107	104	102	94
LCSD 200-166136/3-A	Lab Control Sample Dup	89	97	97	91	101	95	98	98
MB 200-166136/1-A	Method Blank	91	96	95	92	98	100	100	95
Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDaA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
480-183403-1	4009-11	69	88	64	64	92	165 *5+	105	254 *5+
480-183403-2	EQUIP BLANK 5	100	96	77	102	104	96	92	101
480-183403-3	FIELD BLANK	103	93	84	104	91	98	99	99
LCS 200-166136/2-A	Lab Control Sample	98	90	78	103	88	100	101	97
LCSD 200-166136/3-A	Lab Control Sample Dup	96	84	75	95	86	91	87	93
MB 200-166136/1-A	Method Blank	93	82	74	98	82	90	96	98
Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	M282FTS (25-150)	C3PFBS (50-150)						
480-183403-1	4009-11	347 *5+	61						
480-183403-2	EQUIP BLANK 5	128	93						
480-183403-3	FIELD BLANK	117	96						
LCS 200-166136/2-A	Lab Control Sample	102	95						
LCSD 200-166136/3-A	Lab Control Sample Dup	103	88						
MB 200-166136/1-A	Method Blank	101	94						
Surrogate Legend									
PFHxS = 18O2 PFHxS									
C4PFHA = 13C4 PFHpA									
PFOA = 13C4 PFOA									
PFOS = 13C4 PFOS									
PFNA = 13C5 PFNA									
PFBA = 13C4 PFBA									
PFHxA = 13C2 PFHxA									
PFDA = 13C2 PFDA									
PFUnA = 13C2 PFUnA									

Isotope Dilution Summary

Client: New York State D.E.C.

Job ID: 480-183403-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

PFD_oA = 13C₂ PFD_oA

PFOSA = 13C₈ FOSA

PFPeA = 13C₅ PFPeA

PFTDA = 13C₂ PFTeDA

d₃NMFOS = d₃-NMeFOSAA

d₅NEFOS = d₅-NEtFOSAA

M₂₆₂FTS = M_{2-6:2} FTS

M₂₈₂FTS = M_{2-8:2} FTS

C₃PFBS = 13C₃ PFBS

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

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

Lab Sample ID: MB 480-577345/7

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/22/21 12:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/22/21 12:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/22/21 12:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/22/21 12:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/22/21 12:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/22/21 12:03	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/22/21 12:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/22/21 12:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/22/21 12:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/22/21 12:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/22/21 12:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/22/21 12:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/22/21 12:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/22/21 12:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/22/21 12:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/22/21 12:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/22/21 12:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/22/21 12:03	1
2-Hexanone	ND		5.0	1.2	ug/L			04/22/21 12:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/22/21 12:03	1
Acetone	ND		10	3.0	ug/L			04/22/21 12:03	1
Benzene	ND		1.0	0.41	ug/L			04/22/21 12:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/22/21 12:03	1
Bromoform	ND		1.0	0.26	ug/L			04/22/21 12:03	1
Bromomethane	ND		1.0	0.69	ug/L			04/22/21 12:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/22/21 12:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/22/21 12:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/22/21 12:03	1
Chloroethane	ND		1.0	0.32	ug/L			04/22/21 12:03	1
Chloroform	ND		1.0	0.34	ug/L			04/22/21 12:03	1
Chloromethane	ND		1.0	0.35	ug/L			04/22/21 12:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/22/21 12:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/22/21 12:03	1
Cyclohexane	ND		1.0	0.18	ug/L			04/22/21 12:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/22/21 12:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/22/21 12:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/22/21 12:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/22/21 12:03	1
Methyl acetate	ND		2.5	1.3	ug/L			04/22/21 12:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/22/21 12:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/22/21 12:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/22/21 12:03	1
Styrene	ND		1.0	0.73	ug/L			04/22/21 12:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/22/21 12:03	1
Toluene	ND		1.0	0.51	ug/L			04/22/21 12:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/22/21 12:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/22/21 12:03	1
Trichloroethene	ND		1.0	0.46	ug/L			04/22/21 12:03	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

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

Lab Sample ID: MB 480-577345/7

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/22/21 12:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/22/21 12:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/22/21 12:03	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					04/22/21 12:03	1
4-Bromofluorobenzene (Surr)	112		73 - 120					04/22/21 12:03	1
Dibromofluoromethane (Surr)	109		75 - 123					04/22/21 12:03	1
Toluene-d8 (Surr)	96		80 - 120					04/22/21 12:03	1

Lab Sample ID: LCS 480-577345/5

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	24.3		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	25.0	21.9		ug/L		88	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.5		ug/L		98	61 - 148
1,1,2-Trichloroethane	25.0	24.5		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	23.7		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	24.8		ug/L		99	66 - 127
1,2,3-Trimethylbenzene	25.0	25.0		ug/L		100	78 - 120
1,2,4-Trichlorobenzene	25.0	25.0		ug/L		100	79 - 122
1,2,4-Trimethylbenzene	25.0	21.7		ug/L		87	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	19.2		ug/L		77	56 - 134
1,2-Dibromoethane	25.0	26.0		ug/L		104	77 - 120
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	80 - 124
1,2-Dichloroethane	25.0	25.1		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	25.7		ug/L		103	76 - 120
1,3,5-Trimethylbenzene	25.0	21.7		ug/L		87	77 - 121
1,3-Dichlorobenzene	25.0	24.1		ug/L		96	77 - 120
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	80 - 120
2-Butanone (MEK)	125	155		ug/L		124	57 - 140
2-Hexanone	125	137		ug/L		109	65 - 127
4-Methyl-2-pentanone (MIBK)	125	119		ug/L		95	71 - 125
Acetone	125	160		ug/L		128	56 - 142
Benzene	25.0	23.6		ug/L		95	71 - 124
Bromodichloromethane	25.0	24.7		ug/L		99	80 - 122
Bromoform	25.0	28.9		ug/L		116	61 - 132
Bromomethane	25.0	25.3		ug/L		101	55 - 144
Carbon disulfide	25.0	23.5		ug/L		94	59 - 134
Carbon tetrachloride	25.0	23.8		ug/L		95	72 - 134
Chlorobenzene	25.0	25.3		ug/L		101	80 - 120
Chloroethane	25.0	24.4		ug/L		98	69 - 136
Chloroform	25.0	24.4		ug/L		98	73 - 127
Chloromethane	25.0	25.5		ug/L		102	68 - 124
cis-1,2-Dichloroethene	25.0	23.9		ug/L		96	74 - 124
cis-1,3-Dichloropropene	25.0	25.2		ug/L		101	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

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

Lab Sample ID: LCS 480-577345/5

Matrix: Water

Analysis Batch: 577345

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	20.2		ug/L		81	59 - 135
Dibromochloromethane	25.0	26.7		ug/L		107	75 - 125
Dichlorodifluoromethane	25.0	19.8		ug/L		79	59 - 135
Ethylbenzene	25.0	23.0		ug/L		92	77 - 123
Isopropylbenzene	25.0	20.8		ug/L		83	77 - 122
Methyl acetate	50.0	53.5		ug/L		107	74 - 133
Methyl tert-butyl ether	25.0	23.5		ug/L		94	77 - 120
Methylcyclohexane	25.0	20.2		ug/L		81	68 - 134
Methylene Chloride	25.0	23.5		ug/L		94	75 - 124
Styrene	25.0	23.8		ug/L		95	80 - 120
Tetrachloroethene	25.0	27.7		ug/L		111	74 - 122
Toluene	25.0	24.1		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	24.1		ug/L		96	73 - 127
trans-1,3-Dichloropropene	25.0	24.3		ug/L		97	80 - 120
Trichloroethene	25.0	25.2		ug/L		101	74 - 123
Trichlorofluoromethane	25.0	25.7		ug/L		103	62 - 150
Vinyl chloride	25.0	22.1		ug/L		88	65 - 133

Surrogate	%Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	114		73 - 120
Dibromofluoromethane (Surr)	105		75 - 123
Toluene-d8 (Surr)	99		80 - 120

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

Lab Sample ID: MB 480-576820/1-A

Matrix: Water

Analysis Batch: 577051

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 576820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/19/21 09:25	04/20/21 15:36	1
Isotope Dilution	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				04/19/21 09:25	04/20/21 15:36	1

Lab Sample ID: LCS 480-576820/2-A

Matrix: Water

Analysis Batch: 577051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 576820

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
1,4-Dioxane			1.00	1.05		ug/L		105	40 - 140		
		LCS	LCS								
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	36		15 - 110								

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-166136/1-A

Matrix: Water

Analysis Batch: 166148

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 166136

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	0.89	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.47	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.45	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.24	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.42	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.28	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.30	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.34	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.39	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.43	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.63	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.25	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.30	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.23	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.29	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.31	ng/L		04/23/21 12:56	04/23/21 17:41	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.58	ng/L		04/23/21 12:56	04/23/21 17:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	0.90	ng/L		04/23/21 12:56	04/23/21 17:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	0.74	ng/L		04/23/21 12:56	04/23/21 17:41	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		5.0	1.1	ng/L		04/23/21 12:56	04/23/21 17:41	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		2.0	0.39	ng/L		04/23/21 12:56	04/23/21 17:41	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	91		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C4 PFHpA	96		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C4 PFOA	95		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C4 PFOS	92		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C5 PFNA	98		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C4 PFBA	100		25 - 150	04/23/21 12:56	04/23/21 17:41	1
13C2 PFHxA	100		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C2 PFDA	95		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C2 PFUnA	93		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C2 PFDoA	82		50 - 150	04/23/21 12:56	04/23/21 17:41	1
13C8 FOSA	74		25 - 150	04/23/21 12:56	04/23/21 17:41	1
13C5 PFPeA	98		25 - 150	04/23/21 12:56	04/23/21 17:41	1
13C2 PFTeDA	82		50 - 150	04/23/21 12:56	04/23/21 17:41	1
d3-NMeFOSAA	90		50 - 150	04/23/21 12:56	04/23/21 17:41	1
d5-NEtFOSAA	96		50 - 150	04/23/21 12:56	04/23/21 17:41	1
M2-6:2 FTS	98		25 - 150	04/23/21 12:56	04/23/21 17:41	1
M2-8:2 FTS	101		25 - 150	04/23/21 12:56	04/23/21 17:41	1
13C3 PFBS	94		50 - 150	04/23/21 12:56	04/23/21 17:41	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

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

Lab Sample ID: LCS 200-166136/2-A

Matrix: Water

Analysis Batch: 166148

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166136

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	39.5		ng/L		99	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	40.2		ng/L		100	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	39.6		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	41.3		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	39.8		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	40.0	35.4		ng/L		88	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	41.0		ng/L		102	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	38.9		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	40.3		ng/L		101	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	37.0		ng/L		93	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	38.4		ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	35.0		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.6		ng/L		98	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	36.9		ng/L		97	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	36.8		ng/L		99	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	32.7		ng/L		85	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	40.5		ng/L		101	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	36.2		ng/L		91	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.3		ng/L		96	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	41.4		ng/L		109	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	40.4		ng/L		105	50 - 150

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	93		50 - 150
13C4 PFHpA	103		50 - 150
13C4 PFOA	98		50 - 150
13C4 PFOS	94		50 - 150
13C5 PFNA	107		50 - 150
13C4 PFBA	104		25 - 150
13C2 PFHxA	102		50 - 150
13C2 PFDA	94		50 - 150
13C2 PFUnA	98		50 - 150
13C2 PFDoA	90		50 - 150
13C8 FOSA	78		25 - 150
13C5 PFPeA	103		25 - 150
13C2 PFTeDA	88		50 - 150
d3-NMeFOSAA	100		50 - 150
d5-NEtFOSAA	101		50 - 150

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

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

Lab Sample ID: LCS 200-166136/2-A

Matrix: Water

Analysis Batch: 166148

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166136

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-6:2 FTS	97		25 - 150
M2-8:2 FTS	102		25 - 150
13C3 PFBS	95		50 - 150

Lab Sample ID: LCSD 200-166136/3-A

Matrix: Water

Analysis Batch: 166148

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 166136

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
Perfluorobutanoic acid (PFBA)	40.0	40.6		ng/L		102	50 - 150	3		30
Perfluoropentanoic acid (PFPeA)	40.0	40.8		ng/L		102	50 - 150	2		30
Perfluorohexanoic acid (PFHxA)	40.0	38.2		ng/L		95	70 - 130	4		20
Perfluoroheptanoic acid (PFHpA)	40.0	41.9		ng/L		105	70 - 130	1		20
Perfluorooctanoic acid (PFOA)	40.0	40.4		ng/L		101	70 - 130	1		20
Perfluorononanoic acid (PFNA)	40.0	35.9		ng/L		90	70 - 130	1		20
Perfluorodecanoic acid (PFDA)	40.0	39.5		ng/L		99	70 - 130	4		20
Perfluoroundecanoic acid (PFUnA)	40.0	38.1		ng/L		95	70 - 130	2		20
Perfluorododecanoic acid (PFDoA)	40.0	41.8		ng/L		104	70 - 130	4		20
Perfluorotridecanoic acid (PFTriA)	40.0	39.0		ng/L		97	70 - 130	5		20
Perfluorotetradecanoic acid (PFTeA)	40.0	42.1		ng/L		105	70 - 130	9		20
Perfluorobutanesulfonic acid (PFBS)	35.4	36.0		ng/L		102	70 - 130	3		20
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.4		ng/L		100	70 - 130	2		20
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	36.9		ng/L		97	50 - 150	0		30
Perfluorooctanesulfonic acid (PFOS)	37.1	38.0		ng/L		102	70 - 130	3		20
Perfluorodecanesulfonic acid (PFDS)	38.6	35.9		ng/L		93	50 - 150	9		30
Perfluorooctanesulfonamide (PFOSA)	40.0	42.2		ng/L		106	50 - 150	4		30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	36.6		ng/L		92	70 - 130	1		20
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.7		ng/L		102	70 - 130	6		20
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	42.0		ng/L		111	50 - 150	2		30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	41.1		ng/L		107	50 - 150	2		30

Isotope Dilution	LCSD LCSD		Limits
	%Recovery	Qualifier	
18O2 PFHxS	89		50 - 150
13C4 PFHpA	97		50 - 150
13C4 PFOA	97		50 - 150
13C4 PFOS	91		50 - 150
13C5 PFNA	101		50 - 150
13C4 PFBA	95		25 - 150

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

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

Lab Sample ID: LCSD 200-166136/3-A

Matrix: Water

Analysis Batch: 166148

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 166136

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C2 PFHxA	98		50 - 150
13C2 PFDA	98		50 - 150
13C2 PFUnA	96		50 - 150
13C2 PFDoA	84		50 - 150
13C8 FOSA	75		25 - 150
13C5 PFPeA	95		25 - 150
13C2 PFTeDA	86		50 - 150
d3-NMeFOSAA	91		50 - 150
d5-NEtFOSAA	87		50 - 150
M2-6:2 FTS	93		25 - 150
M2-8:2 FTS	103		25 - 150
13C3 PFBS	88		50 - 150

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

GC/MS VOA

Analysis Batch: 577345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183403-1	4009-11	Total/NA	Water	8260C	
MB 480-577345/7	Method Blank	Total/NA	Water	8260C	
LCS 480-577345/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 576820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183403-1	4009-11	Total/NA	Water	3510C	
480-183403-2	EQUIP BLANK 5	Total/NA	Water	3510C	
480-183403-3	FIELD BLANK	Total/NA	Water	3510C	
MB 480-576820/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-576820/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 577051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183403-1	4009-11	Total/NA	Water	8270D SIM ID	576820
480-183403-2	EQUIP BLANK 5	Total/NA	Water	8270D SIM ID	576820
480-183403-3	FIELD BLANK	Total/NA	Water	8270D SIM ID	576820
MB 480-576820/1-A	Method Blank	Total/NA	Water	8270D SIM ID	576820
LCS 480-576820/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	576820

LCMS

Prep Batch: 166136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183403-1	4009-11	Total/NA	Water	3535	
480-183403-2	EQUIP BLANK 5	Total/NA	Water	3535	
480-183403-3	FIELD BLANK	Total/NA	Water	3535	
MB 200-166136/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-166136/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-166136/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 166148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183403-1	4009-11	Total/NA	Water	537 (modified)	166136
480-183403-2	EQUIP BLANK 5	Total/NA	Water	537 (modified)	166136
480-183403-3	FIELD BLANK	Total/NA	Water	537 (modified)	166136
MB 200-166136/1-A	Method Blank	Total/NA	Water	537 (modified)	166136
LCS 200-166136/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	166136
LCSD 200-166136/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	166136

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183403-1

Client Sample ID: 4009-11

Lab Sample ID: 480-183403-1

Date Collected: 04/14/21 15:05

Matrix: Water

Date Received: 04/16/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	577345	04/22/21 14:36	CRL	TAL BUF
Total/NA	Prep	3510C			576820	04/19/21 09:25	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		10	577051	04/20/21 18:25	PJQ	TAL BUF
Total/NA	Prep	3535			166136	04/23/21 12:56	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166148	04/23/21 18:56	BWC	TAL BUR

Client Sample ID: EQUIP BLANK 5

Lab Sample ID: 480-183403-2

Date Collected: 04/14/21 14:05

Matrix: Water

Date Received: 04/16/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			576820	04/19/21 09:25	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	577051	04/20/21 18:49	PJQ	TAL BUF
Total/NA	Prep	3535			166136	04/23/21 12:56	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166148	04/23/21 19:04	BWC	TAL BUR

Client Sample ID: FIELD BLANK

Lab Sample ID: 480-183403-3

Date Collected: 04/14/21 14:00

Matrix: Water

Date Received: 04/16/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			576820	04/19/21 09:25	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	577051	04/20/21 19:13	PJQ	TAL BUF
Total/NA	Prep	3535			166136	04/23/21 12:56	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	166148	04/23/21 19:13	BWC	TAL BUR

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: New York State D.E.C.

Job ID: 480-183403-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Laboratory: Eurofins TestAmerica, Burlington

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: New York State D.E.C.

Job ID: 480-183403-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: New York State D.E.C.

Job ID: 480-183403-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-183403-1	4009-11	Water	04/14/21 15:05	04/16/21 08:00	
480-183403-2	EQUIP BLANK 5	Water	04/14/21 14:05	04/16/21 08:00	
480-183403-3	FIELD BLANK	Water	04/14/21 14:00	04/16/21 08:00	

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax:

Amherst, NY 14228-2298

Phone: 716-691-2600 Fax: 716-691-7991

#224

[illegible]

Client Information Client Contact: Ms. Kati Lilioia Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Phone: 518-402-9625(Tel) Email: kati.lilioia@arcadis.com Project Name: Vestal Water Supply (Site 1-1) #704009A Site:		Lab PM: Stone, Judy L Carrier Tracking No(s): 480-159103-35000.4 State of Origin:	
Due Date Requested:		Analysis Requested:	
TAT Requested (days): 5		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ascorbic Acid H - Ascorbic Acid I - Ice J - DI Water K - EDTA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Compliance Project: ☒ Yes ☐ No PO #: 138000 Callout: 138000 WO #:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ascorbic Acid H - Ascorbic Acid I - Ice J - DI Water K - EDTA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project #: 48023280 SOW#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ascorbic Acid H - Ascorbic Acid I - Ice J - DI Water K - EDTA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification 4009-11 Equis Blank 5 Field Blank		Special Instructions/Note: Top Blank	
Sample Date 4/14/21 4/14/21 4/14/21		Sample Time 1505 1405 1400	
Sample Type G G G		Matrix Water Water Water	
Field Filtered Sample (Yes or No) ☒ Yes ☐ No		Field Filtered Sample (Yes or No) ☒ Yes ☐ No	
PFC, IDA - PFAS, Standard List (21 analytes) ☒ Yes ☐ No		PFC, IDA - PFAS, Standard List (21 analytes) ☒ Yes ☐ No	
Perform MS/MSD (Yes or No) ☒ Yes ☐ No		Perform MS/MSD (Yes or No) ☒ Yes ☐ No	
8260C - (MOD) TCL list OLM04.2 ☒ Yes ☐ No		8260C - (MOD) TCL list OLM04.2 ☒ Yes ☐ No	
8270D - SIM, MS, ID - SIM List ☒ Yes ☐ No		8270D - SIM, MS, ID - SIM List ☒ Yes ☐ No	
Barcode: 480-183403 Chain of Custody		Barcode: 480-183403 Chain of Custody	
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV/Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months	
Empty Kit Relinquished by:		Special Instructions/QC Requirements:	
Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		Method of Shipment:	
Date: 4/14/21 1730 Date/Time: 4/15/21 1700		Date: 4/15/21 0900 Date/Time: 4/16/21 10:35	
Company: Arcadis Company: Eurofins Company: Eurofins		Company: Eurofins Company: Eurofins Company: Eurofins	
Custody Seal No.: Custody Seal Intact: ☒ Yes ☐ No		Cooler Temperature(s) °C and Other Remarks:	

FROM: (518) 438-8...
TIM KNOLLMEYER
TESTAMERICA LAB INC
25 KRAFT AVE

ALBANY NY 12205
US

SHIP DATE: 12/11/20
ACTWGT: 16.60 LB
CAD: 0886598/CAFE3409

BILL 3rd PARTY

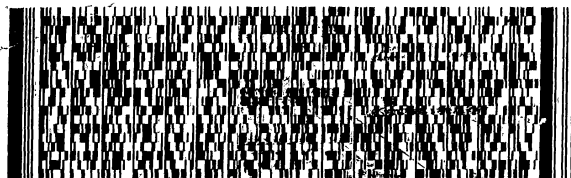
561C2/SEF2/05A2

TO **SAMPLE RECEIVING**
TESTAMERICA - BURLINGTON
30 COMMUNITY DRIVE, SUITE 11

BURLINGTON VT 05403

(US)

(802) 660-1990
REF: VESTAL PEAS



FedEx
Ground



J20112012180101

TRK# **5013 1604 7635**

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183403-1

Login Number: 183403

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Wallace, Cameron

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

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183403-1

Login Number: 183403

List Source: Eurofins TestAmerica, Burlington

List Number: 2

List Creation: 04/16/21 03:29 PM

Creator: Khudaier, Zahraa

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1479219
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	JD
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

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

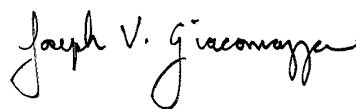
Laboratory Job ID: 480-180312-1

Client Project/Site: Vestal Water Supply #7004009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:

1/26/2021 2:28:28 PM

Joe Giacomazza, Project Manager I
joe.giacomazza@testamericainc.com

Designee for

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

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

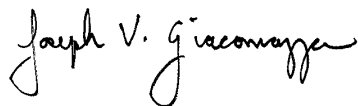
The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

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



Joe Giacomazza
Project Manager I
1/26/2021 2:28:28 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	16
Lab Chronicle	17
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	22



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Job ID: 480-180312-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-180312-1

Comments

No additional comments.

Receipt

The samples were received on 1/16/2021 12:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9° C.

GC/MS VOA

Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 567060. The following samples were affected : Well 1-2A (480-180312-1), Well 1-3 (480-180312-2) and Trip Blank (480-180312-3).

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Client Sample ID: Well 1-2A

Lab Sample ID: 480-180312-1

No Detections.

Client Sample ID: Well 1-3

Lab Sample ID: 480-180312-2

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 480-180312-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Client Sample ID: Well 1-2A

Lab Sample ID: 480-180312-1

Date Collected: 01/15/21 09:10

Matrix: Water

Date Received: 01/16/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/23/21 12:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/23/21 12:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/23/21 12:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/23/21 12:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/23/21 12:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/23/21 12:16	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			01/23/21 12:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/23/21 12:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			01/23/21 12:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/23/21 12:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/23/21 12:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/23/21 12:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/23/21 12:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/23/21 12:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			01/23/21 12:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/23/21 12:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/23/21 12:16	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			01/23/21 12:16	1
2-Hexanone	ND		5.0	1.2	ug/L			01/23/21 12:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/23/21 12:16	1
Acetone	ND		10	3.0	ug/L			01/23/21 12:16	1
Benzene	ND		1.0	0.41	ug/L			01/23/21 12:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/23/21 12:16	1
Bromoform	ND		1.0	0.26	ug/L			01/23/21 12:16	1
Bromomethane	ND		1.0	0.69	ug/L			01/23/21 12:16	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/23/21 12:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/23/21 12:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/23/21 12:16	1
Chloroethane	ND		1.0	0.32	ug/L			01/23/21 12:16	1
Chloroform	ND		1.0	0.34	ug/L			01/23/21 12:16	1
Chloromethane	ND		1.0	0.35	ug/L			01/23/21 12:16	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/23/21 12:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/23/21 12:16	1
Cyclohexane	ND		1.0	0.18	ug/L			01/23/21 12:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/23/21 12:16	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/23/21 12:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/23/21 12:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/23/21 12:16	1
Methyl acetate	ND		2.5	1.3	ug/L			01/23/21 12:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/23/21 12:16	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/23/21 12:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/23/21 12:16	1
Styrene	ND		1.0	0.73	ug/L			01/23/21 12:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/23/21 12:16	1
Toluene	ND		1.0	0.51	ug/L			01/23/21 12:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/23/21 12:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/23/21 12:16	1
Trichloroethene	ND		1.0	0.46	ug/L			01/23/21 12:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/23/21 12:16	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Client Sample ID: Well 1-2A

Lab Sample ID: 480-180312-1

Date Collected: 01/15/21 09:10

Matrix: Water

Date Received: 01/16/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.90	ug/L			01/23/21 12:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/23/21 12:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120					01/23/21 12:16	1
4-Bromofluorobenzene (Surr)	102		73 - 120					01/23/21 12:16	1
Dibromofluoromethane (Surr)	107		75 - 123					01/23/21 12:16	1
Toluene-d8 (Surr)	99		80 - 120					01/23/21 12:16	1

Client Sample ID: Well 1-3

Lab Sample ID: 480-180312-2

Date Collected: 01/15/21 09:15

Matrix: Water

Date Received: 01/16/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/23/21 12:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/23/21 12:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/23/21 12:39	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/23/21 12:39	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/23/21 12:39	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/23/21 12:39	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			01/23/21 12:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/23/21 12:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			01/23/21 12:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/23/21 12:39	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/23/21 12:39	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/23/21 12:39	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/23/21 12:39	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/23/21 12:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			01/23/21 12:39	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/23/21 12:39	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/23/21 12:39	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			01/23/21 12:39	1
2-Hexanone	ND		5.0	1.2	ug/L			01/23/21 12:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/23/21 12:39	1
Acetone	ND		10	3.0	ug/L			01/23/21 12:39	1
Benzene	ND		1.0	0.41	ug/L			01/23/21 12:39	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/23/21 12:39	1
Bromoform	ND		1.0	0.26	ug/L			01/23/21 12:39	1
Bromomethane	ND		1.0	0.69	ug/L			01/23/21 12:39	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/23/21 12:39	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/23/21 12:39	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/23/21 12:39	1
Chloroethane	ND		1.0	0.32	ug/L			01/23/21 12:39	1
Chloroform	ND		1.0	0.34	ug/L			01/23/21 12:39	1
Chloromethane	ND		1.0	0.35	ug/L			01/23/21 12:39	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/23/21 12:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/23/21 12:39	1
Cyclohexane	ND		1.0	0.18	ug/L			01/23/21 12:39	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/23/21 12:39	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Client Sample ID: Well 1-3

Lab Sample ID: 480-180312-2

Date Collected: 01/15/21 09:15

Matrix: Water

Date Received: 01/16/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/23/21 12:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/23/21 12:39	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/23/21 12:39	1
Methyl acetate	ND		2.5	1.3	ug/L			01/23/21 12:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/23/21 12:39	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/23/21 12:39	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/23/21 12:39	1
Styrene	ND		1.0	0.73	ug/L			01/23/21 12:39	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/23/21 12:39	1
Toluene	ND		1.0	0.51	ug/L			01/23/21 12:39	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/23/21 12:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/23/21 12:39	1
Trichloroethene	ND		1.0	0.46	ug/L			01/23/21 12:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/23/21 12:39	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/23/21 12:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/23/21 12:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		01/23/21 12:39	1
4-Bromofluorobenzene (Surr)	101		73 - 120		01/23/21 12:39	1
Dibromofluoromethane (Surr)	107		75 - 123		01/23/21 12:39	1
Toluene-d8 (Surr)	99		80 - 120		01/23/21 12:39	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-180312-3

Date Collected: 01/15/21 00:00

Matrix: Water

Date Received: 01/16/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/23/21 13:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/23/21 13:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/23/21 13:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/23/21 13:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/23/21 13:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/23/21 13:03	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			01/23/21 13:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/23/21 13:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			01/23/21 13:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/23/21 13:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/23/21 13:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/23/21 13:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/23/21 13:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/23/21 13:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			01/23/21 13:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/23/21 13:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/23/21 13:03	1
2-Butanone (MEK)	ND	+	10	1.3	ug/L			01/23/21 13:03	1
2-Hexanone	ND		5.0	1.2	ug/L			01/23/21 13:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/23/21 13:03	1
Acetone	ND		10	3.0	ug/L			01/23/21 13:03	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Client Sample ID: Trip Blank

Lab Sample ID: 480-180312-3

Date Collected: 01/15/21 00:00

Matrix: Water

Date Received: 01/16/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/23/21 13:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/23/21 13:03	1
Bromoform	ND		1.0	0.26	ug/L			01/23/21 13:03	1
Bromomethane	ND		1.0	0.69	ug/L			01/23/21 13:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/23/21 13:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/23/21 13:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/23/21 13:03	1
Chloroethane	ND		1.0	0.32	ug/L			01/23/21 13:03	1
Chloroform	ND		1.0	0.34	ug/L			01/23/21 13:03	1
Chloromethane	ND		1.0	0.35	ug/L			01/23/21 13:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/23/21 13:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/23/21 13:03	1
Cyclohexane	ND		1.0	0.18	ug/L			01/23/21 13:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/23/21 13:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/23/21 13:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/23/21 13:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/23/21 13:03	1
Methyl acetate	ND		2.5	1.3	ug/L			01/23/21 13:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/23/21 13:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/23/21 13:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/23/21 13:03	1
Styrene	ND		1.0	0.73	ug/L			01/23/21 13:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/23/21 13:03	1
Toluene	ND		1.0	0.51	ug/L			01/23/21 13:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/23/21 13:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/23/21 13:03	1
Trichloroethene	ND		1.0	0.46	ug/L			01/23/21 13:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/23/21 13:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/23/21 13:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/23/21 13:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		01/23/21 13:03	1
4-Bromofluorobenzene (Surr)	102		73 - 120		01/23/21 13:03	1
Dibromofluoromethane (Surr)	106		75 - 123		01/23/21 13:03	1
Toluene-d8 (Surr)	100		80 - 120		01/23/21 13:03	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-180312-1	Well 1-2A	102	102	107	99
480-180312-2	Well 1-3	103	101	107	99
480-180312-3	Trip Blank	103	102	106	100
LCS 480-567060/5	Lab Control Sample	109	103	106	98
LCSD 480-567060/6	Lab Control Sample Dup	107	101	105	98
MB 480-567060/9	Method Blank	103	101	106	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

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

Lab Sample ID: MB 480-567060/9

Matrix: Water

Analysis Batch: 567060

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/23/21 11:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/23/21 11:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/23/21 11:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/23/21 11:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/23/21 11:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/23/21 11:42	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			01/23/21 11:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/23/21 11:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			01/23/21 11:42	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/23/21 11:42	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/23/21 11:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/23/21 11:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/23/21 11:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/23/21 11:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			01/23/21 11:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/23/21 11:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/23/21 11:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/23/21 11:42	1
2-Hexanone	ND		5.0	1.2	ug/L			01/23/21 11:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/23/21 11:42	1
Acetone	ND		10	3.0	ug/L			01/23/21 11:42	1
Benzene	ND		1.0	0.41	ug/L			01/23/21 11:42	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/23/21 11:42	1
Bromoform	ND		1.0	0.26	ug/L			01/23/21 11:42	1
Bromomethane	ND		1.0	0.69	ug/L			01/23/21 11:42	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/23/21 11:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/23/21 11:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/23/21 11:42	1
Chloroethane	ND		1.0	0.32	ug/L			01/23/21 11:42	1
Chloroform	ND		1.0	0.34	ug/L			01/23/21 11:42	1
Chloromethane	ND		1.0	0.35	ug/L			01/23/21 11:42	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/23/21 11:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/23/21 11:42	1
Cyclohexane	ND		1.0	0.18	ug/L			01/23/21 11:42	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/23/21 11:42	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/23/21 11:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/23/21 11:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/23/21 11:42	1
Methyl acetate	ND		2.5	1.3	ug/L			01/23/21 11:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/23/21 11:42	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/23/21 11:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/23/21 11:42	1
Styrene	ND		1.0	0.73	ug/L			01/23/21 11:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/23/21 11:42	1
Toluene	ND		1.0	0.51	ug/L			01/23/21 11:42	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/23/21 11:42	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/23/21 11:42	1
Trichloroethene	ND		1.0	0.46	ug/L			01/23/21 11:42	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

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

Lab Sample ID: MB 480-567060/9

Matrix: Water

Analysis Batch: 567060

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/23/21 11:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/23/21 11:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/23/21 11:42	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120					01/23/21 11:42	1
4-Bromofluorobenzene (Surr)	101		73 - 120					01/23/21 11:42	1
Dibromofluoromethane (Surr)	106		75 - 123					01/23/21 11:42	1
Toluene-d8 (Surr)	99		80 - 120					01/23/21 11:42	1

Lab Sample ID: LCS 480-567060/5

Matrix: Water

Analysis Batch: 567060

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	26.8		ug/L		107	73 - 126
1,1,2,2-Tetrachloroethane	25.0	23.5		ug/L		94	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.3		ug/L		89	61 - 148
1,1,2-Trichloroethane	25.0	24.6		ug/L		99	76 - 122
1,1-Dichloroethane	25.0	25.7		ug/L		103	77 - 120
1,1-Dichloroethene	25.0	24.7		ug/L		99	66 - 127
1,2,3-Trimethylbenzene	25.0	25.2		ug/L		101	78 - 120
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	79 - 122
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	24.3		ug/L		97	56 - 134
1,2-Dibromoethane	25.0	25.0		ug/L		100	77 - 120
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	25.2		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	23.9		ug/L		96	76 - 120
1,3,5-Trimethylbenzene	25.0	24.4		ug/L		98	77 - 121
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	24.8		ug/L		99	80 - 120
2-Butanone (MEK)	125	229	*+	ug/L		183	57 - 140
2-Hexanone	125	120		ug/L		96	65 - 127
4-Methyl-2-pentanone (MIBK)	125	117		ug/L		94	71 - 125
Acetone	125	132		ug/L		105	56 - 142
Benzene	25.0	24.3		ug/L		97	71 - 124
Bromodichloromethane	25.0	26.6		ug/L		106	80 - 122
Bromoform	25.0	26.6		ug/L		106	61 - 132
Bromomethane	25.0	25.3		ug/L		101	55 - 144
Carbon disulfide	25.0	22.7		ug/L		91	59 - 134
Carbon tetrachloride	25.0	27.0		ug/L		108	72 - 134
Chlorobenzene	25.0	25.0		ug/L		100	80 - 120
Chloroethane	25.0	23.5		ug/L		94	69 - 136
Chloroform	25.0	24.4		ug/L		98	73 - 127
Chloromethane	25.0	25.1		ug/L		100	68 - 124
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	74 - 124
cis-1,3-Dichloropropene	25.0	25.4		ug/L		102	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

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

Lab Sample ID: LCS 480-567060/5

Matrix: Water

Analysis Batch: 567060

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	24.9		ug/L		99	59 - 135
Dibromochloromethane	25.0	26.3		ug/L		105	75 - 125
Dichlorodifluoromethane	25.0	27.6		ug/L		110	59 - 135
Ethylbenzene	25.0	24.9		ug/L		100	77 - 123
Isopropylbenzene	25.0	24.9		ug/L		100	77 - 122
Methyl acetate	50.0	47.4		ug/L		95	74 - 133
Methyl tert-butyl ether	25.0	23.8		ug/L		95	77 - 120
Methylcyclohexane	25.0	24.5		ug/L		98	68 - 134
Methylene Chloride	25.0	23.5		ug/L		94	75 - 124
Styrene	25.0	25.6		ug/L		103	80 - 120
Tetrachloroethene	25.0	27.0		ug/L		108	74 - 122
Toluene	25.0	24.3		ug/L		97	80 - 122
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	73 - 127
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	80 - 120
Trichloroethene	25.0	25.3		ug/L		101	74 - 123
Trichlorofluoromethane	25.0	28.3		ug/L		113	62 - 150
Vinyl chloride	25.0	25.8		ug/L		103	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		77 - 120
4-Bromofluorobenzene (Surr)	103		73 - 120
Dibromofluoromethane (Surr)	106		75 - 123
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LCSD 480-567060/6

Matrix: Water

Analysis Batch: 567060

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	27.0		ug/L		108	73 - 126	1	15
1,1,1,2-Tetrachloroethane	25.0	23.2		ug/L		93	76 - 120	2	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	21.9		ug/L		88	61 - 148	2	20
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	76 - 122	0	15
1,1-Dichloroethane	25.0	25.5		ug/L		102	77 - 120	1	20
1,1-Dichloroethene	25.0	24.3		ug/L		97	66 - 127	2	16
1,2,3-Trimethylbenzene	25.0	24.9		ug/L		100	78 - 120	1	20
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	79 - 122	0	20
1,2,4-Trimethylbenzene	25.0	24.7		ug/L		99	76 - 121	2	20
1,2-Dibromo-3-Chloropropane	25.0	24.0		ug/L		96	56 - 134	1	15
1,2-Dibromoethane	25.0	25.3		ug/L		101	77 - 120	1	15
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 124	2	20
1,2-Dichloroethane	25.0	25.6		ug/L		103	75 - 120	2	20
1,2-Dichloropropane	25.0	24.3		ug/L		97	76 - 120	2	20
1,3,5-Trimethylbenzene	25.0	24.0		ug/L		96	77 - 121	2	20
1,3-Dichlorobenzene	25.0	24.4		ug/L		98	77 - 120	2	20
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	80 - 120	2	20
2-Butanone (MEK)	125	230	*+	ug/L		184	57 - 140	0	20
2-Hexanone	125	120		ug/L		96	65 - 127	0	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

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

Lab Sample ID: LCSD 480-567060/6

Matrix: Water

Analysis Batch: 567060

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	125	116		ug/L		93	71 - 125	0	35
Acetone	125	130		ug/L		104	56 - 142	1	15
Benzene	25.0	24.2		ug/L		97	71 - 124	0	13
Bromodichloromethane	25.0	26.6		ug/L		106	80 - 122	0	15
Bromoform	25.0	26.3		ug/L		105	61 - 132	1	15
Bromomethane	25.0	25.3		ug/L		101	55 - 144	0	15
Carbon disulfide	25.0	22.5		ug/L		90	59 - 134	1	15
Carbon tetrachloride	25.0	25.7		ug/L		103	72 - 134	5	15
Chlorobenzene	25.0	25.1		ug/L		101	80 - 120	1	25
Chloroethane	25.0	22.7		ug/L		91	69 - 136	3	15
Chloroform	25.0	24.2		ug/L		97	73 - 127	1	20
Chloromethane	25.0	25.1		ug/L		101	68 - 124	0	15
cis-1,2-Dichloroethene	25.0	24.9		ug/L		100	74 - 124	2	15
cis-1,3-Dichloropropene	25.0	26.3		ug/L		105	74 - 124	3	15
Cyclohexane	25.0	24.9		ug/L		100	59 - 135	0	20
Dibromochloromethane	25.0	27.0		ug/L		108	75 - 125	3	15
Dichlorodifluoromethane	25.0	27.3		ug/L		109	59 - 135	1	20
Ethylbenzene	25.0	25.0		ug/L		100	77 - 123	0	15
Isopropylbenzene	25.0	24.5		ug/L		98	77 - 122	2	20
Methyl acetate	50.0	46.5		ug/L		93	74 - 133	2	20
Methyl tert-butyl ether	25.0	24.1		ug/L		96	77 - 120	1	37
Methylcyclohexane	25.0	25.0		ug/L		100	68 - 134	2	20
Methylene Chloride	25.0	23.3		ug/L		93	75 - 124	1	15
Styrene	25.0	25.5		ug/L		102	80 - 120	1	20
Tetrachloroethene	25.0	27.4		ug/L		110	74 - 122	2	20
Toluene	25.0	24.4		ug/L		98	80 - 122	1	15
trans-1,2-Dichloroethene	25.0	24.6		ug/L		98	73 - 127	1	20
trans-1,3-Dichloropropene	25.0	25.2		ug/L		101	80 - 120	1	15
Trichloroethene	25.0	25.6		ug/L		102	74 - 123	1	16
Trichlorofluoromethane	25.0	28.1		ug/L		112	62 - 150	1	20
Vinyl chloride	25.0	26.1		ug/L		104	65 - 133	1	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 120
4-Bromofluorobenzene (Surr)	101		73 - 120
Dibromofluoromethane (Surr)	105		75 - 123
Toluene-d8 (Surr)	98		80 - 120

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

GC/MS VOA

Analysis Batch: 567060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180312-1	Well 1-2A	Total/NA	Water	8260C	
480-180312-2	Well 1-3	Total/NA	Water	8260C	
480-180312-3	Trip Blank	Total/NA	Water	8260C	
MB 480-567060/9	Method Blank	Total/NA	Water	8260C	
LCS 480-567060/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-567060/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Client Sample ID: Well 1-2A

Lab Sample ID: 480-180312-1

Date Collected: 01/15/21 09:10

Matrix: Water

Date Received: 01/16/21 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	567060	01/23/21 12:16	RJF	TAL BUF

Client Sample ID: Well 1-3

Lab Sample ID: 480-180312-2

Date Collected: 01/15/21 09:15

Matrix: Water

Date Received: 01/16/21 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	567060	01/23/21 12:39	RJF	TAL BUF

Client Sample ID: Trip Blank

Lab Sample ID: 480-180312-3

Date Collected: 01/15/21 00:00

Matrix: Water

Date Received: 01/16/21 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	567060	01/23/21 13:03	RJF	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Method Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-180312-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-180312-1	Well 1-2A	Water	01/15/21 09:10	01/16/21 12:00	
480-180312-2	Well 1-3	Water	01/15/21 09:15	01/16/21 12:00	
480-180312-3	Trip Blank	Water	01/15/21 00:00	01/16/21 12:00	

Chain of Custody Record

Client Information		Sampler: <u>Jason Gutkowski</u>		Lab PM: <u>Stone, Judy L</u>		Carrier Tracking No(s): <u>Syracuse</u>		COC No: <u>480-155356-34437.1</u>	
Client Contact: <u>Jason Gutkowski</u>		Phone: <u>315 4363605</u>		E-Mail: <u>Judy.Stone@Eurofinset.com</u>		Page: <u>1 of 1</u>		Job #: <u>#225</u>	
Company: <u>ARCADIS U.S., Inc.</u>		PWSID: <u></u>		Analysis Requested: <u>#225</u>					
Address: <u>One Lincoln Center 110 West Fayette St, Suite 300</u>		Due Date Requested: <u></u>							
City: <u>Syracuse</u>		TAT Requested (days): <u>Standard & Turn</u>							
State Zip: <u>NY, 13202</u>		Compliance Project: <u>Yes No</u>							
Phone: <u>518-402-9625(Tel)</u>		PO #: <u></u>							
Email: <u>jason.gutkowski@arcadis.com</u>		Callout: <u>WAD009804-10</u>							
Project Name: <u>Vestal Water Supply #7004001A</u>		WO #: <u>D009804-10</u>							
Site: <u>Town Of Vestal Water Supply</u>		Project #: <u>48023280</u>							
		SSOW#: <u>30054253</u>							

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
Well 1-2A	1/15/21	0910	G	Water	N	X		3	
Well 1-3	↓	0915	↓	Water	↓	↓		3	
Trip Blank	↓	-	-	Water	↓	↓		2	
 480-180312 Chain of Custody									

Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	
Deliverable Requested: I, II, III, IV, Other (specify) <u></u>	
Empty Kit Relinquished by: <u></u> Date: <u></u>	
Relinquished by: <u>Jason Gutkowski</u> Date: <u>1/15/21</u> / <u>1430</u> Company: <u>Arcadis</u>	
Relinquished by: <u>R. Rughlin</u> Date: <u>1-15-21</u> / <u>1900</u> Company: <u>Syn</u>	
Relinquished by: <u></u> Date: <u></u> Company: <u></u>	
Custody Seals Intact: <u>Yes</u> <u>No</u>	Custody Seal No.: <u></u>

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For <u>Months</u>	
Special Instructions/QC Requirements: <u></u>	
Method of Shipment: <u></u>	
Received by: <u>Ardis</u> Date/Time: <u>1/15/21 1430</u> Company: <u>ES-SIA</u>	
Received by: <u>Ardis</u> Date/Time: <u>1/15/21 1200</u> Company: <u>THB</u>	
Received by: <u></u> Date/Time: <u></u> Company: <u></u>	
Cooler Temperature(s) °C and Other Remarks: <u>#1 21</u>	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-180312-1

Login Number: 180312

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

ANALYTICAL REPORT

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

Laboratory Job ID: 480-181297-1

Client Project/Site: Vestal Water Supply #7004009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:
2/25/2021 4:01:37 PM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

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



Judy Stone
Senior Project Manager
2/25/2021 4:01:37 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	16
Lab Chronicle	17
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	22



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Qualifiers

GC/MS VOA

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

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Job ID: 480-181297-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-181297-1

Receipt

The samples were received on 2/18/2021 12:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 570078. The following samples were affected : WELL 1-2A (480-181297-1), WELL 1-3 (480-181297-2) and TRIP BLANK (480-181297-3).

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-181297-1

No Detections.

Client Sample ID: WELL 1-3

Lab Sample ID: 480-181297-2

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-181297-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.5	J	10	3.0	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-181297-1

Date Collected: 02/17/21 11:00

Matrix: Water

Date Received: 02/18/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/19/21 12:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/19/21 12:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/19/21 12:44	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/19/21 12:44	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/19/21 12:44	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/19/21 12:44	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			02/19/21 12:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/19/21 12:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			02/19/21 12:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/19/21 12:44	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/19/21 12:44	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/19/21 12:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/19/21 12:44	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/19/21 12:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			02/19/21 12:44	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/19/21 12:44	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/19/21 12:44	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			02/19/21 12:44	1
2-Hexanone	ND		5.0	1.2	ug/L			02/19/21 12:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/19/21 12:44	1
Acetone	ND		10	3.0	ug/L			02/19/21 12:44	1
Benzene	ND		1.0	0.41	ug/L			02/19/21 12:44	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/19/21 12:44	1
Bromoform	ND		1.0	0.26	ug/L			02/19/21 12:44	1
Bromomethane	ND		1.0	0.69	ug/L			02/19/21 12:44	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/19/21 12:44	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/19/21 12:44	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/19/21 12:44	1
Chloroethane	ND		1.0	0.32	ug/L			02/19/21 12:44	1
Chloroform	ND		1.0	0.34	ug/L			02/19/21 12:44	1
Chloromethane	ND		1.0	0.35	ug/L			02/19/21 12:44	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/19/21 12:44	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/19/21 12:44	1
Cyclohexane	ND		1.0	0.18	ug/L			02/19/21 12:44	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/19/21 12:44	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/19/21 12:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/19/21 12:44	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/19/21 12:44	1
Methyl acetate	ND		2.5	1.3	ug/L			02/19/21 12:44	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/19/21 12:44	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/19/21 12:44	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/19/21 12:44	1
Styrene	ND		1.0	0.73	ug/L			02/19/21 12:44	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/19/21 12:44	1
Toluene	ND		1.0	0.51	ug/L			02/19/21 12:44	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/19/21 12:44	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/19/21 12:44	1
Trichloroethene	ND		1.0	0.46	ug/L			02/19/21 12:44	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/19/21 12:44	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-181297-1

Date Collected: 02/17/21 11:00

Matrix: Water

Date Received: 02/18/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.90	ug/L			02/19/21 12:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/19/21 12:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		77 - 120					02/19/21 12:44	1
4-Bromofluorobenzene (Surr)	100		73 - 120					02/19/21 12:44	1
Dibromofluoromethane (Surr)	97		75 - 123					02/19/21 12:44	1
Toluene-d8 (Surr)	105		80 - 120					02/19/21 12:44	1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-181297-2

Date Collected: 02/17/21 11:10

Matrix: Water

Date Received: 02/18/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/19/21 13:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/19/21 13:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/19/21 13:08	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/19/21 13:08	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/19/21 13:08	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/19/21 13:08	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			02/19/21 13:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/19/21 13:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			02/19/21 13:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/19/21 13:08	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/19/21 13:08	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/19/21 13:08	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/19/21 13:08	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/19/21 13:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			02/19/21 13:08	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/19/21 13:08	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/19/21 13:08	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			02/19/21 13:08	1
2-Hexanone	ND		5.0	1.2	ug/L			02/19/21 13:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/19/21 13:08	1
Acetone	ND		10	3.0	ug/L			02/19/21 13:08	1
Benzene	ND		1.0	0.41	ug/L			02/19/21 13:08	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/19/21 13:08	1
Bromoform	ND		1.0	0.26	ug/L			02/19/21 13:08	1
Bromomethane	ND		1.0	0.69	ug/L			02/19/21 13:08	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/19/21 13:08	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/19/21 13:08	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/19/21 13:08	1
Chloroethane	ND		1.0	0.32	ug/L			02/19/21 13:08	1
Chloroform	ND		1.0	0.34	ug/L			02/19/21 13:08	1
Chloromethane	ND		1.0	0.35	ug/L			02/19/21 13:08	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/19/21 13:08	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/19/21 13:08	1
Cyclohexane	ND		1.0	0.18	ug/L			02/19/21 13:08	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/19/21 13:08	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-181297-2

Date Collected: 02/17/21 11:10

Matrix: Water

Date Received: 02/18/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/19/21 13:08	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/19/21 13:08	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/19/21 13:08	1
Methyl acetate	ND		2.5	1.3	ug/L			02/19/21 13:08	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/19/21 13:08	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/19/21 13:08	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/19/21 13:08	1
Styrene	ND		1.0	0.73	ug/L			02/19/21 13:08	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/19/21 13:08	1
Toluene	ND		1.0	0.51	ug/L			02/19/21 13:08	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/19/21 13:08	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/19/21 13:08	1
Trichloroethene	ND		1.0	0.46	ug/L			02/19/21 13:08	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/19/21 13:08	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/19/21 13:08	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/19/21 13:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		77 - 120		02/19/21 13:08	1
4-Bromofluorobenzene (Surr)	90		73 - 120		02/19/21 13:08	1
Dibromofluoromethane (Surr)	97		75 - 123		02/19/21 13:08	1
Toluene-d8 (Surr)	98		80 - 120		02/19/21 13:08	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-181297-3

Date Collected: 02/17/21 00:00

Matrix: Water

Date Received: 02/18/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/19/21 13:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/19/21 13:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/19/21 13:34	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/19/21 13:34	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/19/21 13:34	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/19/21 13:34	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			02/19/21 13:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/19/21 13:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			02/19/21 13:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/19/21 13:34	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/19/21 13:34	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/19/21 13:34	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/19/21 13:34	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/19/21 13:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			02/19/21 13:34	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/19/21 13:34	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/19/21 13:34	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			02/19/21 13:34	1
2-Hexanone	ND		5.0	1.2	ug/L			02/19/21 13:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/19/21 13:34	1
Acetone	3.5	J	10	3.0	ug/L			02/19/21 13:34	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-181297-3

Date Collected: 02/17/21 00:00

Matrix: Water

Date Received: 02/18/21 12:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			02/19/21 13:34	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/19/21 13:34	1
Bromoform	ND		1.0	0.26	ug/L			02/19/21 13:34	1
Bromomethane	ND		1.0	0.69	ug/L			02/19/21 13:34	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/19/21 13:34	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/19/21 13:34	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/19/21 13:34	1
Chloroethane	ND		1.0	0.32	ug/L			02/19/21 13:34	1
Chloroform	ND		1.0	0.34	ug/L			02/19/21 13:34	1
Chloromethane	ND		1.0	0.35	ug/L			02/19/21 13:34	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/19/21 13:34	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/19/21 13:34	1
Cyclohexane	ND		1.0	0.18	ug/L			02/19/21 13:34	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/19/21 13:34	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/19/21 13:34	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/19/21 13:34	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/19/21 13:34	1
Methyl acetate	ND		2.5	1.3	ug/L			02/19/21 13:34	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/19/21 13:34	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/19/21 13:34	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/19/21 13:34	1
Styrene	ND		1.0	0.73	ug/L			02/19/21 13:34	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/19/21 13:34	1
Toluene	ND		1.0	0.51	ug/L			02/19/21 13:34	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/19/21 13:34	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/19/21 13:34	1
Trichloroethene	ND		1.0	0.46	ug/L			02/19/21 13:34	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/19/21 13:34	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/19/21 13:34	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/19/21 13:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 120		02/19/21 13:34	1
4-Bromofluorobenzene (Surr)	102		73 - 120		02/19/21 13:34	1
Dibromofluoromethane (Surr)	99		75 - 123		02/19/21 13:34	1
Toluene-d8 (Surr)	103		80 - 120		02/19/21 13:34	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-181297-1	WELL 1-2A	91	100	97	105
480-181297-2	WELL 1-3	91	90	97	98
480-181297-3	TRIP BLANK	94	102	99	103
LCS 480-570078/5	Lab Control Sample	92	92	97	100
LCSD 480-570078/6	Lab Control Sample Dup	91	94	95	100
MB 480-570078/8	Method Blank	94	100	97	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

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

Lab Sample ID: MB 480-570078/8

Matrix: Water

Analysis Batch: 570078

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/19/21 12:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/19/21 12:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/19/21 12:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/19/21 12:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/19/21 12:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/19/21 12:09	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			02/19/21 12:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/19/21 12:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			02/19/21 12:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/19/21 12:09	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/19/21 12:09	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/19/21 12:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/19/21 12:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/19/21 12:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			02/19/21 12:09	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/19/21 12:09	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/19/21 12:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/19/21 12:09	1
2-Hexanone	ND		5.0	1.2	ug/L			02/19/21 12:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/19/21 12:09	1
Acetone	ND		10	3.0	ug/L			02/19/21 12:09	1
Benzene	ND		1.0	0.41	ug/L			02/19/21 12:09	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/19/21 12:09	1
Bromoform	ND		1.0	0.26	ug/L			02/19/21 12:09	1
Bromomethane	ND		1.0	0.69	ug/L			02/19/21 12:09	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/19/21 12:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/19/21 12:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/19/21 12:09	1
Chloroethane	ND		1.0	0.32	ug/L			02/19/21 12:09	1
Chloroform	ND		1.0	0.34	ug/L			02/19/21 12:09	1
Chloromethane	ND		1.0	0.35	ug/L			02/19/21 12:09	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/19/21 12:09	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/19/21 12:09	1
Cyclohexane	ND		1.0	0.18	ug/L			02/19/21 12:09	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/19/21 12:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/19/21 12:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/19/21 12:09	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/19/21 12:09	1
Methyl acetate	ND		2.5	1.3	ug/L			02/19/21 12:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/19/21 12:09	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/19/21 12:09	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/19/21 12:09	1
Styrene	ND		1.0	0.73	ug/L			02/19/21 12:09	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/19/21 12:09	1
Toluene	ND		1.0	0.51	ug/L			02/19/21 12:09	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/19/21 12:09	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/19/21 12:09	1
Trichloroethene	ND		1.0	0.46	ug/L			02/19/21 12:09	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

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

Lab Sample ID: MB 480-570078/8

Matrix: Water

Analysis Batch: 570078

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/19/21 12:09	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/19/21 12:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/19/21 12:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 120					02/19/21 12:09	1
4-Bromofluorobenzene (Surr)	100		73 - 120					02/19/21 12:09	1
Dibromofluoromethane (Surr)	97		75 - 123					02/19/21 12:09	1
Toluene-d8 (Surr)	104		80 - 120					02/19/21 12:09	1

Lab Sample ID: LCS 480-570078/5

Matrix: Water

Analysis Batch: 570078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	22.2		ug/L		89	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.7		ug/L		91	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	21.6		ug/L		86	61 - 148
1,1,2-Trichloroethane	25.0	22.5		ug/L		90	76 - 122
1,1-Dichloroethane	25.0	23.4		ug/L		94	77 - 120
1,1-Dichloroethene	25.0	23.2		ug/L		93	66 - 127
1,2,3-Trimethylbenzene	25.0	22.8		ug/L		91	78 - 120
1,2,4-Trichlorobenzene	25.0	22.8		ug/L		91	79 - 122
1,2,4-Trimethylbenzene	25.0	24.0		ug/L		96	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	21.4		ug/L		86	56 - 134
1,2-Dibromoethane	25.0	21.7		ug/L		87	77 - 120
1,2-Dichlorobenzene	25.0	22.8		ug/L		91	80 - 124
1,2-Dichloroethane	25.0	20.6		ug/L		82	75 - 120
1,2-Dichloropropane	25.0	22.9		ug/L		92	76 - 120
1,3,5-Trimethylbenzene	25.0	23.9		ug/L		95	77 - 121
1,3-Dichlorobenzene	25.0	22.7		ug/L		91	77 - 120
1,4-Dichlorobenzene	25.0	22.2		ug/L		89	80 - 120
2-Butanone (MEK)	125	165		ug/L		132	57 - 140
2-Hexanone	125	100		ug/L		80	65 - 127
4-Methyl-2-pentanone (MIBK)	125	101		ug/L		81	71 - 125
Acetone	125	90.3		ug/L		72	56 - 142
Benzene	25.0	22.7		ug/L		91	71 - 124
Bromodichloromethane	25.0	22.5		ug/L		90	80 - 122
Bromoform	25.0	22.6		ug/L		90	61 - 132
Bromomethane	25.0	23.4		ug/L		94	55 - 144
Carbon disulfide	25.0	24.4		ug/L		98	59 - 134
Carbon tetrachloride	25.0	21.7		ug/L		87	72 - 134
Chlorobenzene	25.0	22.1		ug/L		88	80 - 120
Chloroethane	25.0	24.2		ug/L		97	69 - 136
Chloroform	25.0	21.0		ug/L		84	73 - 127
Chloromethane	25.0	21.4		ug/L		86	68 - 124
cis-1,2-Dichloroethene	25.0	22.2		ug/L		89	74 - 124
cis-1,3-Dichloropropene	25.0	23.2		ug/L		93	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

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

Lab Sample ID: LCS 480-570078/5

Matrix: Water

Analysis Batch: 570078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	21.1		ug/L		85	59 - 135
Dibromochloromethane	25.0	22.2		ug/L		89	75 - 125
Dichlorodifluoromethane	25.0	17.5		ug/L		70	59 - 135
Ethylbenzene	25.0	22.7		ug/L		91	77 - 123
Isopropylbenzene	25.0	24.0		ug/L		96	77 - 122
Methyl acetate	50.0	39.7		ug/L		79	74 - 133
Methyl tert-butyl ether	25.0	22.6		ug/L		91	77 - 120
Methylcyclohexane	25.0	21.8		ug/L		87	68 - 134
Methylene Chloride	25.0	22.8		ug/L		91	75 - 124
Styrene	25.0	23.4		ug/L		94	80 - 120
Tetrachloroethene	25.0	23.1		ug/L		93	74 - 122
Toluene	25.0	22.9		ug/L		91	80 - 122
trans-1,2-Dichloroethene	25.0	23.4		ug/L		94	73 - 127
trans-1,3-Dichloropropene	25.0	23.4		ug/L		93	80 - 120
Trichloroethene	25.0	23.7		ug/L		95	74 - 123
Trichlorofluoromethane	25.0	20.3		ug/L		81	62 - 150
Vinyl chloride	25.0	24.1		ug/L		97	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		77 - 120
4-Bromofluorobenzene (Surr)	92		73 - 120
Dibromofluoromethane (Surr)	97		75 - 123
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 480-570078/6

Matrix: Water

Analysis Batch: 570078

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	24.6		ug/L		98	73 - 126	10	15
1,1,1,2-Tetrachloroethane	25.0	24.8		ug/L		99	76 - 120	9	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.9		ug/L		96	61 - 148	10	20
1,1,2-Trichloroethane	25.0	25.1		ug/L		101	76 - 122	11	15
1,1-Dichloroethane	25.0	26.3		ug/L		105	77 - 120	11	20
1,1-Dichloroethene	25.0	25.5		ug/L		102	66 - 127	10	16
1,2,3-Trimethylbenzene	25.0	25.5		ug/L		102	78 - 120	11	20
1,2,4-Trichlorobenzene	25.0	26.2		ug/L		105	79 - 122	14	20
1,2,4-Trimethylbenzene	25.0	27.0		ug/L		108	76 - 121	12	20
1,2-Dibromo-3-Chloropropane	25.0	23.8		ug/L		95	56 - 134	10	15
1,2-Dibromoethane	25.0	25.1		ug/L		100	77 - 120	14	15
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	80 - 124	13	20
1,2-Dichloroethane	25.0	23.4		ug/L		93	75 - 120	13	20
1,2-Dichloropropane	25.0	25.8		ug/L		103	76 - 120	12	20
1,3,5-Trimethylbenzene	25.0	26.9		ug/L		107	77 - 121	12	20
1,3-Dichlorobenzene	25.0	25.9		ug/L		104	77 - 120	13	20
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	80 - 120	12	20
2-Butanone (MEK)	125	185	*+	ug/L		148	57 - 140	11	20
2-Hexanone	125	115		ug/L		92	65 - 127	13	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

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

Lab Sample ID: LCSD 480-570078/6

Matrix: Water

Analysis Batch: 570078

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	125	114		ug/L		91	71 - 125	12	35
Acetone	125	100		ug/L		80	56 - 142	11	15
Benzene	25.0	24.9		ug/L		100	71 - 124	9	13
Bromodichloromethane	25.0	25.4		ug/L		102	80 - 122	12	15
Bromoform	25.0	25.8		ug/L		103	61 - 132	13	15
Bromomethane	25.0	26.6		ug/L		106	55 - 144	13	15
Carbon disulfide	25.0	26.9		ug/L		107	59 - 134	10	15
Carbon tetrachloride	25.0	24.0		ug/L		96	72 - 134	10	15
Chlorobenzene	25.0	25.2		ug/L		101	80 - 120	13	25
Chloroethane	25.0	27.4		ug/L		109	69 - 136	12	15
Chloroform	25.0	23.2		ug/L		93	73 - 127	10	20
Chloromethane	25.0	24.7		ug/L		99	68 - 124	14	15
cis-1,2-Dichloroethene	25.0	25.0		ug/L		100	74 - 124	12	15
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	74 - 124	13	15
Cyclohexane	25.0	22.9		ug/L		92	59 - 135	8	20
Dibromochloromethane	25.0	25.4		ug/L		102	75 - 125	14	15
Dichlorodifluoromethane	25.0	19.4		ug/L		77	59 - 135	10	20
Ethylbenzene	25.0	25.3		ug/L		101	77 - 123	11	15
Isopropylbenzene	25.0	26.7		ug/L		107	77 - 122	11	20
Methyl acetate	50.0	44.5		ug/L		89	74 - 133	11	20
Methyl tert-butyl ether	25.0	25.7		ug/L		103	77 - 120	13	37
Methylcyclohexane	25.0	23.7		ug/L		95	68 - 134	8	20
Methylene Chloride	25.0	25.4		ug/L		101	75 - 124	11	15
Styrene	25.0	26.4		ug/L		106	80 - 120	12	20
Tetrachloroethene	25.0	25.7		ug/L		103	74 - 122	10	20
Toluene	25.0	25.6		ug/L		103	80 - 122	11	15
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	73 - 127	10	20
trans-1,3-Dichloropropene	25.0	27.0		ug/L		108	80 - 120	14	15
Trichloroethene	25.0	26.1		ug/L		104	74 - 123	10	16
Trichlorofluoromethane	25.0	22.5		ug/L		90	62 - 150	10	20
Vinyl chloride	25.0	27.4		ug/L		110	65 - 133	13	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		77 - 120
4-Bromofluorobenzene (Surr)	94		73 - 120
Dibromofluoromethane (Surr)	95		75 - 123
Toluene-d8 (Surr)	100		80 - 120

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

GC/MS VOA

Analysis Batch: 570078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181297-1	WELL 1-2A	Total/NA	Water	8260C	
480-181297-2	WELL 1-3	Total/NA	Water	8260C	
480-181297-3	TRIP BLANK	Total/NA	Water	8260C	
MB 480-570078/8	Method Blank	Total/NA	Water	8260C	
LCS 480-570078/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-570078/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-181297-1

Date Collected: 02/17/21 11:00

Matrix: Water

Date Received: 02/18/21 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	570078	02/19/21 12:44	CRL	TAL BUF

Client Sample ID: WELL 1-3

Lab Sample ID: 480-181297-2

Date Collected: 02/17/21 11:10

Matrix: Water

Date Received: 02/18/21 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	570078	02/19/21 13:08	CRL	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-181297-3

Date Collected: 02/17/21 00:00

Matrix: Water

Date Received: 02/18/21 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	570078	02/19/21 13:34	CRL	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-21

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Method Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply #7004009A

Job ID: 480-181297-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-181297-1	WELL 1-2A	Water	02/17/21 11:00	02/18/21 12:00	
480-181297-2	WELL 1-3	Water	02/17/21 11:10	02/18/21 12:00	
480-181297-3	TRIP BLANK	Water	02/17/21 00:00	02/18/21 12:00	

Chain of Custody Record

Environment Testing
AmericaSyracuse
Tracking Note(s):

Client Information		Sampler: Jason Gutkowski		Lab PM: Stone, Judy L	GOC No: 480-155357-34437.1				
Client Contact: Jason Gutkowski		Phone: 315 4363605		E-Mail: Judy.Stone@Eurofinset.com	Page: Page 1 of 1				
Company: ARCADIS U.S., Inc.		PWSID:		Job #:					
Address: One Lincoln Center 110 West Fayette St, Suite 300		Due Date Requested:		Analysis Requested					
City: Syracuse		TAT Requested (days):		Preservation Codes:					
State, Zip: NY, 13202		Compliance Project: Standard Turn		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2					
Phone: 518-402-9625(Tel)		PO #: 138000		hydrate					
Email: jason.gutkowski@arcadis.com		WO #: D009804-10		Barcode: 480-181297 Chain of Custody					
Project Name: Vestal Water Supply #7004001A		Project #: 48023280		30054253					
Site: Town of Vestal Water Supply		SSOW#:		Other:					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) TCL list OLM04.2	Total Number of cc	Special Instructions/Note:
Well 1-2A	2/17/21	1100	G	Water	N	X			
Well 1-3		1110	↓	Water	↓	↓			
Trip Blank		—	—	Water	↓	↓			
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months Special Instructions/QC Requirements:									
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date: 02/17/21 / 1414 Company: Arcadis Relinquished by: _____ Date: 2-17-21, 1900 Company: _____ Relinquished by: _____ Date: _____ Company: _____ Custody Seals Intact: ☐ Yes ☐ No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: #1 2.14									

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-181297-1

Login Number: 181297

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Wallace, Cameron

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

ANALYTICAL REPORT

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

Laboratory Job ID: 480-182313-1

Client Project/Site: Vestal Water Supply (Site 1-1) #704009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:
3/31/2021 10:42:54 AM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

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



Judy Stone
Senior Project Manager
3/31/2021 10:42:54 AM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	16
Lab Chronicle	17
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	22



Definitions/Glossary

Client: New York State D.E.C.

Job ID: 480-182313-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

Job ID: 480-182313-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-182313-1

Receipt

The samples were received on 3/20/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3° C.

GC/MS VOA

Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone (MEK) in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) associated with batch 573409. The following samples were affected : WELL 1-2A (480-182313-1), WELL 1-3 (480-182313-2) and TRIP BLANK (480-182313-3).

Method 8260C: The RPD of the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) for analytical batch 480-573409 recovered outside control limits for the following analyte: Chloroethane. The following samples were affected : WELL 1-2A (480-182313-1), WELL 1-3 (480-182313-2) and TRIP BLANK (480-182313-3).

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

Detection Summary

Client: New York State D.E.C.

Job ID: 480-182313-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-182313-1

No Detections.

Client Sample ID: WELL 1-3

Lab Sample ID: 480-182313-2

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-182313-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-182313-1

Date Collected: 03/18/21 10:05

Matrix: Water

Date Received: 03/20/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/23/21 17:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/23/21 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/23/21 17:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/23/21 17:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/23/21 17:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/23/21 17:03	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			03/23/21 17:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/23/21 17:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			03/23/21 17:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/23/21 17:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/23/21 17:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/23/21 17:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/23/21 17:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/23/21 17:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			03/23/21 17:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/23/21 17:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/23/21 17:03	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			03/23/21 17:03	1
2-Hexanone	ND		5.0	1.2	ug/L			03/23/21 17:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/23/21 17:03	1
Acetone	ND		10	3.0	ug/L			03/23/21 17:03	1
Benzene	ND		1.0	0.41	ug/L			03/23/21 17:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/23/21 17:03	1
Bromoform	ND		1.0	0.26	ug/L			03/23/21 17:03	1
Bromomethane	ND		1.0	0.69	ug/L			03/23/21 17:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/23/21 17:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/23/21 17:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/23/21 17:03	1
Chloroethane	ND	*1	1.0	0.32	ug/L			03/23/21 17:03	1
Chloroform	ND		1.0	0.34	ug/L			03/23/21 17:03	1
Chloromethane	ND		1.0	0.35	ug/L			03/23/21 17:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/23/21 17:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/23/21 17:03	1
Cyclohexane	ND		1.0	0.18	ug/L			03/23/21 17:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/23/21 17:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/23/21 17:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/23/21 17:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/23/21 17:03	1
Methyl acetate	ND		2.5	1.3	ug/L			03/23/21 17:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/23/21 17:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/23/21 17:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/23/21 17:03	1
Styrene	ND		1.0	0.73	ug/L			03/23/21 17:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/23/21 17:03	1
Toluene	ND		1.0	0.51	ug/L			03/23/21 17:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/23/21 17:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/23/21 17:03	1
Trichloroethene	ND		1.0	0.46	ug/L			03/23/21 17:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/23/21 17:03	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-182313-1

Date Collected: 03/18/21 10:05

Matrix: Water

Date Received: 03/20/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.90	ug/L			03/23/21 17:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/23/21 17:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					03/23/21 17:03	1
4-Bromofluorobenzene (Surr)	96		73 - 120					03/23/21 17:03	1
Dibromofluoromethane (Surr)	99		75 - 123					03/23/21 17:03	1
Toluene-d8 (Surr)	94		80 - 120					03/23/21 17:03	1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-182313-2

Date Collected: 03/18/21 10:10

Matrix: Water

Date Received: 03/20/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/23/21 17:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/23/21 17:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/23/21 17:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/23/21 17:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/23/21 17:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/23/21 17:27	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			03/23/21 17:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/23/21 17:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			03/23/21 17:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/23/21 17:27	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/23/21 17:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/23/21 17:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/23/21 17:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/23/21 17:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			03/23/21 17:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/23/21 17:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/23/21 17:27	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			03/23/21 17:27	1
2-Hexanone	ND		5.0	1.2	ug/L			03/23/21 17:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/23/21 17:27	1
Acetone	ND		10	3.0	ug/L			03/23/21 17:27	1
Benzene	ND		1.0	0.41	ug/L			03/23/21 17:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/23/21 17:27	1
Bromoform	ND		1.0	0.26	ug/L			03/23/21 17:27	1
Bromomethane	ND		1.0	0.69	ug/L			03/23/21 17:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/23/21 17:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/23/21 17:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/23/21 17:27	1
Chloroethane	ND	*1	1.0	0.32	ug/L			03/23/21 17:27	1
Chloroform	ND		1.0	0.34	ug/L			03/23/21 17:27	1
Chloromethane	ND		1.0	0.35	ug/L			03/23/21 17:27	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/23/21 17:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/23/21 17:27	1
Cyclohexane	ND		1.0	0.18	ug/L			03/23/21 17:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/23/21 17:27	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-182313-2

Date Collected: 03/18/21 10:10

Matrix: Water

Date Received: 03/20/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/23/21 17:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/23/21 17:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/23/21 17:27	1
Methyl acetate	ND		2.5	1.3	ug/L			03/23/21 17:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/23/21 17:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/23/21 17:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/23/21 17:27	1
Styrene	ND		1.0	0.73	ug/L			03/23/21 17:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/23/21 17:27	1
Toluene	ND		1.0	0.51	ug/L			03/23/21 17:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/23/21 17:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/23/21 17:27	1
Trichloroethene	ND		1.0	0.46	ug/L			03/23/21 17:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/23/21 17:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/23/21 17:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/23/21 17:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		03/23/21 17:27	1
4-Bromofluorobenzene (Surr)	99		73 - 120		03/23/21 17:27	1
Dibromofluoromethane (Surr)	99		75 - 123		03/23/21 17:27	1
Toluene-d8 (Surr)	97		80 - 120		03/23/21 17:27	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-182313-3

Date Collected: 03/18/21 00:00

Matrix: Water

Date Received: 03/20/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/23/21 17:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/23/21 17:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/23/21 17:51	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/23/21 17:51	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/23/21 17:51	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/23/21 17:51	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			03/23/21 17:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/23/21 17:51	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			03/23/21 17:51	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/23/21 17:51	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/23/21 17:51	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/23/21 17:51	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/23/21 17:51	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/23/21 17:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			03/23/21 17:51	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/23/21 17:51	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/23/21 17:51	1
2-Butanone (MEK)	ND	+	10	1.3	ug/L			03/23/21 17:51	1
2-Hexanone	ND		5.0	1.2	ug/L			03/23/21 17:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/23/21 17:51	1
Acetone	ND		10	3.0	ug/L			03/23/21 17:51	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-182313-3

Date Collected: 03/18/21 00:00

Matrix: Water

Date Received: 03/20/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			03/23/21 17:51	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/23/21 17:51	1
Bromoform	ND		1.0	0.26	ug/L			03/23/21 17:51	1
Bromomethane	ND		1.0	0.69	ug/L			03/23/21 17:51	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/23/21 17:51	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/23/21 17:51	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/23/21 17:51	1
Chloroethane	ND	*1	1.0	0.32	ug/L			03/23/21 17:51	1
Chloroform	ND		1.0	0.34	ug/L			03/23/21 17:51	1
Chloromethane	ND		1.0	0.35	ug/L			03/23/21 17:51	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/23/21 17:51	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/23/21 17:51	1
Cyclohexane	ND		1.0	0.18	ug/L			03/23/21 17:51	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/23/21 17:51	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/23/21 17:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/23/21 17:51	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/23/21 17:51	1
Methyl acetate	ND		2.5	1.3	ug/L			03/23/21 17:51	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/23/21 17:51	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/23/21 17:51	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/23/21 17:51	1
Styrene	ND		1.0	0.73	ug/L			03/23/21 17:51	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/23/21 17:51	1
Toluene	ND		1.0	0.51	ug/L			03/23/21 17:51	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/23/21 17:51	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/23/21 17:51	1
Trichloroethene	ND		1.0	0.46	ug/L			03/23/21 17:51	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/23/21 17:51	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/23/21 17:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/23/21 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		03/23/21 17:51	1
4-Bromofluorobenzene (Surr)	96		73 - 120		03/23/21 17:51	1
Dibromofluoromethane (Surr)	101		75 - 123		03/23/21 17:51	1
Toluene-d8 (Surr)	94		80 - 120		03/23/21 17:51	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA	BFB	DBFM	TOL
		(77-120)	(73-120)	(75-123)	(80-120)
480-182313-1	WELL 1-2A	104	96	99	94
480-182313-2	WELL 1-3	101	99	99	97
480-182313-3	TRIP BLANK	102	96	101	94
LCS 480-573409/5	Lab Control Sample	106	95	103	97
LCSD 480-573409/6	Lab Control Sample Dup	98	102	95	96
MB 480-573409/8	Method Blank	104	98	103	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: New York State D.E.C.

Job ID: 480-182313-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

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

Lab Sample ID: MB 480-573409/8

Matrix: Water

Analysis Batch: 573409

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/23/21 12:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/23/21 12:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/23/21 12:05	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/23/21 12:05	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/23/21 12:05	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/23/21 12:05	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			03/23/21 12:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/23/21 12:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			03/23/21 12:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/23/21 12:05	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/23/21 12:05	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/23/21 12:05	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/23/21 12:05	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/23/21 12:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			03/23/21 12:05	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/23/21 12:05	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/23/21 12:05	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/23/21 12:05	1
2-Hexanone	ND		5.0	1.2	ug/L			03/23/21 12:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/23/21 12:05	1
Acetone	ND		10	3.0	ug/L			03/23/21 12:05	1
Benzene	ND		1.0	0.41	ug/L			03/23/21 12:05	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/23/21 12:05	1
Bromoform	ND		1.0	0.26	ug/L			03/23/21 12:05	1
Bromomethane	ND		1.0	0.69	ug/L			03/23/21 12:05	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/23/21 12:05	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/23/21 12:05	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/23/21 12:05	1
Chloroethane	ND		1.0	0.32	ug/L			03/23/21 12:05	1
Chloroform	ND		1.0	0.34	ug/L			03/23/21 12:05	1
Chloromethane	ND		1.0	0.35	ug/L			03/23/21 12:05	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/23/21 12:05	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/23/21 12:05	1
Cyclohexane	ND		1.0	0.18	ug/L			03/23/21 12:05	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/23/21 12:05	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/23/21 12:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/23/21 12:05	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/23/21 12:05	1
Methyl acetate	ND		2.5	1.3	ug/L			03/23/21 12:05	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/23/21 12:05	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/23/21 12:05	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/23/21 12:05	1
Styrene	ND		1.0	0.73	ug/L			03/23/21 12:05	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/23/21 12:05	1
Toluene	ND		1.0	0.51	ug/L			03/23/21 12:05	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/23/21 12:05	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/23/21 12:05	1
Trichloroethene	ND		1.0	0.46	ug/L			03/23/21 12:05	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

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

Lab Sample ID: MB 480-573409/8

Matrix: Water

Analysis Batch: 573409

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/23/21 12:05	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/23/21 12:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/23/21 12:05	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					03/23/21 12:05	1
4-Bromofluorobenzene (Surr)	98		73 - 120					03/23/21 12:05	1
Dibromofluoromethane (Surr)	103		75 - 123					03/23/21 12:05	1
Toluene-d8 (Surr)	96		80 - 120					03/23/21 12:05	1

Lab Sample ID: LCS 480-573409/5

Matrix: Water

Analysis Batch: 573409

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	28.6		ug/L		114	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.1		ug/L		105	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.5		ug/L		106	61 - 148
1,1,2-Trichloroethane	25.0	27.6		ug/L		110	76 - 122
1,1-Dichloroethane	25.0	29.9		ug/L		120	77 - 120
1,1-Dichloroethene	25.0	27.3		ug/L		109	66 - 127
1,2,3-Trimethylbenzene	25.0	27.2		ug/L		109	78 - 120
1,2,4-Trichlorobenzene	25.0	27.8		ug/L		111	79 - 122
1,2,4-Trimethylbenzene	25.0	27.1		ug/L		108	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	26.8		ug/L		107	56 - 134
1,2-Dibromoethane	25.0	27.4		ug/L		110	77 - 120
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	28.6		ug/L		115	75 - 120
1,2-Dichloropropane	25.0	28.2		ug/L		113	76 - 120
1,3,5-Trimethylbenzene	25.0	26.7		ug/L		107	77 - 121
1,3-Dichlorobenzene	25.0	26.7		ug/L		107	77 - 120
1,4-Dichlorobenzene	25.0	26.3		ug/L		105	80 - 120
2-Butanone (MEK)	125	259	*+	ug/L		207	57 - 140
2-Hexanone	125	149		ug/L		119	65 - 127
4-Methyl-2-pentanone (MIBK)	125	142		ug/L		113	71 - 125
Acetone	125	150		ug/L		120	56 - 142
Benzene	25.0	28.5		ug/L		114	71 - 124
Bromodichloromethane	25.0	28.3		ug/L		113	80 - 122
Bromoform	25.0	28.4		ug/L		114	61 - 132
Bromomethane	25.0	26.6		ug/L		106	55 - 144
Carbon disulfide	25.0	26.4		ug/L		106	59 - 134
Carbon tetrachloride	25.0	27.5		ug/L		110	72 - 134
Chlorobenzene	25.0	27.2		ug/L		109	80 - 120
Chloroethane	25.0	27.8		ug/L		111	69 - 136
Chloroform	25.0	28.4		ug/L		114	73 - 127
Chloromethane	25.0	27.6		ug/L		111	68 - 124
cis-1,2-Dichloroethene	25.0	28.5		ug/L		114	74 - 124
cis-1,3-Dichloropropene	25.0	30.0		ug/L		120	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

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

Lab Sample ID: LCS 480-573409/5

Matrix: Water

Analysis Batch: 573409

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	26.6		ug/L		106	59 - 135
Dibromochloromethane	25.0	28.1		ug/L		112	75 - 125
Dichlorodifluoromethane	25.0	27.2		ug/L		109	59 - 135
Ethylbenzene	25.0	28.0		ug/L		112	77 - 123
Isopropylbenzene	25.0	27.0		ug/L		108	77 - 122
Methyl acetate	50.0	60.4		ug/L		121	74 - 133
Methyl tert-butyl ether	25.0	29.5		ug/L		118	77 - 120
Methylcyclohexane	25.0	26.5		ug/L		106	68 - 134
Methylene Chloride	25.0	26.2		ug/L		105	75 - 124
Styrene	25.0	26.5		ug/L		106	80 - 120
Tetrachloroethene	25.0	28.4		ug/L		114	74 - 122
Toluene	25.0	26.0		ug/L		104	80 - 122
trans-1,2-Dichloroethene	25.0	28.9		ug/L		116	73 - 127
trans-1,3-Dichloropropene	25.0	28.8		ug/L		115	80 - 120
Trichloroethene	25.0	28.0		ug/L		112	74 - 123
Trichlorofluoromethane	25.0	26.7		ug/L		107	62 - 150
Vinyl chloride	25.0	26.3		ug/L		105	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		77 - 120
4-Bromofluorobenzene (Surr)	95		73 - 120
Dibromofluoromethane (Surr)	103		75 - 123
Toluene-d8 (Surr)	97		80 - 120

Lab Sample ID: LCSD 480-573409/6

Matrix: Water

Analysis Batch: 573409

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	26.2		ug/L		105	73 - 126	9	15
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	76 - 120	1	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.3		ug/L		97	61 - 148	9	20
1,1,2-Trichloroethane	25.0	27.0		ug/L		108	76 - 122	2	15
1,1-Dichloroethane	25.0	27.1		ug/L		109	77 - 120	10	20
1,1-Dichloroethene	25.0	25.4		ug/L		102	66 - 127	7	16
1,2,3-Trimethylbenzene	25.0	26.4		ug/L		106	78 - 120	3	20
1,2,4-Trichlorobenzene	25.0	27.4		ug/L		110	79 - 122	1	20
1,2,4-Trimethylbenzene	25.0	26.6		ug/L		107	76 - 121	2	20
1,2-Dibromo-3-Chloropropane	25.0	27.7		ug/L		111	56 - 134	3	15
1,2-Dibromoethane	25.0	28.0		ug/L		112	77 - 120	2	15
1,2-Dichlorobenzene	25.0	25.9		ug/L		104	80 - 124	2	20
1,2-Dichloroethane	25.0	27.3		ug/L		109	75 - 120	5	20
1,2-Dichloropropane	25.0	27.0		ug/L		108	76 - 120	4	20
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		104	77 - 121	3	20
1,3-Dichlorobenzene	25.0	26.8		ug/L		107	77 - 120	0	20
1,4-Dichlorobenzene	25.0	25.9		ug/L		104	80 - 120	2	20
2-Butanone (MEK)	125	248	*+	ug/L		199	57 - 140	4	20
2-Hexanone	125	148		ug/L		118	65 - 127	1	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.

Job ID: 480-182313-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

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

Lab Sample ID: LCSD 480-573409/6

Matrix: Water

Analysis Batch: 573409

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	125	141		ug/L		113	71 - 125	1	35
Acetone	125	145		ug/L		116	56 - 142	4	15
Benzene	25.0	26.1		ug/L		105	71 - 124	9	13
Bromodichloromethane	25.0	26.9		ug/L		108	80 - 122	5	15
Bromoform	25.0	28.7		ug/L		115	61 - 132	1	15
Bromomethane	25.0	23.0		ug/L		92	55 - 144	15	15
Carbon disulfide	25.0	24.5		ug/L		98	59 - 134	7	15
Carbon tetrachloride	25.0	25.5		ug/L		102	72 - 134	8	15
Chlorobenzene	25.0	26.9		ug/L		108	80 - 120	1	25
Chloroethane	25.0	23.6	*1	ug/L		94	69 - 136	16	15
Chloroform	25.0	26.6		ug/L		106	73 - 127	7	20
Chloromethane	25.0	24.3		ug/L		97	68 - 124	13	15
cis-1,2-Dichloroethene	25.0	27.0		ug/L		108	74 - 124	5	15
cis-1,3-Dichloropropene	25.0	28.6		ug/L		114	74 - 124	5	15
Cyclohexane	25.0	24.9		ug/L		100	59 - 135	7	20
Dibromochloromethane	25.0	27.8		ug/L		111	75 - 125	1	15
Dichlorodifluoromethane	25.0	23.8		ug/L		95	59 - 135	13	20
Ethylbenzene	25.0	27.7		ug/L		111	77 - 123	1	15
Isopropylbenzene	25.0	26.1		ug/L		104	77 - 122	3	20
Methyl acetate	50.0	56.7		ug/L		113	74 - 133	6	20
Methyl tert-butyl ether	25.0	27.9		ug/L		111	77 - 120	6	37
Methylcyclohexane	25.0	24.3		ug/L		97	68 - 134	9	20
Methylene Chloride	25.0	24.7		ug/L		99	75 - 124	6	15
Styrene	25.0	26.3		ug/L		105	80 - 120	1	20
Tetrachloroethene	25.0	27.6		ug/L		110	74 - 122	3	20
Toluene	25.0	25.5		ug/L		102	80 - 122	2	15
trans-1,2-Dichloroethene	25.0	25.8		ug/L		103	73 - 127	11	20
trans-1,3-Dichloropropene	25.0	28.8		ug/L		115	80 - 120	0	15
Trichloroethene	25.0	25.5		ug/L		102	74 - 123	9	16
Trichlorofluoromethane	25.0	24.0		ug/L		96	62 - 150	10	20
Vinyl chloride	25.0	25.0		ug/L		100	65 - 133	5	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		77 - 120
4-Bromofluorobenzene (Surr)	102		73 - 120
Dibromofluoromethane (Surr)	95		75 - 123
Toluene-d8 (Surr)	96		80 - 120

QC Association Summary

Client: New York State D.E.C.

Job ID: 480-182313-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

GC/MS VOA

Analysis Batch: 573409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-182313-1	WELL 1-2A	Total/NA	Water	8260C	
480-182313-2	WELL 1-3	Total/NA	Water	8260C	
480-182313-3	TRIP BLANK	Total/NA	Water	8260C	
MB 480-573409/8	Method Blank	Total/NA	Water	8260C	
LCS 480-573409/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-573409/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-182313-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-182313-1

Date Collected: 03/18/21 10:05

Matrix: Water

Date Received: 03/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	573409	03/23/21 17:03	CRL	TAL BUF

Client Sample ID: WELL 1-3

Lab Sample ID: 480-182313-2

Date Collected: 03/18/21 10:10

Matrix: Water

Date Received: 03/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	573409	03/23/21 17:27	CRL	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-182313-3

Date Collected: 03/18/21 00:00

Matrix: Water

Date Received: 03/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	573409	03/23/21 17:51	CRL	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.

Job ID: 480-182313-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-21

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Method Summary

Client: New York State D.E.C.

Job ID: 480-182313-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: New York State D.E.C.

Job ID: 480-182313-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-182313-1	WELL 1-2A	Water	03/18/21 10:05	03/20/21 08:00	
480-182313-2	WELL 1-3	Water	03/18/21 10:10	03/20/21 08:00	
480-182313-3	TRIP BLANK	Water	03/18/21 00:00	03/20/21 08:00	

Form with multiple sections: Client Information, Analysis Requested, Sample Identification, Sample Disposal, and various tracking fields. Includes handwritten entries like 'Jason Gutkowski', '315 4362605', '3/19/21', and '1428'. A barcode is present in the center.

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-182313-1

Login Number: 182313

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Stopa, Erik S

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

ANALYTICAL REPORT

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

Laboratory Job ID: 480-183124-1

Client Project/Site: Vestal Water Supply (Site 1-1) #704009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:

4/23/2021 10:33:29 AM

Wyatt Watson, Project Management Assistant I

Wyatt.Watson@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager

(484)685-0868

Judy.Stone@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

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



Wyatt Watson
Project Management Assistant I
4/23/2021 10:33:29 AM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	12
Isotope Dilution Summary	13
QC Sample Results	15
QC Association Summary	22
Lab Chronicle	23
Certification Summary	24
Method Summary	25
Sample Summary	26
Chain of Custody	27
Receipt Checklists	30



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Job ID: 480-183124-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-183124-1

Comments

No additional comments.

Receipt

The samples were received on 4/10/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.6° C.

GC/MS VOA

Method 8260C: Due to the coelution Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 575941. The following samples were affected : WELL 1-2A (480-183124-1) and WELL 1-3 (480-183124-2).

Method 8260C: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for analytical batch 480-575941 recovered outside control limits for the following analyte: Chloroethane. Chloroethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The following samples were affected : WELL 1-2A (480-183124-1) and WELL 1-3 (480-183124-2).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 480-575941 recovered outside control limits for the following analytes: 1,1,1-Trichloroethane, 1,1-Dichloroethene, Benzene, Carbon tetrachloride and Vinyl chloride. The following samples were affected : WELL 1-2A (480-183124-1) and WELL 1-3 (480-183124-2).

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

GC/MS Semi VOA

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

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

LCMS

Method 537 (modified): The method blank for preparation batch 200-165814 and analytical batch 200-165854 contained Perfluorohexanesulfonic acid (PFHxS), Perfluorooctanesulfonic acid (PFOS), Perfluorododecanoic acid (PFDoA), Perfluorotridecanoic acid (PFTriA) and Perfluorooctanesulfonamide (PFOSA) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

Organic Prep

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-183124-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.63		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: WELL 1-3

Lab Sample ID: 480-183124-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.3	J	4.4	0.78	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.9		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2	J	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.1	J	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.0	J	1.7	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.75	J	1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.74	J	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.65	J B	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.6	J B	1.7	0.25	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-183124-1

Date Collected: 04/09/21 10:25

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*1	1.0	0.82	ug/L			04/12/21 18:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 18:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 18:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 18:24	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 18:24	1
1,1-Dichloroethene	ND	*1	1.0	0.29	ug/L			04/12/21 18:24	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 18:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 18:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 18:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 18:24	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 18:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 18:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 18:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 18:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 18:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 18:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 18:24	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 18:24	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 18:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 18:24	1
Acetone	ND		10	3.0	ug/L			04/12/21 18:24	1
Benzene	ND	*1	1.0	0.41	ug/L			04/12/21 18:24	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 18:24	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 18:24	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 18:24	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 18:24	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/12/21 18:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 18:24	1
Chloroethane	ND	*-	1.0	0.32	ug/L			04/12/21 18:24	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 18:24	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 18:24	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 18:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 18:24	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 18:24	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 18:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 18:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 18:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 18:24	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 18:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 18:24	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 18:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 18:24	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 18:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 18:24	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 18:24	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 18:24	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 18:24	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 18:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 18:24	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-183124-1

Date Collected: 04/09/21 10:25

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/12/21 18:24	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		04/12/21 18:24	1
4-Bromofluorobenzene (Surr)	101		73 - 120		04/12/21 18:24	1
Dibromofluoromethane (Surr)	105		75 - 123		04/12/21 18:24	1
Toluene-d8 (Surr)	107		80 - 120		04/12/21 18:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.63		0.19	0.095	ug/L		04/14/21 08:07	04/15/21 21:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110	04/14/21 08:07	04/15/21 21:05	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.3	0.77	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.41	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.39	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.20	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.36	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.24	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.30	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.33	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.54	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.21	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.26	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.25	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.26	ng/L		04/13/21 14:00	04/14/21 16:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		04/13/21 14:00	04/14/21 16:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.77	ng/L		04/13/21 14:00	04/14/21 16:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.64	ng/L		04/13/21 14:00	04/14/21 16:51	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.94	ng/L		04/13/21 14:00	04/14/21 16:51	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.33	ng/L		04/13/21 14:00	04/14/21 16:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	86		50 - 150	04/13/21 14:00	04/14/21 16:51	1
13C4 PFHpA	95		50 - 150	04/13/21 14:00	04/14/21 16:51	1
13C4 PFOA	92		50 - 150	04/13/21 14:00	04/14/21 16:51	1
13C4 PFOS	85		50 - 150	04/13/21 14:00	04/14/21 16:51	1
13C5 PFNA	93		50 - 150	04/13/21 14:00	04/14/21 16:51	1
13C4 PFBA	90		25 - 150	04/13/21 14:00	04/14/21 16:51	1
13C2 PFHxA	93		50 - 150	04/13/21 14:00	04/14/21 16:51	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Client Sample ID: WELL 1-2A

Date Collected: 04/09/21 10:25

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183124-1

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	86		50 - 150	04/13/21 14:00	04/14/21 16:51	1
13C2 PFUnA	86		50 - 150	04/13/21 14:00	04/14/21 16:51	1
13C2 PFDoA	82		50 - 150	04/13/21 14:00	04/14/21 16:51	1
13C8 FOSA	81		25 - 150	04/13/21 14:00	04/14/21 16:51	1
13C5 PFPeA	92		25 - 150	04/13/21 14:00	04/14/21 16:51	1
13C2 PFTeDA	80		50 - 150	04/13/21 14:00	04/14/21 16:51	1
d3-NMeFOSAA	76		50 - 150	04/13/21 14:00	04/14/21 16:51	1
d5-NEtFOSAA	84		50 - 150	04/13/21 14:00	04/14/21 16:51	1
M2-6:2 FTS	91		25 - 150	04/13/21 14:00	04/14/21 16:51	1
M2-8:2 FTS	99		25 - 150	04/13/21 14:00	04/14/21 16:51	1
13C3 PFBS	85		50 - 150	04/13/21 14:00	04/14/21 16:51	1

Client Sample ID: WELL 1-3

Date Collected: 04/09/21 10:30

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183124-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*1	1.0	0.82	ug/L			04/12/21 18:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 18:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 18:46	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 18:46	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 18:46	1
1,1-Dichloroethene	ND	*1	1.0	0.29	ug/L			04/12/21 18:46	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 18:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 18:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 18:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 18:46	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 18:46	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 18:46	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 18:46	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 18:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 18:46	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 18:46	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 18:46	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/12/21 18:46	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 18:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 18:46	1
Acetone	ND		10	3.0	ug/L			04/12/21 18:46	1
Benzene	ND	*1	1.0	0.41	ug/L			04/12/21 18:46	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 18:46	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 18:46	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 18:46	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 18:46	1
Carbon tetrachloride	ND	*1	1.0	0.27	ug/L			04/12/21 18:46	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 18:46	1
Chloroethane	ND	*-	1.0	0.32	ug/L			04/12/21 18:46	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 18:46	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 18:46	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 18:46	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-183124-2

Date Collected: 04/09/21 10:30

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 18:46	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 18:46	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 18:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 18:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 18:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 18:46	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 18:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 18:46	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 18:46	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 18:46	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 18:46	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 18:46	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 18:46	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 18:46	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 18:46	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 18:46	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 18:46	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			04/12/21 18:46	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 18:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		04/12/21 18:46	1
4-Bromofluorobenzene (Surr)	95		73 - 120		04/12/21 18:46	1
Dibromofluoromethane (Surr)	107		75 - 123		04/12/21 18:46	1
Toluene-d8 (Surr)	104		80 - 120		04/12/21 18:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		04/14/21 08:07	04/15/21 21:29	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				04/14/21 08:07	04/15/21 21:29	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.3	J	4.4	0.78	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluoropentanoic acid (PFPeA)	1.9		1.7	0.41	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorohexanoic acid (PFHxA)	1.2	J	1.7	0.39	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluoroheptanoic acid (PFHpA)	1.1	J	1.7	0.21	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorooctanoic acid (PFOA)	1.0	J	1.7	0.37	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorononanoic acid (PFNA)	0.75	J	1.7	0.24	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.26	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.30	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.34	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.38	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.55	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorobutanesulfonic acid (PFBS)	0.74	J	1.7	0.22	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorohexanesulfonic acid (PFHxS)	0.65	J B	1.7	0.26	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.20	ng/L		04/13/21 14:00	04/14/21 16:59	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-183124-2

Date Collected: 04/09/21 10:30

Matrix: Water

Date Received: 04/10/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	1.6	J B	1.7	0.25	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.27	ng/L		04/13/21 14:00	04/14/21 16:59	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		04/13/21 14:00	04/14/21 16:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.79	ng/L		04/13/21 14:00	04/14/21 16:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.65	ng/L		04/13/21 14:00	04/14/21 16:59	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.4	0.95	ng/L		04/13/21 14:00	04/14/21 16:59	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.34	ng/L		04/13/21 14:00	04/14/21 16:59	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	87		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C4 PFHpA	95		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C4 PFOA	90		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C4 PFOS	88		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C5 PFNA	95		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C4 PFBA	82		25 - 150				04/13/21 14:00	04/14/21 16:59	1
13C2 PFHxA	91		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C2 PFDA	89		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C2 PFUnA	88		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C2 PFDoA	87		50 - 150				04/13/21 14:00	04/14/21 16:59	1
13C8 FOSA	85		25 - 150				04/13/21 14:00	04/14/21 16:59	1
13C5 PFPeA	89		25 - 150				04/13/21 14:00	04/14/21 16:59	1
13C2 PFTeDA	88		50 - 150				04/13/21 14:00	04/14/21 16:59	1
d3-NMeFOSAA	86		50 - 150				04/13/21 14:00	04/14/21 16:59	1
d5-NEtFOSAA	87		50 - 150				04/13/21 14:00	04/14/21 16:59	1
M2-6:2 FTS	89		25 - 150				04/13/21 14:00	04/14/21 16:59	1
M2-8:2 FTS	96		25 - 150				04/13/21 14:00	04/14/21 16:59	1
13C3 PFBS	87		50 - 150				04/13/21 14:00	04/14/21 16:59	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-183124-1	WELL 1-2A	111	101	105	107
480-183124-2	WELL 1-3	110	95	107	104
LCS 480-575941/5	Lab Control Sample	96	110	98	105
LCSD 480-575941/6	Lab Control Sample Dup	94	97	95	102
MB 480-575941/8	Method Blank	105	109	100	106

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-183124-1	WELL 1-2A	31
480-183124-2	WELL 1-3	31
LCS 480-576255/2-A	Lab Control Sample	33
MB 480-576255/1-A	Method Blank	33

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
480-183124-1	WELL 1-2A	86	95	92	85	93	90	93	86
480-183124-2	WELL 1-3	87	95	90	88	95	82	91	89
LCS 200-165814/2-A	Lab Control Sample	90	92	89	90	94	93	92	90
MB 200-165814/1-A	Method Blank	91	97	92	88	99	94	95	94

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDaA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
480-183124-1	WELL 1-2A	86	82	81	92	80	76	84	91
480-183124-2	WELL 1-3	88	87	85	89	88	86	87	89
LCS 200-165814/2-A	Lab Control Sample	92	89	74	93	87	88	87	92
MB 200-165814/1-A	Method Blank	94	90	77	95	95	92	94	91

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	C3PFBS (50-150)
480-183124-1	WELL 1-2A	99	85
480-183124-2	WELL 1-3	96	87
LCS 200-165814/2-A	Lab Control Sample	100	92
MB 200-165814/1-A	Method Blank	97	90

Surrogate Legend

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

Eurofins TestAmerica, Buffalo

Isotope Dilution Summary

Client: New York State D.E.C.

Project/Site: Vestal Water Supply (Site 1-1) #704009A

M282FTS = M2-8:2 FTS

C3PFBS = 13C3 PFBS

Job ID: 480-183124-1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Lab Sample ID: MB 480-575941/8

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/12/21 10:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/12/21 10:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/12/21 10:56	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/12/21 10:56	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/12/21 10:56	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/12/21 10:56	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			04/12/21 10:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/12/21 10:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/12/21 10:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/12/21 10:56	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/12/21 10:56	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/12/21 10:56	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/12/21 10:56	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/12/21 10:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/12/21 10:56	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/12/21 10:56	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/12/21 10:56	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/12/21 10:56	1
2-Hexanone	ND		5.0	1.2	ug/L			04/12/21 10:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/12/21 10:56	1
Acetone	ND		10	3.0	ug/L			04/12/21 10:56	1
Benzene	ND		1.0	0.41	ug/L			04/12/21 10:56	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/12/21 10:56	1
Bromoform	ND		1.0	0.26	ug/L			04/12/21 10:56	1
Bromomethane	ND		1.0	0.69	ug/L			04/12/21 10:56	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/12/21 10:56	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/12/21 10:56	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/12/21 10:56	1
Chloroethane	ND		1.0	0.32	ug/L			04/12/21 10:56	1
Chloroform	ND		1.0	0.34	ug/L			04/12/21 10:56	1
Chloromethane	ND		1.0	0.35	ug/L			04/12/21 10:56	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/12/21 10:56	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/12/21 10:56	1
Cyclohexane	ND		1.0	0.18	ug/L			04/12/21 10:56	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/12/21 10:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/12/21 10:56	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/12/21 10:56	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/12/21 10:56	1
Methyl acetate	ND		2.5	1.3	ug/L			04/12/21 10:56	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/12/21 10:56	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/12/21 10:56	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/12/21 10:56	1
Styrene	ND		1.0	0.73	ug/L			04/12/21 10:56	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/12/21 10:56	1
Toluene	ND		1.0	0.51	ug/L			04/12/21 10:56	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/12/21 10:56	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/12/21 10:56	1
Trichloroethene	ND		1.0	0.46	ug/L			04/12/21 10:56	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Lab Sample ID: MB 480-575941/8

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/12/21 10:56	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/12/21 10:56	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/12/21 10:56	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120					04/12/21 10:56	1
4-Bromofluorobenzene (Surr)	109		73 - 120					04/12/21 10:56	1
Dibromofluoromethane (Surr)	100		75 - 123					04/12/21 10:56	1
Toluene-d8 (Surr)	106		80 - 120					04/12/21 10:56	1

Lab Sample ID: LCS 480-575941/5

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.9		ug/L		96	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.2		ug/L		105	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.6		ug/L		91	61 - 148
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	76 - 122
1,1-Dichloroethane	25.0	23.0		ug/L		92	77 - 120
1,1-Dichloroethene	25.0	22.4		ug/L		89	66 - 127
1,2,3-Trimethylbenzene	25.0	29.5		ug/L		118	78 - 120
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		101	79 - 122
1,2,4-Trimethylbenzene	25.0	26.8		ug/L		107	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	28.8		ug/L		115	56 - 134
1,2-Dibromoethane	25.0	25.6		ug/L		102	77 - 120
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	20.6		ug/L		82	75 - 120
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120
1,3,5-Trimethylbenzene	25.0	27.1		ug/L		108	77 - 121
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	80 - 120
2-Butanone (MEK)	125	201	*+	ug/L		161	57 - 140
2-Hexanone	125	124		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	115		ug/L		92	71 - 125
Acetone	125	123		ug/L		99	56 - 142
Benzene	25.0	22.9		ug/L		92	71 - 124
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122
Bromoform	25.0	27.6		ug/L		110	61 - 132
Bromomethane	25.0	18.2		ug/L		73	55 - 144
Carbon disulfide	25.0	23.2		ug/L		93	59 - 134
Carbon tetrachloride	25.0	25.9		ug/L		104	72 - 134
Chlorobenzene	25.0	24.4		ug/L		98	80 - 120
Chloroethane	25.0	19.5		ug/L		78	69 - 136
Chloroform	25.0	21.8		ug/L		87	73 - 127
Chloromethane	25.0	20.7		ug/L		83	68 - 124
cis-1,2-Dichloroethene	25.0	22.7		ug/L		91	74 - 124
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Lab Sample ID: LCS 480-575941/5

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	23.5		ug/L		94	59 - 135
Dibromochloromethane	25.0	26.2		ug/L		105	75 - 125
Dichlorodifluoromethane	25.0	24.1		ug/L		96	59 - 135
Ethylbenzene	25.0	25.1		ug/L		101	77 - 123
Isopropylbenzene	25.0	27.2		ug/L		109	77 - 122
Methyl acetate	50.0	42.0		ug/L		84	74 - 133
Methyl tert-butyl ether	25.0	23.7		ug/L		95	77 - 120
Methylcyclohexane	25.0	25.9		ug/L		103	68 - 134
Methylene Chloride	25.0	23.8		ug/L		95	75 - 124
Styrene	25.0	27.2		ug/L		109	80 - 120
Tetrachloroethene	25.0	24.1		ug/L		96	74 - 122
Toluene	25.0	24.8		ug/L		99	80 - 122
trans-1,2-Dichloroethene	25.0	22.7		ug/L		91	73 - 127
trans-1,3-Dichloropropene	25.0	26.8		ug/L		107	80 - 120
Trichloroethene	25.0	23.0		ug/L		92	74 - 123
Trichlorofluoromethane	25.0	23.4		ug/L		94	62 - 150
Vinyl chloride	25.0	22.8		ug/L		91	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		77 - 120
4-Bromofluorobenzene (Surr)	110		73 - 120
Dibromofluoromethane (Surr)	98		75 - 123
Toluene-d8 (Surr)	105		80 - 120

Lab Sample ID: LCSD 480-575941/6

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	20.3	*1	ug/L		81	73 - 126	16	15
1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	76 - 120	9	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	19.2		ug/L		77	61 - 148	17	20
1,1,2-Trichloroethane	25.0	22.9		ug/L		91	76 - 122	12	15
1,1-Dichloroethane	25.0	19.8		ug/L		79	77 - 120	15	20
1,1-Dichloroethene	25.0	18.9	*1	ug/L		75	66 - 127	17	16
1,2,3-Trimethylbenzene	25.0	27.2		ug/L		109	78 - 120	8	20
1,2,4-Trichlorobenzene	25.0	23.6		ug/L		94	79 - 122	6	20
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		98	76 - 121	9	20
1,2-Dibromo-3-Chloropropane	25.0	26.4		ug/L		106	56 - 134	9	15
1,2-Dibromoethane	25.0	23.0		ug/L		92	77 - 120	10	15
1,2-Dichlorobenzene	25.0	22.6		ug/L		90	80 - 124	9	20
1,2-Dichloroethane	25.0	18.8		ug/L		75	75 - 120	9	20
1,2-Dichloropropane	25.0	20.5		ug/L		82	76 - 120	16	20
1,3,5-Trimethylbenzene	25.0	24.4		ug/L		98	77 - 121	10	20
1,3-Dichlorobenzene	25.0	22.5		ug/L		90	77 - 120	10	20
1,4-Dichlorobenzene	25.0	21.7		ug/L		87	80 - 120	11	20
2-Butanone (MEK)	125	174		ug/L		139	57 - 140	15	20
2-Hexanone	125	108		ug/L		87	65 - 127	14	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Lab Sample ID: LCSD 480-575941/6

Matrix: Water

Analysis Batch: 575941

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	125	105		ug/L		84	71 - 125	10	35
Acetone	125	111		ug/L		88	56 - 142	11	15
Benzene	25.0	19.8	*1	ug/L		79	71 - 124	15	13
Bromodichloromethane	25.0	21.3		ug/L		85	80 - 122	13	15
Bromoform	25.0	25.2		ug/L		101	61 - 132	9	15
Bromomethane	25.0	16.2		ug/L		65	55 - 144	12	15
Carbon disulfide	25.0	20.3		ug/L		81	59 - 134	14	15
Carbon tetrachloride	25.0	21.9	*1	ug/L		88	72 - 134	17	15
Chlorobenzene	25.0	21.5		ug/L		86	80 - 120	13	25
Chloroethane	25.0	17.0	*-	ug/L		68	69 - 136	13	15
Chloroform	25.0	19.1		ug/L		77	73 - 127	13	20
Chloromethane	25.0	18.0		ug/L		72	68 - 124	14	15
cis-1,2-Dichloroethene	25.0	20.1		ug/L		80	74 - 124	12	15
cis-1,3-Dichloropropene	25.0	23.1		ug/L		93	74 - 124	14	15
Cyclohexane	25.0	19.8		ug/L		79	59 - 135	17	20
Dibromochloromethane	25.0	23.8		ug/L		95	75 - 125	9	15
Dichlorodifluoromethane	25.0	21.0		ug/L		84	59 - 135	14	20
Ethylbenzene	25.0	21.9		ug/L		88	77 - 123	14	15
Isopropylbenzene	25.0	24.1		ug/L		96	77 - 122	12	20
Methyl acetate	50.0	37.6		ug/L		75	74 - 133	11	20
Methyl tert-butyl ether	25.0	22.0		ug/L		88	77 - 120	8	37
Methylcyclohexane	25.0	21.6		ug/L		86	68 - 134	18	20
Methylene Chloride	25.0	21.4		ug/L		86	75 - 124	11	15
Styrene	25.0	23.6		ug/L		95	80 - 120	14	20
Tetrachloroethene	25.0	21.0		ug/L		84	74 - 122	14	20
Toluene	25.0	21.7		ug/L		87	80 - 122	13	15
trans-1,2-Dichloroethene	25.0	19.9		ug/L		80	73 - 127	13	20
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	80 - 120	10	15
Trichloroethene	25.0	20.2		ug/L		81	74 - 123	13	16
Trichlorofluoromethane	25.0	20.0		ug/L		80	62 - 150	16	20
Vinyl chloride	25.0	19.5	*1	ug/L		78	65 - 133	16	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		77 - 120
4-Bromofluorobenzene (Surr)	97		73 - 120
Dibromofluoromethane (Surr)	95		75 - 123
Toluene-d8 (Surr)	102		80 - 120

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

Lab Sample ID: MB 480-576255/1-A

Matrix: Water

Analysis Batch: 576490

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 576255

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/14/21 08:07	04/15/21 16:21	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 110				04/14/21 08:07	04/15/21 16:21	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Lab Sample ID: LCS 480-576255/2-A
Matrix: Water
Analysis Batch: 576490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 576255

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	1.00	1.05		ug/L		105	40 - 140
Isotope Dilution	%Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8	33		15 - 110				

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-165814/1-A
Matrix: Water
Analysis Batch: 165854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165814

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	0.89	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.47	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.45	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.24	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.42	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.28	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.30	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.34	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorododecanoic acid (PFDoA)	0.442	J	2.0	0.39	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorotridecanoic acid (PFTriA)	0.446	J	2.0	0.43	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.63	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.25	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorohexanesulfonic acid (PFHxS)	0.307	J	2.0	0.30	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.23	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorooctanesulfonic acid (PFOS)	0.405	J	2.0	0.29	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.31	ng/L		04/13/21 14:00	04/14/21 14:14	1
Perfluorooctanesulfonamide (PFOSA)	0.603	J	2.0	0.58	ng/L		04/13/21 14:00	04/14/21 14:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	0.90	ng/L		04/13/21 14:00	04/14/21 14:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	0.74	ng/L		04/13/21 14:00	04/14/21 14:14	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		5.0	1.1	ng/L		04/13/21 14:00	04/14/21 14:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		2.0	0.39	ng/L		04/13/21 14:00	04/14/21 14:14	1
Isotope Dilution	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
18O2 PFHxS	91		50 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C4 PFHpA	97		50 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C4 PFOA	92		50 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C4 PFOS	88		50 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C5 PFNA	99		50 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C4 PFBA	94		25 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C2 PFHxA	95		50 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C2 PFDA	94		50 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C2 PFUnA	94		50 - 150	04/13/21 14:00	04/14/21 14:14	1			
13C2 PFDoA	90		50 - 150	04/13/21 14:00	04/14/21 14:14	1			

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Lab Sample ID: MB 200-165814/1-A

Matrix: Water

Analysis Batch: 165854

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165814

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C8 FOSA	77		25 - 150	04/13/21 14:00	04/14/21 14:14	1
13C5 PFPeA	95		25 - 150	04/13/21 14:00	04/14/21 14:14	1
13C2 PFTeDA	95		50 - 150	04/13/21 14:00	04/14/21 14:14	1
d3-NMeFOSAA	92		50 - 150	04/13/21 14:00	04/14/21 14:14	1
d5-NEtFOSAA	94		50 - 150	04/13/21 14:00	04/14/21 14:14	1
M2-6:2 FTS	91		25 - 150	04/13/21 14:00	04/14/21 14:14	1
M2-8:2 FTS	97		25 - 150	04/13/21 14:00	04/14/21 14:14	1
13C3 PFBS	90		50 - 150	04/13/21 14:00	04/14/21 14:14	1

Lab Sample ID: LCS 200-165814/2-A

Matrix: Water

Analysis Batch: 165854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165814

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	46.4		ng/L		116	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	44.7		ng/L		112	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	46.9		ng/L		117	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	46.7		ng/L		117	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	45.9		ng/L		115	70 - 130
Perfluorononanoic acid (PFNA)	40.0	44.4		ng/L		111	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	45.7		ng/L		114	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	47.1		ng/L		118	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	43.1		ng/L		108	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	42.1		ng/L		105	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	43.3		ng/L		108	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	39.7		ng/L		112	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	40.8		ng/L		112	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	43.8		ng/L		115	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	41.9		ng/L		113	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	39.8		ng/L		103	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	45.3		ng/L		113	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	45.3		ng/L		113	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	46.5		ng/L		116	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	44.4		ng/L		117	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	45.3		ng/L		118	50 - 150

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	90		50 - 150

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

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

Lab Sample ID: LCS 200-165814/2-A

Matrix: Water

Analysis Batch: 165854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165814

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C4 PFHpA	92		50 - 150
13C4 PFOA	89		50 - 150
13C4 PFOS	90		50 - 150
13C5 PFNA	94		50 - 150
13C4 PFBA	93		25 - 150
13C2 PFHxA	92		50 - 150
13C2 PFDA	90		50 - 150
13C2 PFUnA	92		50 - 150
13C2 PFDoA	89		50 - 150
13C8 FOSA	74		25 - 150
13C5 PFPeA	93		25 - 150
13C2 PFTeDA	87		50 - 150
d3-NMeFOSAA	88		50 - 150
d5-NEtFOSAA	87		50 - 150
M2-6:2 FTS	92		25 - 150
M2-8:2 FTS	100		25 - 150
13C3 PFBS	92		50 - 150

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

GC/MS VOA

Analysis Batch: 575941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183124-1	WELL 1-2A	Total/NA	Water	8260C	
480-183124-2	WELL 1-3	Total/NA	Water	8260C	
MB 480-575941/8	Method Blank	Total/NA	Water	8260C	
LCS 480-575941/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-575941/6	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 576255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183124-1	WELL 1-2A	Total/NA	Water	3510C	
480-183124-2	WELL 1-3	Total/NA	Water	3510C	
MB 480-576255/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-576255/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 576490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183124-1	WELL 1-2A	Total/NA	Water	8270D SIM ID	576255
480-183124-2	WELL 1-3	Total/NA	Water	8270D SIM ID	576255
MB 480-576255/1-A	Method Blank	Total/NA	Water	8270D SIM ID	576255
LCS 480-576255/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	576255

LCMS

Prep Batch: 165814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183124-1	WELL 1-2A	Total/NA	Water	3535	
480-183124-2	WELL 1-3	Total/NA	Water	3535	
MB 200-165814/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-165814/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 165854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-183124-1	WELL 1-2A	Total/NA	Water	537 (modified)	165814
480-183124-2	WELL 1-3	Total/NA	Water	537 (modified)	165814
MB 200-165814/1-A	Method Blank	Total/NA	Water	537 (modified)	165814
LCS 200-165814/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	165814

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Client Sample ID: WELL 1-2A

Date Collected: 04/09/21 10:25

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183124-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	575941	04/12/21 18:24	OMI	TAL BUF
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 21:05	JMM	TAL BUF
Total/NA	Prep	3535			165814	04/13/21 14:00	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165854	04/14/21 16:51	ND	TAL BUR

Client Sample ID: WELL 1-3

Date Collected: 04/09/21 10:30

Date Received: 04/10/21 08:00

Lab Sample ID: 480-183124-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	575941	04/12/21 18:46	OMI	TAL BUF
Total/NA	Prep	3510C			576255	04/14/21 08:07	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	576490	04/15/21 21:29	JMM	TAL BUF
Total/NA	Prep	3535			165814	04/13/21 14:00	EK	TAL BUR
Total/NA	Analysis	537 (modified)		1	165854	04/14/21 16:59	ND	TAL BUR

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-183124-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	06-30-21
Minnesota	NELAP	050-999-436	12-31-21
New Hampshire	NELAP	2006	12-18-21
New Jersey	NELAP	VT972	06-30-21
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-22
Virginia	NELAP	460209	12-14-21
Wisconsin	State	399133350	08-31-21

Method Summary

Client: New York State D.E.C.

Job ID: 480-183124-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: New York State D.E.C.

Job ID: 480-183124-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-183124-1	WELL 1-2A	Water	04/09/21 10:25	04/10/21 08:00	
480-183124-2	WELL 1-3	Water	04/09/21 10:30	04/10/21 08:00	

Client Information

Client Contact

Ms. Kati Lilioia

Company

ARCADIS U.S. Inc

Address:

855 Route 146 Suite 210

City

Clifton Park

State, Zip

NY, 12065

Phone:

518-402-3625(Tel)

Email:

kati.lilioia@arcadis.com

Project Name:

Vestal Water Supply (Site 1-1) #704009A

Site:

Monthly

Sampler:

S. Duganville

Lab PM:

Stone, Judy L

Carrier Tracking No(s):

480-159103-35000.3

Phone:

518 769 8487

E-Mail:

Judy.Stone@Eurofinset.com

State of Origin:

Page:

1 of 1

Job #:

Due Date Requested:

TAT Requested (days):

Compliance Project:

Δ Yes Δ No

PO #:

Callout:

138000

WO #:

Project #:

48023280

SSOW#:

Analysis Requested

Preservation Codes:

A - HCL

B - NaOH

C - Zn Acetate

D - Nitric Acid

E - NaHSO4

F - MeOH

G - Amchlor

H - Ascorbic Acid

I - Ice

M - Hexane

N - None

O - AsNaO2

P - Na2O4S

Q - Na2SO3

R - Na2S2O3

S - H2SO4

T - TSP Dodecahydrate

U - Acetone

V - MCAA

Barcode

480-183124 Chain of Custody

Special Instructions/Note:

Sample Identification

Well 1-2A

Well 1-3

DUP 1

DUP 2

DUP 3

DUP 4

DUP 5

DUP 6

DUP 7

DUP 8

DUP 9

DUP 10

DUP 11

DUP 12

DUP 13

DUP 14

DUP 15

DUP 16

DUP 17

DUP 18

DUP 19

DUP 20

DUP 21

DUP 22

DUP 23

DUP 24

DUP 25

DUP 26

DUP 27

DUP 28

DUP 29

DUP 30

DUP 31

DUP 32

DUP 33

DUP 34

DUP 35

DUP 36

DUP 37

DUP 38

DUP 39

DUP 40

DUP 41

DUP 42

DUP 43

DUP 44

DUP 45

DUP 46

DUP 47

DUP 48

DUP 49

DUP 50

DUP 51

DUP 52

DUP 53

DUP 54

DUP 55

DUP 56

DUP 57

DUP 58

DUP 59

DUP 60

DUP 61

DUP 62

DUP 63

DUP 64

DUP 65

DUP 66

DUP 67

DUP 68

DUP 69

DUP 70

DUP 71

DUP 72

DUP 73

DUP 74

DUP 75

DUP 76

DUP 77

DUP 78

DUP 79

DUP 80

DUP 81

DUP 82

DUP 83

DUP 84

DUP 85

DUP 86

DUP 87

DUP 88

DUP 89

DUP 90

DUP 91

DUP 92

DUP 93

DUP 94

DUP 95

DUP 96

DUP 97

DUP 98

DUP 99

DUP 100

DUP 101

DUP 102

DUP 103

DUP 104

DUP 105

DUP 106

DUP 107

DUP 108

DUP 109

DUP 110

DUP 111

DUP 112

DUP 113

DUP 114

DUP 115

DUP 116

DUP 117

DUP 118

DUP 119

DUP 120

DUP 121

DUP 122

DUP 123

DUP 124

DUP 125

DUP 126

DUP 127

DUP 128

DUP 129

DUP 130

DUP 131

DUP 132

DUP 133

DUP 134

DUP 135

DUP 136

DUP 137

DUP 138

DUP 139

DUP 140

DUP 141

DUP 142

DUP 143

DUP 144

DUP 145

DUP 146

DUP 147

DUP 148

DUP 149

DUP 150

DUP 151

DUP 152

DUP 153

DUP 154

DUP 155

DUP 156

DUP 157

DUP 158

DUP 159

DUP 160

DUP 161

DUP 162

DUP 163

DUP 164

DUP 165

DUP 166

DUP 167

DUP 168

DUP 169

DUP 170

DUP 171

DUP 172

DUP 173

DUP 174

DUP 175

DUP 176

DUP 177

DUP 178

DUP 179

DUP 180

DUP 181

DUP 182

DUP 183

DUP 184

DUP 185

DUP 186

DUP 187

DUP 188

DUP 189

DUP 190

DUP 191

DUP 192

DUP 193

DUP 194

DUP 195

DUP 196

DUP 197

DUP 198

DUP 199

DUP 200

DUP 201

DUP 202

DUP 203

DUP 204

DUP 205

DUP 206

DUP 207

DUP 208

DUP 209

DUP 210

DUP 211

DUP 212

DUP 213

DUP 214

DUP 215

DUP 216

DUP 217

DUP 218

DUP 219

DUP 220

DUP 221

DUP 222

DUP 223

DUP 224

DUP 225

DUP 226

DUP 227

DUP 228

DUP 229

DUP 230

DUP 231

DUP 232

DUP 233

DUP 234

DUP 235

DUP 236

DUP 237

DUP 238

DUP 239

DUP 240

DUP 241

DUP 242

DUP 243

DUP 244

DUP 245

DUP 246

DUP 247

DUP 248

DUP 249

DUP 250

DUP 251

DUP 252

DUP 253

DUP 254

DUP 255

DUP 256

DUP 257

DUP 258

DUP 259

DUP 260

DUP 261

DUP 262

DUP 263

DUP 264

DUP 265

DUP 266

DUP 267

DUP 268

DUP 269

DUP 270

DUP 271

DUP 272

DUP 273

DUP 274

DUP 275

DUP 276

DUP 277

DUP 278

DUP 279

DUP 280

DUP 281

DUP 282

DUP 283

DUP 284

DUP 285

DUP 286

DUP 287

DUP 288

DUP 289

DUP 290

DUP 291

DUP 292

DUP 293

DUP 294

DUP 295

DUP 296

DUP 297

DUP 298

DUP 299

DUP 300

DUP 301

DUP 302

DUP 303

DUP 304

DUP 305

DUP 306

DUP 307

DUP 308

DUP 309

DUP 310

DUP 311

DUP 312

DUP 313

DUP 314

DUP 315

DUP 316

DUP 317

DUP 318

DUP 319

DUP 320

DUP 321

DUP 322

DUP 323

DUP 324

DUP 325

DUP 326

DUP 327

DUP 328

DUP 329

DUP 330

DUP 331

DUP 332

DUP 333

DUP 334

DUP 335

DUP 336

DUP 337

DUP 338

DUP 339

DUP 340

DUP 341

DUP 342

D

[illegible]

Do Not Lift Using This Tag

9622041730009072880200501316047521
EIP:6 PD:SP:AA:V
140-1064
SOUTH BURLINGTON VT 05403-6809-99
STE 11
30 COMMUNITY DR
TESTAMERICA BURLINGTON
0054 TUE 04/13 07:59 PM 20 9302089

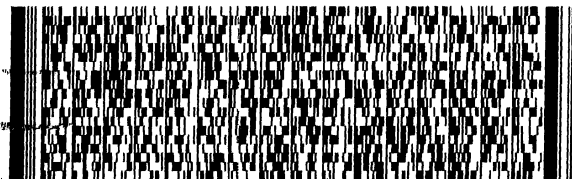
FROM: (518) 438-8140
TIM KNOLLMEYER
TESTAMERICA LAB INC
25 KRAFT AVE
ALBANY NY 12205
US

12APR21
ACTWGT: 30.80 LB
CAD: 0886598/CAFE3409
BILL 3rd PARTY

TO **SAMPLE RECEIVING**
TESTAMERICA - BURLINGTON
30 COMMUNITY DRIVE, SUITE 11.

BURLINGTON VT 05403
(802) 660-1990
REF: ARCADIS PFAS

(US)



TRK# **5013 1604 7521**

05403

56DC2/SEF2/0542

J201120121801uv

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183124-1

Login Number: 183124

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Wallace, Cameron

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

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-183124-1

Login Number: 183124

List Number: 2

Creator: Cunningham, Caroline R

List Source: Eurofins TestAmerica, Burlington

List Creation: 04/13/21 12:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1479197
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

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

Laboratory Job ID: 480-184534-1

Client Project/Site: Vestal Water Supply (Site 1-1) #704009A

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:

5/21/2021 4:17:06 PM

Wyatt Watson, Project Management Assistant I

Wyatt.Watson@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager

(484)685-0868

Judy.Stone@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

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



Wyatt Watson
Project Management Assistant I
5/21/2021 4:17:06 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	16
Lab Chronicle	17
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	22



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Job ID: 480-184534-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-184534-1

Comments

No additional comments.

Receipt

The samples were received on 5/12/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9° C.

GC/MS VOA

Method 8260C: The RPD of the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) for analytical batch 480-580982 recovered outside control limits for the following analytes: Bromomethane. The associated samples are impacted: Well 1-2A (480-184534-1), Well 1-3 (480-184534-2) and Trip Blank (480-184534-3).

Method 8260C: Due to the co-elution of Ethyl Acetate with 2-Butanone in the full spike solution, 2-Butanone exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 480-580982. The following samples are impacted: Well 1-2A (480-184534-1), Well 1-3 (480-184534-2) and Trip Blank (480-184534-3).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-580982 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: Well 1-2A (480-184534-1), Well 1-3 (480-184534-2) and Trip Blank (480-184534-3).

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Client Sample ID: Well 1-2A

Lab Sample ID: 480-184534-1

☐ No Detections.

Client Sample ID: Well 1-3

Lab Sample ID: 480-184534-2

☐ No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 480-184534-3

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo



Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Client Sample ID: Well 1-2A

Lab Sample ID: 480-184534-1

Date Collected: 05/11/21 09:35

Matrix: Water

Date Received: 05/12/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/14/21 21:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/14/21 21:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/14/21 21:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/14/21 21:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/14/21 21:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/14/21 21:25	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			05/14/21 21:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/14/21 21:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/14/21 21:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/14/21 21:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/14/21 21:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/14/21 21:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/14/21 21:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/14/21 21:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/14/21 21:25	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/14/21 21:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/14/21 21:25	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			05/14/21 21:25	1
2-Hexanone	ND		5.0	1.2	ug/L			05/14/21 21:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/14/21 21:25	1
Acetone	ND		10	3.0	ug/L			05/14/21 21:25	1
Benzene	ND		1.0	0.41	ug/L			05/14/21 21:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/14/21 21:25	1
Bromoform	ND		1.0	0.26	ug/L			05/14/21 21:25	1
Bromomethane	ND	*1	1.0	0.69	ug/L			05/14/21 21:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/14/21 21:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/14/21 21:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/14/21 21:25	1
Chloroethane	ND		1.0	0.32	ug/L			05/14/21 21:25	1
Chloroform	ND		1.0	0.34	ug/L			05/14/21 21:25	1
Chloromethane	ND		1.0	0.35	ug/L			05/14/21 21:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/14/21 21:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/14/21 21:25	1
Cyclohexane	ND		1.0	0.18	ug/L			05/14/21 21:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/14/21 21:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/14/21 21:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/14/21 21:25	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/14/21 21:25	1
Methyl acetate	ND		2.5	1.3	ug/L			05/14/21 21:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/14/21 21:25	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/14/21 21:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/14/21 21:25	1
Styrene	ND		1.0	0.73	ug/L			05/14/21 21:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/14/21 21:25	1
Toluene	ND		1.0	0.51	ug/L			05/14/21 21:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/14/21 21:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/14/21 21:25	1
Trichloroethene	ND		1.0	0.46	ug/L			05/14/21 21:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/14/21 21:25	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Client Sample ID: Well 1-2A

Date Collected: 05/11/21 09:35

Date Received: 05/12/21 08:00

Lab Sample ID: 480-184534-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.90	ug/L			05/14/21 21:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/14/21 21:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		77 - 120					05/14/21 21:25	1
4-Bromofluorobenzene (Surr)	100		73 - 120					05/14/21 21:25	1
Dibromofluoromethane (Surr)	116		75 - 123					05/14/21 21:25	1
Toluene-d8 (Surr)	96		80 - 120					05/14/21 21:25	1

Client Sample ID: Well 1-3

Date Collected: 05/11/21 09:40

Date Received: 05/12/21 08:00

Lab Sample ID: 480-184534-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/14/21 21:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/14/21 21:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/14/21 21:46	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/14/21 21:46	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/14/21 21:46	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/14/21 21:46	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			05/14/21 21:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/14/21 21:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/14/21 21:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/14/21 21:46	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/14/21 21:46	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/14/21 21:46	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/14/21 21:46	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/14/21 21:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/14/21 21:46	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/14/21 21:46	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/14/21 21:46	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			05/14/21 21:46	1
2-Hexanone	ND		5.0	1.2	ug/L			05/14/21 21:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/14/21 21:46	1
Acetone	ND		10	3.0	ug/L			05/14/21 21:46	1
Benzene	ND		1.0	0.41	ug/L			05/14/21 21:46	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/14/21 21:46	1
Bromoform	ND		1.0	0.26	ug/L			05/14/21 21:46	1
Bromomethane	ND	*1	1.0	0.69	ug/L			05/14/21 21:46	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/14/21 21:46	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/14/21 21:46	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/14/21 21:46	1
Chloroethane	ND		1.0	0.32	ug/L			05/14/21 21:46	1
Chloroform	ND		1.0	0.34	ug/L			05/14/21 21:46	1
Chloromethane	ND		1.0	0.35	ug/L			05/14/21 21:46	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/14/21 21:46	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/14/21 21:46	1
Cyclohexane	ND		1.0	0.18	ug/L			05/14/21 21:46	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/14/21 21:46	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Client Sample ID: Well 1-3

Lab Sample ID: 480-184534-2

Date Collected: 05/11/21 09:40

Matrix: Water

Date Received: 05/12/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/14/21 21:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/14/21 21:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/14/21 21:46	1
Methyl acetate	ND		2.5	1.3	ug/L			05/14/21 21:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/14/21 21:46	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/14/21 21:46	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/14/21 21:46	1
Styrene	ND		1.0	0.73	ug/L			05/14/21 21:46	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/14/21 21:46	1
Toluene	ND		1.0	0.51	ug/L			05/14/21 21:46	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/14/21 21:46	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/14/21 21:46	1
Trichloroethene	ND		1.0	0.46	ug/L			05/14/21 21:46	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/14/21 21:46	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/14/21 21:46	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/14/21 21:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		05/14/21 21:46	1
4-Bromofluorobenzene (Surr)	89		73 - 120		05/14/21 21:46	1
Dibromofluoromethane (Surr)	114		75 - 123		05/14/21 21:46	1
Toluene-d8 (Surr)	94		80 - 120		05/14/21 21:46	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-184534-3

Date Collected: 05/11/21 00:00

Matrix: Water

Date Received: 05/12/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/14/21 22:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/14/21 22:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/14/21 22:08	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/14/21 22:08	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/14/21 22:08	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/14/21 22:08	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			05/14/21 22:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/14/21 22:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/14/21 22:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/14/21 22:08	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/14/21 22:08	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/14/21 22:08	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/14/21 22:08	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/14/21 22:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/14/21 22:08	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/14/21 22:08	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/14/21 22:08	1
2-Butanone (MEK)	ND	+	10	1.3	ug/L			05/14/21 22:08	1
2-Hexanone	ND		5.0	1.2	ug/L			05/14/21 22:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/14/21 22:08	1
Acetone	ND		10	3.0	ug/L			05/14/21 22:08	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Client Sample ID: Trip Blank

Lab Sample ID: 480-184534-3

Date Collected: 05/11/21 00:00

Matrix: Water

Date Received: 05/12/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			05/14/21 22:08	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/14/21 22:08	1
Bromoform	ND		1.0	0.26	ug/L			05/14/21 22:08	1
Bromomethane	ND	*1	1.0	0.69	ug/L			05/14/21 22:08	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/14/21 22:08	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/14/21 22:08	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/14/21 22:08	1
Chloroethane	ND		1.0	0.32	ug/L			05/14/21 22:08	1
Chloroform	ND		1.0	0.34	ug/L			05/14/21 22:08	1
Chloromethane	ND		1.0	0.35	ug/L			05/14/21 22:08	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/14/21 22:08	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/14/21 22:08	1
Cyclohexane	ND		1.0	0.18	ug/L			05/14/21 22:08	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/14/21 22:08	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/14/21 22:08	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/14/21 22:08	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/14/21 22:08	1
Methyl acetate	ND		2.5	1.3	ug/L			05/14/21 22:08	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/14/21 22:08	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/14/21 22:08	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/14/21 22:08	1
Styrene	ND		1.0	0.73	ug/L			05/14/21 22:08	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/14/21 22:08	1
Toluene	ND		1.0	0.51	ug/L			05/14/21 22:08	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/14/21 22:08	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/14/21 22:08	1
Trichloroethene	ND		1.0	0.46	ug/L			05/14/21 22:08	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/14/21 22:08	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/14/21 22:08	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/14/21 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		05/14/21 22:08	1
4-Bromofluorobenzene (Surr)	95		73 - 120		05/14/21 22:08	1
Dibromofluoromethane (Surr)	119		75 - 123		05/14/21 22:08	1
Toluene-d8 (Surr)	92		80 - 120		05/14/21 22:08	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-184534-1	Well 1-2A	114	100	116	96
480-184534-2	Well 1-3	109	89	114	94
480-184534-3	Trip Blank	111	95	119	92
LCS 480-580982/4	Lab Control Sample	107	97	107	93
LCSD 480-580982/5	Lab Control Sample Dup	106	109	108	99
MB 480-580982/7	Method Blank	110	101	114	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

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

Lab Sample ID: MB 480-580982/7

Matrix: Water

Analysis Batch: 580982

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/14/21 14:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/14/21 14:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/14/21 14:46	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/14/21 14:46	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/14/21 14:46	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/14/21 14:46	1
1,2,3-Trimethylbenzene	ND		1.0	0.26	ug/L			05/14/21 14:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/14/21 14:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/14/21 14:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/14/21 14:46	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/14/21 14:46	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/14/21 14:46	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/14/21 14:46	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/14/21 14:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/14/21 14:46	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/14/21 14:46	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/14/21 14:46	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/14/21 14:46	1
2-Hexanone	ND		5.0	1.2	ug/L			05/14/21 14:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/14/21 14:46	1
Acetone	ND		10	3.0	ug/L			05/14/21 14:46	1
Benzene	ND		1.0	0.41	ug/L			05/14/21 14:46	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/14/21 14:46	1
Bromoform	ND		1.0	0.26	ug/L			05/14/21 14:46	1
Bromomethane	ND		1.0	0.69	ug/L			05/14/21 14:46	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/14/21 14:46	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/14/21 14:46	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/14/21 14:46	1
Chloroethane	ND		1.0	0.32	ug/L			05/14/21 14:46	1
Chloroform	ND		1.0	0.34	ug/L			05/14/21 14:46	1
Chloromethane	ND		1.0	0.35	ug/L			05/14/21 14:46	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/14/21 14:46	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/14/21 14:46	1
Cyclohexane	ND		1.0	0.18	ug/L			05/14/21 14:46	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/14/21 14:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/14/21 14:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/14/21 14:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/14/21 14:46	1
Methyl acetate	ND		2.5	1.3	ug/L			05/14/21 14:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/14/21 14:46	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/14/21 14:46	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/14/21 14:46	1
Styrene	ND		1.0	0.73	ug/L			05/14/21 14:46	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/14/21 14:46	1
Toluene	ND		1.0	0.51	ug/L			05/14/21 14:46	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/14/21 14:46	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/14/21 14:46	1
Trichloroethene	ND		1.0	0.46	ug/L			05/14/21 14:46	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

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

Lab Sample ID: MB 480-580982/7

Matrix: Water

Analysis Batch: 580982

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/14/21 14:46	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/14/21 14:46	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/14/21 14:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 120					05/14/21 14:46	1
4-Bromofluorobenzene (Surr)	101		73 - 120					05/14/21 14:46	1
Dibromofluoromethane (Surr)	114		75 - 123					05/14/21 14:46	1
Toluene-d8 (Surr)	96		80 - 120					05/14/21 14:46	1

Lab Sample ID: LCS 480-580982/4

Matrix: Water

Analysis Batch: 580982

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	30.7		ug/L		123	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.8		ug/L		91	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	29.6		ug/L		118	61 - 148
1,1,2-Trichloroethane	25.0	23.6		ug/L		94	76 - 122
1,1-Dichloroethane	25.0	28.9		ug/L		116	77 - 120
1,1-Dichloroethene	25.0	28.7		ug/L		115	66 - 127
1,2,3-Trimethylbenzene	25.0	27.1		ug/L		108	78 - 120
1,2,4-Trichlorobenzene	25.0	27.5		ug/L		110	79 - 122
1,2,4-Trimethylbenzene	25.0	28.0		ug/L		112	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	24.4		ug/L		98	56 - 134
1,2-Dibromoethane	25.0	24.6		ug/L		98	77 - 120
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	80 - 124
1,2-Dichloroethane	25.0	27.1		ug/L		108	75 - 120
1,2-Dichloropropane	25.0	27.3		ug/L		109	76 - 120
1,3,5-Trimethylbenzene	25.0	27.9		ug/L		112	77 - 121
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	77 - 120
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	80 - 120
2-Butanone (MEK)	125	204	*+	ug/L		163	57 - 140
2-Hexanone	125	108		ug/L		86	65 - 127
4-Methyl-2-pentanone (MIBK)	125	111		ug/L		89	71 - 125
Acetone	125	126		ug/L		101	56 - 142
Benzene	25.0	27.0		ug/L		108	71 - 124
Bromodichloromethane	25.0	28.8		ug/L		115	80 - 122
Bromoform	25.0	27.8		ug/L		111	61 - 132
Bromomethane	25.0	26.1		ug/L		104	55 - 144
Carbon disulfide	25.0	30.1		ug/L		120	59 - 134
Carbon tetrachloride	25.0	31.4		ug/L		125	72 - 134
Chlorobenzene	25.0	25.6		ug/L		103	80 - 120
Chloroethane	25.0	19.4		ug/L		78	69 - 136
Chloroform	25.0	27.2		ug/L		109	73 - 127
Chloromethane	25.0	24.2		ug/L		97	68 - 124
cis-1,2-Dichloroethene	25.0	29.5		ug/L		118	74 - 124
cis-1,3-Dichloropropene	25.0	28.8		ug/L		115	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

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

Lab Sample ID: LCS 480-580982/4

Matrix: Water

Analysis Batch: 580982

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	30.2		ug/L		121	59 - 135
Dibromochloromethane	25.0	27.0		ug/L		108	75 - 125
Dichlorodifluoromethane	25.0	32.0		ug/L		128	59 - 135
Ethylbenzene	25.0	26.0		ug/L		104	77 - 123
Isopropylbenzene	25.0	28.1		ug/L		112	77 - 122
Methyl acetate	50.0	47.6		ug/L		95	74 - 133
Methyl tert-butyl ether	25.0	28.2		ug/L		113	77 - 120
Methylcyclohexane	25.0	31.9		ug/L		127	68 - 134
Methylene Chloride	25.0	30.0		ug/L		120	75 - 124
Styrene	25.0	28.2		ug/L		113	80 - 120
Tetrachloroethene	25.0	26.7		ug/L		107	74 - 122
Toluene	25.0	24.4		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	28.9		ug/L		115	73 - 127
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	80 - 120
Trichloroethene	25.0	30.1		ug/L		120	74 - 123
Trichlorofluoromethane	25.0	32.5		ug/L		130	62 - 150
Vinyl chloride	25.0	28.3		ug/L		113	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 120
4-Bromofluorobenzene (Surr)	97		73 - 120
Dibromofluoromethane (Surr)	107		75 - 123
Toluene-d8 (Surr)	93		80 - 120

Lab Sample ID: LCSD 480-580982/5

Matrix: Water

Analysis Batch: 580982

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	29.2		ug/L		117	73 - 126	5	15
1,1,2,2-Tetrachloroethane	25.0	24.1		ug/L		96	76 - 120	6	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.3		ug/L		113	61 - 148	5	20
1,1,2-Trichloroethane	25.0	24.1		ug/L		96	76 - 122	2	15
1,1-Dichloroethane	25.0	27.5		ug/L		110	77 - 120	5	20
1,1-Dichloroethene	25.0	27.2		ug/L		109	66 - 127	6	16
1,2,3-Trimethylbenzene	25.0	26.8		ug/L		107	78 - 120	1	20
1,2,4-Trichlorobenzene	25.0	28.0		ug/L		112	79 - 122	2	20
1,2,4-Trimethylbenzene	25.0	27.5		ug/L		110	76 - 121	2	20
1,2-Dibromo-3-Chloropropane	25.0	24.9		ug/L		99	56 - 134	2	15
1,2-Dibromoethane	25.0	25.9		ug/L		104	77 - 120	5	15
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	80 - 124	2	20
1,2-Dichloroethane	25.0	27.2		ug/L		109	75 - 120	0	20
1,2-Dichloropropane	25.0	26.5		ug/L		106	76 - 120	3	20
1,3,5-Trimethylbenzene	25.0	27.2		ug/L		109	77 - 121	3	20
1,3-Dichlorobenzene	25.0	24.9		ug/L		100	77 - 120	1	20
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	80 - 120	0	20
2-Butanone (MEK)	125	212	*+	ug/L		169	57 - 140	4	20
2-Hexanone	125	118		ug/L		94	65 - 127	9	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

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

Lab Sample ID: LCSD 480-580982/5

Matrix: Water

Analysis Batch: 580982

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	125	117		ug/L		94	71 - 125	5	35
Acetone	125	130		ug/L		104	56 - 142	3	15
Benzene	25.0	26.1		ug/L		104	71 - 124	3	13
Bromodichloromethane	25.0	28.2		ug/L		113	80 - 122	2	15
Bromoform	25.0	29.4		ug/L		118	61 - 132	6	15
Bromomethane	25.0	21.8	*1	ug/L		87	55 - 144	18	15
Carbon disulfide	25.0	27.8		ug/L		111	59 - 134	8	15
Carbon tetrachloride	25.0	29.3		ug/L		117	72 - 134	7	15
Chlorobenzene	25.0	25.5		ug/L		102	80 - 120	0	25
Chloroethane	25.0	18.7		ug/L		75	69 - 136	4	15
Chloroform	25.0	25.6		ug/L		102	73 - 127	6	20
Chloromethane	25.0	24.3		ug/L		97	68 - 124	0	15
cis-1,2-Dichloroethene	25.0	27.9		ug/L		111	74 - 124	6	15
cis-1,3-Dichloropropene	25.0	29.1		ug/L		116	74 - 124	1	15
Cyclohexane	25.0	28.0		ug/L		112	59 - 135	8	20
Dibromochloromethane	25.0	28.3		ug/L		113	75 - 125	5	15
Dichlorodifluoromethane	25.0	30.3		ug/L		121	59 - 135	6	20
Ethylbenzene	25.0	26.0		ug/L		104	77 - 123	0	15
Isopropylbenzene	25.0	27.0		ug/L		108	77 - 122	4	20
Methyl acetate	50.0	48.0		ug/L		96	74 - 133	1	20
Methyl tert-butyl ether	25.0	28.5		ug/L		114	77 - 120	1	37
Methylcyclohexane	25.0	29.2		ug/L		117	68 - 134	9	20
Methylene Chloride	25.0	28.8		ug/L		115	75 - 124	4	15
Styrene	25.0	28.3		ug/L		113	80 - 120	1	20
Tetrachloroethene	25.0	26.2		ug/L		105	74 - 122	2	20
Toluene	25.0	24.1		ug/L		96	80 - 122	1	15
trans-1,2-Dichloroethene	25.0	27.5		ug/L		110	73 - 127	5	20
trans-1,3-Dichloropropene	25.0	26.4		ug/L		105	80 - 120	4	15
Trichloroethene	25.0	27.8		ug/L		111	74 - 123	8	16
Trichlorofluoromethane	25.0	31.2		ug/L		125	62 - 150	4	20
Vinyl chloride	25.0	26.5		ug/L		106	65 - 133	7	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		77 - 120
4-Bromofluorobenzene (Surr)	109		73 - 120
Dibromofluoromethane (Surr)	108		75 - 123
Toluene-d8 (Surr)	99		80 - 120

QC Association Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

GC/MS VOA

Analysis Batch: 580982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-184534-1	Well 1-2A	Total/NA	Water	8260C	
480-184534-2	Well 1-3	Total/NA	Water	8260C	
480-184534-3	Trip Blank	Total/NA	Water	8260C	
MB 480-580982/7	Method Blank	Total/NA	Water	8260C	
LCS 480-580982/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-580982/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Client Sample ID: Well 1-2A

Date Collected: 05/11/21 09:35

Date Received: 05/12/21 08:00

Lab Sample ID: 480-184534-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	580982	05/14/21 21:25	CRL	TAL BUF

Client Sample ID: Well 1-3

Date Collected: 05/11/21 09:40

Date Received: 05/12/21 08:00

Lab Sample ID: 480-184534-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	580982	05/14/21 21:46	CRL	TAL BUF

Client Sample ID: Trip Blank

Date Collected: 05/11/21 00:00

Date Received: 05/12/21 08:00

Lab Sample ID: 480-184534-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	580982	05/14/21 22:08	CRL	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Vestal Water Supply (Site 1-1) #704009A

Job ID: 480-184534-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,3-Trimethylbenzene

Method Summary

Client: New York State D.E.C.

Job ID: 480-184534-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: New York State D.E.C.

Job ID: 480-184534-1

Project/Site: Vestal Water Supply (Site 1-1) #704009A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-184534-1	Well 1-2A	Water	05/11/21 09:35	05/12/21 08:00	
480-184534-2	Well 1-3	Water	05/11/21 09:40	05/12/21 08:00	
480-184534-3	Trip Blank	Water	05/11/21 00:00	05/12/21 08:00	

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-184534-1

Login Number: 184534

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

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



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0G2051

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Town of Vestal Monthly/Quarterly

Project / PO Number: N/A
Received: 07/31/2020
Reported: 08/11/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0G2051-01

Collected By: Michael Emm
Collection Date: 07/31/2020 13:50

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Bromodichloromethane	<0.50		0.50	ug/L			08/06/20 1805	RSD
Bromoform	<0.50		0.50	ug/L			08/06/20 1805	RSD
Bromomethane	<0.50		0.50	ug/L			08/06/20 1805	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Chloroform	<0.50		0.50	ug/L			08/06/20 1805	RSD
Chloromethane	<0.50		0.50	ug/L			08/06/20 1805	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Dibromochloromethane	<0.50		0.50	ug/L			08/06/20 1805	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 11



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0G2051

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0G2051-01

Collected By: Michael Emm
Collection Date: 07/31/2020 13:50

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			08/06/20 1805	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1805	RSD
Surrogate: 4-Bromofluorobenzene	107	Limit: 70-130		% Rec			08/06/20 1805	RSD
Surrogate: 1,2-Dichlorobenzene-d4	104	Limit: 70-130		% Rec			08/06/20 1805	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0G2051

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0G2051-02

Collected By: Michael Emm
Collection Date: 07/31/2020 13:55

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Bromodichloromethane	<0.50		0.50	ug/L			08/06/20 1828	RSD
Bromoform	<0.50		0.50	ug/L			08/06/20 1828	RSD
Bromomethane	<0.50		0.50	ug/L			08/06/20 1828	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Chloroform	<0.50		0.50	ug/L			08/06/20 1828	RSD
Chloromethane	<0.50		0.50	ug/L			08/06/20 1828	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Dibromochloromethane	<0.50		0.50	ug/L			08/06/20 1828	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0G2051

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0G2051-02

Collected By: Michael Emm
Collection Date: 07/31/2020 13:55

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			08/06/20 1828	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1828	RSD
Surrogate: 4-Bromofluorobenzene	104	Limit: 70-130		% Rec			08/06/20 1828	RSD
Surrogate: 1,2-Dichlorobenzene-d4	94.0	Limit: 70-130		% Rec			08/06/20 1828	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0G2051

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0G2051-03

Collected By: Michael Emm
Collection Date: 07/31/2020 14:00

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Bromodichloromethane	<0.50		0.50	ug/L			08/06/20 1850	RSD
Bromoform	<0.50		0.50	ug/L			08/06/20 1850	RSD
Bromomethane	<0.50		0.50	ug/L			08/06/20 1850	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Chloroform	<0.50		0.50	ug/L			08/06/20 1850	RSD
Chloromethane	<0.50		0.50	ug/L			08/06/20 1850	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Dibromochloromethane	<0.50		0.50	ug/L			08/06/20 1850	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0G2051

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0G2051-03

Collected By: Michael Emm
Collection Date: 07/31/2020 14:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			08/06/20 1850	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1850	RSD
Surrogate: 4-Bromofluorobenzene	106	Limit: 70-130		% Rec			08/06/20 1850	RSD
Surrogate: 1,2-Dichlorobenzene-d4	98.8	Limit: 70-130		% Rec			08/06/20 1850	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0G2051

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0G2051-04

Collected By: Michael Emm
Collection Date: 07/31/2020 14:05

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Bromodichloromethane	<0.50		0.50	ug/L			08/06/20 1912	RSD
Bromoform	<0.50		0.50	ug/L			08/06/20 1912	RSD
Bromomethane	<0.50		0.50	ug/L			08/06/20 1912	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Chloroform	<0.50		0.50	ug/L			08/06/20 1912	RSD
Chloromethane	<0.50		0.50	ug/L			08/06/20 1912	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Dibromochloromethane	<0.50		0.50	ug/L			08/06/20 1912	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0G2051

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0G2051-04

Collected By: Michael Emm
Collection Date: 07/31/2020 14:05

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			08/06/20 1912	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			08/06/20 1912	RSD
Surrogate: 4-Bromofluorobenzene	109	Limit: 70-130		% Rec			08/06/20 1912	RSD
Surrogate: 1,2-Dichlorobenzene-d4	98.6	Limit: 70-130		% Rec			08/06/20 1912	RSD

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.**

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 08/11/2020 19:49

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 8 of 11



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0G2051

TAT 7 days

Town of Vestal

Project Name: Town of Vestal Monthly/Quarterly

Scott Groats

701 Vestal Parkway West

Vestal, NY 13850-1363

Phone: (607) 748-1514

Project/PO Number: N/A

Tenatively Scheduled: 7/14/2020

Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0G2051-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time:

7-31-2020 13:50

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-2A Finished

Lab Sample ID: J0G2051-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time:

7-31-2020 13:55

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-Ascorbic, HCL

40ml-Vial-Ascorbic, HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Raw

Lab Sample ID: J0G2051-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time:

7-31-2020 14:00

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Finished

Lab Sample ID: J0G2051-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time:

7-31-2020 14:05



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0G2051

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Town of Vestal Monthly/Quarterly

Project/PO Number: N/A
Tenatively Scheduled: 7/14/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <u>Michael Emm</u>	Date/Time: <u>7-31-2020</u> <u>16:55</u>	Received by: <u>K. Carr</u>
Printed Name: ~~Dorothy Robinson~~ <u>Michael Emm</u>		Printed Name: <u>Kayla Carter</u>
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes / No Temp: 4.3 °C Thermometer ID: 377 Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Town of Vestal Monthly/Quarterly

Project / PO Number: N/A
Received: 09/25/2020
Reported: 10/07/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J011927-01

Collected By: Michael Emm
Collection Date: 09/25/2020 10:05

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/02/20 1236	RSD
Bromoform	<0.50		0.50	ug/L			10/02/20 1236	RSD
Bromomethane	<0.50		0.50	ug/L			10/02/20 1236	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Chloroform	<0.50		0.50	ug/L			10/02/20 1236	RSD
Chloromethane	<0.50		0.50	ug/L			10/02/20 1236	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/02/20 1236	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J011927-01

Collected By: Michael Emm
Collection Date: 09/25/2020 10:05

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/02/20 1236	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1236	RSD
Surrogate: 4-Bromofluorobenzene	87.6	Limit: 70-130		% Rec			10/02/20 1236	RSD
Surrogate: 1,2-Dichlorobenzene-d4	87.6	Limit: 70-130		% Rec			10/02/20 1236	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: 1-2A Finished

Sample Matrix: Drinking Water

Lab Sample ID: J011927-02

Collected By: Michael Emm

Collection Date: 09/25/2020 10:10

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/02/20 1300	RSD
Bromoform	<0.50		0.50	ug/L			10/02/20 1300	RSD
Bromomethane	<0.50		0.50	ug/L			10/02/20 1300	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Chloroform	<0.50		0.50	ug/L			10/02/20 1300	RSD
Chloromethane	<0.50		0.50	ug/L			10/02/20 1300	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/02/20 1300	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 3 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J011927-02

Collected By: Michael Emm
Collection Date: 09/25/2020 10:10

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/02/20 1300	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1300	RSD
Surrogate: 4-Bromofluorobenzene	93.4	Limit: 70-130		% Rec			10/02/20 1300	RSD
Surrogate: 1,2-Dichlorobenzene-d4	76.4	Limit: 70-130		% Rec			10/02/20 1300	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J011927-03

Collected By: Michael Emm
Collection Date: 09/25/2020 10:15

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/02/20 1324	RSD
Bromoform	<0.50		0.50	ug/L			10/02/20 1324	RSD
Bromomethane	<0.50		0.50	ug/L			10/02/20 1324	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Chloroform	<0.50		0.50	ug/L			10/02/20 1324	RSD
Chloromethane	<0.50		0.50	ug/L			10/02/20 1324	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/02/20 1324	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 5 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J011927-03

Collected By: Michael Emm
Collection Date: 09/25/2020 10:15

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/02/20 1324	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1324	RSD
Surrogate: 4-Bromofluorobenzene	89.8	Limit: 70-130		% Rec			10/02/20 1324	RSD
Surrogate: 1,2-Dichlorobenzene-d4	80.8	Limit: 70-130		% Rec			10/02/20 1324	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J011927-04

Collected By: Michael Emm
Collection Date: 09/25/2020 10:22

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/02/20 1348	RSD
Bromoform	<0.50		0.50	ug/L			10/02/20 1348	RSD
Bromomethane	<0.50		0.50	ug/L			10/02/20 1348	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Chloroform	<0.50		0.50	ug/L			10/02/20 1348	RSD
Chloromethane	<0.50		0.50	ug/L			10/02/20 1348	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/02/20 1348	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 7 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J011927-04

Collected By: Michael Emm
Collection Date: 09/25/2020 10:22

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/02/20 1348	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1348	RSD
Surrogate: 4-Bromofluorobenzene	88.4	Limit: 70-130		% Rec			10/02/20 1348	RSD
Surrogate: 1,2-Dichlorobenzene-d4	82.2	Limit: 70-130		% Rec			10/02/20 1348	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J011927-07

Collected By: Michael Emm
Collection Date: 09/24/2020 17:00

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/02/20 1700	RSD
Bromoform	<0.50		0.50	ug/L			10/02/20 1700	RSD
Bromomethane	<0.50		0.50	ug/L			10/02/20 1700	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Chloroform	<0.50		0.50	ug/L			10/02/20 1700	RSD
Chloromethane	<0.50		0.50	ug/L			10/02/20 1700	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/02/20 1700	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J011927

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J011927-07

Collected By: Michael Emm
Collection Date: 09/24/2020 17:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/02/20 1700	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/02/20 1700	RSD
Surrogate: 4-Bromofluorobenzene	84.8	Limit: 70-130		% Rec			10/02/20 1700	RSD
Surrogate: 1,2-Dichlorobenzene-d4	80.4	Limit: 70-130		% Rec			10/02/20 1700	RSD

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 10/07/2020 21:08

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 14 of 17



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J011927

TAT 7 days

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Town of Vestal Monthly/Quarterly

Project/PO Number: N/A
Tenatively Scheduled: 9/25/2020
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J011927-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 9/25/2020 10:05

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-2A Finished

Lab Sample ID: J011927-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 9/25/2020 10:10

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-Ascorbic, HCL

40ml-Vial-Ascorbic, HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Raw

Lab Sample ID: J011927-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 9/25/2020 10:15

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Finished

Lab Sample ID: J011927-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 9/25/2020 10:22



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J011927

Town of Vestal

Project Name: Town of Vestal Monthly/Quarterly

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project/PO Number: N/A
Tenatively Scheduled: 9/25/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <i>Michael Emm</i>	Date/Time: <i>9/25/2020 15:50</i>	Received by: <i>Kmc</i>
Printed Name: <i>Bethany Robinson</i>		Printed Name: <i>Kayla Carter</i>
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes ☐ No Temp: 4.8 °C Thermometer ID: _____ Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Town of Vestal Monthly/Quarterly

Project / PO Number: N/A
Received: 10/19/2020
Reported: 10/26/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-01

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 12:00

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/22/20 1532	RSD
Bromoform	<0.50		0.50	ug/L			10/22/20 1532	RSD
Bromomethane	<0.50		0.50	ug/L			10/22/20 1532	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Chloroform	<0.50		0.50	ug/L			10/22/20 1532	RSD
Chloromethane	<0.50		0.50	ug/L			10/22/20 1532	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/22/20 1532	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 18



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-01

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 12:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/22/20 1532	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1532	RSD
Surrogate: 4-Bromofluorobenzene	108	Limit: 70-130		% Rec			10/22/20 1532	RSD
Surrogate: 1,2-Dichlorobenzene-d4	96.4	Limit: 70-130		% Rec			10/22/20 1532	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-02

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 12:20

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/22/20 1553	RSD
Bromoform	<0.50		0.50	ug/L			10/22/20 1553	RSD
Bromomethane	<0.50		0.50	ug/L			10/22/20 1553	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Chloroform	<0.50		0.50	ug/L			10/22/20 1553	RSD
Chloromethane	<0.50		0.50	ug/L			10/22/20 1553	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/22/20 1553	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: 1-2A Finished

Sample Matrix: Drinking Water

Lab Sample ID: J0J0994-02

Collected By: Thomas Webster-Lab

Collection Date: 10/19/2020 12:20

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/22/20 1553	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1553	RSD
Surrogate: 4-Bromofluorobenzene	105	Limit: 70-130		% Rec			10/22/20 1553	RSD
Surrogate: 1,2-Dichlorobenzene-d4	100	Limit: 70-130		% Rec			10/22/20 1553	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-03

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 12:40

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/22/20 1614	RSD
Bromoform	<0.50		0.50	ug/L			10/22/20 1614	RSD
Bromomethane	<0.50		0.50	ug/L			10/22/20 1614	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Chloroform	<0.50		0.50	ug/L			10/22/20 1614	RSD
Chloromethane	<0.50		0.50	ug/L			10/22/20 1614	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/22/20 1614	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-03

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 12:40

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/22/20 1614	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1614	RSD
Surrogate: 4-Bromofluorobenzene	104	Limit: 70-130		% Rec			10/22/20 1614	RSD
Surrogate: 1,2-Dichlorobenzene-d4	96.0	Limit: 70-130		% Rec			10/22/20 1614	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-04

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 12:45

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/22/20 1635	RSD
Bromoform	<0.50		0.50	ug/L			10/22/20 1635	RSD
Bromomethane	<0.50		0.50	ug/L			10/22/20 1635	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Chloroform	<0.50		0.50	ug/L			10/22/20 1635	RSD
Chloromethane	<0.50		0.50	ug/L			10/22/20 1635	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/22/20 1635	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-04

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 12:45

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/22/20 1635	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1635	RSD
Surrogate: 4-Bromofluorobenzene	108	Limit: 70-130		% Rec			10/22/20 1635	RSD
Surrogate: 1,2-Dichlorobenzene-d4	98.4	Limit: 70-130		% Rec			10/22/20 1635	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-07

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 9:00

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Bromodichloromethane	<0.50		0.50	ug/L			10/22/20 1739	RSD
Bromoform	<0.50		0.50	ug/L			10/22/20 1739	RSD
Bromomethane	<0.50		0.50	ug/L			10/22/20 1739	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Chloroform	<0.50		0.50	ug/L			10/22/20 1739	RSD
Chloromethane	<0.50		0.50	ug/L			10/22/20 1739	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Dibromochloromethane	<0.50		0.50	ug/L			10/22/20 1739	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0J0994

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0J0994-07

Collected By: Thomas Webster-Lab
Collection Date: 10/19/2020 9:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			10/22/20 1739	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			10/22/20 1739	RSD
Surrogate: 4-Bromofluorobenzene	105	Limit: 70-130		% Rec			10/22/20 1739	RSD
Surrogate: 1,2-Dichlorobenzene-d4	103	Limit: 70-130		% Rec			10/22/20 1739	RSD

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 10/26/2020 17:27

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 14 of 18



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0J0994

TAT 7 days

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Town of Vestal Monthly/Quarterly

Project/PO Number: N/A
Tenatively Scheduled: 10/13/2020
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0J0994-01

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 10-19-2020 / 1200

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 1-2A Finished

Lab Sample ID: J0J0994-02

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 10-19-2020 / 1220

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 1-3 Raw

Lab Sample ID: J0J0994-03

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 10-19-2020 / 1240
1238

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 1-3 Finished

Lab Sample ID: J0J0994-04

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 10-19-2020 / 1245
1235



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0J0994

TAT 7 days

Town of Vestal

Project Name: Town of Vestal Monthly/Quarterly

Scott Groats

701 Vestal Parkway West

Vestal, NY 13850-1363

Phone: (607) 748-1514

Project/PO Number: N/A

Tenatively Scheduled: 10/13/2020

Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0J0994-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 10-19-2020 / 1200

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-2A Finished

Lab Sample ID: J0J0994-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 10-19-2020 / 1220

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-Ascorbic, HCL

40ml-Vial-Ascorbic, HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Raw

Lab Sample ID: J0J0994-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 10-19-2020 / 1240

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Finished

Lab Sample ID: J0J0994-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 10-19-2020 / 1245

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 3

Page 16 of 18



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0J0994

Town of Vestal

Project Name: Town of Vestal Monthly/Quarterly

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project/PO Number: N/A
Tenatively Scheduled: 10/13/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <i>Thomas Webster</i>	Date/Time: <i>10-19-2020</i> <i>1430</i>	Received by: <i>Jennifer Walker</i>
Printed Name: <i>Bethany Robinson</i>		Printed Name: <i>J. Walker</i>
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes / No Temp: *5.2* °C Thermometer ID: *2044* Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Monthly - VOC's

Project / PO Number: N/A
Received: 11/23/2020
Reported: 12/10/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-01

Collected By: Thomas Webster
Collection Date: 11/23/2020 13:00

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/02/20 1618	RSD
Bromoform	<0.50		0.50	ug/L			12/02/20 1618	RSD
Bromomethane	<0.50		0.50	ug/L			12/02/20 1618	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Chloroform	<0.50		0.50	ug/L			12/02/20 1618	RSD
Chloromethane	<0.50		0.50	ug/L			12/02/20 1618	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/02/20 1618	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-01

Collected By: Thomas Webster
Collection Date: 11/23/2020 13:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/02/20 1618	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1618	RSD
Surrogate: 4-Bromofluorobenzene	77.4	Limit: 70-130		% Rec			12/02/20 1618	RSD
Surrogate: 1,2-Dichlorobenzene-d4	76.0	Limit: 70-130		% Rec			12/02/20 1618	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-02

Collected By: Thomas Webster
Collection Date: 11/23/2020 13:03

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/02/20 1640	RSD
Bromoform	<0.50		0.50	ug/L			12/02/20 1640	RSD
Bromomethane	<0.50		0.50	ug/L			12/02/20 1640	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Chloroform	<0.50		0.50	ug/L			12/02/20 1640	RSD
Chloromethane	<0.50		0.50	ug/L			12/02/20 1640	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/02/20 1640	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-02

Collected By: Thomas Webster
Collection Date: 11/23/2020 13:03

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/02/20 1640	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1640	RSD
Surrogate: 4-Bromofluorobenzene	83.6	Limit: 70-130		% Rec			12/02/20 1640	RSD
Surrogate: 1,2-Dichlorobenzene-d4	82.4	Limit: 70-130		% Rec			12/02/20 1640	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-03

Collected By: Thomas Webster
Collection Date: 11/23/2020 13:06

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/02/20 1702	RSD
Bromoform	<0.50		0.50	ug/L			12/02/20 1702	RSD
Bromomethane	<0.50		0.50	ug/L			12/02/20 1702	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Chloroform	<0.50		0.50	ug/L			12/02/20 1702	RSD
Chloromethane	<0.50		0.50	ug/L			12/02/20 1702	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/02/20 1702	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-03

Collected By: Thomas Webster
Collection Date: 11/23/2020 13:06

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/02/20 1702	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1702	RSD
Surrogate: 4-Bromofluorobenzene	85.2	Limit: 70-130		% Rec			12/02/20 1702	RSD
Surrogate: 1,2-Dichlorobenzene-d4	87.2	Limit: 70-130		% Rec			12/02/20 1702	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-04

Collected By: Thomas Webster
Collection Date: 11/23/2020 13:09

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/02/20 1724	RSD
Bromoform	<0.50		0.50	ug/L			12/02/20 1724	RSD
Bromomethane	<0.50		0.50	ug/L			12/02/20 1724	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Chloroform	<0.50		0.50	ug/L			12/02/20 1724	RSD
Chloromethane	<0.50		0.50	ug/L			12/02/20 1724	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/02/20 1724	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-04

Collected By: Thomas Webster
Collection Date: 11/23/2020 13:09

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/02/20 1724	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/02/20 1724	RSD
Surrogate: 4-Bromofluorobenzene	76.6	Limit: 70-130		% Rec			12/02/20 1724	RSD
Surrogate: 1,2-Dichlorobenzene-d4	74.0	Limit: 70-130		% Rec			12/02/20 1724	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-07

Collected By: Thomas Webster
Collection Date: 11/23/2020 10:00

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/04/20 1330	RSD
Bromoform	<0.50		0.50	ug/L			12/04/20 1330	RSD
Bromomethane	<0.50		0.50	ug/L			12/04/20 1330	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Chloroform	<0.50		0.50	ug/L			12/04/20 1330	RSD
Chloromethane	<0.50		0.50	ug/L			12/04/20 1330	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/04/20 1330	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0K1536

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0K1536-07

Collected By: Thomas Webster
Collection Date: 11/23/2020 10:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/04/20 1330	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/04/20 1330	RSD
Surrogate: 4-Bromofluorobenzene	82.0	Limit: 70-130		% Rec			12/04/20 1330	RSD
Surrogate: 1,2-Dichlorobenzene-d4	81.2	Limit: 70-130		% Rec			12/04/20 1330	RSD

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.**

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 12/10/2020 10:21

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 14 of 17



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0K1536

TAT 7 days

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOC's

Project/PO Number: N/A
Tenatively Scheduled: 11/10/2020
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0K1536-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 11-23-2020 / 1300

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-2A Finished

Lab Sample ID: J0K1536-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 11-23-2020 / 1303

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-Ascorbic, HCL

40ml-Vial-Ascorbic, HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Raw

Lab Sample ID: J0K1536-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 11-23-2020 / 1306

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Finished

Lab Sample ID: J0K1536-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 11-23-2020 / 1309

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 3

Page 15 of 17



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0K1536

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOC's

Project/PO Number: N/A
Tenatively Scheduled: 11/10/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <u>Sherry [Signature]</u>	Date/Time: <u>11-23-2020</u>	Received by: <u>[Signature]</u>
Printed Name: <u>Bethany Robinson</u>	<u>1515</u>	Printed Name: <u>[Signature]</u>
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: Yes / No Temp: 5.4 °C Thermometer ID: 2044 Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0L1067

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Monthly - VOCs

Project / PO Number: N/A
Received: 12/15/2020
Reported: 12/30/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0L1067-01

Collected By: MME-Lab
Collection Date: 12/15/2020 9:45

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/18/20 1302	RSD
Bromoform	<0.50		0.50	ug/L			12/18/20 1302	RSD
Bromomethane	<0.50		0.50	ug/L			12/18/20 1302	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Chloroform	<0.50		0.50	ug/L			12/18/20 1302	RSD
Chloromethane	<0.50		0.50	ug/L			12/18/20 1302	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/18/20 1302	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: JOL1067-01

Collected By: MME-Lab
Collection Date: 12/15/2020 9:45

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/18/20 1302	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1302	RSD
Surrogate: 4-Bromofluorobenzene	85.4	Limit: 70-130		% Rec			12/18/20 1302	RSD
Surrogate: 1,2-Dichlorobenzene-d4	84.0	Limit: 70-130		% Rec			12/18/20 1302	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: JOL1067-02

Collected By: MME-Lab
Collection Date: 12/15/2020 9:50

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/18/20 1323	RSD
Bromoform	<0.50		0.50	ug/L			12/18/20 1323	RSD
Bromomethane	<0.50		0.50	ug/L			12/18/20 1323	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Chloroform	<0.50		0.50	ug/L			12/18/20 1323	RSD
Chloromethane	<0.50		0.50	ug/L			12/18/20 1323	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/18/20 1323	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 3 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: 1-2A Finished

Sample Matrix: Drinking Water

Lab Sample ID: JOL1067-02

Collected By: MME-Lab

Collection Date: 12/15/2020 9:50

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/18/20 1323	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1323	RSD
Surrogate: 4-Bromofluorobenzene	76.0	Limit: 70-130		% Rec			12/18/20 1323	RSD
Surrogate: 1,2-Dichlorobenzene-d4	84.8	Limit: 70-130		% Rec			12/18/20 1323	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: JOL1067-03

Collected By: MME-Lab
Collection Date: 12/15/2020 9:55

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/18/20 1344	RSD
Bromoform	<0.50		0.50	ug/L			12/18/20 1344	RSD
Bromomethane	<0.50		0.50	ug/L			12/18/20 1344	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Chloroform	<0.50		0.50	ug/L			12/18/20 1344	RSD
Chloromethane	<0.50		0.50	ug/L			12/18/20 1344	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/18/20 1344	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: JOL1067-03

Collected By: MME-Lab
Collection Date: 12/15/2020 9:55

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/18/20 1344	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1344	RSD
Surrogate: 4-Bromofluorobenzene	78.6	Limit: 70-130		% Rec			12/18/20 1344	RSD
Surrogate: 1,2-Dichlorobenzene-d4	82.8	Limit: 70-130		% Rec			12/18/20 1344	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: JOL1067-04

Collected By: MME-Lab
Collection Date: 12/15/2020 10:15

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/18/20 1406	RSD
Bromoform	<0.50		0.50	ug/L			12/18/20 1406	RSD
Bromomethane	<0.50		0.50	ug/L			12/18/20 1406	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Chloroform	<0.50		0.50	ug/L			12/18/20 1406	RSD
Chloromethane	<0.50		0.50	ug/L			12/18/20 1406	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/18/20 1406	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 7 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: JOL1067-04

Collected By: MME-Lab
Collection Date: 12/15/2020 10:15

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/18/20 1406	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1406	RSD
Surrogate: 4-Bromofluorobenzene	76.2	Limit: 70-130		% Rec			12/18/20 1406	RSD
Surrogate: 1,2-Dichlorobenzene-d4	74.8	Limit: 70-130		% Rec			12/18/20 1406	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: JOL1067-07

Collected By: MME-Lab
Collection Date: 12/15/2020

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Bromodichloromethane	<0.50		0.50	ug/L			12/18/20 1510	RSD
Bromoform	<0.50		0.50	ug/L			12/18/20 1510	RSD
Bromomethane	<0.50		0.50	ug/L			12/18/20 1510	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Chloroform	<0.50		0.50	ug/L			12/18/20 1510	RSD
Chloromethane	<0.50		0.50	ug/L			12/18/20 1510	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Dibromochloromethane	<0.50		0.50	ug/L			12/18/20 1510	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

JOL1067

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: JOL1067-07

Collected By: MME-Lab
Collection Date: 12/15/2020

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			12/18/20 1510	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			12/18/20 1510	RSD
Surrogate: 4-Bromofluorobenzene	77.2	Limit: 70-130		% Rec			12/18/20 1510	RSD
Surrogate: 1,2-Dichlorobenzene-d4	78.8	Limit: 70-130		% Rec			12/18/20 1510	RSD

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.**

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 12/30/2020 21:42

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 14 of 17



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0L1067

TAT 7 days

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 12/15/2020
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0L1067-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 12/15/2020 9:45

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)		14.00 days
		Container(s)	Designator
		40ml-Vial-HCL	A
		40ml-Vial-HCL	B

Client Sample ID: 1-2A Finished

Lab Sample ID: J0L1067-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 12/15/2020 9:50

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)		14.00 days
		Container(s)	Designator
		40ml-Vial-Ascorbic, HCL	A
		40ml-Vial-Ascorbic, HCL	B

Client Sample ID: 1-3 Raw

Lab Sample ID: J0L1067-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 12/15/2020 9:55

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)		14.00 days
		Container(s)	Designator
		40ml-Vial-HCL	A
		40ml-Vial-HCL	B

Client Sample ID: 1-3 Finished

Lab Sample ID: J0L1067-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 12/15/2020 10:00



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



JOL1067

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 12/15/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <u>Michael G...</u>	Date/Time: <u>12/15/2020</u> <u>13:45</u>	Received by: <u>[Signature]</u>
Printed Name: <u>Bethany Robinson</u>		Printed Name: <u>[Signature]</u>
Relinquished by: <u>Michael Emm</u>	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice ☒ Yes / No Temp: 5.5 °C Thermometer ID: 2088 Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Monthly - VOCs

Project / PO Number: N/A
Received: 01/22/2021
Reported: 02/05/2021

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-01

Collected By: Michael Emm
Collection Date: 01/22/2021 10:30

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/01/21 1544	RSD
Bromoform	<0.50		0.50	ug/L			02/01/21 1544	RSD
Bromomethane	<0.50		0.50	ug/L			02/01/21 1544	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Chloroform	<0.50		0.50	ug/L			02/01/21 1544	RSD
Chloromethane	<0.50		0.50	ug/L			02/01/21 1544	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/01/21 1544	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-01

Collected By: Michael Emm
Collection Date: 01/22/2021 10:30

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/01/21 1544	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1544	RSD
Surrogate: 4-Bromofluorobenzene	94.0	Limit: 70-130		% Rec			02/01/21 1544	RSD
Surrogate: 1,2-Dichlorobenzene-d4	96.8	Limit: 70-130		% Rec			02/01/21 1544	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-02

Collected By: Michael Emm
Collection Date: 01/22/2021 10:35

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/01/21 1606	RSD
Bromoform	<0.50		0.50	ug/L			02/01/21 1606	RSD
Bromomethane	<0.50		0.50	ug/L			02/01/21 1606	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Chloroform	<0.50		0.50	ug/L			02/01/21 1606	RSD
Chloromethane	<0.50		0.50	ug/L			02/01/21 1606	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/01/21 1606	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: 1-2A Finished

Sample Matrix: Drinking Water

Lab Sample ID: J1A1437-02

Collected By: Michael Emm

Collection Date: 01/22/2021 10:35

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/01/21 1606	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1606	RSD
Surrogate: 4-Bromofluorobenzene	91.2	Limit: 70-130		% Rec			02/01/21 1606	RSD
Surrogate: 1,2-Dichlorobenzene-d4	96.8	Limit: 70-130		% Rec			02/01/21 1606	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-03

Collected By: Michael Emm
Collection Date: 01/22/2021 10:45

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/01/21 1628	RSD
Bromoform	<0.50		0.50	ug/L			02/01/21 1628	RSD
Bromomethane	<0.50		0.50	ug/L			02/01/21 1628	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Chloroform	<0.50		0.50	ug/L			02/01/21 1628	RSD
Chloromethane	<0.50		0.50	ug/L			02/01/21 1628	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/01/21 1628	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-03

Collected By: Michael Emm
Collection Date: 01/22/2021 10:45

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/01/21 1628	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1628	RSD
Surrogate: 4-Bromofluorobenzene	93.8	Limit: 70-130		% Rec			02/01/21 1628	RSD
Surrogate: 1,2-Dichlorobenzene-d4	98.6	Limit: 70-130		% Rec			02/01/21 1628	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-04

Collected By: Michael Emm
Collection Date: 01/22/2021 10:50

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/01/21 1650	RSD
Bromoform	<0.50		0.50	ug/L			02/01/21 1650	RSD
Bromomethane	<0.50		0.50	ug/L			02/01/21 1650	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Chloroform	<0.50		0.50	ug/L			02/01/21 1650	RSD
Chloromethane	<0.50		0.50	ug/L			02/01/21 1650	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/01/21 1650	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-04

Collected By: Michael Emm
Collection Date: 01/22/2021 10:50

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/01/21 1650	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/01/21 1650	RSD
Surrogate: 4-Bromofluorobenzene	93.8	Limit: 70-130		% Rec			02/01/21 1650	RSD
Surrogate: 1,2-Dichlorobenzene-d4	102	Limit: 70-130		% Rec			02/01/21 1650	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-07

Collected By: Michael Emm
Collection Date: 01/22/2021 8:45

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/02/21 1359	RSD
Bromoform	<0.50		0.50	ug/L			02/02/21 1359	RSD
Bromomethane	<0.50		0.50	ug/L			02/02/21 1359	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Chloroform	<0.50		0.50	ug/L			02/02/21 1359	RSD
Chloromethane	<0.50		0.50	ug/L			02/02/21 1359	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/02/21 1359	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1A1437

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J1A1437-07

Collected By: Michael Emm
Collection Date: 01/22/2021 8:45

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/02/21 1359	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/02/21 1359	RSD
Surrogate: 4-Bromofluorobenzene	98.6	Limit: 70-130		% Rec			02/02/21 1359	RSD
Surrogate: 1,2-Dichlorobenzene-d4	98.2	Limit: 70-130		% Rec			02/02/21 1359	RSD

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.**

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 02/05/2021 16:45

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 14 of 17



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1A1437

TAT 7 days

Town of Vestal

Project Name: Monthly - VOCs

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project/PO Number: N/A
Tenatively Scheduled: 1/12/2021
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J1A1437-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1/22/2021 10:30

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-2A Finished

Lab Sample ID: J1A1437-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1/22/2021 10:35

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-Ascorbic, HCL

40ml-Vial-Ascorbic, HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Raw

Lab Sample ID: J1A1437-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1/22/2021 10:45

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Finished

Lab Sample ID: J1A1437-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1/22/2021 10:50



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1A1437

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 1/12/2021
Route: NY-Route 1 Bing

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Raw

Lab Sample ID: J1A1437-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 1/22/2021 11:30

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Finished

Lab Sample ID: J1A1437-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 1/22/2021 11:35

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: Trip Blank

Lab Sample ID: J1A1437-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 1/22/2021 8:45

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL	14.00 days <u>Designator</u> A



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1A1437

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 1/12/2021
Route: NY-Route 1 Bing

Sampled/Relinquished by: <u>Michael Emm</u>	Date/Time: <u>1/22/2021</u>	Received by: <u>DW</u>
Printed Name: <u>Bethany Robinson</u>	<u>15:00 1/22/21</u>	Printed Name: <u>David Walls</u>
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes / No Temp: 4.0 °C Thermometer ID: 2044 Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Monthly - VOCs

Project / PO Number: N/A
Received: 02/16/2021
Reported: 03/03/2021

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-01

Collected By: Michael Emm
Collection Date: 02/16/2021 11:23

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/25/21 1345	RSD
Bromoform	<0.50		0.50	ug/L			02/25/21 1345	RSD
Bromomethane	<0.50		0.50	ug/L			02/25/21 1345	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Chloroform	<0.50		0.50	ug/L			02/25/21 1345	RSD
Chloromethane	<0.50		0.50	ug/L			02/25/21 1345	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/25/21 1345	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-01

Collected By: Michael Emm
Collection Date: 02/16/2021 11:23

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/25/21 1345	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1345	RSD
Surrogate: 4-Bromofluorobenzene	85.6	Limit: 70-130		% Rec			02/25/21 1345	RSD
Surrogate: 1,2-Dichlorobenzene-d4	103	Limit: 70-130		% Rec			02/25/21 1345	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-02

Collected By: Michael Emm
Collection Date: 02/16/2021 11:30

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/25/21 1408	RSD
Bromoform	<0.50		0.50	ug/L			02/25/21 1408	RSD
Bromomethane	<0.50		0.50	ug/L			02/25/21 1408	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Chloroform	<0.50		0.50	ug/L			02/25/21 1408	RSD
Chloromethane	<0.50		0.50	ug/L			02/25/21 1408	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/25/21 1408	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 3 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: 1-2A Finished

Sample Matrix: Drinking Water

Lab Sample ID: J1B1031-02

Collected By: Michael Emm

Collection Date: 02/16/2021 11:30

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/25/21 1408	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1408	RSD
Surrogate: 4-Bromofluorobenzene	85.8	Limit: 70-130		% Rec			02/25/21 1408	RSD
Surrogate: 1,2-Dichlorobenzene-d4	101	Limit: 70-130		% Rec			02/25/21 1408	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-03

Collected By: Michael Emm
Collection Date: 02/16/2021 11:10

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/25/21 1431	RSD
Bromoform	<0.50		0.50	ug/L			02/25/21 1431	RSD
Bromomethane	<0.50		0.50	ug/L			02/25/21 1431	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Chloroform	<0.50		0.50	ug/L			02/25/21 1431	RSD
Chloromethane	<0.50		0.50	ug/L			02/25/21 1431	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/25/21 1431	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-03

Collected By: Michael Emm
Collection Date: 02/16/2021 11:10

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/25/21 1431	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1431	RSD
Surrogate: 4-Bromofluorobenzene	84.2	Limit: 70-130		% Rec			02/25/21 1431	RSD
Surrogate: 1,2-Dichlorobenzene-d4	94.4	Limit: 70-130		% Rec			02/25/21 1431	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-04

Collected By: Michael Emm
Collection Date: 02/16/2021 11:15

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/25/21 1454	RSD
Bromoform	<0.50		0.50	ug/L			02/25/21 1454	RSD
Bromomethane	<0.50		0.50	ug/L			02/25/21 1454	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Chloroform	<0.50		0.50	ug/L			02/25/21 1454	RSD
Chloromethane	<0.50		0.50	ug/L			02/25/21 1454	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/25/21 1454	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-04

Collected By: Michael Emm
Collection Date: 02/16/2021 11:15

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/25/21 1454	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/25/21 1454	RSD
Surrogate: 4-Bromofluorobenzene	77.8	Limit: 70-130		% Rec			02/25/21 1454	RSD
Surrogate: 1,2-Dichlorobenzene-d4	88.6	Limit: 70-130		% Rec			02/25/21 1454	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-07

Collected By: Michael Emm
Collection Date: 02/16/2021 9:00

Analyses Subcontracted to: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Bromodichloromethane	<0.50		0.50	ug/L			02/27/21 1606	RSD
Bromoform	<0.50		0.50	ug/L			02/27/21 1606	RSD
Bromomethane	<0.50		0.50	ug/L			02/27/21 1606	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Chloroform	<0.50		0.50	ug/L			02/27/21 1606	RSD
Chloromethane	<0.50		0.50	ug/L			02/27/21 1606	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Dibromochloromethane	<0.50		0.50	ug/L			02/27/21 1606	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1B1031

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J1B1031-07

Collected By: Michael Emm
Collection Date: 02/16/2021 9:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			02/27/21 1606	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			02/27/21 1606	RSD
Surrogate: 4-Bromofluorobenzene	81.4	Limit: 70-130		% Rec			02/27/21 1606	RSD
Surrogate: 1,2-Dichlorobenzene-d4	89.2	Limit: 70-130		% Rec			02/27/21 1606	RSD

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.**

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 03/03/2021 21:31

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 14 of 17



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1B1031

TAT 7 days

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 2/9/2021
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J1B1031-01

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 2-16-2021 11:23

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 1-2A Finished

Lab Sample ID: J1B1031-02

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 2-16-2021 11:30

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 1-3 Raw

Lab Sample ID: J1B1031-03

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 2-16-2021 11:10

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40mi-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 1-3 Finished

Lab Sample ID: J1B1031-04

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 2-16-2021 11:15



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1B1031

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 2/9/2021
Route: NY-Route 1 Bing

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Raw

Lab Sample ID: J1B1031-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 2-16-2021 11:40

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Finished

Lab Sample ID: J1B1031-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 2-16-2021 11:45

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: Trip Blank

Lab Sample ID: J1B1031-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 2-16-2021 9:00

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL	14.00 days <u>Designator</u> A



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1B1031

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 2/9/2021
Route: NY-Route 1 Bing

Sampled/Relinquished by: <i>Michael Emm</i>	Date/Time: <i>2-16-2021 15:50</i>	Received by: <i>David Walsh</i>
Printed Name: <i>Bethany Robinson</i>		Printed Name: <i>David Walsh</i>
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes ☐ No Temp: 4.7 °C Thermometer ID: 7644 Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Monthly - VOCs

Project / PO Number: N/A
Received: 03/22/2021
Reported: 03/30/2021

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-01

Collected By: TDW-Lab
Collection Date: 03/22/2021 12:35

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/24/21 1820	RSD
Bromoform	<0.50		0.50	ug/L			03/24/21 1820	RSD
Bromomethane	<0.50		0.50	ug/L			03/24/21 1820	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Chloroform	<0.50		0.50	ug/L			03/24/21 1820	RSD
Chloromethane	<0.50		0.50	ug/L			03/24/21 1820	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/24/21 1820	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-01

Collected By: TDW-Lab
Collection Date: 03/22/2021 12:35

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/24/21 1820	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1820	RSD
Surrogate: 4-Bromofluorobenzene	85.2	Limit: 70-130		% Rec			03/24/21 1820	RSD
Surrogate: 1,2-Dichlorobenzene-d4	85.6	Limit: 70-130		% Rec			03/24/21 1820	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-02

Collected By: TDW-Lab
Collection Date: 03/22/2021 12:38

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/24/21 1841	RSD
Bromoform	<0.50		0.50	ug/L			03/24/21 1841	RSD
Bromomethane	<0.50		0.50	ug/L			03/24/21 1841	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Chloroform	<0.50		0.50	ug/L			03/24/21 1841	RSD
Chloromethane	<0.50		0.50	ug/L			03/24/21 1841	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/24/21 1841	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 3 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: 1-2A Finished

Sample Matrix: Drinking Water

Lab Sample ID: J1C1536-02

Collected By: TDW-Lab

Collection Date: 03/22/2021 12:38

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/24/21 1841	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1841	RSD
Surrogate: 4-Bromofluorobenzene	85.2	Limit: 70-130		% Rec			03/24/21 1841	RSD
Surrogate: 1,2-Dichlorobenzene-d4	86.2	Limit: 70-130		% Rec			03/24/21 1841	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-03

Collected By: TDW-Lab
Collection Date: 03/22/2021 12:43

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/24/21 1903	RSD
Bromoform	<0.50		0.50	ug/L			03/24/21 1903	RSD
Bromomethane	<0.50		0.50	ug/L			03/24/21 1903	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Chloroform	<0.50		0.50	ug/L			03/24/21 1903	RSD
Chloromethane	<0.50		0.50	ug/L			03/24/21 1903	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/24/21 1903	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-03

Collected By: TDW-Lab
Collection Date: 03/22/2021 12:43

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/24/21 1903	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1903	RSD
Surrogate: 4-Bromofluorobenzene	84.0	Limit: 70-130		% Rec			03/24/21 1903	RSD
Surrogate: 1,2-Dichlorobenzene-d4	83.8	Limit: 70-130		% Rec			03/24/21 1903	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-04

Collected By: TDW-Lab
Collection Date: 03/22/2021 12:46

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/24/21 1924	RSD
Bromoform	<0.50		0.50	ug/L			03/24/21 1924	RSD
Bromomethane	<0.50		0.50	ug/L			03/24/21 1924	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Chloroform	<0.50		0.50	ug/L			03/24/21 1924	RSD
Chloromethane	<0.50		0.50	ug/L			03/24/21 1924	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/24/21 1924	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-04

Collected By: TDW-Lab
Collection Date: 03/22/2021 12:46

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/24/21 1924	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/24/21 1924	RSD
Surrogate: 4-Bromofluorobenzene	85.6	Limit: 70-130		% Rec			03/24/21 1924	RSD
Surrogate: 1,2-Dichlorobenzene-d4	86.6	Limit: 70-130		% Rec			03/24/21 1924	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-07

Collected By: TDW-Lab
Collection Date: 03/22/2021 10:05

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Bromodichloromethane	<0.50		0.50	ug/L			03/29/21 1315	IMM
Bromoform	<0.50		0.50	ug/L			03/29/21 1315	IMM
Bromomethane	<0.50		0.50	ug/L			03/29/21 1315	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Chloroform	<0.50		0.50	ug/L			03/29/21 1315	IMM
Chloromethane	<0.50		0.50	ug/L			03/29/21 1315	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Dibromochloromethane	<0.50		0.50	ug/L			03/29/21 1315	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1C1536

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J1C1536-07

Collected By: TDW-Lab
Collection Date: 03/22/2021 10:05

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/29/21 1315	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/29/21 1315	IMM
Surrogate: 4-Bromofluorobenzene	85.2	Limit: 70-130		% Rec			03/29/21 1315	IMM
Surrogate: 1,2-Dichlorobenzene-d4	81.0	Limit: 70-130		% Rec			03/29/21 1315	IMM

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.**

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 03/30/2021 19:07

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 14 of 17



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1C1536

TAT 7 days

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 3/9/2021
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J1C1536-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 3-22-2021 / 1235

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	Container(s) 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days Designator A B

Client Sample ID: 1-2A Finished

Lab Sample ID: J1C1536-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 3-22-2021 / 1238

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	Container(s) 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days Designator A B

Client Sample ID: 1-3 Raw

Lab Sample ID: J1C1536-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 3-22-2021 / 1243

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	Container(s) 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days Designator A B

Client Sample ID: 1-3 Finished

Lab Sample ID: J1C1536-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 3-22-2021 / 1246



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1C1536

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 3/9/2021
Route: NY-Route 1 Bing

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Raw

Lab Sample ID: J1C1536-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 3-22-2021 / 12:50

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Finished

Lab Sample ID: J1C1536-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 3-22-2021 / 12:52

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: Trip Blank

Lab Sample ID: J1C1536-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 3-22-2021 / 10:05

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL	14.00 days <u>Designator</u> A



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1C1536

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 3/9/2021
Route: NY-Route 1 Bing

Sampled/Relinquished by:	Date/Time: 3-22-2021 16:00	Received by:
Printed Name: Bethany Robinson <i>Twelbster</i>		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes ☐ No Temp: 42 °C Thermometer ID: 2044 Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1D1280

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Monthly - VOCs

Project / PO Number: N/A
Received: 04/28/2021
Reported: 05/23/2021

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1D1280-01

Collected By: TDW-Lab
Collection Date: 04/28/2021 10:12

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Bromodichloromethane	<0.50		0.50	ug/L			05/03/21 1514	IMM
Bromoform	<0.50		0.50	ug/L			05/03/21 1514	IMM
Bromomethane	<0.50		0.50	ug/L			05/03/21 1514	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Chloroform	<0.50		0.50	ug/L			05/03/21 1514	IMM
Chloromethane	<0.50		0.50	ug/L			05/03/21 1514	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Dibromochloromethane	<0.50		0.50	ug/L			05/03/21 1514	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 15



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1D1280

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1D1280-01

Collected By: TDW-Lab
Collection Date: 04/28/2021 10:12

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/03/21 1514	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1514	IMM
Surrogate: 4-Bromofluorobenzene	70.6	Limit: 70-130		% Rec			05/03/21 1514	IMM
Surrogate: 1,2-Dichlorobenzene-d4	75.4	Limit: 70-130		% Rec			05/03/21 1514	IMM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1D1280

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1D1280-02

Collected By: TDW-Lab
Collection Date: 04/28/2021 10:14

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Bromodichloromethane	<0.50		0.50	ug/L			05/03/21 1536	IMM
Bromoform	<0.50		0.50	ug/L			05/03/21 1536	IMM
Bromomethane	<0.50		0.50	ug/L			05/03/21 1536	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Chloroform	<0.50		0.50	ug/L			05/03/21 1536	IMM
Chloromethane	<0.50		0.50	ug/L			05/03/21 1536	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Dibromochloromethane	<0.50		0.50	ug/L			05/03/21 1536	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1D1280

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1D1280-02

Collected By: TDW-Lab
Collection Date: 04/28/2021 10:14

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/03/21 1536	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1536	IMM
Surrogate: 4-Bromofluorobenzene	70.2	Limit: 70-130		% Rec			05/03/21 1536	IMM
Surrogate: 1,2-Dichlorobenzene-d4	77.2	Limit: 70-130		% Rec			05/03/21 1536	IMM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1D1280

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1D1280-03

Collected By: TDW-Lab
Collection Date: 04/28/2021 10:18

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Bromodichloromethane	<0.50		0.50	ug/L			05/03/21 1557	IMM
Bromoform	<0.50		0.50	ug/L			05/03/21 1557	IMM
Bromomethane	<0.50		0.50	ug/L			05/03/21 1557	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Chloroform	<0.50		0.50	ug/L			05/03/21 1557	IMM
Chloromethane	<0.50		0.50	ug/L			05/03/21 1557	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Dibromochloromethane	<0.50		0.50	ug/L			05/03/21 1557	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1D1280

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1D1280-03

Collected By: TDW-Lab
Collection Date: 04/28/2021 10:18

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/03/21 1557	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1557	IMM
Surrogate: 4-Bromofluorobenzene	73.2	Limit: 70-130		% Rec			05/03/21 1557	IMM
Surrogate: 1,2-Dichlorobenzene-d4	79.2	Limit: 70-130		% Rec			05/03/21 1557	IMM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1D1280

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1D1280-04

Collected By: TDW-Lab
Collection Date: 04/28/2021 10:20

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Bromodichloromethane	<0.50		0.50	ug/L			05/03/21 1619	IMM
Bromoform	<0.50		0.50	ug/L			05/03/21 1619	IMM
Bromomethane	<0.50		0.50	ug/L			05/03/21 1619	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Chloroform	<0.50		0.50	ug/L			05/03/21 1619	IMM
Chloromethane	<0.50		0.50	ug/L			05/03/21 1619	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Dibromochloromethane	<0.50		0.50	ug/L			05/03/21 1619	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1D1280

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1D1280-04

Collected By: TDW-Lab
Collection Date: 04/28/2021 10:20

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/03/21 1619	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/03/21 1619	IMM
Surrogate: 4-Bromofluorobenzene	70.6	Limit: 70-130		% Rec			05/03/21 1619	IMM
Surrogate: 1,2-Dichlorobenzene-d4	77.2	Limit: 70-130		% Rec			05/03/21 1619	IMM



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1D1280

TAT 7 days

Town of Vestal

Project Name: Monthly - VOCs

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project/PO Number: N/A
Tenatively Scheduled: 4/13/2021
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J1D1280-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 4-28-2021 / 1012

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	Container(s) 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days Designator A B

Client Sample ID: 1-2A Finished

Lab Sample ID: J1D1280-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 4-28-2021 / 1014

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	Container(s) 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days Designator A B

Client Sample ID: 1-3 Raw

Lab Sample ID: J1D1280-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 4-28-2021 / 1018

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	Container(s) 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days Designator A B

Client Sample ID: 1-3 Finished

Lab Sample ID: J1D1280-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 4-28-2021 / 1020



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1D1280

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 4/13/2021
Route: NY-Route 1 Bing

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Raw

Lab Sample ID: J1D1280-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 4-28-2021 / 1055

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Finished

Lab Sample ID: J1D1280-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 4-28-2021 / 1057

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: Trip Blank

Lab Sample ID: J1D1280-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 4-28-2021 / 830

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL	14.00 days <u>Designator</u> A



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1D1280

Town of Vestal

Project Name: Monthly - VOCs

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project/PO Number: N/A
Tenatively Scheduled: 4/13/2021
Route: NY-Route 1 Bing

Sampled/Relinquished by:	Date/Time: 4-28-2021 1300	Received by:
Printed Name: ~~Bethany Robinson~~ T. Webster		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes / No Temp: 5.9 °C Thermometer ID: 2044 Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Monthly - VOCs

Project / PO Number: N/A
Received: 05/18/2021
Reported: 06/11/2021

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-01

Collected By: Client
Collection Date: 05/18/2021 13:47

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Bromodichloromethane	<0.50		0.50	ug/L			05/28/21 0958	IMM
Bromoform	<0.50		0.50	ug/L			05/28/21 0958	IMM
Bromomethane	<0.50		0.50	ug/L			05/28/21 0958	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Chloroform	<0.50		0.50	ug/L			05/28/21 0958	IMM
Chloromethane	<0.50		0.50	ug/L			05/28/21 0958	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Dibromochloromethane	<0.50		0.50	ug/L			05/28/21 0958	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-01

Collected By: Client
Collection Date: 05/18/2021 13:47

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/28/21 0958	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 0958	IMM
Surrogate: 4-Bromofluorobenzene	70.2	Limit: 70-130		% Rec			05/28/21 0958	IMM
Surrogate: 1,2-Dichlorobenzene-d4	77.8	Limit: 70-130		% Rec			05/28/21 0958	IMM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-02

Collected By: Client
Collection Date: 05/18/2021 13:48

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Bromodichloromethane	<0.50		0.50	ug/L			05/28/21 1019	IMM
Bromoform	<0.50		0.50	ug/L			05/28/21 1019	IMM
Bromomethane	<0.50		0.50	ug/L			05/28/21 1019	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Chloroform	<0.50		0.50	ug/L			05/28/21 1019	IMM
Chloromethane	<0.50		0.50	ug/L			05/28/21 1019	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Dibromochloromethane	<0.50		0.50	ug/L			05/28/21 1019	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 3 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-02

Collected By: Client
Collection Date: 05/18/2021 13:48

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/28/21 1019	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1019	IMM
Surrogate: 4-Bromofluorobenzene	79.6	Limit: 70-130		% Rec			05/28/21 1019	IMM
Surrogate: 1,2-Dichlorobenzene-d4	91.2	Limit: 70-130		% Rec			05/28/21 1019	IMM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-03

Collected By: Client
Collection Date: 05/18/2021 13:57

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Bromodichloromethane	<0.50		0.50	ug/L			05/28/21 1040	IMM
Bromoform	<0.50		0.50	ug/L			05/28/21 1040	IMM
Bromomethane	<0.50		0.50	ug/L			05/28/21 1040	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Chloroform	<0.50		0.50	ug/L			05/28/21 1040	IMM
Chloromethane	<0.50		0.50	ug/L			05/28/21 1040	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Dibromochloromethane	<0.50		0.50	ug/L			05/28/21 1040	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-03

Collected By: Client
Collection Date: 05/18/2021 13:57

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/28/21 1040	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1040	IMM
Surrogate: 4-Bromofluorobenzene	79.6	Limit: 70-130		% Rec			05/28/21 1040	IMM
Surrogate: 1,2-Dichlorobenzene-d4	88.2	Limit: 70-130		% Rec			05/28/21 1040	IMM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-04

Collected By: Client
Collection Date: 05/18/2021 14:19

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Bromodichloromethane	<0.50		0.50	ug/L			05/28/21 1101	IMM
Bromoform	<0.50		0.50	ug/L			05/28/21 1101	IMM
Bromomethane	<0.50		0.50	ug/L			05/28/21 1101	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Chloroform	<0.50		0.50	ug/L			05/28/21 1101	IMM
Chloromethane	<0.50		0.50	ug/L			05/28/21 1101	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Dibromochloromethane	<0.50		0.50	ug/L			05/28/21 1101	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-04

Collected By: Client
Collection Date: 05/18/2021 14:19

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/28/21 1101	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/28/21 1101	IMM
Surrogate: 4-Bromofluorobenzene	75.0	Limit: 70-130		% Rec			05/28/21 1101	IMM
Surrogate: 1,2-Dichlorobenzene-d4	83.0	Limit: 70-130		% Rec			05/28/21 1101	IMM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-07

Collected By: Bethany Robinson
Collection Date: 05/18/2021 9:00

Analyses Performed by: Microbac Laboratories, Inc. - Dayville

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 524.2, Rv. 4.1 (1995)								
Benzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Bromodichloromethane	<0.50		0.50	ug/L			06/01/21 1214	IMM
Bromoform	<0.50		0.50	ug/L			06/01/21 1214	IMM
Bromomethane	<0.50		0.50	ug/L			06/01/21 1214	IMM
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Chloroform	<0.50		0.50	ug/L			06/01/21 1214	IMM
Chloromethane	<0.50		0.50	ug/L			06/01/21 1214	IMM
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Dibromochloromethane	<0.50		0.50	ug/L			06/01/21 1214	IMM
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Styrene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1E1232

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J1E1232-07

Collected By: Bethany Robinson
Collection Date: 05/18/2021 9:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Toluene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			06/01/21 1214	IMM
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			06/01/21 1214	IMM
Surrogate: 4-Bromofluorobenzene	93.0	Limit: 70-130		% Rec			06/01/21 1214	IMM
Surrogate: 1,2-Dichlorobenzene-d4	101	Limit: 70-130		% Rec			06/01/21 1214	IMM

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

MCL: US EPA Maximum Contaminant Level
NYVOA: New York DOH Part 5 Public Water System MCLs
RL: Reporting Limit
ug/L: Micrograms per Liter

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
11549

New York State Department of Health

Microbac Laboratories, Inc., New York Division
NY Lab ID No.: 10795

New York State Department of Health

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.**

Reviewed and Approved By:

Renee Lantz
Customer Relationship Specialist
Reported: 06/11/2021 17:41

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 14 of 17



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1E1232

TAT 7 days

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 5/11/2021
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J1E1232-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 5-18-2021 / 1347

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-2A Finished

Lab Sample ID: J1E1232-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 5-18-2021 / 1348

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-Ascorbic, HCL

40ml-Vial-Ascorbic, HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Raw

Lab Sample ID: J1E1232-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 5-18-2021 / 1354

Analysis

524.2 VOC NY

Method

EPA 524.2, Rv. 4.1 (1995)

Field Results/Comments

Container(s)

40ml-Vial-HCL

40ml-Vial-HCL

Hold Time

14.00 days

Designator

A

B

Client Sample ID: 1-3 Finished

Lab Sample ID: J1E1232-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 5-18-2021 / 1357



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1E1232

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tentatively Scheduled: 5/11/2021
Route: NY-Route 1 Bing

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Raw

Lab Sample ID: J1E1232-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 5-18-2021 / 1419

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Finished

Lab Sample ID: J1E1232-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 5-18-2021 / 1423

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: Trip Blank

Lab Sample ID: J1E1232-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 5-18-2021 / 900

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL	14.00 days <u>Designator</u> A



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1E1232

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 5/11/2021
Route: NY-Route 1 Bing

Sampled/Relinquished by:	Date/Time: 5-18-2021 16:00	Received by:
Printed Name: Bethany Robinson		Printed Name: Scott Groats
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes / No Temp: 4.8 °C Thermometer ID: 2044 Total Containers: 13

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1F0180

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project Name: Monthly - VOCs

Project / PO Number: N/A
Received: 06/15/2021
Reported: 07/25/2021

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1F0180-01

Collected By: MME-Lab
Collection Date: 06/15/2021 12:40

Analyses Performed by: Eurofins Eaton Analytical, Inc. - South Bend

EPA 524.2	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: 524.2								
1,1,1,2-Tetrachloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,1,1-Trichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,1,2,2-Tetrachloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,1,2-Trichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,1-Dichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,1-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
1,1-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
1,2,3-Trichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,2,3-Trichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,2,4-Trichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,2,4-Trimethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,2-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,2-Dichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,2-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,2-Xylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
1,3 + 1,4-Xylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
1,3,5-Trimethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,3-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,3-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
1,3-Dichloropropylene, cis & trans	<0.5		0.5	ug/L			06/21/21 1757	CAM
1,4-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
2,2-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
2-Chlorotoluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
4-Chlorotoluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
4-Isopropyltoluene	<0.5		0.5	ug/L			06/21/21 1757	CAM
Benzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Bromobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Bromochloromethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Bromomethane	<0.5		0.5	ug/L			06/21/21 1757	CAM
Carbon tetrachloride	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Chlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Chloroethane	<0.5		0.5	ug/L			06/21/21 1757	CAM
Chloromethane	<0.5		0.5	ug/L			06/21/21 1757	CAM
cis-1,2-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
cis-1,3-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1757	CAM

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 1 of 15



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1F0180

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1F0180-01

Collected By: MME-Lab
Collection Date: 06/15/2021 12:40

EPA 524.2	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Dibromomethane	<0.5		0.5	ug/L			06/21/21 1757	CAM
Dichlorodifluoromethane	<0.5		0.5	ug/L			06/21/21 1757	CAM
Dichloromethane	<0.5		0.5	ug/L			06/21/21 1757	CAM
Ethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Hexachlorobutadiene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Isopropylbenzene	<0.5		0.5	ug/L			06/21/21 1757	CAM
Methyl-t-butyl ether (MTBE)	<0.5		0.5	ug/L			06/21/21 1757	CAM
Naphthalene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
n-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
n-Propylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
sec-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Styrene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
tert-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
Tetrachloroethylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
Toluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1757	CAM
trans-1,2-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
trans-1,3-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
Trichloroethylene	<0.5		0.5	ug/L			06/21/21 1757	CAM
Trichlorofluoromethane	<0.5		0.5	ug/L			06/21/21 1757	CAM
Vinyl chloride	<0.2	2 NYVOA	0.2	ug/L			06/21/21 1757	CAM
Xylenes, Total	<0.5		0.5	ug/L			06/21/21 1757	CAM
Surrogate: SS-1,2-Dichlorobenzene-d4	92	Limit: 70-130		% Rec			06/21/21 1757	CAM
Surrogate: SS-1,2-Dichloroethane-d4	103	Limit: 70-130		% Rec			06/21/21 1757	CAM
Surrogate: SS-Toluene-d8	98	Limit: 70-130		% Rec			06/21/21 1757	CAM
Surrogate: SS-Bromofluorobenzene	89	Limit: 70-130		% Rec			06/21/21 1757	CAM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1F0180

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1F0180-02

Collected By: MME-Lab
Collection Date: 06/15/2021 12:47

Analyses Performed by: Eurofins Eaton Analytical, Inc. - South Bend

EPA 524.2	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: 524.2								
1,1,1,2-Tetrachloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,1,1-Trichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,1,2,2-Tetrachloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,1,2-Trichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,1-Dichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,1-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
1,1-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
1,2,3-Trichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,2,3-Trichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,2,4-Trichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,2,4-Trimethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,2-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,2-Dichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,2-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,2-Xylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
1,3 + 1,4-Xylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
1,3,5-Trimethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,3-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,3-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
1,3-Dichloropropylene, cis & trans	<0.5		0.5	ug/L			06/21/21 1831	CAM
1,4-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
2,2-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
2-Chlorotoluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
4-Chlorotoluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
4-Isopropyltoluene	<0.5		0.5	ug/L			06/21/21 1831	CAM
Benzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Bromobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Bromochloromethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Bromomethane	<0.5		0.5	ug/L			06/21/21 1831	CAM
Carbon tetrachloride	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Chlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Chloroethane	<0.5		0.5	ug/L			06/21/21 1831	CAM
Chloromethane	<0.5		0.5	ug/L			06/21/21 1831	CAM
cis-1,2-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
cis-1,3-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
Dibromomethane	<0.5		0.5	ug/L			06/21/21 1831	CAM
Dichlorodifluoromethane	<0.5		0.5	ug/L			06/21/21 1831	CAM
Dichloromethane	<0.5		0.5	ug/L			06/21/21 1831	CAM
Ethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Hexachlorobutadiene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Isopropylbenzene	<0.5		0.5	ug/L			06/21/21 1831	CAM
Methyl-t-butyl ether (MTBE)	<0.5		0.5	ug/L			06/21/21 1831	CAM

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 3 of 15



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1F0180

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1F0180-02

Collected By: MME-Lab
Collection Date: 06/15/2021 12:47

EPA 524.2	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Naphthalene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
n-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
n-Propylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
sec-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Styrene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
tert-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
Tetrachloroethylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
Toluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1831	CAM
trans-1,2-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
trans-1,3-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
Trichloroethylene	<0.5		0.5	ug/L			06/21/21 1831	CAM
Trichlorofluoromethane	<0.5		0.5	ug/L			06/21/21 1831	CAM
Vinyl chloride	<0.2	2 NYVOA	0.2	ug/L			06/21/21 1831	CAM
Xylenes, Total	<0.5		0.5	ug/L			06/21/21 1831	CAM
Surrogate: SS-1,2-Dichlorobenzene-d4	92	Limit: 70-130		% Rec			06/21/21 1831	CAM
Surrogate: SS-1,2-Dichloroethane-d4	106	Limit: 70-130		% Rec			06/21/21 1831	CAM
Surrogate: SS-Toluene-d8	97	Limit: 70-130		% Rec			06/21/21 1831	CAM
Surrogate: SS-Bromofluorobenzene	92	Limit: 70-130		% Rec			06/21/21 1831	CAM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1F0180

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1F0180-03

Collected By: MME-Lab
Collection Date: 06/15/2021 12:50

Analyses Performed by: Eurofins Eaton Analytical, Inc. - South Bend

EPA 524.2	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: 524.2								
1,1,1,2-Tetrachloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,1,1-Trichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,1,2,2-Tetrachloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,1,2-Trichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,1-Dichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,1-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
1,1-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
1,2,3-Trichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,2,3-Trichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,2,4-Trichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,2,4-Trimethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,2-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,2-Dichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,2-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,2-Xylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
1,3 + 1,4-Xylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
1,3,5-Trimethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,3-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,3-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
1,3-Dichloropropylene, cis & trans	<0.5		0.5	ug/L			06/21/21 1904	CAM
1,4-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
2,2-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
2-Chlorotoluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
4-Chlorotoluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
4-Isopropyltoluene	<0.5		0.5	ug/L			06/21/21 1904	CAM
Benzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Bromobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Bromochloromethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Bromomethane	<0.5		0.5	ug/L			06/21/21 1904	CAM
Carbon tetrachloride	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Chlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Chloroethane	<0.5		0.5	ug/L			06/21/21 1904	CAM
Chloromethane	<0.5		0.5	ug/L			06/21/21 1904	CAM
cis-1,2-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
cis-1,3-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
Dibromomethane	<0.5		0.5	ug/L			06/21/21 1904	CAM
Dichlorodifluoromethane	<0.5		0.5	ug/L			06/21/21 1904	CAM
Dichloromethane	<0.5		0.5	ug/L			06/21/21 1904	CAM
Ethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Hexachlorobutadiene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Isopropylbenzene	<0.5		0.5	ug/L			06/21/21 1904	CAM
Methyl-t-butyl ether (MTBE)	<0.5		0.5	ug/L			06/21/21 1904	CAM

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 5 of 15



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1F0180

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J1F0180-03

Collected By: MME-Lab
Collection Date: 06/15/2021 12:50

EPA 524.2	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Naphthalene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
n-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
n-Propylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
sec-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Styrene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
tert-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
Tetrachloroethylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
Toluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1904	CAM
trans-1,2-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
trans-1,3-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
Trichloroethylene	<0.5		0.5	ug/L			06/21/21 1904	CAM
Trichlorofluoromethane	<0.5		0.5	ug/L			06/21/21 1904	CAM
Vinyl chloride	<0.2	2 NYVOA	0.2	ug/L			06/21/21 1904	CAM
Xylenes, Total	<0.5		0.5	ug/L			06/21/21 1904	CAM
Surrogate: SS-1,2-Dichlorobenzene-d4	94	Limit: 70-130		% Rec			06/21/21 1904	CAM
Surrogate: SS-1,2-Dichloroethane-d4	110	Limit: 70-130		% Rec			06/21/21 1904	CAM
Surrogate: SS-Toluene-d8	102	Limit: 70-130		% Rec			06/21/21 1904	CAM
Surrogate: SS-Bromofluorobenzene	92	Limit: 70-130		% Rec			06/21/21 1904	CAM



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1F0180

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1F0180-04

Collected By: MME-Lab
Collection Date: 06/15/2021 12:57

Analyses Performed by: Eurofins Eaton Analytical, Inc. - South Bend

EPA 524.2	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: 524.2								
1,1,1,2-Tetrachloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,1,1-Trichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,1,2,2-Tetrachloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,1,2-Trichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,1-Dichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,1-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
1,1-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
1,2,3-Trichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,2,3-Trichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,2,4-Trichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,2,4-Trimethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,2-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,2-Dichloroethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,2-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,2-Xylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
1,3 + 1,4-Xylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
1,3,5-Trimethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,3-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,3-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
1,3-Dichloropropylene, cis & trans	<0.5		0.5	ug/L			06/21/21 1937	CAM
1,4-Dichlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
2,2-Dichloropropane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
2-Chlorotoluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
4-Chlorotoluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
4-Isopropyltoluene	<0.5		0.5	ug/L			06/21/21 1937	CAM
Benzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Bromobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Bromochloromethane	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Bromomethane	<0.5		0.5	ug/L			06/21/21 1937	CAM
Carbon tetrachloride	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Chlorobenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Chloroethane	<0.5		0.5	ug/L			06/21/21 1937	CAM
Chloromethane	<0.5		0.5	ug/L			06/21/21 1937	CAM
cis-1,2-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
cis-1,3-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
Dibromomethane	<0.5		0.5	ug/L			06/21/21 1937	CAM
Dichlorodifluoromethane	<0.5		0.5	ug/L			06/21/21 1937	CAM
Dichloromethane	<0.5		0.5	ug/L			06/21/21 1937	CAM
Ethylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Hexachlorobutadiene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Isopropylbenzene	<0.5		0.5	ug/L			06/21/21 1937	CAM
Methyl-t-butyl ether (MTBE)	<0.5		0.5	ug/L			06/21/21 1937	CAM

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 7 of 15



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J1F0180

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J1F0180-04

Collected By: MME-Lab
Collection Date: 06/15/2021 12:57

EPA 524.2	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Naphthalene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
n-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
n-Propylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
sec-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Styrene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
tert-Butylbenzene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
Tetrachloroethylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
Toluene	<0.5	5 NYVOA	0.5	ug/L			06/21/21 1937	CAM
trans-1,2-Dichloroethylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
trans-1,3-Dichloropropylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
Trichloroethylene	<0.5		0.5	ug/L			06/21/21 1937	CAM
Trichlorofluoromethane	<0.5		0.5	ug/L			06/21/21 1937	CAM
Vinyl chloride	<0.2	2 NYVOA	0.2	ug/L			06/21/21 1937	CAM
Xylenes, Total	<0.5		0.5	ug/L			06/21/21 1937	CAM
Surrogate: SS-1,2-Dichlorobenzene-d4	93	Limit: 70-130		% Rec			06/21/21 1937	CAM
Surrogate: SS-1,2-Dichloroethane-d4	107	Limit: 70-130		% Rec			06/21/21 1937	CAM
Surrogate: SS-Toluene-d8	99	Limit: 70-130		% Rec			06/21/21 1937	CAM
Surrogate: SS-Bromofluorobenzene	94	Limit: 70-130		% Rec			06/21/21 1937	CAM



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1F0180

TAT 7 days

Town of Vestal

Scott Groat
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 6/8/2021
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J1F0180-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 6/15/2021 12:40

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 1-2A Finished

Lab Sample ID: J1F0180-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 6/15/2021 12:47

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 1-3 Raw

Lab Sample ID: J1F0180-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 6/15/2021 12:50

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

† Sample ID: 1-3 Finished

Sample ID: J1F0180-04

Drinking Water

Grab

Sampled Date & Time: 6/15/2021 12:57



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1F0180

Town of Vestal

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project Name: Monthly - VOCs

Project/PO Number: N/A
Tenatively Scheduled: 6/8/2021
Route: NY-Route 1 Bing

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Raw

Lab Sample ID: J1F0180-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 6/15/2021 13:10

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days <u>Designator</u> A B

Client Sample ID: 4-2 Finished

Lab Sample ID: J1F0180-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 6/15/2021 13:15

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-Ascorbic, HCL 40ml-Vial-Ascorbic, HCL	14.00 days <u>Designator</u> A B

Client Sample ID: Trip Blank

Lab Sample ID: J1F0180-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 6/15/2021 8:00

<u>Analysis</u>	<u>Method</u>	<u>Field Results/Comments</u>	<u>Hold Time</u>
524.2 VOC NY	EPA 524.2, Rv. 4.1 (1995)	<u>Container(s)</u> 40ml-Vial-HCL	14.00 days <u>Designator</u> A



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J1F0180

Town of Vestal

Project Name: Monthly - VOCs

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363
Phone: (607) 748-1514

Project/PO Number: N/A
Tenatively Scheduled: 6/8/2021
Route: NY-Route 1 Bing

Sampled/Relinquished by: <i>Michael Em</i>	Date/Time: <i>6/15/21 16:30</i>	Received by: <i>Jeffrey Walker</i>
Printed Name: ~~Bethany Robinson~~ <i>Michael Em</i>		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:
Relinquished by:	Date/Time:	Received by:
Printed Name:		Printed Name:

As Received at Laboratory: On Ice: ☒ Yes / ☐ No Temp: 4.1 °C Thermometer ID: 2044 Total Containers: 13.00

Microbac Laboratories may be unable to perform a portion of the requested testing in which case we will subcontract the analysis to an appropriately accredited laboratory. By signing this document you are acknowledging that you have been informed by Microbac that testing could be subcontracted and agree with this arrangement.

Notes:

Appendix B

Low-Flow Purge Logs June 2021

GROUNDWATER SAMPLING LOG

Sampling Personnel: *Colby Chrobok*

Client / Job Number: 30054253

Weather: *So cloudy*Well ID: *well 1-1*Date: *4-12-21*Time In: *1515*

Time Out:

Well Information

Depth to Water: *26.02* (feet) (from MP)

Total Depth: *202 ft* (feet) (from MP)

Length of Water Column: (feet)

Volume of Water in Well: (gal)

Intake depth for tubing: (feet)

Well Type: Flushmount ☐ Stick-Up ☒

Well Material: Stainless Steel ☐ PVC ☒

Well Locked: Yes ☒ No ☐

Measuring Point Marked: Yes ☒ No ☐

Well Diameter: 1" ☒ 2" ☐ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ Other: *HDPE*

Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: *1530*

Pump Stop Time: Water-Quality Meter Type: *horiba*

Total Volume Removed: (gal) Did well go dry: Yes ☐ No ☐

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
✓ 0.1	✓ 10%	✓ 3.0%	✓ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<i>1535</i>								
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:	<i>-not sampled, could not pump</i>								

Sampling Information

Analyses	#	n	Laboratory
PPA5C (1 analysis)	2		TestAmerica
1,4-D	2		
VOCs	3		
Color:			
Odor:			
Appearance:			
Sample ID: well 1-1		Sample Time: No sample	
MS/MSD:	Yes ☐	No ☐	
Duplicate:	Yes ☐	No ☐	
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

-water level too low for per pump. Attempted reversing DI water into well to form siphon, and added pressure on pump. Did not work

-no purge water being pumped out

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Churchill

Well ID: 4009-07

Client / Job Number: 30054253

Date: 4-13-21

Weather: 50 Sunny

Time In: 0940

Time Out: 1045

Well Information

Depth to Water: 15.58 (feet) (from MP)
 Total Depth: 32.50 (feet) (from MP)
 Length of Water Column: (feet) 16.92
 Volume of Water in Well: (gal) 2.76
 Intake depth for tubing: 30 (feet)

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Pump Start Time: 0940
 Pump Stop Time: 1045 Water-Quality Meter Type: horiba
 Total Volume Removed: 3 (gal) Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
✓ 0.1	✓ 10%	✓ 3.0%	✓ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>945</u>	<u>950</u>	<u>955</u>	<u>1000</u>	<u>1005</u>	<u>1010</u>	<u>1015</u>	<u>1020</u>	<u>1025</u>
Volume Purged (Gal)					<u>~1.5 gal</u>				<u>3.21</u>
Rate (mL/min)	<u>180</u>	<u>180</u>	<u>190</u>	<u>180</u>	<u>180</u>	<u>180</u>	<u>150</u>	<u>150</u>	<u>150</u>
Depth to Water (ft.)	<u>16.60</u>	<u>16.60</u>	<u>16.60</u>	<u>16.60</u>	<u>16.60</u>	<u>16.60</u>	<u>16.60</u>	<u>16.60</u>	<u>16.60</u>
pH	<u>6.96</u>	<u>6.94</u>	<u>6.87</u>	<u>6.85</u>	<u>6.96</u>	<u>6.88</u>	<u>6.88</u>	<u>6.89</u>	<u>6.89</u>
Temp. (C)	<u>12.74</u>	<u>12.80</u>	<u>12.90</u>	<u>12.93</u>	<u>12.96</u>	<u>13.05</u>	<u>13.11</u>	<u>13.12</u>	<u>13.12</u>
Conductivity (mS/cm)	<u>2.33</u>	<u>2.42</u>	<u>2.75</u>	<u>2.70</u>	<u>2.65</u>	<u>2.61</u>	<u>2.60</u>	<u>2.59</u>	<u>2.58</u>
Dissolved Oxygen (mg/L)	<u>2.86</u>	<u>0.63</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
ORP (mV)	<u>110</u>	<u>-16</u>	<u>-47</u>	<u>-57</u>	<u>-60</u>	<u>-63</u>	<u>-62</u>	<u>-63</u>	<u>-64</u>
Turbidity (NTU)	<u>22.1</u>	<u>61.7</u>	<u>235</u>	<u>164</u>	<u>50.6</u>	<u>18.2</u>	<u>19.3</u>	<u>10.1</u>	<u>10.9</u>
Notes:	<u>cut 1" of tubing prior to sampling</u>								

Sampling Information

Sampling Information			
Analyses	#	n	Laboratory
PFAS Q1 anal/12	2		TestAmerica
14-D	2		
VOCs	3		
Color: clear			
Odor: slight sulfur odor			
Appearance:			
Sample ID: 4004-7		Sample Time: 1025	
MS/MSD:	Yes ☐	No	☒
Duplicate:	Yes ☐	No	☒
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE

Well ID: 4009-08

Client / Job Number: 30054253

Date: 4/13/21

Weather: 60 sunny

Time In: 1125

Time Out: 1310

Well Information

Depth to Water: 42.93 (feet) (from MP)
 Total Depth: 42.73 (feet) (from MP)
 Length of Water Column: 24.8 (feet)
 Volume of Water in Well: 4.01 (gal)
 Intake depth for tubing: 37 (feet)

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☐ 2" Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Pump Start Time: 1130

Pump Stop Time: 1304

Water-Quality Meter Type: Hanba

Total Volume Removed: 3 (gal)

Did well go dry: Yes ☐ No ☒

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
∇ 0.1	∇ 10%	∇ 3.0%	∇ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1135</u>	<u>1140</u>	<u>1145</u>	<u>1150</u>	<u>1155</u>	<u>1200</u>	<u>1205</u>	<u>1210</u>	<u>1215</u>
Volume Purged (Gal)			<u>0.5</u>		<u>0.9</u>	<u>1.0</u>	<u>1.25</u>		<u>1.5</u>
Rate (mL/min)	<u>220</u>	<u>120</u>	<u>120</u>	<u>120</u>	<u>120</u>	<u>120</u>	<u>120</u>	<u>120</u>	<u>120</u>
Depth to Water (ft.)	<u>17.95</u>	<u>17.95</u>	<u>16.62</u>	<u>17.95</u>	<u>17.96</u>	<u>17.96</u>	<u>17.96</u>	<u>17.96</u>	<u>17.96</u>
pH	<u>7.18</u>	<u>7.02</u>	<u>6.95</u>	<u>6.95</u>	<u>6.99</u>	<u>7.02</u>	<u>7.07</u>	<u>7.03</u>	<u>6.87</u>
Temp. (C)	<u>16.40</u>	<u>16.18</u>	<u>16.62</u>	<u>16.59</u>	<u>16.75</u>	<u>16.82</u>	<u>16.85</u>	<u>16.74</u>	<u>16.78</u>
Conductivity (mS/cm)	<u>1.54</u>	<u>1.54</u>	<u>1.54</u>	<u>1.54</u>	<u>1.53</u>	<u>1.53</u>	<u>1.53</u>	<u>1.53</u>	<u>1.63</u>
Dissolved Oxygen (mg/L)	<u>4.10</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
ORP (mV)	<u>122</u>	<u>34</u>	<u>9</u>	<u>23</u>	<u>37</u>	<u>43</u>	<u>52</u>	<u>-9</u>	<u>-43</u>
Turbidity (NTU)	<u>12.5</u>	<u>12.8</u>	<u>76.5</u>	<u>47.2</u>	<u>39.0</u>	<u>36.3</u>	<u>34.8</u>	<u>34.3</u>	<u>32.5</u>
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>VOCs</u>	<u>3</u>		TestAmerica
<u>PPAS (21 analytes)</u>	<u>2</u>		"
<u>1,4-Dioxane</u>	<u>2</u>		"
Color:	<u>clear, orange tint</u>		
Odor:	<u>None</u>		
Appearance:	<u>None, no sheen</u>		
Sample ID:	<u>4009-08</u>	Sample Time:	<u>1235</u>
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

Initial: clear, gray tint/haze, no sheen, odorless

Final: Clear, orange tint, no sheen, odorless

GROUNDWATER SAMPLING LOG

Sampling Personnel: <u>PE</u>	Well ID: <u>4009-08</u>
Client / Job Number: <u>30054253</u>	Date: <u>4/13/21</u>
Weather: <u>65 Sunny</u>	Time In: <u>1125</u> Time Out: <u>1310</u>

Parameter:	1	2	3	4	5	6	7	8	9
Time	1220	1225	1230	1235	1235				
Volume Purged (Gal)	1.75	2.0	2.2	2.5					
Rate (mL/min)	150	150	150	150					
Depth to Water (ft.)	17.96	17.96	17.95	17.95					
pH	6.82	6.79	6.79	6.81					
Temp. (C)	16.55	16.60	16.48	16.65					
Conductivity (mS/cm)	1.72	1.74	1.78	1.79					
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0					
ORP (mV)	-47	-45	-45	-43					
Turbidity (NTU)	30.8	20.1	18.0	19.4					
Notes:									

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: CE + PE Well ID: 4009-9
 Client / Job Number: 30054253 Date: 4-13-21
 Weather: 60 sunny Time In: 1355 Time Out: 1530

Well Information

Depth to Water: 19.58 (feet) (from MP)
 Total Depth: 27.93 (feet) (from MP)
 Length of Water Column: (feet) 7.85
 Volume of Water in Well: (gal) 5.1
 Intake depth for tubing: 26 (feet)

Well Type: Flushmount ☒ Stick-Up ☐
 Well Material: Stainless Steel ☒ PVC ☐
 Well Locked: Yes ☐ No ☒
 Measuring Point Marked: Yes ☐ No ☒
 Well Diameter: 1" 2" Other: 4"

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Pump Start Time: 1355
 Pump Stop Time: 1530 Water-Quality Meter Type: h.c. 6r
 Total Volume Removed: (gal) Did well go dry: Yes ☐ No ☐

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
✓ 0.1	✓ 10%	✓ 3.0%	✓ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1400</u>	<u>1405</u>	<u>1410</u>	<u>1415</u>	<u>1420</u>	<u>1425</u>	<u>1430</u>	<u>1435</u>	<u>1440</u>
Volume Purged (Gal)	<u>T</u>			<u>1.0</u>				<u>23.5 gal</u>	
Rate (mL/min)		<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	
Depth to Water (ft.)	<u>T</u>	<u>19.58</u>	<u>19.58</u>	<u>19.58</u>	<u>19.58</u>	<u>19.58</u>	<u>19.58</u>	<u>19.58</u>	
pH	<u>N/A</u>	<u>7.58</u>	<u>7.46</u>	<u>7.37</u>	<u>7.29</u>	<u>7.25</u>	<u>7.20</u>	<u>7.05</u>	
Temp. (C)		<u>13.37</u>	<u>12.92</u>	<u>12.91</u>	<u>12.82</u>	<u>12.84</u>	<u>12.93</u>	<u>12.79</u>	
Conductivity (mS/cm)		<u>2.59</u>	<u>2.54</u>	<u>2.51</u>	<u>2.49</u>	<u>2.45</u>	<u>2.40</u>	<u>2.27</u>	
Dissolved Oxygen (mg/L)		<u>0.43</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
ORP (mV)		<u>92</u>	<u>65</u>	<u>62</u>	<u>59</u>	<u>58</u>	<u>46</u>	<u>53</u>	
Turbidity (NTU)	<u>T</u>	<u>232</u>	<u>129</u>	<u>95.4</u>	<u>73.1</u>	<u>65.2</u>	<u>54.8</u>	<u>48.3</u>	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
PRAs (21 analyte)	2		TestAmerica
14-D	2		"
VOCs	3		"
Color: reddish orange			
Odor: none			
Appearance:			
Sample ID: 4009-9		Sample Time: 1510	
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

- tubing stuck on walls, not reaching water level
 - used PDB weight to get tube into water. ~~stuck to bottom~~

GROUNDWATER SAMPLING LOG

Sampling Personnel: <u>LC + PE</u>	Well ID: <u>4009-9</u>
Client / Job Number: <u>30054253</u>	Date: <u>4-13-21</u>
Weather: <u>Sunny 60</u>	Time In: <u>1355</u> Time Out: <u>1530</u>

Parameter:	1	2	3	4	5	6	7	8	9
Time	1445	1450	1455	1500	1505	1510			
Volume Purged (Gal)	3.25								
Rate (mL/min)	200	200	200	200	200	200			
Depth to Water (ft.)	19.58	19.58	19.58	19.58	19.58	19.58			
pH	7.00	6.91	6.83	6.80	6.79	6.79			
Temp. (C)	12.82	13.00	12.85	12.95	13.05	13.01			
Conductivity (mS/cm)	0.22	2.16	2.11	2.07	2.04	2.03			
Dissolved Oxygen (mg/L)	0.0	0.54	0.81	0.99	0.99	0.99			
ORP (mV)	58	62	70	90	100	98			
Turbidity (NTU)	46	39.4	38.0	34.2	33.1	34.0			
Notes:									

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Duquette Well ID: 4009-11
 Client / Job Number: 30054253 Date: 4/14/21
 Weather: 60°S Rain Time In: 1420 Time Out: 1515

Well Information

Depth to Water: (feet) 24.81 (from MP)
 Total Depth: (feet) 151.85 (from MP)
 Length of Water Column: (feet) 127.04
 Volume of Water in Well: (gal) 20.7
 Intake depth for tubing: (feet) 114'

Well Type: Flushmount ☒ Stick-Up ☐
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☐ Monsoon ☐ Other: Bladder
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☐ Monsoon ☐ Other: Bladder

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Pump Start Time: 1428
 Pump Stop Time: 1510 Water-Quality Meter Type: Hanna
 Total Volume Removed: 2 (gal) Did well go dry: Yes ☐ No ☒

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1430	1435	1440	1445	1450	1455	1500		
Volume Purged (Gal)	-	0.3	0.7	1	1.3	1.7	2		
Rate (mL/min)	300	360	300	300	300	300	300		
Depth to Water (ft.)	24.72	24.72	24.72	24.72	24.72	24.72	24.72		
pH	10.01	10.16	10.33	10.71	10.76	10.76	10.77		
Temp. (C)	13.61	13.66	13.64	13.61	13.61	13.68	13.71		
Conductivity (mS/cm)	0.929	0.966	0.927	0.948	0.944	0.946	0.946		
Dissolved Oxygen (mg/L)	8.41	4.44	2.57	0.00	0.00	0.00	0.00		
ORP (mV)	-212	-226	-234	-259	-257	-258	-259		
Turbidity (NTU)	0.0	6.0	0.0	0.0	0.0	0.0	0.0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOC	3	n	TestAmerica
PFAS	2	n	
1-4 D: oxan	2	n	
Color:	Clear		
Odor:	No		
Appearance:	Good		
Sample ID:	4009-11		Sample Time: 1505
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	-		Dup. Time: -
Chain of Custody Signed By:			

Problems / Observations

Initial observations: Clear no odor
no Sheen

Cut 2" off tubing before sampling

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Duquette
 Client / Job Number: 30054258
 Weather: 70°F Sunny

Well ID: 4009-12
 Date: 4/8/21
 Time In: 1530 Time Out: 1625

Well Information

Depth to Water: (feet) 17.42 (from MP)
 Total Depth: (feet) 112.65 (from MP)
 Length of Water Column: (feet) 95.23
 Volume of Water in Well: (gal) 15.5
 Intake depth for tubing: (feet) 109'

Well Type: Flushmount ☒ Stick-Up ☐
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" 2 Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Pump Start Time: 1532
 Pump Stop Time: 1620 Water-Quality Meter Type: Hanba V-53
 Total Volume Removed: (gal) 3.6 Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1534</u>	<u>1539</u>	<u>1544</u>	<u>1549</u>	<u>1554</u>	<u>1559</u>	<u>1604</u>	<u>1609</u>	<u>1614</u>
Volume Purged (Gal)	<u>0.4</u>	<u>0.8</u>	<u>1.3</u>	<u>1.7</u>	<u>2.1</u>	<u>2.4</u>	<u>2.8</u>	<u>3.2</u>	<u>3.6</u>
Rate (mL/min)	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>
Depth to Water (ft.)	<u>17.69</u>	<u>17.69</u>	<u>17.69</u>	<u>17.64</u>	<u>17.69</u>	<u>17.69</u>	<u>17.69</u>	<u>17.69</u>	<u>17.69</u>
pH	<u>7.97</u>	<u>8.38</u>	<u>8.29</u>	<u>8.24</u>	<u>8.12</u>	<u>8.10</u>	<u>8.09</u>	<u>8.08</u>	<u>8.08</u>
Temp. (C)	<u>18.26</u>	<u>14.90</u>	<u>15.06</u>	<u>15.12</u>	<u>14.76</u>	<u>14.77</u>	<u>14.70</u>	<u>14.71</u>	<u>14.71</u>
Conductivity (mS/cm)	<u>0.436</u>	<u>0.473</u>	<u>0.474</u>	<u>0.474</u>	<u>0.478</u>	<u>0.479</u>	<u>0.484</u>	<u>0.484</u>	<u>0.484</u>
Dissolved Oxygen (mg/L)	<u>3.81</u>	<u>0.07</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
ORP (mV)	<u>-61</u>	<u>-190</u>	<u>-203</u>	<u>-212</u>	<u>-220</u>	<u>-222</u>	<u>-225</u>	<u>-225</u>	<u>-226</u>
Turbidity (NTU)	<u>79.1</u>	<u>25.1</u>	<u>11.3</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>VOC</u>	<u>3</u>	<u>1</u>	<u>TestAmerica</u>
<u>1-2,4-Dioxane</u>	<u>1</u>	<u>1</u>	
<u>PFAS</u>	<u>5</u>	<u>1</u>	
Color:	<u>Clear</u>		
Odor:	<u>no</u>		
Appearance:	<u>Good</u>		
Sample ID:	<u>4009-12</u>	Sample Time:	<u>1615</u>
MS/MSD:	Yes ☒	No ☐	
Duplicate:	Yes ☐	No ☒	
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:	<u>[Signature]</u>		

Problems / Observations

Beginning of pumping; water is slightly orange, no odor, no sheen
 MS/MSD taken
 2" Clipped from tubing before sampling

Town of Vestal Water Supply

April Semi-Annual Sampling

Site _____ Event _____

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE Well ID: 4009-13
 Client / Job Number: 30054253 Date: 4/12/21
 Weather: 45 rainy Time In: 15/5 Time Out: 1700

Well Information

Depth to Water: 10.02 (feet) (from MP)
 Total Depth: 12.02 (feet) (from MP)
 Length of Water Column: 104.45 (feet)
 Volume of Water in Well: 17.02 (gal)
 Intake depth for tubing: 109 (feet)

Well Type: Flushmount ☒ Stick-Up ☐
 Well Material: Stainless Steel ☒ PVC ☐
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☐ 2" ☒ Other: _____

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other: _____
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☒ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other: _____

Pump Start Time: 1540

Pump Stop Time: 1700

Water-Quality Meter Type: Hanna

Total Volume Removed: 175 (gal)

Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1545	1550	1555	1600	1605	1610	1615	1620	1625
Volume Purged (Gal)	—	0.5			.75	1.0		1.25	1.5
Rate (mL/min)	160	100	80	80	100	120	120	120	120
Depth to Water (ft.)	10.70	12.70	12.65	12.55	12.65	12.85	12.89	12.90	12.90
pH	8.57	8.73	8.83	8.84	8.87	8.93	8.91	8.90	8.88
Temp. (C)	11.35	11.61	11.64	11.62	11.48	11.44	11.47	11.42	11.37
Conductivity (mS/cm)	0.270	0.269	0.268	0.267	0.267	0.268	0.268	0.267	0.268
Dissolved Oxygen (mg/L)	1.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	95	45	5	-4	-15	-25	-39	-46	-49
Turbidity (NTU)	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes:									

Sampling Information

Analyses	#	n	Laboratory
PFAS (21 analytes)	2		TestAmerica
VOCs	3		
1,4 dioxane	2		
Color:	clear, tan tint		
Odor:	none		
Appearance:			
Sample ID:	4009-13		Sample Time: 1625
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Trimmed 2" of tubing prior to collecting samples

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Parker Everett Well ID: 4009-14
 Client / Job Number: 30054253 Date: 4/12/21
 Weather: # 45 rainy Time In: 1250 Time Out: 1920

Well Information
 Depth to Water: 14.53 (feet) (from MP)
 Total Depth: 136.19 (feet) (from MP)
 Length of Water Column: 121.66 (feet)
 Volume of Water in Well: 19.8 (gal)
 Intake depth for tubing: 131 (feet)

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☐ 2" ☒ Other:

Purging Information
 Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☒ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Pump Start Time: 1255
 Pump Stop Time: 1920 Water-Quality Meter Type: Hanna
 Total Volume Removed: 3 (gal) Did well go dry: Yes ☐ No ☒

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
∇ 0.1	∇ 10%	∇ 3.0%	∇ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1300	1305	1310	1315	1320	1325	1330	1335	1340
Volume Purged (Gal)			0.75	1.0	1.5		2		
Rate (mL/min)	240	240	300	300	200	150	150	150	125
Depth to Water (ft.)	16.30	17.50	18.65	19.40	19.55	19.19	18.85	18.36	17.92
pH	5.98	6.73	7.22	7.52	7.72	7.87	7.92	8.01	8.09
Temp. (C)	10.77	11.45	11.88	11.82	11.88	11.71	11.62	11.55	11.51
Conductivity (mS/cm)	0.439	0.434	0.432	0.431	0.430	0.429	0.429	0.428	0.427
Dissolved Oxygen (mg/L)	0.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	193	-4	-114	-183	-222	-236	-241	-196	-209
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes:									

Sampling Information

Analyses	#	n	Laboratory
PFAS (21 Analytes)	2		TestAmerica
1,4-D	2		
VOCs	3		
Color:	clear, yellow tint.		
Odor:	None		
Appearance:			
Sample ID:	4009-14		
Sample Time:	1400		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

- Battery died at 1335, battery was replaced and running at 1400.
 - Trimmed 2" of tubing prior to sampling.

GROUNDWATER SAMPLING LOG

Sampling Personnel: <u>PE</u>	Well ID: <u>4009-14</u>
Client / Job Number: <u>30054253</u>	Date: <u>4/12/21</u>
Weather: <u>45 rainy</u>	Time In: <u>1250</u> Time Out: <u>1420</u>

Parameter:	1	2	3	4	5	6	7	8	9
Time	1345	1350	1355	1400					
Volume Purged (Gal)	2.4	2.5							
Rate (mL/min)	120	120							
Depth to Water (ft.)	17.65	17.40	17.20	17.20					
pH	8.16	8.26	8.32	8.25					
Temp. (C)	11.44	11.36	11.33	11.04					
Conductivity (mS/cm)	0.426	0.426	0.426	0.427					
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0					
ORP (mV)	-204	-222	-229	-222					
Turbidity (NTU)	0.0	0.0	0.0	0.0					
Notes:	1355 - pump battery dead, replaced by 1400.								

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby PlonickWell ID: 4009-15Client / Job Number: 30054253Date: 4-9-21Weather: 5/11/60Time In: 855Time Out: 955

Well Information

Depth to Water: 20.75 (feet) (from MP)

Total Depth: 127.73 (feet) (from MP)

Length of Water Column: (feet) 106.98

Volume of Water in Well: (gal) 17.4

Intake depth for tubing: 122 (feet)

Well Type: Flushmount ☐ Stick-Up ☒

Well Material: Stainless Steel ☐ PVC ☒

Well Locked: Yes ☒ No ☐

Measuring Point Marked: Yes ☒ No ☐

Well Diameter: 1" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE

Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 855Pump Stop Time: 955Water-Quality Meter Type: horibaTotal Volume Removed: ~2.75 (gal)Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. / Temp	ORP
✓ 0.1	✓ 10%	✓ 3.0%	✓ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>900</u>	<u>905</u>	<u>910</u>	<u>915</u>	<u>920</u>	<u>925</u>	<u>930</u>	<u>935</u>	<u>940</u>
Volume Purged (Gal)		<u>~0.5</u>		<u>1 gal</u>			<u>~2 gal</u>		<u>~2.75</u>
Rate (mL/min)	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>
Depth to Water (ft.)	<u>21.18</u>	<u>21.18</u>	<u>21.18</u>	<u>21.18</u>	<u>21.18</u>	<u>21.18</u>	<u>21.18</u>	<u>21.18</u>	<u>21.18</u>
pH	<u>6.15</u>	<u>7.48</u>	<u>7.75</u>	<u>7.87</u>	<u>7.91</u>	<u>7.94</u>	<u>7.98</u>	<u>7.99</u>	<u>8.00</u>
Temp. (C)	<u>14.19</u>	<u>13.55</u>	<u>13.47</u>	<u>13.46</u>	<u>13.41</u>	<u>13.43</u>	<u>13.45</u>	<u>13.43</u>	<u>13.41</u>
Conductivity (mS/cm)	<u>0.284</u>	<u>0.267</u>	<u>0.266</u>	<u>0.265</u>	<u>0.265</u>	<u>0.265</u>	<u>0.264</u>	<u>0.266</u>	<u>0.264</u>
Dissolved Oxygen (mg/L)	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
ORP (mV)	<u>115</u>	<u>-131</u>	<u>-144</u>	<u>-226</u>	<u>-245</u>	<u>-257</u>	<u>-263</u>	<u>-266</u>	<u>-268</u>
Turbidity (NTU)	<u>5.5</u>	<u>1.8</u>	<u>1.1</u>	<u>0.5</u>	<u>0.4</u>	<u>0.5</u>	<u>0.2</u>	<u>0.0</u>	<u>0.0</u>
Notes:	<u>cut off 3" of tubing prior to sampling</u>								

Sampling Information

Problems / Observations

Analyses	#	n	Laboratory
<u>PAHs (21 analytes)</u>	<u>2</u>		<u>TestAmerica</u>
<u>1,4-D</u>	<u>2</u>		
<u>VOCs</u>	<u>3</u>		
Color: <u>clear</u>			
Odor: <u>none</u>			
Appearance:			
Sample ID: <u>4009-15</u>			Sample Time: <u>940</u>
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID			Dup. Time:
Chain of Custody Signed By:			

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Duggett Well ID: 4009-16
 Client / Job Number: 30054251 Date: 4/9/21
 Weather: 60s Sunny Time In: 0840 Time Out:

Well Information

Depth to Water: (feet) 20.94 (from MP)
 Total Depth: (feet) 149.07 (from MP)
 Length of Water Column: (feet) 128.13
 Volume of Water in Well: (gal) 20.1
 Intake depth for tubing: (feet) 144'

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other:
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 0858

Pump Stop Time: Water-Quality Meter Type: Horiba U-53

Total Volume Removed: (gal) 2 1/4 Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0900	0905	0910	0915	0920	0925	0930	0935	
Volume Purged (Gal)	0.26	0.5	0.75	1.1	1.3	1.8	2	2.25	
Rate (mL/min)	200	100	100	100	100	100	100	100	
Depth to Water (ft.)	22.63	22.76	22.76	22.76	22.76	22.76	22.76	22.76	
pH	9.08	10.03	10.31	10.37	10.42	10.41	10.41	10.41	
Temp. (C)	12.93	12.93	12.94	13.01	13.01	13.01	13.01	13.06	
Conductivity (mS/cm)	0.363	0.361	0.359	0.359	0.360	0.359	0.359	0.366	
Dissolved Oxygen (mg/L)	1.08	0.68	0.00	0.00	0.00	0.00	0.00	0.00	
ORP (mV)	-49	-76	-157	-167	-181	-183	-184	-184	
Turbidity (NTU)	7.3	3.1	0.9	1.2	1.5	1.5	1.9	2.0	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>Full Dioxan</u>	<u>2</u>	<u>n</u>	<u>TestAmerica</u>
<u>VOL</u>	<u>3</u>	<u>HC</u>	
<u>PFAS</u>	<u>2</u>	<u>n</u>	
Color: <u>Clear</u>			
Odor: <u>None</u>			
Appearance: <u>Good</u>			
Sample ID: <u>4009-16</u>	Sample Time: <u>0940</u>		
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: <u>—</u>	Dup. Time: <u>—</u>		
Chain of Custody Signed By: <u>[Signature]</u>			

Problems / Observations

First 3 mL of water purged due to high turbidity
 Clear, no odor, ^{no} Sheen Present
 2" of tubing cut before sampling

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Clay Church: V Well ID: 4009-16A
 Client / Job Number: 30054253 Date: 4-12-21
 Weather: 50 cloudy Time In: 1610 Time Out: 1710

Well Information

Depth to Water: 19.82 (feet) (from MP)
 Total Depth: 47.44 (feet) (from MP)
 Length of Water Column: (feet) 27.62
 Volume of Water in Well: (gal) 4.5
 Intake depth for tubing: 31 (feet)

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☒ 2" ☐ Other: ☐

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other: ☐
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other: ☐

Pump Start Time: 1610

Pump Stop Time: 1710

Water-Quality Meter Type: hanna

Total Volume Removed: 225 (gal)

Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1615</u>	<u>1620</u>	<u>1625</u>	<u>1630</u>	<u>1635</u>	<u>1640</u>	<u>1645</u>	<u>1650</u>	<u>1655</u>
Volume Purged (Gal)	<u>T</u>		<u>~0.25</u>	<u>~0.5</u>	<u>~1.0</u>		<u>1.5</u>		<u>~2</u>
Rate (mL/min)	<u>T</u>	<u>~200</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Depth to Water (ft.)	<u>T</u>	<u>20.48</u>	<u>20.60</u>	<u>20.88</u>	<u>21.05</u>	<u>21.10</u>	<u>21.10</u>	<u>21.10</u>	<u>21.10</u>
pH	<u>N/A</u>	<u>8.45</u>	<u>8.22</u>	<u>8.05</u>	<u>7.75</u>	<u>7.42</u>	<u>7.32</u>	<u>7.29</u>	<u>7.22</u>
Temp. (C)	<u>N/A</u>	<u>12.14</u>	<u>12.00</u>	<u>11.89</u>	<u>11.87</u>	<u>11.84</u>	<u>11.90</u>	<u>11.90</u>	<u>11.91</u>
Conductivity (mS/cm)	<u>T</u>	<u>0.714</u>	<u>0.707</u>	<u>0.750</u>	<u>0.770</u>	<u>0.773</u>	<u>0.775</u>	<u>0.776</u>	<u>0.776</u>
Dissolved Oxygen (mg/L)	<u>T</u>	<u>1.35</u>	<u>1.11</u>	<u>2.77</u>	<u>4.78</u>	<u>4.27</u>	<u>4.37</u>	<u>4.45</u>	<u>4.49</u>
ORP (mV)	<u>T</u>	<u>-19</u>	<u>-19</u>	<u>11</u>	<u>51</u>	<u>71</u>	<u>77</u>	<u>81</u>	<u>86</u>
Turbidity (NTU)	<u>T</u>	<u>251</u>	<u>146</u>	<u>71.3</u>	<u>21.3</u>	<u>12.1</u>	<u>5.0</u>	<u>4.4</u>	<u>4.0</u>
Notes:	<u>- cut 1" of tubing off prior to sampling</u>								

Sampling Information

Analyses	#	n	Laboratory
<u>PRASCO analysis</u>	<u>2</u>		<u>TestAmerica</u>
<u>1,4-D</u>	<u>2</u>		
<u>VOCs</u>	<u>3</u>		
Color:			
Odor:			
Appearance:			
Sample ID: <u>4009-16A</u>			Sample Time: <u>1655</u>
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID			Dup. Time:
Chain of Custody Signed By:			

Problems / Observations

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Duquette Well ID: 4009-18
 Client / Job Number: 30054253 Date: 4/9/21
 Weather: 60s Sunny Time In: 1120 Time Out:

Well Information

Depth to Water: (feet) 28.48 (from MP)
 Total Depth: (feet) 131.68 (from MP)
 Length of Water Column: (feet) 103.2
 Volume of Water in Well: (gal) 16.8
 Intake depth for tubing: (feet) 128'

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 1130

Pump Stop Time: Water-Quality Meter Type: Horiba U-53

Total Volume Removed: (gal) Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1132	1137	1142	1147	1152	1157	1202	1207	1212
Volume Purged (Gal)									
Rate (mL/min)	150	100	100	100	100	100	100	100	100
Depth to Water (ft.)	29.56	29.56	29.56	29.56	29.56	29.56	29.56	29.56	29.56
pH	9.08	8.42	8.29	8.30	8.37	9.20	9.25	8.70	8.71
Temp. (C)	13.94	13.03	12.88	12.89	12.77	12.70	12.70	12.70	12.70
Conductivity (mS/cm)	0.272	0.274	0.274	0.273	0.273	0.273	0.273	0.273	0.273
Dissolved Oxygen (mg/L)	1.91	0.98	0.43	0.17	0.07	0.07	0.07	0.00	0.00
ORP (mV)	-147	-156	-165	-174	-183	-196	-200	-201	-201
Turbidity (NTU)	4.0	3.1	5.0	5.3	5.0	5.0	5.0	5.0	5.1
Notes:									

Sampling Information

Analyses	#	n	Laboratory
1-4 Dioxane	2	n	TestAmerica
VOC	3	nd	
PFAS	2	n	
Color: <u>Clear</u>			
Odor: <u>None</u>			
Appearance: <u>Good</u>			
Sample ID: <u>4009-18</u>	Sample Time: <u>1220</u>		
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: <u></u>	Dup. Time: <u></u>		
Chain of Custody Signed By: <u></u>			

Problems / Observations

First Observations, Clear, no smell no odor

Pump is at an interface that seems to be hard to pump @, air in line constantly, 100mL/min is max possible 2" of tubing cut before sample

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel:	S. Duquette	Well ID:	4009-18
Client / Job Number:	30054253	Date:	4/9/21
Weather:	60's Sunny	Time In:	1120
		Time Out:	

Parameter:	1	2	3	4	5	6	7	8	9
Time	1217								
Volume Purged (Gal)									
Rate (mL/min)	100								
Depth to Water (ft.)	12.56								
pH	8.72								
Temp. (C)	12.71								
Conductivity (mS/cm)	0.273								
Dissolved Oxygen (mg/L)	0.00								
ORP (mV)	-201								
Turbidity (NTU)	5.1								
Notes:									

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Calby Church Well ID: 4009-19
 Client / Job Number: 30054253 Date: 4-9-21
 Weather: cloudy 60 Time In: 1110 Time Out:

Well Information

Depth to Water: 19.20 (feet) (from MP)
 Total Depth: 104.45 (feet) (from MP)
 Length of Water Column: (feet) 85.25'
 Volume of Water in Well: (gal) 13.9
 Intake depth for tubing: 100 (feet)

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 1110
 Pump Stop Time: 1220 Water-Quality Meter Type: horiba
 Total Volume Removed: 2 (gal) Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1115	1120	1125	1130	1135	1140	1145		
Volume Purged (Gal)				~1.25			~2.0		
Rate (mL/min)	250	250	250	250	250	250	250		
Depth to Water (ft.)	20.55	20.55	20.55	20.55	20.55	20.55	20.55		
pH	7.56	7.09	7.00	6.90	6.87	6.90	6.89		
Temp. (C)	12.62	12.24	12.12	12.08	12.03	12.01	11.99		
Conductivity (mS/cm)	0.258	0.259	0.259	0.260	0.259	0.260	0.260		
Dissolved Oxygen (mg/L)	2.16	0.0	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	61	-87	-103	-114	-118	-121	-123		
Turbidity (NTU)	1.9	0.0	0.3	0.2	0.2	0.0	0.0		
Notes:	cut 1" of tubing prior to collecting samples								

Sampling Information

Analyses	#	n	Laboratory
PFAS (21 analytes)	2		TestAmerica
1,4-D	2		
VOCs	3		
Color:	clear		
Odor:	some slight sulfur		
Appearance:			
Sample ID: <u>4009-19</u>	Sample Time: <u>1145</u>		
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☒ No ☐			
Duplicate ID: <u>Dup-2</u>	Dup. Time: <u>0800</u>		
Chain of Custody Signed By:			

Problems / Observations

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Duquette

Well ID: 4009-21

Client / Job Number: 3005453

Date: 4/19/21

Weather: 605 Overcast

Time In: 1340

Time Out: 1450

Well Information

Depth to Water: (feet) 19.41 (from MP)

Total Depth: (feet) 117.83 (from MP)

Length of Water Column: (feet)

Volume of Water in Well: (gal)

Intake depth for tubing: (feet) 113'

Well Type: Flushmount ☐ Stick-Up ☒

Well Material: Stainless Steel ☐ PVC ☒

Well Locked: Yes ☒ No ☐

Measuring Point Marked: Yes ☒ No ☐

Well Diameter: 1" ☐ 2" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE

Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 1340

Pump Stop Time: 1445

Water-Quality Meter Type: Horiba U-53

Total Volume Removed: (gal) 2.5 Did well go dry: Yes ☐ No ☐

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. / Temp	ORP
∇ 0.1	∇ 10%	∇ 3.0%	∇ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1345	1350	1355	1400	1405	1410	1415	1420	1425
Volume Purged (Gal)	—			1.5					
Rate (mL/min)	300	300	300	300	150	150	150	150	
Depth to Water (ft.)	~~19.41~~	~~20.78~~	20.78	20.24	20.81	20.81	20.81	20.81	
pH	9.32	9.75	9.85	9.96	10.06	10.11	10.13	10.14	
Temp. (C)	11.28	10.82	10.84	11.04	11.55	11.55	11.60	11.61	
Conductivity (mS/cm)	0.111	0.106	0.106	0.106	0.106	0.106	0.106	0.106	
Dissolved Oxygen (mg/L)	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ORP (mV)	-73	-201	-254	-279	-263	-259	-257	-257	
Turbidity (NTU)	8.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	
Notes:	DTW	DTW							
	19.78	20.20							

Sampling Information

Analyses	#	n	Laboratory
1-4 Dioxane			TestAmerica
VOL			
PFAS			
Color: Clear			
Odor: none			
Appearance: Good			
Sample ID:			Sample Time:
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID:			Dup. Time:
Chain of Custody Signed By:			

Problems / Observations

First Observations: Clear no odor
no Sheen

Cut 2" before sampling of tubing

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: 61bycho drill
 Client / Job Number: 30054253
 Weather: 45 / 40

Well ID: 4009-22
 Date: 4-12-21
 Time In: 1240 Time Out: 1355

Well Information

Depth to Water: 10.60 (feet) (from MP)
 Total Depth: 125.21 (feet) (from MP)
 Length of Water Column: (feet) 112.61
 Volume of Water in Well: (gal) 18.35
 Intake depth for tubing: 118 (feet)

Well Type: Flushmount ☒ Stick-Up ☐
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Pump Start Time: 1240
 Pump Stop Time: 1355 Water-Quality Meter Type: h0101

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
∇ 0.1	∇ 10%	∇ 3.0%	∇ 10 mV

Total Volume Removed: 21.5 (gal) Did well go dry: Yes ☐ No ☒

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1245</u>	<u>1250</u>	<u>1253</u>	<u>1300</u>	<u>1305</u>	<u>1310</u>	<u>1315</u>	<u>1320</u>	
Volume Purged (Gal)	<u>T</u>		<u>~0.5</u>			<u>~1 gal</u>			
Rate (mL/min)	<u>T</u>	<u>~50</u>	<u>~50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	
Depth to Water (ft.)		<u>18.65</u>	<u>21.15</u>	<u>21.88</u>	<u>22.56</u>	<u>24.05</u>	<u>26.00</u>	<u>26.95</u>	
pH	<u>N/A</u>	<u>10.91</u>	<u>11.02</u>	<u>11.12</u>	<u>11.18</u>	<u>11.25</u>	<u>11.30</u>	<u>11.31</u>	
Temp. (C)		<u>11.93</u>	<u>11.88</u>	<u>11.91</u>	<u>11.95</u>	<u>12.03</u>	<u>12.07</u>	<u>12.06</u>	
Conductivity (mS/cm)		<u>0.183</u>	<u>0.183</u>	<u>0.181</u>	<u>0.179</u>	<u>0.178</u>	<u>0.178</u>	<u>0.178</u>	
Dissolved Oxygen (mg/L)		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
ORP (mV)		<u>-159</u>	<u>-167</u>	<u>-181</u>	<u>-189</u>	<u>-200</u>	<u>-205</u>	<u>-209</u>	
Turbidity (NTU)	<u>T</u>	<u>9.7</u>	<u>10.5</u>	<u>13.4</u>	<u>17.1</u>	<u>31.7</u>	<u>28.2</u>	<u>26.4</u>	
Notes:	<u>- Poor recharge rate, Purged slow as possible</u> <u>- cut 1" from tubing prior to collecting samples</u>								

Sampling Information

Sampling Information			
Analyses	#	n	Laboratory
PFAS (21 analytes)	2		TestAmerica
19-D	2		
VOCS	3		
Color: clear w/ gray tint			
Odor: none			
Appearance:			
Sample ID: 4009-22		Sample Time: 1326	
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

- sampled even though water level not stable
- on 4-8-21 this well was pumped to below pump line had to wait 1 day for recharge.
- Must purge as slow as possible

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: PZ

Well ID: 4009-26

Client / Job Number: 30054253

Date: 4/13/21

Weather: 50 Sunny

Time In: 0930

Time Out: 1120

Well Information

Depth to Water: 16.68 (feet) (from MP)
 Total Depth: 58.76 (feet) (from MP)
 Length of Water Column: 42.08 (feet)
 Volume of Water in Well: 6.9 (gal)
 Intake depth for tubing: 48 (feet)

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☒ 2" ☐ Other: ☐

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other: ☐
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other: ☐

Pump Start Time: 940

Pump Stop Time: 1110

Water-Quality Meter Type: Hanna

Total Volume Removed: 3.75 (gal)

Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
✓ 0.1	✓ 10%	✓ 3.0%	✓ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>0945</u>	<u>0950</u>	<u>0955</u>	<u>1000</u>	<u>1005</u>	<u>1010</u>	<u>1015</u>	<u>1020</u>	<u>1025</u>
Volume Purged (Gal)		<u>0.5</u>		<u>1.0</u>		<u>1.75</u>	<u>2.0</u>		
Rate (mL/min)	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>		
Depth to Water (ft.)	<u>17.62</u>	<u>17.64</u>	<u>17.63</u>	<u>17.63</u>	<u>17.63</u>	<u>17.63</u>	<u>17.63</u>		
pH	<u>5.91</u>	<u>6.20</u>	<u>6.37</u>	<u>6.48</u>	<u>6.53</u>	<u>6.59</u>	<u>6.63</u>	<u>6.65</u>	<u>4</u>
Temp. (C)	<u>13.17</u>	<u>13.32</u>	<u>13.38</u>	<u>13.38</u>	<u>13.47</u>	<u>13.73</u>	<u>13.82</u>	<u>13.85</u>	<u>8</u>
Conductivity (mS/cm)	<u>1.17</u>	<u>1.42</u>	<u>1.45</u>	<u>1.50</u>	<u>1.52</u>	<u>1.55</u>	<u>1.57</u>	<u>1.59</u>	<u>5</u>
Dissolved Oxygen (mg/L)	<u>8.11</u>	<u>1.32</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
ORP (mV)	<u>211</u>	<u>180</u>	<u>163</u>	<u>151</u>	<u>145</u>	<u>137</u>	<u>131</u>	<u>128</u>	
Turbidity (NTU)	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>VOCs</u>	<u>9</u>	<u>1</u>	<u>TestAmerica</u>
<u>PFAs (21 analytes)</u>	<u>8</u>	<u>1</u>	<u>"</u>
<u>1,4-Dioxane</u>	<u>8</u>	<u>1</u>	<u>"</u>
Color:	<u>None</u>		
Odor:	<u>None</u>		
Appearance:	<u>No sheen</u>		
Sample ID:	<u>4009-26</u>	Sample Time:	<u>1025</u>
MS/MSD:	Yes ☒	No	☐
Duplicate:	Yes ☐	No	☒
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

Initial: colorless, odorless, no sheen
 Final: clear, odorless, colorless

GROUNDWATER SAMPLING LOG

Sampling Personnel: Josh Duquette
 Client / Job Number: 30054253
 Weather: 60°F Sunny

Well ID: 4009-275
 Date: 4/8/21
 Time In: 1027 Time Out: 1110

Well Information

Depth to Water: (feet) 19.60 (from MP)
 Total Depth: (feet) 78.69 (from MP)
 Length of Water Column: (feet) 62.09
 Volume of Water in Well: (gal) 10.12
 Intake depth for tubing: (feet) 74'

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 1028

Pump Stop Time: 1110

Water-Quality Meter Type: Horiba U-53

Total Volume Removed: (gal) 2.45 Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1032</u>	<u>1037</u>	<u>1042</u>	<u>1047</u>	<u>1052</u>	<u>1057</u>	<u>1102</u>		
Volume Purged (Gal)	<u>0.35</u>	<u>0.7</u>	<u>1.05</u>	<u>1.4</u>	<u>1.75</u>	<u>2.1</u>	<u>2.45</u>		
Rate (mL/min)	<u>100</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>		
Depth to Water (ft.)	<u>19.81</u>	<u>19.81</u>	<u>19.81</u>	<u>19.81</u>	<u>19.81</u>	<u>19.81</u>	<u>19.81</u>		
pH	<u>7.70</u>	<u>7.58</u>	<u>7.59</u>	<u>7.59</u>	<u>7.59</u>	<u>7.59</u>	<u>7.58</u>		
Temp. (C)	<u>14.39</u>	<u>13.86</u>	<u>13.74</u>	<u>13.61</u>	<u>13.60</u>	<u>13.61</u>	<u>13.61</u>		
Conductivity (mS/cm)	<u>1.64</u>	<u>1.72</u>	<u>1.72</u>	<u>1.73</u>	<u>1.73</u>	<u>1.73</u>	<u>1.73</u>		
Dissolved Oxygen (mg/L)	<u>3.19</u>	<u>1.25</u>	<u>0.93</u>	<u>0.73</u>	<u>0.72</u>	<u>0.72</u>	<u>0.72</u>		
ORP (mV)	<u>132</u>	<u>130</u>	<u>135</u>	<u>139</u>	<u>140</u>	<u>140</u>	<u>139</u>		
Turbidity (NTU)	<u>5.3</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>1,4 dioxane</u>	<u>2</u>	<u>n</u>	<u>TestAmerica</u>
<u>PFAS</u>	<u>2</u>	<u>n</u>	
<u>VOC</u>	<u>3</u>	<u>n</u>	
Color: <u>Clear</u>			
Odor: <u>no</u>			
Appearance: <u>Good</u>			
Sample ID: <u>4009-275</u>	Sample Time: <u>1107</u>		
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID	Dup. Time:		
Chain of Custody Signed By: <u>[Signature]</u>			

Problems / Observations

First Observation: Clear, no odor, no Sheen
 Same for time of sampling
 Cut 2" off tubing before sampling
 Sampled @ 1107

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Duquette

Well ID: 4009-27I

Client / Job Number: 30054258

Date: 4/8/21

Weather: 60°F Sunny

Time In: 1110

Time Out: 1200

Well Information

Depth to Water: (feet) 19.60 (from MP)
 Total Depth: (feet) 78.69 (from MP)
 Length of Water Column: (feet) 59.09
 Volume of Water in Well: (gal) 9.6
 Intake depth for tubing: (feet) 73'

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☐ 2" Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
✓ 0.1	✓ 10%	✓ 3.0%	✓ 10 mV

Pump Start Time: 1013
 Pump Stop Time: 1215 Water-Quality Meter Type: Horiba U-53
 Total Volume Removed: (gal) 3 Did well go dry: Yes ☐ No ☒

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1115</u>	<u>1120</u>	<u>1125</u>	<u>1130</u>	<u>1135</u>	<u>1140</u>	<u>1145</u>	<u>1150</u>	<u>1155</u>
Volume Purged (Gal)	<u>0.25</u>	<u>.5</u>	<u>.75</u>	<u>1</u>	<u>1.25</u>	<u>1.5</u>	<u>1.75</u>	<u>2</u>	<u>2.25</u>
Rate (mL/min)	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>
Depth to Water (ft.)	<u>19.83</u>	<u>19.83</u>	<u>19.83</u>	<u>19.83</u>	<u>19.83</u>	<u>19.83</u>	<u>19.83</u>	<u>19.83</u>	<u>19.83</u>
pH	<u>7.83</u>	<u>7.82</u>	<u>7.83</u>	<u>7.82</u>	<u>7.81</u>	<u>7.81</u>	<u>7.78</u>	<u>7.75</u>	<u>7.86</u>
Temp. (C)	<u>13.87</u>	<u>13.89</u>	<u>13.82</u>	<u>13.81</u>	<u>13.80</u>	<u>13.88</u>	<u>13.83</u>	<u>13.85</u>	<u>13.79</u>
Conductivity (mS/cm)	<u>1.36</u>	<u>1.44</u>	<u>1.44</u>	<u>1.44</u>	<u>1.45</u>	<u>1.45</u>	<u>1.45</u>	<u>1.45</u>	<u>1.45</u>
Dissolved Oxygen (mg/L)	<u>0.95</u>	<u>0.02</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.06</u>	<u>0.06</u>	<u>0.00</u>	<u>0.00</u>
ORP (mV)	<u>-182</u>	<u>-132</u>	<u>-93</u>	<u>-63</u>	<u>-27</u>	<u>-14</u>	<u>7</u>	<u>18</u>	<u>19</u>
Turbidity (NTU)	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>1-4 Diocese</u>	<u>2</u>	<u>n</u>	<u>TestAmerica</u>
<u>VOL</u>	<u>3</u>	<u>n</u>	
<u>PFAS</u>	<u>2</u>	<u>n</u>	
Color:	<u>Clear</u>		
Odor:	<u>None</u>		
Appearance:	<u>Good</u>		
Sample ID:	<u>4009-27I</u>	Sample Time:	<u>1210</u>
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID			
Dup. Time:			
Chain of Custody Signed By:			

Problems / Observations

First Observation: Clear, no odor, no sheen
 Same @ Sample time (1210)
 2" of tubing cut before Sampling

GROUNDWATER SAMPLING LOG

Sampling Personnel: <i>J. Duquette</i>	Well ID: <i>4009-271</i>
Client / Job Number: 30054253	Date: <i>4/8/21</i>
Weather: <i>60 Sunny</i>	Time In: <i>1110</i> Time Out: <i>1220</i>

Parameter:	1	2	3	4	5	6	7	8	9
Time	1200	1205	1210						
Volume Purged (Gal)	2.5	2.75	3						
Rate (mL/min)	200	200	200						
Depth to Water (ft.)	19.83	19.83	19.83						
pH	7.88	7.85	7.84						
Temp. (C)	13.85	13.85	13.85						
Conductivity (mS/cm)	1.45	1.45	1.45						
Dissolved Oxygen (mg/L)	0.00	0.00	0.00						
ORP (mV)	26	31	30						
Turbidity (NTU)	0.0	0.0	0.0						
Notes:									

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Churchill

Well ID: 4009-270

Client / Job Number: 30054253

Date: 4-8-21

Weather: 5-11-65

Time In: 1310

Time Out:

Well Information

Depth to Water: 19.43 (feet) (from MP)
Total Depth: 98.73 (feet) (from MP)
Length of Water Column: 79.3 (feet)
Volume of Water in Well: 29.8 (gal)
Intake depth for tubing: 92 (feet)

Well Type: Flushmount ☒ Stick-Up ☒
Well Material: Stainless Steel ☐ PVC ☒
Well Locked: Yes ☒ No ☐
Measuring Point Marked: Yes ☒ No ☐
Well Diameter: 1" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 1310

Pump Stop Time: 1410

Water-Quality Meter Type: Horiba

Total Volume Removed: ~3.25 (gal)

Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. / Temp	ORP
∇ 0.1	∇ 10%	∇ 3.0%	∇ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1315	1320	1325	1330	1335	1340	1345	1350	1355
Volume Purged (Gal)				~1.25		~1.75		~2.5	
Rate (mL/min)	250	250	250	250	250	250	250	250	250
Depth to Water (ft.)	19.79	19.80	19.80	19.80	19.80	19.80	19.80	19.80	19.80
pH	7.10	6.99	6.96	6.92	6.91	6.90	6.88	6.87	6.82
Temp. (C)	15.40	15.33	14.92	14.89	14.80	14.81	14.85	14.86	14.81
Conductivity (mS/cm)	1.51	1.67	1.68	1.69	1.69	1.69	1.70	1.70	1.70
Dissolved Oxygen (mg/L)	6.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-32	-9	3	7	13	18	22	30	31
Turbidity (NTU)	11.7	7.6	3.5	3.0	2.5	2.3	1.7	1.7	2.0
Notes:	cut 1" of tubing prior to collecting samples								

Sampling Information

Sampling Information			
Analyses	#	n	Laboratory
PFAS (21 analyte)	2		TestAmerica
1,4-D	2		
VOCs	3		
Color: clear			
Odor: none			
Appearance:			
Sample ID: 4009-270		Sample Time: 1355	
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Dugan Well ID: 4009-28
 Client / Job Number: 30054253 Date: 4/8/21
 Weather: 70°F Sunny Time In: 1310 Time Out: 1440

Well Information

Depth to Water: (feet) 15.8' (from MP)
 Total Depth: (feet) 138.94 (from MP)
 Length of Water Column: (feet) 123.13
 Volume of Water in Well: (gal) 20
 Intake depth for tubing: (feet) 134'

Well Type: Flushmount ☒ Stick-Up ☐
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" 2 Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 1315
 Pump Stop Time: 1436 Water-Quality Meter Type: Hanna-U53
 Total Volume Removed: (gal) 4.3 Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1339</u>	<u>1344</u>	<u>1349</u>	<u>1354</u>	<u>1359</u>	<u>1404</u>	<u>1409</u>	<u>1414</u>	<u>1419</u>
Volume Purged (Gal)	<u>0.45</u>	<u>0.9</u>	<u>1.35</u>	<u>1.8</u>	<u>2.3</u>	<u>2.7</u>	<u>3</u>	<u>3.4</u>	<u>3.8</u>
Rate (mL/min)	<u>500</u>	<u>500</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>
Depth to Water (ft.)	<u>15.97</u>	<u>15.97</u>	<u>15.97</u>	<u>15.97</u>	<u>15.97</u>	<u>15.97</u>	<u>15.97</u>	<u>15.97</u>	<u>15.97</u>
pH	<u>8.03</u>	<u>7.82</u>	<u>7.70</u>	<u>7.67</u>	<u>7.66</u>	<u>7.38</u>	<u>7.29</u>	<u>7.33</u>	<u>7.34</u>
Temp. (C)	<u>13.75</u>	<u>13.36</u>	<u>13.40</u>	<u>13.79</u>	<u>13.72</u>	<u>13.80</u>	<u>13.81</u>	<u>13.84</u>	<u>13.81</u>
Conductivity (mS/cm)	<u>0.552</u>	<u>0.542</u>	<u>0.547</u>	<u>0.555</u>	<u>0.556</u>	<u>0.571</u>	<u>0.588</u>	<u>0.608</u>	<u>0.604</u>
Dissolved Oxygen (mg/L)	<u>1.25</u>	<u>0.12</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
ORP (mV)	<u>-1224</u>	<u>-234</u>	<u>-247</u>	<u>-257</u>	<u>-262</u>	<u>-254</u>	<u>-259</u>	<u>-269</u>	<u>-267</u>
Turbidity (NTU)	<u>9.3</u>	<u>9.5</u>	<u>8.6</u>	<u>7.6</u>	<u>7.5</u>	<u>7.6</u>	<u>7.1</u>	<u>6.3</u>	<u>6.3</u>
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>1-4 Dioxan</u>	<u>2</u>	<u>n</u>	<u>TestAmerica</u>
<u>PFAS</u>	<u>2</u>	<u>n</u>	
<u>VOC</u>	<u>3</u>	<u>HC</u>	
Color: <u>Clear</u>			
Odor: <u>Clear</u>			
Appearance: <u>Good</u>			
Sample ID: <u>4009-28</u>	Sample Time: <u>1425</u>		
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☒ No ☐			
Duplicate ID: <u>DUP-1</u>	Dup. Time: <u>1425</u>		
Chain of Custody Signed By: <u>[Signature]</u>			

Problems / Observations

Slightly murky @ beginning, no odor
no sheen
Dup-1 taken
2" of tubing cut prior to sampling

GROUNDWATER SAMPLING LOG

Sampling Personnel:	J. Dugnette	Well ID:	4009-28
Client / Job Number:	30054258	Date:	4/8/21
Weather:	70°F Sunny	Time In:	1310
		Time Out:	

Parameter:	1	2	3	4	5	6	7	8	9
Time	1424								
Volume Purged (Gal)	4.3								
Rate (mL/min)	400								
Depth to Water (ft.)	15.97								
pH	7.34								
Temp. (C)	13.86								
Conductivity (mS/cm)	0.605								
Dissolved Oxygen (mg/L)	0.00								
ORP (mV)	-268								
Turbidity (NTU)	6.6								
Notes:	Sampled @ 1425, Clear, no Steen no odor								

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: <u>Colby Churchill</u>	Well ID: <u>4009-295</u>
Client / Job Number: <u>30054253</u>	Date: <u>4/8/21</u>
Weather: <u>Sunny 50</u>	Time In: <u>9:15</u> Time Out: <u></u>

Well Information

Depth to Water: <u>19.52</u> (feet)	(from MP)
Total Depth: <u>49.74</u> (feet)	(from MP)
Length of Water Column: <u>30.22'</u>	
Volume of Water in Well: <u>4.9</u> (gal)	
Intake depth for tubing: <u>45</u> (feet)	

Well Type:	Flushmount ☒	Stick-Up ☐
Well Material:	Stainless Steel ☐	PVC ☒
Well Locked:	Yes ☒	No ☐
Measuring Point Marked:	Yes ☒	No ☐
Well Diameter:	1" <u>2</u>	Other: <u></u>

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other: <u></u>
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other: <u>HDPE</u>
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other: <u></u>

Pump Start Time: <u>9:15</u>	
Pump Stop Time: <u>10:05</u>	Water-Quality Meter Type: <u>horiba</u>
Total Volume Removed: <u>~3</u> (gal)	Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	9:20	9:25	9:30	9:35	9:40	9:45	9:50		
Volume Purged (Gal)			~1 gal		1.5 gal		~2.5 gal		
Rate (mL/min)	190	190	190	190	190	190	190		
Depth to Water (ft.)	19.65	19.68	19.70	19.70	19.70	19.70	19.70		
pH	6.60	6.54	6.59	6.64	6.68	6.67	6.67		
Temp. (C)	12.88	12.78	12.78	12.78	12.78	12.79	12.80		
Conductivity (mS/cm)	1.59	1.59	1.59	1.59	1.58	1.58	1.58		
Dissolved Oxygen (mg/L)	1.81	0.0	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	167	60	44	33	26	25	27		
Turbidity (NTU)	49.8	11.3	1.59	2.30	1.9	1.2	1.0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
PFAS (2 analytes)	2		TestAmerica
1,4-D	2		
VOCs	3		
Color:	<u>clear</u>		
Odor:	<u>none</u>		
Appearance:			
Sample ID: <u>4009-295</u>	Sample Time: <u>4:50</u>		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

- cut 1" of tubing off before sampling

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Josh Dugette Well ID: 4009-29 I
 Client / Job Number: 30054253 Date: 4/8/21
 Weather: 50°F Sunny Time In: 0900 Time Out: 1000

Well Information

Depth to Water: (feet) 19.64 (from MP)
 Total Depth: (feet) 69.55 (from MP)
 Length of Water Column: (feet) 50.21
 Volume of Water in Well: (gal) 8.18
 Intake depth for tubing: (feet) 64'

Well Type: Flushmount ☒ Stick-Up ☐
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Pump Start Time: 0915
 Pump Stop Time: 0955 Water-Quality Meter Type: Horiba U-53
 Total Volume Removed: (gal) 2.75 Did well go dry: Yes ☐ No ☒

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
∇ 0.1	∇ 10%	∇ 3.0%	∇ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>0915</u>	<u>0920</u>	<u>0925</u>	<u>0930</u>	<u>0935</u>	<u>0940</u>	<u>0945</u>		
Volume Purged (Gal)	<u>-</u>	<u>0.45</u>	<u>0.95</u>	<u>1.4</u>	<u>1.9</u>	<u>2.3</u>	<u>2.75</u>		
Rate (mL/min)	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>		
Depth to Water (ft.)	<u>19.93</u>	<u>19.93</u>	<u>19.93</u>	<u>19.93</u>	<u>19.93</u>	<u>19.93</u>	<u>19.93</u>		
pH	<u>5.25</u>	<u>6.16</u>	<u>6.24</u>	<u>6.28</u>	<u>6.28</u>	<u>6.28</u>	<u>6.28</u>		
Temp. (C)	<u>12.64</u>	<u>12.78</u>	<u>12.80</u>	<u>12.88</u>	<u>12.90</u>	<u>12.90</u>	<u>12.96</u>		
Conductivity (mS/cm)	<u>1.69</u>	<u>1.68</u>	<u>1.68</u>	<u>1.68</u>	<u>1.68</u>	<u>1.68</u>	<u>1.68</u>		
Dissolved Oxygen (mg/L)	<u>2.87</u>	<u>0.11</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>		
ORP (mV)	<u>171</u>	<u>125</u>	<u>128</u>	<u>131</u>	<u>134</u>	<u>134</u>	<u>135</u>		
Turbidity (NTU)	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>1-4 Dioxane</u>	<u>2</u>	<u>n</u>	<u>TestAmerica</u>
<u>PFAS</u>	<u>2</u>	<u>n</u>	
<u>VOC</u>	<u>3</u>	<u>HCL</u>	
Color: <u>Clear</u>			
Odor: <u>No</u>			
Appearance: <u>Good</u>			
Sample ID: <u>4009-29 I</u>	Sample Time: <u>0950</u>		
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID	Dup. Time:		
Chain of Custody Signed By: <u>[Signature]</u>			

Problems / Observations

Pump had a tough time getting water out once out, water ran clear w/ no odors or visible sheen.
 Same @ time of sample
 2" of tubing cut before sampling
 Sample @ 0950

[Signature]

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: <u>Colby Chackraborty</u>	Well ID: <u>4009-290</u>
Client / Job Number: <u>30054253</u>	Date: <u>9-8-21</u>
Weather: <u>Sunny 55</u>	Time In: <u>1020</u> Time Out: <u></u>

Well Information

Depth to Water: <u>19.66</u> (feet)	(from MP)
Total Depth: <u>95.23</u> (feet)	(from MP)
Length of Water Column: (feet) <u>75.57</u>	
Volume of Water in Well: (gal) <u>12.3</u>	
Intake depth for tubing: <u>90</u> (feet)	

Well Type:	Flushmount ☒	Stick-Up ☐
Well Material:	Stainless Steel ☐	PVC ☒
Well Locked:	Yes ☒	No ☐
Measuring Point Marked:	Yes ☒	No ☐
Well Diameter:	1" ☒	Other: <u></u>

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other: <u></u>
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other: <u>HDPE</u>
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other: <u></u>

Pump Start Time: <u>1020</u>	Water-Quality Meter Type: <u>horiba</u>
Pump Stop Time: <u>1120</u>	
Total Volume Removed: <u>23</u> (gal)	Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1025</u>	<u>1030</u>	<u>1035</u>	<u>1040</u>	<u>1045</u>	<u>1050</u>	<u>1055</u>	<u>1100</u>	<u>1105</u>
Volume Purged (Gal)		<u>~0.5 gal</u>			<u>~1.5</u>			<u>~2.5</u>	
Rate (mL/min)	<u>190</u>	<u>190</u>	<u>190</u>	<u>190</u>	<u>190</u>	<u>190</u>	<u>190</u>	<u>190</u>	<u>190</u>
Depth to Water (ft.)	<u>19.90</u>	<u>19.90</u>	<u>19.90</u>	<u>19.90</u>	<u>19.90</u>	<u>19.90</u>	<u>19.90</u>	<u>19.90</u>	<u>19.90</u>
pH	<u>7.24</u>	<u>7.15</u>	<u>7.23</u>	<u>7.19</u>	<u>7.26</u>	<u>7.27</u>	<u>7.25</u>	<u>7.27</u>	<u>7.28</u>
Temp. (C)	<u>14.06</u>	<u>13.95</u>	<u>13.33</u>	<u>13.30</u>	<u>13.32</u>	<u>13.32</u>	<u>13.33</u>	<u>13.35</u>	<u>13.36</u>
Conductivity (mS/cm)	<u>1.03</u>	<u>1.05</u>	<u>1.06</u>	<u>1.05</u>	<u>1.03</u>	<u>1.03</u>	<u>1.05</u>	<u>1.03</u>	<u>1.03</u>
Dissolved Oxygen (mg/L)	<u>0.96</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
ORP (mV)	<u>-15</u>	<u>-105</u>	<u>-114</u>	<u>-114</u>	<u>-120</u>	<u>-123</u>	<u>-123</u>	<u>-125</u>	<u>-126</u>
Turbidity (NTU)	<u>0.0</u>	<u>27.4</u>	<u>28.7</u>	<u>24.7</u>	<u>21.9</u>	<u>9.8</u>	<u>4.2</u>	<u>5.0</u>	<u>3.7</u>
Notes:	<u>cut 1" of tubing before sampling</u>								

Sampling Information

Problems / Observations

Analyses	#	n	Laboratory
<u>PFAS (21 analytes)</u>	<u>2</u>		<u>TestAmerica</u>
<u>1,4-D</u>	<u>2</u>		
<u>VOCs</u>	<u>3</u>		
Color:	<u>1/21</u>		
Odor:	<u>none</u>		
Appearance:			
Sample ID: <u>4009-290</u>	Sample Time: <u>1105</u>		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Town of Vestal Water Supply

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Churchill & Priko Eversoll Well ID: 4009-30
 Client / Job Number: 30054253 Date: 4-12-21
 Weather: 95 rainy Time In: 955 Time Out: 1210

Well Information

Depth to Water: 21.81 (feet) (from MP)
 Total Depth: 117.72 (feet) (from MP)
 Length of Water Column: (feet) 95.84
 Volume of Water in Well: (gal) 15.6
 Intake depth for tubing: 112 (feet)

Well Type: Flushmount ☐ Stick-Up ☒
 Well Material: Stainless Steel ☐ PVC ☒
 Well Locked: Yes ☒ No ☐
 Measuring Point Marked: Yes ☒ No ☐
 Well Diameter: 1" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ Other: HDPE
 Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:

Pump Start Time: 955

Pump Stop Time: 1210

Water-Quality Meter Type: Hor. 10a

Total Volume Removed: 95 (gal)

Did well go dry: Yes ☐ No ☐

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. / Temp	ORP
✓ 0.1	✓ 10%	✓ 3.0%	✓ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1000	1005	1010	1015	1020	1025	1030	1035	1040
Volume Purged (Gal)				1.5			~2.5	~3.0	
Rate (mL/min)	300	300	300	250	250	250	250	250	250
Depth to Water (ft.)	23.30	23.30	23.30	23.30	23.30	23.30	23.30	23.30	23.30
pH	7.51	8.49	8.78	9.02	9.24	9.60	9.69	9.75	9.85
Temp. (C)	11.70	11.93	11.86	11.73	11.77	11.78	11.68	11.68	11.62
Conductivity (mS/cm)	0.323	0.320	0.319	0.319	0.319	0.319	0.319	0.321	0.323
Dissolved Oxygen (mg/L)	0.62	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00
ORP (mV)	-151	-260	-300	-319	-325	-333	-353	-341	-347
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes:	Difficult to stabilize. cut 1" tubing prior to collecting samples								

Sampling Information

Analyses	#	n	Laboratory
PFAS (21 analytes)	2		TestAmerica
1,4-D	2		
VOCs	3		
Color:	clear		
Odor:			
Appearance:			
Sample ID:	4009-30		Sample Time: 1155
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Town of Vestal Water Supply

April Semi-Annual

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel:

Colby Churchill / Parker Gressell

Well ID:

4009-30

Client / Job Number:

30054253

Date:

4/12/21

Weather:

45/rainy

Time In:

Time Out:

Parameter:	1	2	3	4	5	6	7	8	9
Time	1045	1050	1055	1100	1105	1110	1115	1120	1125
Volume Purged (Gal)		3.5				~5 gal			
Rate (mL/min)	250	250	250	250	250	250	250	250	250
Depth to Water (ft.)	23.30	23.30	23.30	23.30	23.30	23.30	23.30	23.30	23.30
pH	9.94	10.05	10.15	10.28	10.30	10.38	10.52	10.53	10.62
Temp. (C)	11.61	11.59	11.64	11.93	11.95	11.98	12.00	12.01	12.01
Conductivity (mS/cm)	0.327	0.332	0.341	0.352	0.365	0.395	0.425	0.450	0.457
Dissolved Oxygen (mg/L)	0.00	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-351	+353	-354	-359	-363	-362	-352	-339	-332
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.8	0.5	1.1	0.5
Notes:									

Parameter:	1	2	3	4	5	6	7	8	9
Time	1130	1135	1140	1145	1150	1155			
Volume Purged (Gal)		~7 gal		~8 gal					
Rate (mL/min)	250	250	250	250	250	250			
Depth to Water (ft.)	23.30	23.30	23.30	23.30	23.30	23.30			
pH	10.03	9.56	9.12	8.87	8.81	8.77			
Temp. (C)	11.94	11.89	11.77	11.63	11.58	11.54			
Conductivity (mS/cm)	0.567	0.599	0.607	0.610	0.613	0.615			
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0			
ORP (mV)	-224	-189	-172	-168	-165	-160			
Turbidity (NTU)	19.0	18.1	19.7	17.6	16.0	15.6			
Notes:	last sampling event pH was ~8, this time = 10.6 Difficult to stabilize								

Appendix C

Data Usability Summary Report

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
Eurofins SDG#480-183110-1
May 7, 2021
Sampling date: 4/8/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
SDG# 480-183110-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Arcadis U.S. Inc., project located at Vestal Water Supply (Site#1-1) #704009A, Eurofins SDG#480-183110-1 submitted to Vali-Data of WNY, LLC on April 30, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC; 'Guidelines for Sampling and Analysis of PFAS'(1/2020). The laboratory performed the analysis using USEPA method Perfluorinated Hydrocarbons (537 modified).

PFAA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Recoveries
- Blanks
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries, Internal Standard, Blanks and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

Vestal Water Supply (Site#1-1) #704009A

SDG# 480-183110-1

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met except the area of 13C2PFOA was outside QC limits, high in 4009-28 and DUP-1. Surrogates in these samples should be qualified as estimated low.

SURROGATE RECOVERIES

All criteria were met except the %Rec of d3-NMeFOSAA was outside QC limits in DUP-1 and should be qualified as estimated. The %Rec of 13C4PFBA, M2-6:2FTS and M2-8:2FTS was outside QC limits in 4009-28 and DUP-1 and should be qualified as estimated. The associated target analytes in these samples should be qualified as estimated.

BLANKS

All the criteria were met except PFHpA, PFOA and PFBS were detected above the MDL, below the reporting limit and are qualified as estimated in ICB 200-164859/1. PFHpA and PFHxS were detected above the MDL, below the reporting limit and are qualified as estimated in MB 200-165862/1-A. These target analytes should be qualified as undetected at the reporting limit in associated samples in which they were detected below the reporting limit. These target analytes should be qualified as estimated high in associated samples in which they were detected above the reporting limit but below 10x the blank concentration.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except PFDoA was detected in 4009-28 but was not detected in DUP-1. PFHpS was detected in DUP-1 but was not detected in 4009-28.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All the criteria were met except PFHxA was detected above the MDL, below the reporting limit and is qualified as estimated in Equip Blank 1. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in associated samples in which it was detected above the reporting limit but below 10x the blank concentration.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on some of the target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
Eurofins SDG#480-183122-1
May 10, 2021
Sampling date: 4/9/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
SDG# 480-183122-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Arcadis U.S. Inc., project located at Vestal Water Supply (Site#1-1) #704009A, Eurofins SDG#480-183122-1 submitted to Vali-Data of WNY, LLC on April 30, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC; 'Guidelines for Sampling and Analysis of PFAS'(1/2020). The laboratory performed the analysis using USEPA method Perfluorinated Hydrocarbons (537 modified).

PFAA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Recoveries
- Blanks
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries, Internal Standard, Blanks and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

Vestal Water Supply (Site#1-1) #704009A

SDG# 480-183122-1

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met except the area of 13C2PFOA was outside QC limits, high in 4009-16 and 4009-15. Surrogates in these samples should be qualified as estimated low.

SURROGATE RECOVERIES

All criteria were met except the %Rec of d3-NMeFOSAA, 13C4PFBA, M2-6:2FTS and M2-8:2FTS was outside QC limits in 4009-16 and should be qualified as estimated. The %Rec of 13C4PFBA, 13C3PFBS, 18O2PFHxS, 13C8FOSA, M2-6:2FTS and M2-8:2FTS was outside QC limits in 4009-15 and should be qualified as estimated. The associated target analytes in these samples should be qualified as estimated.

BLANKS

All the criteria were met except PFHpA, PFOA and PFBS were detected above the MDL, below the reporting limit and are qualified as estimated in ICB 200-164859/1. These target analytes should be qualified as undetected at the reporting limit in associated samples in which they were detected below the reporting limit. These target analytes should be qualified as estimated high in associated samples in which they were detected above the reporting limit but below 10x the blank concentration.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except PFNA was detected in 4009-19 but was not detected in DUP-2.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All the criteria were met except PFHxA was detected above the MDL, below the reporting limit and is qualified as estimated in Equip Blank 2. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in associated samples in which it was detected above the reporting limit but below 10x the blank concentration. .

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on some of the target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
Eurofins SDG#480-183403-1
May 10, 2021
Sampling date: 4/14/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
SDG# 480-183403-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Arcadis U.S. Inc., project located at Vestal Water Supply (Site#1-1) #704009A, Eurofins SDG#480-183403-1 submitted to Vali-Data of WNY, LLC on April 30, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC; 'Guidelines for Sampling and Analysis of PFAS'(1/2020). The laboratory performed the analysis using USEPA method Perfluorinated Hydrocarbons (537 modified).

PFAA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Recoveries
- Blanks
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries, Internal Standard, Blanks, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

Vestal Water Supply (Site#1-1) #704009A

SDG# 480-183403-1

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met except the area of 13C2PFOA was outside QC limits, high in 4009-11. Surrogates in this sample should be qualified as estimated low.

SURROGATE RECOVERIES

All criteria were met except the %Rec of d3-NMeFOSAA, 13C4PFBA, M2-6:2FTS and M2-8:2FTS was outside QC limits in 4009-11 and should be qualified as estimated. The associated target analytes in this sample should be qualified as estimated.

BLANKS

All the criteria were met except PFHpA, PFOA and PFBS were detected above the MDL, below the reporting limit and are qualified as estimated in ICB 200-164859/1. These target analytes should be qualified as undetected at the reporting limit in associated samples in which they were detected below the reporting limit. These target analytes should be qualified as estimated high in associated samples in which they were detected above the reporting limit but below 10x the blank concentration.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All the criteria were met except PFHxA was detected above the MDL, below the reporting limit and is qualified as estimated in Field Blank. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in associated samples in which it was detected above the reporting limit but below 10x the blank concentration. .

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on some of the target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of PFPeA was outside QC limits in CCVL 200-466148/5. This target analyte should be qualified as estimated in the associated samples, blank and spikes.

Vestal Water Supply (Site#1-1) #704009A

SDG# 480-183403-1

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
Eurofins SDG#480-183361-1
May 11, 2021
Sampling date: 4/12, 13/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
SDG# 480-183361-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Arcadis U.S. Inc., project located at Vestal Water Supply (Site#1-1) #704009A, Eurofins SDG#480-183361-1 submitted to Vali-Data of WNY, LLC on April 30, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG), NYSDEC; 'Guidelines for Sampling and Analysis of PFAS'(1/2020) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D SIM-ID) and Perfluorinated Hydrocarbons (537 modified).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples, MS/MSD and Continuing Calibration.

Samples: 4009-8, 4009-26 and 4009-26MS/MSD were diluted due to high target analyte concentrations.

Sample: 4009-22 was diluted due to foaming.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met except the pH of 4009-8 and 4009-13 were outside QC limits. These samples were analyzed within 7 days, so no further action is required.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 2-Butanone was outside QC limits, high in LCS/SD 480-576576/5,6 and should be qualified as estimated. This target analyte should be qualified as estimated high in the associated samples in which it was detected.

The RPD of Bromomethane, Carbon disulfide, Carbon tetrachloride, Chloromethane and Vinyl Chloride was outside QC limits between LCS 480-576576/5 and LCSD 480-576576/6 and should be qualified as estimated. These target analytes should be qualified as estimated in the associated samples.

MS/MSD

All criteria were met except the %Rec of 2-Butanone was outside QC limits, high in 4009-26MS/MSD and should be qualified as estimated. This target analyte should be qualified as estimated high in 4009-26, if detected.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on some of the target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Bromomethane was outside QC limits in CCVIS 480-576576/3. This target analyte should be qualified as estimated in the associated blanks, spikes and samples.

Some target analytes were outside laboratory QC limits but within NFG QC limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PFAA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Recoveries
- Blanks
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries, Internal Standard, Blanks and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met except the area of 13C2PFOA was outside QC limits, high in 4009-22. Surrogates in this sample should be qualified as estimated low.

SURROGATE RECOVERIES

All criteria were met except the %Rec of 13C4PFBA, 13C4PFOS, 13C8FOSA, M2-6:2FTS and M2-8:2FTS was outside QC limits in 4009-22 and should be qualified as estimated. The %Rec of 13C4PFBA was outside QC limits in 4009-7 and should be qualified as estimated. The associated target analytes in these samples should be qualified as estimated.

BLANKS

All the criteria were met except PFHpA, PFOA and PFBS were detected above the MDL, below the reporting limit and are qualified as estimated in ICB 200-164859/1. All target analytes except PFPeA, PFTeA, NMeFOSAA, NEtFOSAA, 6:2FTS and 8:2FTS were detected above the MDL, below the reporting limit and are qualified as estimated in MB 200-166055/1-A. The non-conforming target analytes should be qualified as undetected at the reporting limit in associated samples in which they were detected below the reporting limit. The non-conforming target analytes should be qualified as estimated high in associated samples in which they were detected above the reporting limit but below 10x the blank concentration.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All the criteria were met except PFHxA was detected above the MDL, below the reporting limit and is qualified as estimated in Equipment Blank3. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in associated samples in which it was detected above the reporting limit but below 10x the blank concentration. .

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on some of the target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
Eurofins SDG#480-183124-1
May 27, 2021
Sampling date: 4/9/2021

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Vestal Water Supply (Site#1-1) #704009A
SDG# 480-183124-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Arcadis U.S. Inc., project located at Vestal Water Supply (Site#1-1) #704009A, Eurofins SDG#480-183124-1 submitted to Vali-Data of WNY, LLC on May 26, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG), NYSDEC; 'Guidelines for Sampling and Analysis of PFAS'(1/2020) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D SIM-ID) and Perfluorinated Hydrocarbons (537 modified).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

Vestal Water Supply (Site#1-1) #704009A

SDG# 480-183124-1

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD of 1,1,1-Trichloroethane, 1,1-Dichloroethene, Benzene, Carbon tetrachloride and Vinyl chloride was outside QC limits between LCS 480-575941/5 and LCSD 480-575941/6 and should be qualified as estimated. These target analytes should be qualified as estimated in the associated samples.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on some of the target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PFAA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Recoveries
- Blanks
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Blanks and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE RECOVERIES

All criteria were met.

BLANKS

All the criteria were met except PFDoA, PFOS, PFTrIA, PFHxS and PFOSA were detected above the MDL, below the reporting limit and are qualified as estimated MB 200-165814/1-A. PFHpA, PFOA and PFBS were detected above the MDL, below the reporting limit and are qualified as estimated in ICB 200-164859/1. These target analytes should be qualified as undetected at the reporting limit in associated samples in which they were detected below the reporting limit. These target analytes should be qualified as estimated high in associated samples in which they were detected above the reporting limit but below 10x the blank concentration.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All the criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on some of the target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of PFPeA was outside QC limits in CCVL 200-165854/11. This target analyte should be qualified as estimated in the associated samples, blanks and spikes.

Arcadis CE, Inc.
855 Route 146, Suite 210
Clifton Park
New York 12065
Phone: 518 250 7300
Fax: 518 371 2757
www.arcadis.com